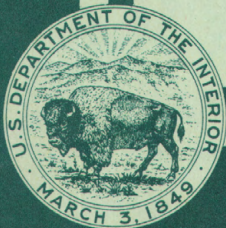
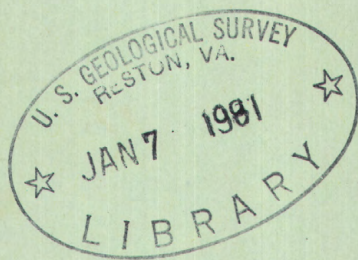


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Water Resources Data for Texas

Part 2. Water Quality Records



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with the State of Texas
and with other agencies

CALENDAR FOR WATER YEAR 1972

OCTOBER 1971

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1972

**Water Resources Data
for
Texas**

Part 2. Water Quality Records



**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

**Prepared in cooperation with the State of Texas
and with other agencies**

Prepared in cooperation with

Texas Water Development Board
Corps of Engineers, U.S. Army

Water resources records, 1972, for Texas are in the following reports of the U.S. Geological Survey:

1. Water Resources Data for Texas
Part 1. Surface Water Records
2. Water Resources Data for Texas
Part 2. Water Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U.S. Geological Survey
Federal Building
300 East 8th Street
Austin, Texas 78701

1973

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FOR WHICH RECORDS ARE PUBLISHED

[Letters after station name designate type of data: (c) chemical,
(b) biochemical, (p) pesticide, (t) water temperature, (s) sediment]

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WATER RESOURCES DATA FOR TEXAS, 1972

Part 2. Water Quality Records

INTRODUCTION

Water resources data for the 1972 water year for Texas include records of data for the chemical and physical characteristics of surface water. The records were collected by the Water Resources Division of the U.S. Geological Survey under the direction of I. D. Yost, district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Texas.

The Geological Survey has published records of chemical quality, suspended sediment, and water temperatures since 1941 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Beginning with the 1964 water year, water-quality records have been released by the Geological Survey in annual reports on a State-boundary basis. These reports are for limited distribution; and are designed primarily for rapid release of data shortly after the end of the water year. These records will be published later in Geological Survey water-supply papers.

COOPERATION

This report was prepared by the U.S. Geological Survey under cooperative agreement with the following organizations:

Texas Water Development Board, Harry P. Burleigh,
executive director.

Corps of Engineers, U.S. Army.

City of Houston.

International Boundary and Water Commission.

Environmental Protection Agency.

Sabine River Compact Administration.

Agencies furnishing assistance were:

The Brazos River Authority, the Colorado River Municipal Water District, the Dow Chemical Company, the Guadalupe-Blanco River Authority, the Lower Colorado River Authority, the Lower Neches Valley Authority, the Mitchell Development Corporation of the Southwest, the Red Bluff Water Power Control District, the Sabine River Authority, the San Antonio City Water Board, the Tarrant County Water Control and Improvement District No. 1, the Texas Water Quality Board, the Trinity River Authority, the Upper Neches River Municipal Water Authority, the West Central Texas Municipal Water District, and the cities of Austin and Dallas.

DEFINITION OF TERMS

Terms related to water-quality and hydrologic data, as used in this report are defined as follows:

Acre-foot (ac-ft, AC-FT) is a quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or 326,000 gallons.

Bed material is the shifting portion of fragmented alluvial material of which the streambed is composed.

Biochemical oxygen demand (BOD) is a measure of the amount of oxygen required by aerobic bacteria while stabilizing decomposable organic matter. Thus, the determination of BOD provides an indication of the quantity of organic material in the water at the sampling point. Because complete stabilization may require a period too long for practical purposes, the 5-day BOD test has been accepted as standard. The BOD data presented in this report are based on the standard 5-day BOD test.

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 about 646,000 gallons, and represents a runoff of approximately 0.0372 inches from 1 square mile.

Chemical oxygen demand (COD) indicates the quantity of oxidizable compounds in a water and varies with water composition(s), temperature, period of contact, and other factors.

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 membrane filter method.

Cubic foot per second (cfs, CFS) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent of 7.48 gallons per second or 448.8 gallons per minute.

Discharge is the volume of water (or more broadly, total fluids) that passes a given point within a given period of time.

Mean discharge is the arithmetic mean of individual daily mean discharges during a specific 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 tables is "Discharge (cfs)."

Dissolved oxygen (DO) in surface water is necessary for the support of aquatic life and the aerobic decomposition of organic material, and thus is one of the most important indicators of the biological, chemical, and sanitary quality of the water.

Dissolved oxygen, percent saturation is the ratio of the quantity of oxygen dissolved in a water at a given temperature and salinity to the maximum equilibrium quantity of oxygen dissolved in the water when exposed to water-saturated air.

Drainage area of a stream at a specified location is that area, measured in 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.

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 body of impounded surface water together with all tributary surface stream and bodies of impounded surface water.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is obtained.

Hardness of water is a physical-chemical characteristic attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate (CaCO_3).

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per liter ($\mu\text{g/l}$, UG/L) is a more precise unit for expressing the concentration of chemical constituents in solution. One thousand micrograms per liter is equivalent to one milligram per liter. See below.

Milligrams per liter (mg/l , MG/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the weight of solute per unit volume of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per liter by multiplying by the factors in table 1, page 5. Concentration of suspended sediment also is expressed in mg/l , and is based on the weight of sediment per liter of water-sediment mixture. Sediment concentrations may be converted to parts per million by using the factors in table 2, page 5.

Partial-record station is a particular site where limited stream-flow 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 either by 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) (Guy, 1969).

Table 1.--Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter

<u>Ion</u>	<u>Multi- ply by</u>	<u>Ion</u>	<u>Multi- ply by</u>
Aluminum (Al^{+3})*....	0.11119	Iodide (I^{-2}).....	0.00788
Ammonia as NH_4^{+1}	.05544	Iron (Fe^{+3})*.....	.05372
Barium (Ba^{+2}).....	.01456	Lead (Pb^{+2})*.....	.00965
Bicarbonate (HCO_3^{-1})	.01639	Lithium (Li^{+1})*....	.14411
Bromide (Br^{-1}).....	.01251	Magnesium (Mg^{+2})...	.08226
Calcium (Ca^{+2}).....	.04990	Manganese (Mn^{+2})*..	.03640
Carbonate (CO_3^{-2})...	.03333	Nickel (Ni^{+2})*.....	.03406
Chloride (Cl^{-1}).....	.02821	Nitrate (NO_3^{-1})....	.01613
Chromium (Cr^{+6})*....	.11539	Nitrite (NO_2^{-1})....	.02174
Cobalt (Co^{+2})*.....	.03394	Phosphate (PO_4^{-3})..	.03159
Copper (Cu^{+2})*.....	.03148	Potassium (K^{+1})....	.02557
Cyanide (CN^{-1}).....	.03844	Sodium (Na^{+1}).....	.04350
Fluoride (F^{-1}).....	.05264	Strontium (Sr^{+2})*..	.02283
Hydrogen (H^{-1}).....	.99209	Sulfate (SO_4^{-2})....	.02082
Hydroxide (OH^{-1})....	.05880	Zinc (Zn^{+2})*.....	.03060

*Constituent reported in micrograms per liter; multiply by factor and divide results by 1,000.

Table 2.--Factors for conversion of sediment concentration in milligrams per liter to parts per million*
(All values calculated to three significant figures)

<u>Range of concentration in 1000 mg/l</u>	<u>Di- vide by</u>	<u>Range of concentration in 1000 mg/l</u>	<u>Di- vide by</u>	<u>Range of concentration in 1000 mg/l</u>	<u>Di- vide by</u>	<u>Range of concentration in 1000 mg/l</u>	<u>Di- vide by</u>
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

*Based on water density of 1.000 g/ml and a specific gravity of sediment of 2.65.

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 (Guy, 1969).

Pesticides include insecticides and herbicides.

Insecticides are substances or a mixture of substances intended to prevent, destroy, or repel insects.

Technical names for insecticides analyzed are:

Aldrin should contain not less than 95 percent of 1,2,3,4,10, 10-hexachloro-1,4,4a,5,8,8a-hexahydro-1,4-endo-exo-5,8-dimethanonaphthalene.

Chlordane 1,2,4,5,6,7,8, 8-octachloro-3a,4,7,7a-tetrahydro-4,7-methanoindane.

DDD 1,1-dichloro-2,2-bis (p-chlorophenyl) ethane.

DDE 1,1-dichloro-2,2-bis (p-chlorophenyl) ethylene.

DDT 1,1,1-trichloro-2,2-bis (p-chlorophenyl) ethane.

Diazinon 0,0-diethyl 0- (2-isopropyl-6-methyl-4-pyrimidyl) phosphorothioate.

Dieldrin should contain not less than 85 percent of 1,2,3,4,10, 10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo-exo-5,8-dimethanonaphthalene.

Endrin 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8, 8a-octahydro-1,4-endo-endo-5,8-dimethanonaphthalene.

Heptachlor 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-4,7-methanoindene.

Heptachlor expoxide 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro-4,7-methanoindan.

Lindane 1,2,3,4,5,6-hexachlorocyclohexane, 99 percent or more of gamma isomer.

α-BHC alpha-1,2,3,4,5,6-hexachlorocyclohexane.

Methyl parathion 0,0-dimethyl 0-p-nitrophenyl phosphorothioate.

Malathion S-[1,2-bis (ethoxycarbonyl) ethyl] 0,0-dimethyl phosphorodithioate.

Parathion 0,0-diethyl 0-p-nitrophenyl phosphorothioate.

Toxaphene chlorinated camphene containing 67 to 69 percent chlorine.

Herbicides are substances or a mixture of substances intended to control or destroy any vegetation.

Technical names for herbicides analyzed are:

2,4-D 2,4-dichlorophenoxyacetic acid.

2,4,5-T 2,4,5-trichlorophenoxyacetic acid.

Silvex 2-(2,4,5-trichlorophenoxy) propionic acid.

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 transformed 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 discharge 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 by volume, that is discharged in a given time. It is computed by multiplying discharge times mg/l times 0.0027.

Total sediment discharge or total sediment load 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 is discharged during a given time (Colby and Hembree, 1955).

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).

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

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

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 and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content in the water. Commonly, the amount 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 or from well to well, and it may even vary in the same source with changes in the composition of the water.

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". Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph or a digital mechanism that automatically records water temperature on paper tape.

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 water year.

Tons per acre-foot indicates the dry weight 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 a substance in solution or suspension that passes a stream section during a 24-hour day.

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 the 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.

DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in 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 mainstream stations are

listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of 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 water-quality station, gaging station, and partial-record 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 and continuous-record 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 stations. Gaps are left in the 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 07227500 which appears just to left of the station name includes the 2-digit part number "07" plus the 6-digit downstream order number "227500". In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 7 (Lower Mississippi River basin) and Part 8 (Western Gulf of Mexico basins). All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

COLLECTION AND EXAMINATION OF DATA

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads. Discharge records for streams in Texas have been released in the report, "Water Resources Data for Texas, 1971, Part 1. Surface Water Records".

The data in this report include a description of the sampling station and tabulations of the samples analyzed. The description of the sampling station gives the location, drainage area, periods of record for the various water-quality data, extremes of the pertinent data, and general remarks, in a format similar to that used for streamflow gaging stations.

Data on the quality of surface water were collected from designated sampling sites at predetermined intervals such as once daily, weekly, monthly or less frequently.

Water-quality information is presented for chemical quality, biochemical, microbiological, water temperature, and fluvial sediment. Chemical quality includes concentrations of individual dissolved constituents and certain properties or characteristics such as hardness, sodium adsorption ratio, specific conductance, and pH. The biochemical information includes qualitative and quantitative analyses of particulate inorganic and amorphous matter present. Microbiological information includes quantitative identification of certain bacteriological indicator organisms. Water-temperature data represent once-daily observations except for stations where a continuous temperature recorder furnishes information from which daily minimums and maximums are obtained. Fluvial-sediment information is given for suspended-sediment discharges and concentrations and for particle-size distribution of suspended sediment and bed material.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the U.S. Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per liter (mg/l) and water temperatures in degrees Celsius (centigrade, °C). In waters with a density of 1.000 g/ml (grams per milliliter), parts per millions and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per liter. Temperatures reported in degrees Fahrenheit may be converted to degrees Celsius by using the table on page 12.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. (See "Definitions of Terms," p. 5).

Solutes

The methods of collecting and analyzing water samples for determining the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970), and by Goerlitz and Brown (1972). One

Table 3.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*C = 5/9 (°F - 32) or °F + 9/5 (°C) = 32.

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 the mixing of the stream. Some must be sampled at several verticals across the channel to determine accurately the solute load.

The daily chemical quality data in this report generally represent equal-volume composites for 2- to 30-day periods; the composite periods are selected on the basis of specific conductance of the daily samples and fluctuation of water discharge.

Temperature

Water temperatures are measured at most of the water-quality stations. For daily stations, the water temperatures are taken at about

the same time each day when samples are collected. Large streams have a small diurnal 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 continuously recording thermographs are present, the records consist of maximum and minimum temperatures for each day and the monthly averages.

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 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 times 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.

WATER SUPPLY PAPERS

Table 4 below shows the annual series of water-supply papers that give information on quality of surface waters in Texas. Data for Lower Mississippi River basin are given in Part 7 and for the Western Gulf of Mexico basins in Part 8.

Table 4.--Water-supply paper numbers and parts,
water years 1941-70

<u>Year</u>	<u>Parts 1-14</u>	<u>Year</u>	<u>Parts 7-8</u>	<u>Year</u>	<u>Parts 7-8</u>
1941	942	1950	1188	1962	1944
1942	950	1951	1199	1963	1950
1943	970	1952	1252	1964	1957
1944	1022	1953	1292	1965	1964
1945	1030	1954	1352	1966	1994
1946	1050	1955	1402	1967	2014
1947	1102	1956	1452	1968	BC2096
1948	A1133	1957	1522		BD2097
1949	A1163	1958	1573	1969	BC2146
----	----	1959	1644		BD2147
----	----	1960	1744	1970	BC2156
----	----	1961	1884		BD2157

A Parts 7-14. B In Press. C Part 7. D Part 8.

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WATER QUALITY RECORDS

ARKANSAS RIVER BASIN

17

07227448 PUNTA de AQUA CREEK NEAR CHANNING, TEX.

LOCATION.--Lat 35°40'03", long 102°28'48", Hartley County, at gaging station at bridge 0.5 mile downstream from Rita Blanca Creek and 8.5 miles southwest of Channing on Farm Road 767.

DRAINAGE AREA.--3,568 sq mi, of which 2,068 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: February 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 04...	1330	2.0	27	62	12	72	270	12	62	34
FFR. 16...	1300	5.8	30	31	63	84	400	20	94	35
MAR. 22...	1300	.16	27	22	67	93	446	18	66	41
MAY 11...	1600	909	21	58	21	44	306	0	49	18
12...	1130	173	16	40	13	32	195	0	33	13
JUNE 01...	1453	3.3	28	39	26	61	298	0	48	23
JULY 07...	1340	24	18	33	17	45	210	0	40	18
SEP. 13...	1430	11	46	36	78	130	460	30	140	74

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 04...	2.6	.2	418	200	0	2.2	1040	8.4	17.0
FFR. 16...	4.1	.01	558	340	0	2.0	831	8.5	12.5
MAR. 22...	4.2	.2	558	330	0	2.2	912	8.5	19.5
MAY 11...	1.9	1.2	373	230	0	1.4	618	7.5	16.0
12...	1.7	1.6	252	150	0	1.1	417	8.0	15.5
JUNE 01...	4.0	.2	377	210	0	--	--	--	.0
JULY 07...	3.0	1.1	282	150	0	1.6	471	8.0	32.0
SEP. 13...	3.0	.4	765	410	0	2.8	1160	8.6	30.5

ARKANSAS RIVER BASIN

07227470 CANADIAN RIVER AT TASCOSA, TEX.

LOCATION.--Lat 35°31'10", long 102°15'30", Oldham County, at gaging station at bridge on U. S. Highway 385, 0.8 mile northwest of Tascosa, and 1.0 mile southwest of Boys Ranch.

DRAINAGE AREA.--18,536 sq mi, of which approximately 3,823 sq mi is noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1972.

Biochemical analyses: October 1968 to September 1972.

Water temperatures: October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-19	40	11	54	35	--	430	--	200	0	300
20...	114	8.5	32	14	--	180	--	160	0	110
21-29	42	11	54	35	--	430	--	200	0	300
30-31	298	8.5	32	14	--	180	--	160	0	110
NOV.										
01-02	138	7.8	28	12	--	140	--	160	0	100
03-05	49	9.4	38	19	--	240	--	191	0	150
06-15	20	12	54	36	--	470	--	192	0	310
16-19	1650	7.8	28	12	--	140	--	160	0	100
20-24	122	9.4	38	19	--	240	--	191	0	150
25-30	47	12	54	36	--	470	--	192	0	310
DEC.										
01-31	36	14	66	41	--	500	--	252	0	310
JAN.										
01-31	35	14	60	45	550	--	6.6	220	0	310
FEB.										
01-29	18	13	68	44	--	580	--	230	0	370
MAR.										
01-25	4.1	12	64	45	--	530	--	248	0	380
26...	.65	13	64	56	--	780	--	268	0	530
27-31	.92	12	64	45	--	530	--	248	0	380
APR.										
01-08	1.1	13	58	44	440	--	5.9	270	0	370
09-30	.00	--	--	--	--	--	--	--	--	--
MAY										
01-05	.00	--	--	--	--	--	--	--	--	--
06...	.07	14	59	34	--	360	--	302	0	280
07-11	.00	--	--	--	--	--	--	--	--	--
12-13	1140	13	31	15	--	100	--	205	0	76
14-18	49	17	54	34	--	240	--	264	0	200
19-28	.00	--	--	--	--	--	--	--	--	--
29-31	139	13	31	15	--	100	--	205	0	76
JUNE										
01...	3.4	10	44	26	--	370	--	224	0	250
02-13	.00	--	--	--	--	--	--	--	--	--
14-16	67	10	44	26	--	370	--	224	0	250
17-18	1110	9.7	36	12	--	120	--	186	0	93
19-24	58	10	44	26	--	370	--	224	0	250
25-28	.00	--	--	--	--	--	--	--	--	--
29-30	10	9.7	36	12	--	120	--	186	0	93
JULY										
01-02	2.5	12	42	17	250	--	4.8	226	0	180
03...	271	12	26	8.4	--	100	--	180	0	67
04-05	56	12	42	17	250	--	4.8	226	0	180
06...	163	15	150	64	--	790	--	440	0	570
07-12	134	12	42	17	250	--	4.8	226	0	180
13-17	29	11	79	36	--	550	--	244	0	420
18...	700	12	26	8.4	--	100	--	180	0	67
19...	221	11	79	36	--	550	--	244	0	420
20...	5160	12	26	8.4	--	100	--	180	0	67
21-22	7320	9.1	24	6.8	--	59	--	152	0	47
23-31	753	7.4	39	16	--	200	--	218	0	200
AUG.										
01-16	277	9.4	40	17	--	200	--	222	0	190
17-19	85	10	61	27	--	370	--	204	0	250
20-21	295	9.1	28	8.6	--	99	--	168	0	82
22-26	145	10	61	27	--	370	--	204	0	250
27-28	3000	9.4	40	17	--	200	--	222	0	190
29-31	9880	9.1	28	8.6	--	99	--	168	0	82
SEP.										
01-30	1240	9.3	35	12	--	140	--	184	0	150
WTD. AVG.	--	9.4	33	13	--	--	--	183	0	127
TIME WTD.										
AVG.	345	12	53	31	--	--	--	219	0	267
TOT. LOAD										
(TONS)	--	3220	11400	4280	--	--	--	62400	0	43300

ARKANSAS RIVER BASIN

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07227470 CANADIAN RIVER AT TASCOSA, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 2,780 mg/l July 6; minimum, 252 mg/l July 21-22.

Hardness: Maximum, 630 mg/l July 6; minimum, 88 mg/l July 21-22.

Specific conductance: Maximum daily, 4,440 micromhos July 6; minimum daily, 252 micromhos July 21.

Water temperatures: Maximum, 35.0°C June 22; minimum, freezing point on several days during winter months.

EXTREMES, October 1968 to September 1972.--Dissolved solids: Maximum, 3,780 mg/l Mar. 3, 1971; minimum, 252 mg/l July 21-22, 1972.

Hardness: Maximum, 630 mg/l July 6, 1972; minimum, 77 mg/l Aug. 21, 1970.

Specific conductance: Maximum daily, 6,520 micromhos Mar. 3, 1971; minimum daily, 252 micromhos July 21, 1972.

Water temperatures: Maximum, 35.0°C Aug. 5, 1969, June 22, 1972; minimum, freezing point on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-19	520	.4	.5	1450	280	120	11	2510	8.2
20...	190	.5	.9	619	140	5	6.6	1100	7.9
21-29	520	.4	.5	1450	280	120	--	2510	8.2
30-31	190	.5	.9	619	140	5	--	1100	7.9
NOV.									
01-02	130	.5	.6	502	120	0	5.6	883	7.6
03-05	270	--	.6	826	170	16	8.0	1450	7.4
06-15	580	--	.3	1560	280	120	12	2670	7.7
16-19	130	.5	.6	502	120	0	--	883	7.6
20-24	270	--	.6	826	170	16	8.0	1450	7.4
25-30	580	--	.3	1560	280	120	12	2670	7.7
DEC.									
01-31	640	.8	.2	1700	330	130	12	2930	7.7
JAN.									
01-31	710	1.0	4.5	1820	330	150	13	3140	7.6
FEB.									
01-29	740	--	.1	1930	350	160	14	3260	8.2
MAR.									
01-25	640	--	.1	1800	340	140	12	3010	6.7
26...	930	--	.1	2500	390	170	17	4120	7.1
27-31	640	--	.1	1800	340	140	12	3010	6.7
APR.									
01-08	520	.7	.2	1590	330	100	11	2670	8.1
09-30	--	--	--	--	--	--	--	--	--
MAY									
01-05	--	--	--	--	--	--	--	--	--
06...	380	--	.2	1270	290	40	--	2150	8.2
07-11	--	--	--	--	--	--	--	--	--
12-13	74	1.8	.8	416	140	0	3.7	710	7.8
14-18	260	--	.7	945	270	58	6.4	1600	7.6
19-28	--	--	--	--	--	--	--	--	--
29-31	74	1.8	.8	416	140	0	--	710	7.8
JUNE									
01...	400	.7	.6	1210	220	34	11	2040	8.2
02-13	--	--	--	--	--	--	--	--	--
14-16	400	.7	.6	1210	220	34	--	2040	8.2
17-18	110	--	1.1	481	140	0	4.6	824	8.2
19-24	400	.7	.6	1210	220	34	--	2040	8.2
25-28	--	--	--	--	--	--	--	--	--
29-30	110	--	1.1	481	140	0	--	824	8.2
JULY									
01-02	240	.7	2.4	868	180	0	8.2	1490	8.2
03...	72	--	1.5	384	100	0	4.5	662	8.1
04-05	240	.7	2.4	868	180	0	8.2	1490	8.2
06...	980	--	.2	2780	630	270	14	4440	7.6
07-12	240	.7	2.4	868	180	0	8.2	1490	8.2
13-17	640	--	.7	1860	340	140	13	3020	8.2
18...	72	--	1.5	384	100	0	4.5	662	8.1
19...	640	--	.7	1860	340	140	13	3020	8.2
20...	72	--	1.5	384	100	0	4.5	662	8.1
21-22	28	--	.7	252	88	0	2.8	429	7.9
23-31	140	--	.3	709	160	0	6.6	1170	8.2
AUG.									
01-16	150	.8	.7	715	170	0	6.5	1190	8.2
17-19	450	--	.3	1270	260	96	9.9	2230	8.2
20-21	69	--	.3	380	110	0	4.2	668	8.1
22-26	450	--	.3	1270	260	96	9.9	2230	8.2
27-28	150	.8	.7	715	170	0	6.5	1190	8.2
29-31	69	--	.3	380	110	0	4.2	668	8.1
SEP.									
01-30	98	.7	.6	544	140	0	5.3	919	7.8
WTD. AVG.	118	--	.6	541	137	7	5.2	922	8.0
TIME WTD.									
AVG.	454	--	.8	1320	260	86	10	2240	7.8
TOT. LOAD (TONS)	40300	--	214	184000	--	--	--	--	--

ARKANSAS RIVER BASIN

07227470 CANADIAN RIVER AT TASCOSA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 27...	1900	22	--	--	--	--	244	0	270	500	--	--
NOV. 16...	1700	1720	11	45	17	130	120	0	88	190	.5	4.4
DEC. 07...	1530	62	--	--	--	--	292	0	250	510	--	--
JAN. 18...	1545	39	13	89	50	580	304	0	360	760	.6	.18
FEB. 03...	1145	9.0	--	--	--	--	384	0	440	800	--	--
MAR. 21...	1600	2.6	--	--	--	--	266	8	350	570	--	--
JUNE 20...	1330	85	--	--	--	--	153	0	150	390	--	--
JULY 12...	0730	26	--	--	--	--	168	0	160	210	--	--
AUG. 09...	1800	260	--	--	--	--	212	0	190	140	--	--
SEP. 19...	1650	440	--	--	--	--	186	1	150	110	--	--

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 27...	--	--	--	--	--	940	--	360	160	--	--	8.2
NOV. 16...	.000	.00	.2	3.0	542	18600	1450	180	84	5.2	1060	8.1
DEC. 07...	.000	--	.04	.11	--	214	--	400	160	--	2520	8.2
JAN. 18...	.010	.04	.1	.040	2000	--	--	430	180	12	3400	8.3
FEB. 03...	--	--	--	.035	--	108	--	260	0	--	--	7.8
MAR. 21...	.000	--	--	.048	--	37	--	340	110	--	2890	8.0
JUNE 20...	.006	.03	--	2.7	--	4620	--	170	44	--	1840	8.2
JULY 12...	.000	.00	.7	2.1	--	3700	--	140	2	--	1250	8.3
AUG. 09...	.006	--	.04	.49	--	660	--	180	6	--	1170	8.2
SEP. 19...	--	--	--	.89	--	2050	--	140	0	--	941	8.2

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUR- STANCE (MG/L)
OCT. 27...	--	--	--	8.0	83	4	.8	--	--	2	--
NOV. 16...	14.5	13	3000	8.0	78	140	16	--	--	1	.00
DEC. 07...	4.0	--	120	11.2	85	8	1.7	1500	4	--	--
JAN. 18...	11.5	5	85	9.5	87	4	.8	110	2	0	--
FEB. 03...	--	--	--	9.9	71	7	1.4	--	--	--	--
MAR. 21...	--	--	--	8.7	90	9	2.0	--	--	1	--
JUNE 20...	--	--	3000	8.0	95	43	6.0	130000	1600	--	--
JULY 12...	19.5	--	160	7.5	81	60	2.8	59000	4400	0	--
AUG. 09...	28.0	--	250	9.0	114	18	2.8	70000	170	0	--
SEP. 19...	28.0	--	--	7.1	90	25	1.1	55000	1600	--	--

ARKANSAS RIVER BASIN

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07227470 CANADIAN RIVER AT TASCOSA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 16...	1700	1720	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAR. 21...	1600	2.6	.00	<.2	.00	<.2	.00	.6	.00	<.2
JULY 12...	0730	26	.00	<.2	.00	<.2	.00	.9	.00	<.2
AUG. 09...	1800	260	.00	<.2	.00	<.2	.00	.6	.00	<.2
SEP. 19...	1650	440	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
NOV. 16...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAR. 21...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 12...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 09...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
SEP. 19...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 16...	.0	<1.0	.01	.00	.00	.00	.00	.00	.00
MAR. 21...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
JULY 12...	.0	<1.0	.00	.00	.00	.00	.00	.02	.00
AUG. 09...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
SEP. 19...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00

ARKANSAS RIVER BASIN

07227470 CANADIAN RIVER AT TASCOSA, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1850	1120	2820	3040	2790	3410	2750	---	1360	1490	1240	663
2	2030	728	2290	2010	3480	3200	2670	---	---	1240	987	915
3	2230	2070	2120	3300	---	3090	2760	---	---	624	1130	805
4	2230	1250	2180	---	2840	3390	2560	---	---	1220	1150	775
5	2620	1530	2350	---	---	3230	2500	---	---	1250	1080	912
6	2610	2370	2680	---	3080	3230	2940	---	---	4440	1130	1000
7	2820	2350	2870	---	2990	3210	2500	---	---	1440	1140	1060
8	2700	2440	3250	2490	3170	3250	4000	---	---	1420	1150	1110
9	2680	2530	3550	2780	3000	3190	---	---	---	1590	1170	1100
10	2620	2750	2310	2890	3340	3160	---	---	---	1740	1200	711
11	2610	2800	2370	2320	3030	3150	---	---	---	1900	1190	752
12	2580	3000	2750	3370	3570	3120	---	708	---	1580	1220	765
13	2680	3140	2730	3380	3220	3080	---	630	---	2460	1090	792
14	2740	3240	2760	3370	3220	3050	---	1170	---	2080	1050	797
15	2830	3230	2890	3410	3310	3290	---	1250	2630	3500	1340	838
16	2900	710	3040	3640	3390	3120	---	1450	1520	3650	1440	792
17	2900	594	3310	3390	3400	3050	---	1820	752	3360	1850	781
18	3010	945	3170	3340	3280	3020	---	2210	755	613	2680	860
19	2280	1030	3090	3330	3330	3010	---	---	1880	3060	2140	970
20	1270	2090	3000	2820	3350	3000	---	---	---	749	658	890
21	2720	1350	3190	2900	3320	3300	---	---	1950	252	641	1080
22	2290	1460	3190	2980	3210	2850	---	---	2050	604	1560	919
23	1850	1630	3190	3250	3490	2790	---	---	2240	1090	2250	912
24	2060	1900	3060	3270	3520	2780	---	---	2180	953	3140	927
25	1770	2100	3060	3330	3340	2890	---	---	---	1040	1760	1010
26	---	2190	3230	3710	3320	4120	---	---	---	1090	2300	1060
27	2270	2430	3290	3410	3340	2820	---	---	---	1190	1360	1080
28	2610	2600	3310	3240	3350	2140	---	---	---	1260	1450	1100
29	2600	2740	3330	3490	3320	2350	---	680	---	1300	626	1110
30	3000	2720	3170	2750	---	2570	---	1680	970	1290	649	1110
31	938	---	3220	3740	---	2690	---	822	---	1250	771	---
MONTH	2410	2040	2930	3150	3260	3050	---	---	---	1640	1370	920

ARKANSAS RIVER BASIN

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07227470 CANADIAN RIVER AT TASCOSA, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	16.0	3.0	4.0	10.0	7.0	11.0	---	20.0	31.0	23.0	19.0
2	20.0	8.0	0.0	7.0	0.0	12.0	19.0	---	---	24.0	30.0	15.0
3	13.0	12.0	4.0	---	---	13.0	6.0	---	---	23.0	21.0	13.0
4	19.0	18.0	3.0	---	6.0	5.0	15.0	---	---	20.0	23.0	12.0
5	21.0	9.0	1.0	---	---	13.0	13.0	---	---	---	28.0	25.0
6	13.0	11.0	9.0	---	1.0	9.0	19.0	---	---	27.0	22.0	23.0
7	16.0	7.0	2.0	---	9.0	15.0	17.0	---	---	28.0	22.0	20.0
8	13.0	7.0	0.0	7.0	11.0	5.0	19.0	---	---	30.0	28.0	25.0
9	20.0	13.0	7.0	9.0	4.0	19.0	---	---	---	30.0	21.0	20.0
10	23.0	18.0	10.0	2.0	0.0	13.0	---	---	---	28.0	22.0	25.0
11	13.0	7.0	3.0	5.0	7.0	25.0	---	---	---	21.0	30.0	20.0
12	12.0	16.0	7.0	3.0	1.0	10.0	---	12.0	---	32.0	28.0	22.0
13	10.0	10.0	9.0	1.0	12.0	21.0	---	13.0	---	30.0	21.0	26.0
14	11.0	8.0	3.0	0.0	11.0	8.0	---	20.0	---	23.0	27.0	19.0
15	22.0	13.0	12.0	1.0	3.0	19.0	---	29.0	25.0	29.0	28.0	20.0
16	22.0	14.0	8.0	1.0	12.0	9.0	---	30.0	21.0	25.0	22.0	26.0
17	23.0	11.0	0.0	6.0	16.0	14.0	---	25.0	22.0	24.0	27.0	30.0
18	13.0	7.0	7.0	0.0	5.0	9.0	---	30.0	25.0	22.0	26.0	21.0
19	10.0	5.0	10.0	1.0	11.0	20.0	---	---	24.0	22.0	20.0	26.0
20	12.0	4.0	11.0	12.0	18.0	13.0	---	---	---	20.0	32.0	22.0
21	9.0	10.0	0.0	13.0	9.0	20.0	---	---	30.0	18.5	31.0	16.0
22	12.0	6.0	11.0	6.0	11.0	15.0	---	---	35.0	20.0	22.0	25.0
23	17.0	5.0	12.0	7.0	9.0	22.0	---	---	22.0	25.0	28.0	19.0
24	11.0	11.0	8.0	5.0	7.0	12.0	---	---	30.0	28.0	25.0	20.0
25	17.0	14.0	9.0	3.0	7.0	19.0	---	---	---	30.0	18.0	20.0
26	---	5.0	11.0	5.0	5.0	16.0	---	---	---	24.0	20.0	15.0
27	8.0	12.0	14.0	2.0	5.0	18.0	---	---	---	30.0	21.0	15.0
28	19.0	8.0	8.0	0.0	22.0	6.0	---	---	---	22.0	20.0	22.0
29	6.0	5.0	8.0	5.0	10.0	11.0	---	30.0	---	22.0	24.0	20.0
30	5.0	4.0	9.0	1.0	---	6.0	---	18.0	30.0	30.0	21.0	12.0
31	15.0	---	8.0	0.0	---	13.0	---	17.0	---	29.0	25.0	---
MONTH	15.0	10.0	6.5	4.0	8.0	13.5	---	---	---	25.5	24.5	20.5

ARKANSAS RIVER BASIN

07227500 CANADIAN RIVER NEAR AMARILLO, TEX.

LOCATION.--Lat 35°28'13", long 101°52'45", Potter County, at gaging station at bridge on U. S. Highways 87 and 287, 1,500 feet downstream from Pitcher Creek, 1.4 miles downstream from East Amarillo Creek, 1.7 miles downstream from Panhandle and Santa Fe Railway Co. bridge, and 19 miles north of Amarillo.

DRAINAGE AREA.--19,445 sq mi, of which 4,069 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1948 to October 1949, February 1950 to September 1972.

Biochemical analyses: January 1969 to September 1972.

Pesticide analyses: October 1968 to September 1972.

Water temperatures: August 1949 to September 1972.

Sediment records: August 1949 to September 1952.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-18	26	14	84	33	--	350	--	212	0	320
19-21	136	12	46	17	--	210	--	208	0	160
22-30	91	14	84	33	--	350	--	212	0	320
31...	491	12	46	17	--	210	--	208	0	160
NOV.										
01-03	314	8.9	44	16	--	190	--	202	0	140
04-15	42	12	82	32	--	360	--	204	0	290
16-17	4380	18	30	8.6	--	86	--	172	0	50
18-21	137	8.9	44	16	--	190	--	202	0	140
22-30	47	12	82	32	--	360	--	204	0	290
DEC.										
01-31	66	15	110	42	--	480	--	252	0	380
JAN.										
01-14	62	13	70	19	220	--	3.6	150	0	210
15-31	65	17	110	40	--	450	--	212	0	380
FEB.										
01-05	33	18	120	42	--	530	--	214	0	560
06-29	33	14	80	21	--	250	--	172	0	260
MAR.										
01-31	14	23	120	39	--	410	--	212	0	420
APR.										
01-30	11	25	87	33	290	--	15	238	0	290
MAY										
01-09	37	21	75	28	--	250	--	240	0	230
10-12	585	12	52	13	--	58	--	204	0	60
13-16	84	21	75	28	--	250	--	240	0	230
17-31	21	14	92	31	--	280	--	236	0	290
JUNE										
01-09	6.2	16	86	29	--	260	--	220	0	250
10-23	261	14	52	13	--	130	--	196	0	110
24-28	37	16	86	29	--	260	--	220	0	250
29-30	272	14	52	13	--	130	--	196	0	110
JULY										
01-17	75	12	78	26	270	--	7.8	228	0	260
18-31	2840	11	47	15	--	180	--	216	0	170
AUG.										
01-18	315	10	51	19	--	220	--	208	4	220
19-20	254	11	80	32	--	410	--	204	0	320
21-24	470	11	38	9.8	--	110	--	184	0	99
25-27	234	11	80	32	--	410	--	204	0	320
28-31	4900	11	38	98	--	110	--	184	0	99
SEP.										
01...	1540	12	25	9.4	--	83	--	203	4	51
02-30	1020	8.3	42	14	--	150	--	196	6	150
WTD. AVG.	--	11	47	29	--	167	--	201	2	155
TIME WTD.										
AVG.	346	15	79	28	--	296	--	212	1	270
TOT. LOAD (TONS)	--	3860	16200	9830	--	57100	--	68900	557	53100

ARKANSAS RIVER BASIN

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07227500 CANADIAN RIVER NEAR AMARILLO, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 2,000 mg/l Feb. 1-5; minimum, 326 mg/l Sept. 1.
 Hardness: Maximum, 480 mg/l Feb. 1-5; minimum, 100 mg/l Sept. 1.
 Specific conductance: Maximum daily, 3,920 micromhos Mar. 4; minimum daily, 487 micromhos May 11,
 Water temperatures: Maximum, 30.0°C June 21; minimum, freezing point on several days during December, January, and February.

EXTREMES, July 1948 to September 1972.--Dissolved solids: Maximum, 3,000 mg/l Mar. 21, 1957; minimum, 207 mg/l Oct. 29-31, 1964.
 Hardness: Maximum, 974 mg/l Mar. 21, 1957; minimum, 62 mg/l Aug. 19, 1961.
 Specific conductance: Maximum daily, 4,880 micromhos Mar. 6, 1971; minimum daily, 346 micromhos Oct. 29, 1964.
 Water temperatures (1949-72): Maximum, 35.0°C June 29, 1951, Aug. 10, 1969; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-18	420	.9	3.4	1340	340	170	8.2	2260	8.0
19-21	220	.6	2.1	778	180	14	6.9	1320	8.1
22-30	420	.9	3.4	1340	340	170	8.2	2260	8.0
31...	220	.6	2.1	778	180	14	6.9	1320	8.1
NOV.									
01-03	190	.5	.8	689	180	10	6.1	1180	7.5
04-15	460	7.0	2.6	1350	340	170	--	2320	7.7
16-17	68	.4	2.3	356	110	0	--	356	7.8
18-21	190	.5	.8	689	180	10	6.1	1180	7.5
22-30	460	.7	2.6	1350	340	170	8.6	2320	7.7
DEC.									
01-31	610	.8	3.5	1780	450	240	9.8	2980	7.8
JAN.									
01-14	280	.9	2.5	896	250	130	6.0	1540	7.2
15-31	580	1.0	6.3	1710	440	270	--	2880	7.5
FEB.									
01-05	600	1.0	4.7	2000	480	310	--	3050	7.8
06-29	280	1.0	6.6	1020	290	140	--	1640	7.9
MAR.									
01-31	490	1.2	13	1660	460	280	8.3	2710	7.2
APR.									
01-30	320	1.8	13	1240	350	160	6.7	2040	7.7
MAY									
01-09	260	1.7	9.7	1020	300	110	6.2	1650	8.0
10-12	50	.6	2.1	355	180	16	1.9	604	7.2
13-16	260	1.7	9.7	1020	300	110	6.2	1650	8.0
17-31	320	1.2	6.4	1170	360	160	6.5	1920	7.7
JUNE									
01-09	310	1.1	5.0	1080	330	150	--	1820	7.5
10-23	120	.7	2.6	551	180	22	--	923	7.4
24-28	310	1.1	5.0	1080	330	150	6.2	1820	7.5
29-30	120	.7	2.6	551	180	22	4.1	923	7.4
JULY									
01-17	300	.7	3.1	1080	300	110	6.6	1800	8.2
18-31	140	.7	.7	670	180	2	--	1120	8.0
AUG.									
01-18	190	.8	.8	827	200	28	6.7	1400	8.4
19-20	520	.7	.5	1470	330	160	9.9	2520	8.2
21-24	89	.5	.7	454	140	0	--	785	8.1
25-27	520	.7	.5	1470	330	160	9.9	2520	8.2
28-31	89	.5	.7	454	140	0	--	785	8.1
SEP.									
01...	35	.4	1.5	326	100	0	3.6	575	8.5
02-30	120	.6	.3	593	160	0	5.3	1010	8.6
WTD. AVG.	149	.7	1.2	654	180	20	--	1090	8.1
TIME WTD. AVG.	335	1.2	5.0	1150	310	137	--	1910	7.8
TOT. LOAD (TONS)	51100	228	404	224000	--	--	--	--	--

ARKANSAS RIVER BASIN

07227500 CANADIAN RIVER NEAR AMARILLO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED CAL- CIUM (CA) (MG/L)	DIS-SOLVED MAG- NE- SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS-SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
OCT. 27...	1645	104	13	52	18	--	240	--	190	0
DEC. 07...	1350	45	14	95	38	400	--	3.1	268	0
JAN. 19...	1030	84	--	--	--	--	--	--	--	--
FEB. 03...	0820	30	25	110	41	400	--	14	326	0
APR. 18...	1350	26	23	70	29	260	--	16	304	0
JUNE 20...	1145	82	13	64	23	--	260	--	180	0
AUG. 09...	1520	540	10	44	15	--	150	--	176	0

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	DIS-SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
OCT. 27...	200	250	.6	.94	.36	.87	2.0	2.0	880	3650
DEC. 07...	320	520	.9	.17	.086	1.9	.5	.85	1530	56
JAN. 19...	--	--	--	--	--	--	--	--	--	--
FEB. 03...	420	490	1.6	1.4	.23	34	.7	8.8	1710	4
APR. 18...	240	270	2.0	1.3	3.2	13	.4	4.4	1080	17
JUNE 20...	210	320	.8	1.7	.63	.60	.9	3.0	986	480
AUG. 09...	170	130	.9	.95	.056	.61	.9	1.6	614	252

DATE	VOL. NON- SETTL- ABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- RID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
OCT. 27...	320	200	48	7.3	1540	8.2	18.5	10	1000	7.9
DEC. 07...	56	390	170	8.8	2600	8.2	5.0	15	350	10.6
JAN. 19...	--	--	--	--	--	--	2.5	--	--	--
FEB. 03...	4	450	180	8.2	2750	7.1	.0	20	20	12.5
APR. 18...	17	290	45	6.6	1840	8.8	25.5	30	1	13.0
JUNE 20...	480	250	110	7.1	1670	8.1	20.5	15	180	7.9
AUG. 09...	252	170	28	5.1	1070	7.8	27.5	5	250	6.4

DATE	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)
OCT. 27...	84	10	5.9	4	.00	10	0	0	0	0
DEC. 07...	83	14	8.7	1	.01	--	--	--	--	--
JAN. 19...	--	--	--	--	--	10	10	0	0	0
FEB. 03...	86	52	17	5	.42	460	10	0	0	0
APR. 18...	157	26	25	0	.16	10	10	0	0	0
JUNE 20...	87	51	7.6	0	.00	--	--	--	--	--
AUG. 09...	80	49	17	1	.00	10	0	0	0	0

ARKANSAS RIVER BASIN

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07227500 CANADIAN RIVER NEAR AMARILLO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 27...	5	40	0	40	11	.5	0	980	20
DEC. 07...	--	--	--	--	--	--	--	--	--
JAN. 19...	4	20	0	90	140	.3	1	2200	100
FEB. 03...	25	720	11	80	210	.2	7	2200	70
APR. 18...	8	10	0	80	110	.7	0	1600	80
JUNE 20...	--	--	--	--	--	--	--	--	--
AUG. 09...	6	20	0	40	0	.2	0	990	60

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
OCT. 27...	1645	104	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JAN. 19...	1030	84	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 03...	0820	30	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 18...	1350	26	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 09...	1520	540	.00	<.2	.00	<.2	.00	<.2	.01	<.2

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
OCT. 27...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JAN. 19...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.01	<.2
FEB. 03...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.05	<.2
APR. 18...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.08	<.2
AUG. 09...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM DE- POSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	PCR IN BOTTOM DE- POSITS (UG/KG)
OCT. 27...	.0	<1.0	.01	.00	.00	.00	.04	.00	.00	--
JAN. 19...	.0	<1.0	.04	.00	.00	.00	.00	.01	.01	--
FEB. 03...	.0	<1.0	.09	.00	.00	.00	.06	.01	.02	--
APR. 18...	.0	15	.13	.00	.00	.00	.52	.05	.16	100
AUG. 09...	.0	<1.0	.03	.00	.00	.00	1.0	.02	.01	--

ARKANSAS RIVER BASIN

07227500 CANADIAN RIVER NEAR AMARILLO, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1830	873	2950	1260	2920	3210	2500	1900	2020	1410	1450	575
2	1990	1270	2750	1540	1300	3130	2260	1780	1980	1740	1430	943
3	1900	1160	2700	2090	1710	2940	2270	1810	1870	2050	1350	888
4	2260	1630	2640	1200	2830	3920	2080	1880	1900	1290	1270	871
5	2350	1940	2360	3330	1570	3500	2120	1910	1660	1250	1310	931
6	2510	1760	2420	2720	2650	3150	2150	735	1560	1960	1310	1010
7	2440	1970	2630	1560	2370	3060	2140	1720	1680	2610	1280	1080
8	2380	2510	2780	1790	2810	3160	2030	1870	1560	2100	1330	1200
9	2560	2930	2950	1750	3040	2780	2120	1970	1700	1540	1160	1120
10	2780	2560	3130	1090	2930	2800	1970	586	1660	1630	1290	1000
11	2830	2380	3430	1880	1980	2820	1820	487	876	1920	1360	793
12	2640	2550	2790	2730	3230	2740	1870	739	966	2150	1380	824
13	2230	2520	2650	1050	2900	3030	2030	1220	1280	1270	1310	777
14	2180	2610	2840	1490	2890	2450	2020	1260	1900	1460	1320	770
15	2030	2650	2880	3120	3000	2470	2030	1430	979	1950	1320	868
16	2190	2470	2960	3530	3110	2440	1970	1990	1340	2070	1430	924
17	2220	598	3040	2890	3110	2410	1950	2220	1570	1880	1810	855
18	2550	1110	3170	2830	2970	2460	1830	2300	630	885	1920	849
19	1450	1170	3070	1820	3220	2430	1910	2310	954	933	2080	975
20	1450	1330	3210	2410	3240	2240	1940	2320	1680	2150	3120	1060
21	1230	1430	3100	2740	3290	2150	2050	2290	2240	1000	1200	935
22	1840	1640	3080	2150	3040	2500	2000	2140	884	827	622	1160
23	2400	1680	3090	1000	3310	2110	2140	2100	950	1140	775	1120
24	2100	1920	3140	3010	3200	3250	1990	2100	1680	953	1100	1090
25	2030	2100	3170	3000	3120	2970	1820	2060	1370	1060	2330	1100
26	2140	2300	3240	2910	3160	2390	2000	1820	2190	1110	2640	1160
27	1560	2490	3290	2250	3180	2230	2100	1490	2520	1190	2390	1190
28	2080	2670	3140	2570	3690	2230	2180	1170	2130	1270	1630	1230
29	2370	2800	3180	3530	3180	2130	2100	1500	874	1330	696	1270
30	2460	2860	3360	3110	---	2260	1960	1610	835	1420	706	1280
31	1160	---	3300	3050	---	2430	---	1170	---	1470	805	---
MONTH	2130	2000	2980	2300	2860	2700	2050	1670	1510	1520	1460	995

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	13.0	3.0	4.0	7.0	10.0	20.0	19.0	29.0	21.0	22.0	20.0
2	15.0	11.0	1.0	3.0	0.0	9.0	15.0	25.0	21.0	20.0	25.0	16.0
3	12.0	9.0	2.0	0.0	0.0	9.0	12.0	12.0	19.0	19.0	23.0	16.0
4	12.0	11.0	2.0	0.0	0.0	8.0	10.0	13.0	25.0	17.0	23.0	19.0
5	12.0	10.0	5.0	0.0	1.0	10.0	12.0	22.0	25.0	17.0	24.0	20.0
6	11.0	7.0	3.0	1.0	2.0	13.0	15.0	10.0	24.0	29.0	23.0	20.0
7	16.0	5.0	4.0	1.0	3.0	11.0	18.0	21.0	25.0	21.0	22.0	21.0
8	15.0	7.0	1.0	5.0	4.0	17.0	14.0	21.0	25.0	22.0	24.0	23.0
9	12.0	10.0	0.0	1.0	4.0	9.0	12.0	17.0	26.0	23.0	20.0	22.0
10	12.0	12.0	3.0	5.0	0.0	13.0	27.0	12.0	27.0	21.0	24.0	23.0
11	17.0	13.0	0.0	2.0	0.0	15.0	17.0	12.0	20.0	22.0	22.0	22.0
12	15.0	14.0	4.0	7.0	0.0	16.0	19.0	13.0	25.0	22.0	25.0	23.0
13	13.0	11.0	3.0	0.0	4.0	16.0	19.0	14.0	22.0	21.0	23.0	23.0
14	14.0	10.0	3.0	0.0	5.0	17.0	16.0	15.0	22.0	23.0	22.0	21.0
15	15.0	12.0	2.0	0.0	4.0	19.0	17.0	12.0	19.0	22.0	22.0	20.0
16	15.0	12.0	3.0	2.0	5.0	11.0	13.0	19.0	25.0	22.0	20.0	22.0
17	18.0	10.0	0.0	4.0	4.0	12.0	21.0	21.0	20.0	21.0	27.0	21.0
18	14.0	6.0	2.0	5.0	5.0	13.0	22.0	17.0	19.0	20.0	24.0	22.0
19	10.0	4.0	2.0	4.0	9.0	19.0	23.0	21.0	25.0	22.0	20.0	23.0
20	10.0	6.0	7.0	5.0	7.0	17.0	13.0	22.0	20.0	21.0	24.0	21.0
21	12.0	5.0	2.0	4.0	8.0	14.0	19.0	25.0	30.0	20.0	21.0	16.0
22	11.0	5.0	8.0	5.0	5.0	15.0	15.0	25.0	18.0	21.0	20.0	15.0
23	19.0	4.0	7.0	9.0	13.0	10.0	15.0	19.0	22.0	22.0	20.0	16.0
24	18.0	6.0	8.0	9.0	9.0	19.0	17.0	23.0	20.0	22.0	21.0	17.0
25	15.0	7.0	6.0	8.0	11.0	15.0	19.0	22.0	24.0	25.0	20.0	18.0
26	11.0	4.0	10.0	5.0	5.0	18.0	22.0	23.0	22.0	22.0	20.0	15.0
27	9.0	7.0	11.0	0.0	10.0	11.0	14.0	24.0	22.0	23.0	18.0	14.0
28	11.0	7.0	1.0	0.0	11.0	7.0	16.0	19.0	24.0	22.0	22.0	22.0
29	6.0	6.0	7.0	1.0	13.0	11.0	19.0	17.0	18.0	23.0	20.0	17.0
30	8.0	3.0	4.0	2.0	---	9.0	21.0	17.0	22.0	23.0	22.0	12.0
31	7.0	---	1.0	5.0	---	9.0	---	20.0	---	21.0	22.0	---
MONTH	13.0	8.0	3.5	3.0	5.0	13.0	17.0	18.5	23.0	21.5	22.0	19.5

07228000 CANADIAN RIVER NEAR CANADIAN, TEX.

LOCATION.--Lat 35°56'01", long 100°22'06", Hemphill County, at gaging station on U.S. Highways 60 and 83, and 1.6 miles northeast of Canadian.

DRAINAGE AREA.--22,866 sq mi, of which 4,688 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical and biochemical analyses: March 1968 to September 1972.
Pesticide analyses: October 1971 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)
OCT. 27...	1315	158	20	100	33	--	270	--	240
DEC. 07...	1030	516	23	130	53	390	--	4.7	314
FEB. 02...	1545	199	24	120	47	320	--	11	288
APR. 18...	1020	9.6	23	92	47	--	370	--	254
JUNE 20...	0830	8.0	31	52	16	--	280	--	234
AUG. 09...	1055	19	14	40	7.4	--	40	--	148

DATE	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT. 27...	0	160	430	1.4	.080	.22	.3	.20	1130
DEC. 07...	0	240	650	1.7	.013	1.1	.1	.16	1660
FEB. 02...	0	240	530	1.8	.024	1.1	.3	.085	1440
APR. 18...	8	200	560	1.9	.000	.02	.00	.063	1440
JUNE 20...	0	96	360	1.4	.000	.00	.03	.060	954
AUG. 09...	0	16	53	.8	.000	.11	.5	.52	247

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 27...	390	200	5.9	2020	8.2	16.5	8.8	90	2.5
DEC. 07...	550	300	7.3	2870	8.2	2.5	11.6	86	6.6
FEB. 02...	500	260	6.3	2540	8.1	.0	12.8	88	2.4
APR. 18...	420	200	7.9	2530	8.4	19.5	9.0	98	3.8
JUNE 20...	200	4	8.7	1670	7.9	20.0	8.0	87	2.3
AUG. 09...	130	9	1.5	443	7.6	24.5	6.6	79	9.6

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DOD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
FEB. 02...	1545	199	.00	.00	.00	.00	.00	.00	.00	.00
APR. 18...	1020	9.6	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 20...	0830	8.0	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 09...	1055	19	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
FEB. 02...	.00	.0	.01	.00	.00	.00	.00	.00	.00
APR. 18...	.00	.0	.00	.00	.00	.00	.00	.00	.00
JUNE 20...	.00	.0	.00	.00	.00	.00	3.1	.82	.00
AUG. 09...	.01	.0	.00	.00	.00	.00	.00	.00	.00

ARKANSAS RIVER BASIN

07233500 PALO DURO CREEK NEAR SPEARMAN, TEX.

LOCATION.--Lat 36°12'08", long 101°18'20", Hansford County, at gaging station at bridge on Farm Road 2387, 0.3 mile upstream from Farwell Draw, 6 miles west of Spearman, and 18 miles upstream from Horse Creek.

DRAINAGE AREA.--960 sq mi, of which 520 sq mi is probably noncontributing (at site 5 miles upstream).

PERIOD OF RECORD.--Chemical analyses: January 1967 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
DEC. 22...	1000	1.6	26	49	29	34	246	12	64	16
MAR. 01...	1010	.53	20	55	59	7.6	320	0	69	16
APR. 06...	0900	.48	13	20	34	43	210	2	71	19
MAY 12...	1540	4.4	21	48	21	44	195	0	89	21
JULY 19...	1640	253	5.8	46	9.1	10	154	0	22	6.4
AUG. 24...	1000	15	19	37	24	35	206	4	42	27
29...	1100	136	20	42	18	21	200	0	30	11

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
DEC. 22...	1.0	.8	356	240	18	1.0	572	8.4	.5
MAR. 01...	2.0	.3	387	380	120	.2	630	8.2	5.0
APR. 06...	2.2	.06	308	190	14	1.4	540	8.5	11.0
MAY 12...	1.7	4.3	361	210	46	1.3	568	7.7	25.0
JULY 19...	.6	4.2	195	150	26	.4	342	8.0	23.5
AUG. 24...	1.5	2.0	299	190	16	1.1	512	8.4	21.0
29...	1.2	2.8	253	180	16	.7	423	8.1	21.0

ARKANSAS RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE ARKANSAS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

07227900 LAKE MEREDITH NEAR SANFORD, TEX. (Lat 35°42'38", long 101°33'03")

DATE	TIME	REFRA- CTIVITY STORAGE (AC-FT)	DIS-	TOTAL	TOTAL	DIS-	DIS-	DIS-	DIS-	BICAR- BONATE (HCO3)	CAR- BONATE (CO3)	
			SOLVED SILICA (SiO2) (MG/L)	IRON (PP) (UG/L)	MANG- NESE (MN) (UG/L)	SOLVED CAL- CIUM (CA) (MG/L)	SOLVED MAG- NE- SIUM (MG) (MG/L)	SOLVED SODIUM (NA) (MG/L)	SOLVED PLUS POTAS- SIUM (K) (MG/L)			SOLVED PO- TAS- SIUM (K) (MG/L)
OCT. 19...	1430	411500	2.7	--	--	57	26	270	--	7.1	202	0
JAN. 26...	1700	442900	3.8	50	0	62	26	--	310	--	224	0
MAY 17...	1500	423700	.6	--	--	63	26	--	270	--	216	0
JULY 24...	1500	465700	2.4	--	--	57	25	--	270	--	198	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED BORON (B) (UG/L)
OCT. 19...	260	280	.8	.06	1010	250	84	7.5	1720	7.7	18.0	290
JAN. 26...	260	280	.5	.1	1050	260	76	8.5	1680	7.8	4.5	--
MAY 17...	270	280	.8	.07	1020	260	87	7.3	1720	7.8	20.0	--
JULY 24...	260	280	.8	.00	1000	240	82	7.7	1680	7.7	27.8	--

RED RIVER BASIN

07297910 PRAIRIE DOG TOWN FORK RED RIVER NEAR WAYSIDE, TEX.

LOCATION.--Lat 34°50'15", long 101°24'49", Armstrong County, at gaging station at bridge on Farm Road 284, 13 miles northeast of Wayside.

DRAINAGE AREA.--4,211 sq mi, of which 3,281 sq mi is noncontributing.

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1972.

Water temperatures: November 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTERRER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.									
04...	0640	9.6	--	370	67	660	160	0	1300
15...	0630	1.8	--	580	130	2900	148	0	2000
18...	1245	972	10	66	8.6	82	132	0	170
29...	1400	45	--	190	31	240	114	0	560
NOV.									
02...	1120	8.8	--	480	78	890	172	0	1500
16...	0820	244	--	170	34	130	148	0	480
17...	0745	1120	13	78	15	86	156	0	270
DEC.									
04...	1150	10	--	420	90	620	172	0	1400
27...	1130	4.6	--	480	110	1100	172	0	1600
JAN.									
02...	1140	6.5	--	280	34	580	76	0	1200
06...	1100	4.0	--	460	110	1200	156	0	1700
20...	1325	2.3	--	500	110	1300	172	0	1700
30...	2200	1.4	--	600	140	2600	184	0	2000
FEB.									
07...	1145	2.1	--	580	150	2300	168	0	1900
15...	1150	1.8	--	520	120	1400	170	0	1700
MAR.									
03...	1330	1.6	--	520	120	1700	156	0	1800
26...	1630	.62	--	680	170	3400	166	0	2200
31...	1315	.85	--	590	140	2300	156	0	2000
APR.									
05...	1245	.98	--	620	140	2800	138	0	2100
17...	1300	.28	--	810	240	5800	152	0	2800
25...	0630	.43	--	320	64	380	232	0	1200
MAY									
06...	0815	23	--	210	33	310	220	0	700
08...	0800	1.3	--	440	83	1500	124	0	1800
10...	0900	364	14	89	14	120	184	0	270
23...	1445	.98	--	620	160	2800	132	0	2100
29...	0900	34	--	240	39	280	120	0	790
JUNE									
11...	1630	92	--	90	22	190	194	0	350
16...	1900	6.0	--	380	66	600	148	0	1100
19...	1240	3.9	--	510	99	1400	136	0	1700
JULY									
01...	1915	19	--	170	26	180	126	0	580
11...	1400	.62	--	620	130	3000	108	0	2000
15...	1215	12	--	520	95	1600	108	0	1600
30...	1515	.28	--	700	180	5200	132	0	2300
AUG.									
06...	1305	.17	--	740	170	5600	158	0	2400
08...	1845	.85	--	480	93	2000	140	0	1500
15...	1930	.03	--	880	220	7800	132	0	2900
23...	1715	26	--	88	17	150	194	6	190
29...	0810	12	--	360	64	430	184	0	1100
SEP.									
02...	1045	15	--	160	29	280	182	0	430
07...	1500	1.1	--	630	140	3700	132	0	2100

RED RIVER BASIN

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07297910 PRAIRIE DOG TOWN FORK RED RIVER NEAR WAYSIDE, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 41,500 micromhos Sept. 20; minimum daily 810 micromhos Nov. 17.

Water temperatures: Maximum, 34.0°C July 2, 12, 30; minimum, freezing point on several days during winter months.

EXTREMES, November 1967 to September 1969, October 1970 to September 1972.--Specific conductance: Maximum daily, 47,300 micromhos May 5, 1971; minimum daily, 724 micromhos Sept. 18, 1969.

Water temperatures: Maximum, 38.0°C Oct. 14, 1968; minimum, freezing point on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
04...	830	--	--	3270	1200	1100	8.3	4570	7.4
15...	4300	--	--	10000	2000	1900	28	15500	7.7
18...	64	--	1.8	470	200	92	2.5	719	7.6
29...	320	--	--	1390	590	500	4.4	2140	7.3
NOV.									
02...	1200	--	--	4260	1500	1400	9.9	6280	8.0
16...	150	--	--	1030	560	440	2.3	1470	7.6
17...	24	.7	.8	563	260	130	2.3	812	7.8
DEC.									
04...	810	--	--	3460	1400	1300	7.2	4710	7.9
27...	1500	--	--	4860	1600	1500	11	7160	7.9
JAN.									
02...	530	--	--	2700	840	780	8.7	3760	7.2
06...	1700	--	--	5200	1600	1500	13	7980	7.6
20...	1800	--	--	5480	1700	1600	13	8120	7.9
30...	3900	--	--	9300	2100	1900	25	14500	7.9
FEB.									
07...	3400	--	--	8400	2000	1900	22	13000	7.8
15...	2000	--	--	5840	1800	1600	14	8900	7.9
MAR.									
03...	2400	--	--	6660	1800	1700	18	10200	8.0
26...	5200	--	--	11700	2400	2200	30	18200	7.9
31...	3400	--	--	8530	2000	1900	22	13300	8.0
APR.									
05...	4300	--	--	10100	2200	2000	26	15500	7.8
17...	8900	--	--	18500	3000	2900	46	27400	7.8
25...	320	--	--	2390	1100	870	5.1	3000	7.8
MAY									
06...	300	--	--	1660	660	480	5.3	2300	7.5
08...	2000	--	--	5850	1400	1300	17	8820	7.2
10...	76	--	1.9	686	280	130	3.2	981	7.6
23...	4300	--	--	10000	2200	2100	--	15600	8.0
29...	330	--	--	1740	770	670	4.4	2350	8.1
JUNE									
11...	140	--	--	890	320	160	4.6	1330	8.2
16...	860	--	--	3130	1200	1100	7.5	4250	8.1
19...	2000	--	--	5670	1700	1600	14	8620	7.9
JULY									
01...	140	--	--	1150	520	420	3.4	1630	8.2
11...	4600	--	--	10400	2100	2000	--	16000	7.9
15...	2400	--	--	6320	1700	1600	17	9620	8.0
30...	8000	--	--	16400	2500	2400	--	24800	8.0
AUG.									
06...	8600	--	--	17600	2500	2400	--	27000	7.7
08...	3100	--	--	7280	1600	1500	--	11500	8.1
15...	12000	--	--	23800	3100	3000	--	37600	7.9
23...	180	--	--	731	290	130	3.9	1210	8.4
29...	540	--	--	2620	1200	1000	5.5	3570	7.7
SEP.									
02...	380	--	--	1360	520	370	5.3	2070	7.8
07...	5600	--	--	12300	2200	2000	--	19000	7.8

RED RIVER BASIN

07297910 PRAIRIE DOG TOWN FORK RED RIVER NEAR WAYSIDE, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	2976.9	1430	960	248	7690	200	51	1590	350	91	2810
NOV.	1556.4	1770	1220	171	5130	200	28	844	530	74	2230
DEC.	221.1	5720	4030	78	2410	1100	21	656	1500	29	897
JAN. 1972, ..	73.1	6380	4300	27	849	1300	8.3	257	1480	9.4	292
FEB.	46.5	9600	6240	27	783	2240	9.7	281	1730	7.5	218
MAR.	29.39	13100	8430	22	669	3390	8.7	269	1970	5.0	156
APR.	22.17	11800	7940	16	475	3230	6.4	193	1780	3.6	107
MAY	1835.48	1720	1190	190	5880	220	36	1100	460	73	2270
JUNE	2651.41	2980	2150	513	15400	540	128	3830	840	202	6050
JULY	622.55	2830	1970	107	3320	550	30	920	670	36	1130
AUG.	93.95	5600	3740	31	949	1370	11	348	950	7.8	242
SEP.	30.78	11800	7630	21	635	3370	9.3	280	1400	3.9	116
TOTAL	10159.73	--	--	--	44200	--	--	10600	--	--	16500
WTD. AVG.	27.8	2320	1610	121	--	390	29	--	600	45	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3740	4370	5360	3770	6700	11200	12400	35600	10400	5000	24500	32500
2	2300	6240	4840	3760	8670	11700	13600	33400	15400	1500	26100	3000
3	3600	3340	4880	4100	13200	10200	14600	33700	19500	4240	27200	16800
4	4590	3240	4710	5400	12000	11800	17000	34900	20900	6270	25500	17700
5	5440	3600	4510	6680	7060	12300	15500	30200	22600	8050	28400	24100
6	6270	4230	4880	7980	8110	11000	14200	3000	23600	9710	27000	32800
7	7170	4690	4880	3480	13000	11100	17100	6150	26400	4560	3500	19000
8	8760	4990	5390	4750	7680	12500	18500	8820	29600	1450	10000	35800
9	9190	5590	5290	4600	8600	12500	19100	2000	28600	1210	14300	34500
10	9900	6110	5250	4020	11700	11500	18000	1050	29300	8480	22800	36700
11	10600	6340	5880	4560	10500	12600	23200	3020	5000	16000	32000	39200
12	11500	6770	5700	6130	6690	12700	23200	4740	3200	1750	33700	35900
13	13500	6800	5520	5880	9400	13200	24300	3500	1500	1500	34600	35100
14	13100	7490	5450	15300	9220	13600	26600	4480	2980	5000	30000	35000
15	15500	7520	5550	15700	8900	13800	28300	7220	2000	9620	35000	37200
16	16400	1500	6070	8080	8900	13400	26900	7800	4250	16600	34900	37700
17	16900	810	7450	4950	9020	13500	27400	8130	6270	24100	36400	36100
18	850	1200	7420	6050	10000	13300	27600	10300	7340	1270	35900	---
19	1560	2550	6370	7490	9900	15400	30200	11300	8620	3220	38300	40000
20	2640	3360	6260	8120	9670	15600	30900	12600	11400	6590	37600	41500
21	2940	3710	6430	6320	11500	15600	28100	14900	12500	1570	5000	37200
22	3380	3230	6490	6850	11500	15200	33300	12600	5000	4870	2000	38600
23	3750	3390	6490	7700	8900	12400	33900	15600	10000	8490	1210	37500
24	4110	3720	6790	7300	9850	11400	33800	12400	4000	13700	5000	36900
25	4620	3950	6660	7280	9710	12400	15000	14100	6250	14300	19200	36800
26	5000	4190	6680	8650	11200	18200	2850	14100	18800	21000	25000	37100
27	4750	4580	7160	11500	9900	18200	10200	17500	16300	25200	10000	36000
28	5780	4550	6850	12600	9900	16300	19800	15000	22200	25200	2970	36100
29	2140	4740	6510	8720	11100	16400	19800	2410	14800	25400	3600	38300
30	6860	4960	6750	14500	---	14400	24200	4480	14400	24800	15000	36900
31	6900	---	7100	9950	---	13300	---	8410	---	24400	32200	---
MONTH	6890	4400	5990	7490	9740	13440	21650	12690	13440	10490	21900	33170

RED RIVER BASIN

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07297910 PRAIRIE DOG TOWN FORK RED RIVER NEAR WAYSIDE, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	19.0	3.0	7.0	9.0	7.0	19.0	20.0	25.0	30.0	28.0	22.0
2	21.0	20.0	4.0	6.0	2.0	13.0	17.0	21.0	33.0	34.0	30.0	15.0
3	24.0	15.0	5.0	0.0	3.0	21.0	15.0	27.0	30.0	23.0	29.0	21.0
4	24.0	19.0	10.0	---	3.0	17.0	15.0	24.0	19.0	20.0	27.0	27.0
5	28.0	15.0	9.0	4.0	7.0	15.0	25.0	20.0	29.0	20.0	30.0	27.0
6	25.0	14.0	1.0	5.0	10.0	21.0	25.0	13.0	25.0	20.0	32.0	21.0
7	25.0	12.0	0.0	8.0	5.0	15.0	24.0	20.0	31.0	31.0	32.0	32.0
8	23.0	19.0	1.0	2.0	12.0	16.0	18.0	13.0	31.0	28.0	25.0	30.0
9	20.0	19.0	3.0	7.0	8.0	3.0	21.0	19.0	30.0	30.0	22.0	---
10	26.0	10.0	9.0	1.0	0.0	24.0	23.0	14.0	23.0	30.0	30.0	29.0
11	27.0	20.0	12.0	10.0	6.0	16.0	17.0	12.0	27.0	---	27.0	26.0
12	24.0	20.0	7.0	10.0	16.0	23.0	15.0	23.0	26.0	34.0	29.0	29.0
13	22.0	18.0	12.0	11.0	11.0	18.0	20.0	14.0	20.0	21.0	27.0	24.0
14	26.0	16.0	5.0	2.0	10.0	20.0	20.0	25.0	30.0	32.0	25.0	21.0
15	25.0	15.0	7.0	0.0	4.0	10.0	20.0	23.0	20.0	33.0	26.0	26.0
16	25.0	15.0	8.0	5.0	1.0	19.0	21.0	32.0	26.0	32.0	29.0	30.0
17	23.0	13.0	7.0	11.0	15.0	8.0	22.0	27.0	26.0	26.0	30.0	30.0
18	12.0	8.0	0.0	17.0	12.0	23.0	21.0	28.0	28.0	31.0	28.0	---
19	15.0	11.0	0.0	20.0	15.0	13.0	24.0	22.0	33.0	28.0	30.0	25.0
20	18.0	12.0	0.0	15.0	18.0	12.0	15.0	28.0	27.0	28.0	30.0	22.0
21	23.0	11.0	10.0	12.0	16.0	20.0	20.0	25.0	30.0	27.0	32.0	20.0
22	20.0	5.0	14.0	10.0	5.0	10.0	25.0	20.0	31.0	32.0	22.0	23.0
23	20.0	9.0	8.0	14.0	20.0	19.0	18.0	30.0	29.0	31.0	25.0	21.0
24	12.0	10.0	14.0	5.0	18.0	15.0	23.0	26.0	24.0	30.0	20.0	24.0
25	24.0	12.0	12.0	12.0	21.0	18.0	19.0	24.0	33.0	23.0	31.0	18.0
26	19.0	15.0	15.0	4.0	15.0	16.0	15.0	17.0	29.0	29.0	22.0	25.0
27	9.0	16.0	7.0	2.0	20.0	8.0	14.0	30.0	24.0	32.0	21.0	23.0
28	22.0	7.0	19.0	2.0	15.0	12.0	18.0	27.0	25.0	30.0	19.0	23.0
29	8.0	5.0	9.0	6.0	20.0	16.0	19.0	17.0	27.0	31.0	20.0	21.0
30	12.0	4.0	8.0	3.0	---	14.0	25.0	25.0	29.0	34.0	30.0	18.0
31	5.0	---	12.0	5.0	---	13.0	---	29.0	---	31.0	30.0	---
MONTH	20.5	13.5	7.5	7.0	11.0	15.5	20.0	22.5	27.5	28.5	27.0	24.0

RED RIVER BASIN

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07298200 TULE CREEK NEAR SILVERTON, TEX.

LOCATION.--Lat 34°32'38", long 101°25'40", Briscoe County, at gaging station at bridge on Farm Road 284, 0.1 mile downstream from Rock Creek, 8.6 miles northwest of Silverton.

DRAINAGE AREA.--1,150 sq mi, of which 960 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

Water temperatures: October 1967 to September 1969.

EXTREMES, October 1967 to September 1969.--Dissolved solids: Maximum, 840 mg/l Apr. 1-6, 1968; minimum, 149 mg/l June 16-19, 1969.

Hardness: Maximum, 429 mg/l Apr. 1-6, 1968; minimum, 91 mg/l July 22-27.

Specific conductance: Maximum daily, 1,160 micromhos June 8; minimum daily, 184 micromhos Sept. 23.

Water temperatures: Maximum, 27.0°C May 25; minimum, 1.0°C on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 03...	0850	.51	12	46	22	60	216	8	120	12
DEC. 07...	0945	1.5	21	44	41	82	308	10	140	28
JAN. 11...	1025	1.8	23	20	53	100	260	10	190	35
FEB. 15...	1015	2.1	22	--	--	110	278	12	210	40
MAY 30...	1345	.09	5.8	29	14	82	112	0	170	18
JULY 05...	1055	.81	13	30	13	40	126	0	90	7.6

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 03...	1.9	1.1	388	200	14	1.9	605	8.4	6.5
DEC. 07...	3.0	.1	515	280	11	2.1	803	8.3	1.5
JAN. 11...	4.0	.3	564	270	57	2.7	862	8.5	--
FEB. 15...	5.0	.00	622	300	67	2.8	954	8.6	4.0
MAY 30...	2.0	1.0	380	130	40	3.1	616	7.6	24.0
JULY 05...	1.8	.6	260	130	27	1.5	409	8.0	18.5

RED RIVER BASIN

07299200 PRAIRIE DOG TOWN FORK RED RIVER NEAR LAKEVIEW, TEX.

LOCATION.--Lat 34°34'23", long 100° 44'43", Hall County, at gaging station on downstream side of bridge on Farm Road 657, 7.6 miles southwest of Lakeview.

DRAINAGE AREA.--6,792 sq mi, of which 4,769 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1972.

Water temperatures: July 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.								
06...	0845	5.5	560	130	2500	150	0	1600
16...	0830	.07	510	120	890	224	0	1500
18...	0940	10600	460	42	490	152	0	1100
23...	0850	194	430	70	1400	132	0	1100
NOV.								
06...	0820	5.5	700	200	3600	162	0	2000
15...	1710	.60	560	190	2200	196	0	1900
18...	1545	102	220	39	650	136	0	660
DEC.								
06...	1135	55	750	150	4600	176	0	1900
15...	1035	55	550	130	3000	156	0	1500
JAN.								
03...	1224	2.0	620	190	2600	192	0	2040
13...	0945	.35	460	180	1100	192	0	1700
21...	0930	1.1	570	190	2000	208	0	1900
FEB.								
01...	0840	.75	570	210	2200	220	0	2000
12...	1330	.90	600	230	3000	204	0	2100
26...	0855	.27	510	180	1000	200	0	1700
MAR.								
06...	0850	.27	510	150	1100	218	0	1700
23...	1140	.27	600	180	1200	196	0	2000
29...	1740	.09	510	160	890	168	0	1700
APR.								
03...	1522	.05	570	200	1300	190	0	2000
08...	0805	.07	500	150	810	176	0	1700
MAY								
11...	0845	122	360	86	1300	170	0	1100
12...	1000	202	280	75	650	212	0	810
18...	1355	.90	580	89	3400	154	0	1900
26...	1610	330	360	130	800	144	0	1300
JUNE								
14...	0857	2900	330	38	390	172	0	840
16...	1145	110	410	48	880	108	0	1100
29...	1345	.16	440	100	720	200	0	1420
30...	1200	152	580	83	1600	156	0	1500
JULY								
03...	0945	5200	360	46	530	114	0	970
12...	0730	.12	440	89	1500	190	0	1200
26...	1920	.27	580	77	1300	102	0	1500
31...	0715	.05	470	120	810	108	0	1600
AUG.								
07...	0827	250	580	57	660	116	0	1500
11...	0810	9.2	410	60	1200	90	0	1200
24...	0810	52	250	28	440	112	0	670
31...	0840	34	460	79	1400	148	0	1200
SEPT.								
05...	1400	.06	480	130	2000	168	0	1600
08...	0920	210	260	39	560	196	0	650

RED RIVER BASIN

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07299200 PRAIRIE DOG TOWN FORK RED RIVER NEAR LAKEVIEW, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 23,200 micromhos Dec. 7, 8; minimum daily, 3,010 micromhos Aug. 24.

EXTREMES, July 1968 to September 1972.--Specific conductance: Maximum daily, 26,200 micromhos Mar. 18, 19, 1969; minimum daily, 2,000 micromhos Aug. 8, 13, 1971.

Water temperatures (July 1968 to September 1969): Minimum, freezing point Dec. 22, 24, 28, 1968, Mar. 8, 9, 1969.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.							
06...	3900	8760	1900	1800	25	14000	7.8
16...	1400	4530	1800	1600	9.2	6720	7.9
18...	770	2970	1300	1200	5.9	3930	7.5
23...	2300	5400	1400	1200	17	8730	7.4
NOV.							
06...	5700	12200	2600	2400	31	19000	7.7
15...	3400	8430	2200	2000	21	12900	8.0
18...	940	2580	720	610	10	4060	7.6
DEC.							
06...	7300	14800	2500	2400	40	23000	7.8
15...	4800	9980	1900	1800	30	16100	7.4
JAN.							
03...	4100	9680	2300	2200	23	14800	8.0
13...	1700	5210	1900	1800	11	7500	8.0
21...	3100	7840	2200	2000	19	12100	8.1
FEB.							
01...	3500	8610	2300	2100	20	13400	7.9
12...	4600	10600	2400	2300	26	16400	7.8
26...	1600	5160	2000	1800	10	7600	7.8
MAR.							
06...	1600	5150	1900	1700	11	7660	7.9
23...	1800	5800	2200	2100	11	8370	7.9
29...	1400	4750	2000	1800	8.7	6960	7.8
APR.							
03...	2000	6230	2200	2100	12	8910	8.0
08...	1200	4460	1900	1700	8.1	6390	7.9
MAY							
11...	2000	5000	1200	1100	16	8050	7.7
12...	1000	2940	1000	850	8.9	4440	7.9
18...	5000	11000	1800	1700	--	17000	8.0
26...	1200	3860	1400	1300	9.2	5890	8.0
JUNE							
14...	580	2260	980	840	5.4	3270	8.0
16...	1400	3840	1200	1100	11	5060	7.8
29...	1000	3800	1500	1400	8.0	5580	8.0
30...	2600	6450	1800	1700	--	10100	7.8
JULY							
03...	820	2790	1100	1000	7.0	3900	8.0
12...	2300	5580	1400	1300	17	8350	7.6
26...	2100	5610	1800	1700	14	8600	8.0
31...	1200	4250	1700	1600	8.5	5960	8.0
AUG.							
07...	1000	3890	1700	1600	7.0	5620	7.9
11...	1800	4590	1300	1200	14	7290	7.8
24...	640	2080	740	650	7.0	3010	8.0
31...	2200	5370	1500	1300	16	8530	7.8
SEP.							
05...	3000	7260	1700	1600	--	11200	7.5
09...	840	2440	810	650	8.5	3580	7.5

RED RIVER BASIN

07299200 PRAIRIE DOG TOWN FORK RED RIVER NEAR LAKEVIEW, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	5016.67	4910	3520	1540	47700	940	411	12700	1280	560	17400
NOV.	1376.95	8970	5940	736	22100	2380	295	8840	1380	171	5130
DEC.	690.8	20700	13300	801	24800	6550	394	12200	1760	106	3280
JAN. 1972, ..	34.54	13400	8790	26	820	3650	11	340	1940	5.8	181
FEB.	8.37	9770	6490	5.1	147	2270	1.8	51	1890	1.5	43
MAR.	3.21	7520	5230	1.5	45	1570	.4	14	1840	.5	16
APR.	1.69	7680	5420	.8	25	1660	.3	7.6	1870	.3	8.5
MAY	3299.51	11700	7650	2200	68100	3360	965	29900	1420	408	12600
JUNE	5436.91	5540	3650	1790	53600	1220	598	17900	1100	538	16100
JULY	10251.1	4350	3110	2780	86100	890	795	24600	1110	989	30700
AUG.	1150.03	6250	4120	413	12800	1340	134	4150	1310	131	4070
SEP.	626.34	4640	3090	174	5230	1110	63	1880	800	45	1340
TOTAL	27896.12	--	--	--	231000	--	--	113000	--	--	90900
WTD. AVG.	76.2	6280	4270	878	--	1500	308	--	1210	248	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10100	13800	16500	15800	13400	7800	7610	---	10200	8660	6200	8330
2	12000	16900	17000	15300	9310	7690	8200	---	10100	9000	---	7370
3	13000	17600	18200	14800	8900	7630	8910	---	10000	3460	---	6400
4	14600	17900	21600	14500	8500	7690	8000	---	10000	4030	---	7500
5	15100	17400	22000	14000	7900	7660	7030	9000	10300	5630	7800	11200
6	14000	19000	23000	13500	7750	7660	6710	8680	---	6080	8500	11300
7	14600	19000	23200	13000	7570	7400	---	7500	---	6800	5630	5500
8	14300	17000	23200	15900	8120	7350	6390	6670	---	6230	6000	3580
9	14200	16700	22400	15000	9850	7450	8000	---	---	3760	6940	3220
10	15000	17000	22400	14600	8600	7740	7500	13700	---	6330	7160	4450
11	11900	16700	22000	14100	10000	7460	6920	8050	9000	6850	7290	5500
12	11700	16400	21500	10000	16400	7500	6900	4200	6770	6350	---	6130
13	9240	14900	21000	7500	10000	7520	7000	12200	6450	4000	7800	---
14	9950	14000	20800	8900	8460	7690	---	12000	3720	6100	8680	---
15	10000	12900	16100	9300	8060	7180	---	11100	4410	6430	10500	---
16	6720	13300	20600	9600	10900	7580	---	11200	6060	7500	12000	---
17	8000	9040	22100	9910	8750	7300	---	14200	7150	8740	5940	---
18	3890	4060	21800	12500	7780	7100	---	17000	12800	5500	5490	---
19	5170	4590	21600	12500	7870	7200	---	7670	13300	5200	5440	---
20	8140	6410	21500	12300	7900	7270	---	6610	13800	5960	---	---
21	9160	8000	20600	12100	7990	6970	---	6500	14000	7630	5300	---
22	8730	14000	19800	13500	7840	7250	---	6210	5510	6200	7000	---
23	6000	13500	19100	11000	7700	8370	---	6530	5850	5500	9190	---
24	8000	15500	18700	9000	7720	7940	---	6500	6000	4060	3010	---
25	14400	16100	18000	7530	7840	7490	---	5890	5520	4230	4110	---
26	15100	16400	17300	7640	7600	7500	---	7450	8650	7350	4680	---
27	14500	17200	16800	7660	7750	7580	---	7380	8920	6820	4000	---
28	13800	17300	16000	8000	7960	6700	---	7000	9500	6500	7610	---
29	15600	17300	15800	9000	7750	6960	---	3720	10100	5580	7800	---
30	18200	17400	16500	10000	---	6820	---	13000	5580	5700	8000	---
31	15000	---	15800	12000	---	7160	---	13500	---	5960	8540	---
MONTH	11620	14580	19770	11630	8830	7440	---	8980	8550	6070	6950	---

RED RIVER BASIN

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07299200 PRAIRIE DOG TOWN FORK RED RIVER NEAR LAKEVIEW, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	15.0	3.0	---	1.0	10.0	8.0	---	22.0	20.0	---	20.0
2	17.0	15.0	---	---	0.0	9.0	---	---	---	25.0	---	18.0
3	---	15.0	2.0	1.0	---	18.0	17.0	---	19.0	20.0	---	---
4	12.0	18.0	3.0	---	---	5.0	---	---	---	20.0	---	---
5	14.0	17.0	---	---	1.0	---	20.0	---	---	18.0	---	28.0
6	13.0	5.0	5.0	---	---	6.0	16.0	15.0	---	20.0	---	29.0
7	14.0	---	10.0	4.0	2.0	10.0	---	---	---	22.0	20.0	20.0
8	18.0	9.0	3.0	4.0	15.0	5.0	10.0	14.5	---	23.0	---	23.0
9	13.0	10.0	4.0	---	4.0	12.0	---	---	---	---	28.0	22.0
10	---	---	6.0	---	0.0	21.0	---	16.0	---	30.0	25.0	30.0
11	10.0	8.0	---	0.0	---	11.0	21.0	15.0	27.0	25.0	19.0	21.0
12	12.0	19.0	---	---	15.0	---	---	15.0	24.0	22.0	---	21.0
13	12.0	10.0	---	1.0	---	21.0	---	15.0	21.0	25.0	---	---
14	13.0	---	6.0	0.0	15.0	23.0	---	---	20.0	25.0	27.0	---
15	---	17.0	5.0	---	10.0	14.0	---	22.0	20.0	23.0	25.0	---
16	15.0	20.0	9.0	---	17.0	18.0	---	26.0	25.0	---	30.0	---
17	---	17.0	8.0	0.0	11.0	---	---	27.0	21.0	28.0	30.0	---
18	16.0	10.0	1.0	2.0	5.0	9.0	---	27.0	31.0	26.0	27.0	---
19	12.0	4.0	---	3.0	3.0	---	---	28.0	---	27.0	21.0	---
20	10.0	3.0	2.0	---	---	22.0	---	17.0	25.0	27.0	---	---
21	10.0	---	10.0	5.0	19.0	23.0	---	---	28.0	28.0	22.0	---
22	15.0	---	12.0	3.0	5.0	24.0	---	20.0	26.0	22.0	---	---
23	10.0	8.0	6.0	---	18.0	19.0	---	28.0	29.0	---	20.0	---
24	---	10.0	11.0	---	8.0	15.0	---	---	23.0	22.0	20.0	---
25	12.0	10.0	---	0.0	8.0	8.0	---	28.0	---	21.0	19.0	---
26	16.0	6.0	---	1.0	4.0	---	---	20.0	28.0	22.0	19.0	---
27	9.0	15.0	13.0	2.0	---	16.0	---	19.0	31.0	27.0	---	---
28	10.0	---	---	---	20.0	18.0	---	---	---	---	20.0	---
29	12.0	6.0	10.0	---	21.0	15.0	---	18.0	22.0	20.0	---	---
30	10.0	5.0	2.0	---	---	12.0	---	16.0	27.0	---	22.0	---
31	---	---	5.0	---	---	8.0	---	25.0	---	19.0	20.0	---
MONTH	13.0	11.5	---	---	---	14.5	---	---	---	23.5	---	---

RED RIVER BASIN

07299300 LITTLE RED RIVER NEAR TURKEY, TEX.

LOCATION.--Lat 34°32'27", long 100°46'13", Hall County, at gaging station at bridge on Farm Road 657, 10 miles upstream from mouth, and 14.5 miles northeast of Turkey.

DRAINAGE AREA.--139 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1972.
Water temperatures: July 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.								
19...	0822	13	840	74	2500	100	0	2100
22...	0730	3.8	270	67	1200	108	0	550
28...	0855	4.5	900	120	4000	120	0	2200
NOV.								
13...	0740	.18	1400	330	10000	292	0	3500
DEC.								
07...	1600	1.7	1600	480	21000	186	0	3900
18...	0820	.77	1600	410	16000	220	0	3800
21...	1120	.64	1600	290	14000	254	0	3700
JAN.								
06...	1150	.35	1400	270	10000	252	0	3400
FEB.								
10...	1025	.18	1400	340	10000	282	0	3500
MAR.								
15...	1140	.14	1400	350	11000	220	0	3600
APR.								
14...	1850	.12	1600	360	12000	172	0	4100
MAY								
13...	0955	3.6	980	170	4700	70	0	2500
26...	0940	191	850	150	3900	148	0	2200
30...	0815	14	1200	230	8100	92	0	2500
JUNE								
01...	1955	.02	1500	310	10000	116	0	3400
13...	0826	61	910	110	4400	108	0	2100
14...	0840	330	590	46	1200	108	0	1500
26...	1300	1.3	1400	270	9300	220	0	3500
JULY								
03...	0930	750	680	65	1900	96	0	1800
12...	0724	5.7	1200	170	5900	108	0	3300
22...	0844	7.6	650	38	1300	59	0	1600
29...	0742	.24	1500	240	10000	124	0	3500
AUG.								
07...	0816	58	810	87	2900	128	0	2200
14...	1920	118	880	100	4200	108	0	2300
24...	0802	84	740	62	2100	88	0	1900
26...	0806	3.4	1200	180	6400	98	0	2900
SEP.								
09...	0900	3.6	1000	130	4300	100	0	2600

RED RIVER BASIN

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07299300 LITTLE RED RIVER NEAR TURKEY, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 101,400 micromhos Dec.6; minimum daily, 6,270 micromhos June 14.

EXTREMES, July 1968 to September 1972.--Specific conductance: Maximum daily, 118,000 Micromhos Apr. 1, 1970; minimum daily, 6,270 micromhos June 14, 1972.

Water temperatures (July 1968 to September 1969): Maximum, 36.0°C July 23, 1969; minimum, freezing point on several days during December 1968, January and March 1969.

REMARKS.--Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.							
19...	4000	9530	2400	2300	22	14800	7.4
22...	2000	4100	950	860	16	7180	7.6
28...	6400	13700	2700	2600	33	21400	7.5
NOV.							
13...	16000	32200	4800	4600	63	48800	7.7
DEC.							
07...	33000	59900	5900	5800	118	86000	7.7
18...	26000	48800	5600	5400	92	71900	7.4
21...	22000	41100	5200	5000	85	61400	7.9
JAN.							
06...	16000	32000	4600	4300	64	46200	7.8
FEB.							
10...	16000	31600	4900	4700	62	48100	7.9
MAR.							
15...	17000	33400	5000	4900	68	50400	7.7
APR.							
14...	20000	38600	5600	5500	71	54200	7.6
MAY							
13...	7600	15900	3100	3100	--	24500	7.8
26...	6200	13400	2700	2600	--	20800	8.0
30...	13000	25500	4000	3900	--	39600	7.8
JUNE							
01...	17000	32900	5000	4900	--	45300	7.8
13...	7100	14700	2700	2600	--	23100	7.9
14...	1900	5270	1700	1600	13	8270	7.7
26...	15000	29600	4700	4520	--	41900	8.1
JULY							
03...	2900	7420	2000	1900	--	11200	7.9
12...	9200	19800	3800	3700	--	28000	7.8
22...	2000	5590	1800	1700	13	8300	7.8
29...	17000	32600	4700	4600	--	47700	7.8
AUG.							
07...	4500	10500	2400	2300	--	16100	7.6
14...	6600	14200	2600	2500	--	22100	7.6
24...	3300	8180	2100	2000	--	12600	7.7
26...	10000	21200	3800	3700	--	33500	7.4
SEP.							
09...	6800	15000	3100	3000	--	22600	7.8

RED RIVER BASIN

07299300 LITTLE RED RIVER NEAR TURKEY, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	328.86	20800	13600	389	12100	6190	177	5500	2380	68	2110
NOV.	8.41	48200	31800	24	723	16300	12	371	3450	2.6	78
DEC.	62.60	77300	53500	292	9040	29100	159	4930	3850	21	650
JAN. 1972, ..	7.85	46600	32300	22	684	16400	11	347	3380	2.3	72
FEB.	6.50	48300	31800	19	557	16300	9.8	285	3550	2.1	62
MAR.	4.79	50100	33200	14	430	17100	7.1	221	3680	1.5	48
APR.	4.18	51000	36100	14	407	18600	7.0	210	3960	1.5	45
MAY	522.49	24400	15800	718	22300	7510	342	10600	2430	111	3430
JUNE	865.67	13900	8790	685	20500	3850	300	9000	1730	134	4030
JULY	1354.29	13600	780	1040	32100	3650	431	13400	1930	228	7070
AUG.	414.66	21800	14200	514	15900	6770	245	7580	2210	80	2470
SEP.	394.67	13400	8930	317	9510	3600	128	3840	2080	74	2210
TOTAL	3974.97	--	--	--	124000	--	--	56300	--	--	22300
WTD. AVG.	10.9	17800	11600	339	--	5240	154	--	2080	61	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41700	49600	62300	48000	48100	49900	48600	50900	45300	15300	49000	41400
2	43800	48400	75000	47000	48300	50100	49500	50800	46000	25000	49500	11000
3	46000	47900	82400	46700	47700	49200	50700	52000	47400	12800	50400	16000
4	47200	48800	96800	47700	48500	49300	51000	53900	49000	16000	50600	25000
5	46500	48800	98000	45200	47200	49300	51200	51900	50100	25000	49500	35000
6	47400	48600	101400	46200	47500	49300	50000	51100	50000	33000	49500	37900
7	48400	48600	86000	45600	48300	49800	51400	50000	50200	36000	30000	35000
8	48500	48700	85000	45400	47900	49400	50500	49200	49300	38000	20000	25000
9	48400	48600	85700	45500	47700	48900	50000	49900	49600	11900	23900	26000
10	49000	48600	88100	46000	48100	49300	51100	49900	49900	14100	41900	28000
11	49300	48600	70000	46700	48000	49200	50700	23300	27000	24700	41200	30800
12	49400	48500	60000	46800	47500	49500	50000	20700	18000	28000	44100	31600
13	49600	48800	50000	46900	48500	49800	49900	22200	23900	33600	40000	36000
14	49600	48700	47100	46600	49200	49800	54200	35000	6270	35000	35600	40200
15	49500	48500	64000	46500	48100	50400	51500	42100	24700	38300	17000	42000
16	49600	48500	71900	46000	48100	50300	51500	44100	36200	39000	28100	44700
17	49600	45100	73600	45700	48000	50100	51500	46000	37500	40400	40300	46000
18	19000	47800	71900	47000	48300	50100	51600	48400	38500	22700	46100	47200
19	14800	48400	70000	46800	48400	50500	51900	49400	40500	35000	47700	48500
20	25000	48600	68900	47000	48400	51000	51900	49600	41000	30000	39100	47300
21	39400	48000	61400	47000	48400	50900	52000	50000	43000	12200	48900	47000
22	15200	47500	56700	47100	49400	51100	50500	50100	14200	15000	35000	46900
23	10000	47100	54600	47000	48500	50600	51000	50900	17200	20000	14400	48200
24	29000	47200	52700	47000	48600	49500	52400	51000	24300	29000	12600	48900
25	34100	48800	52000	47400	48400	49500	51600	51500	35000	39000	20000	49600
26	32500	48600	51000	47000	48900	50000	51000	29700	41900	46400	33500	48900
27	39400	48500	50500	47300	48900	51400	52000	20100	43100	46300	25000	48900
28	21400	48500	49000	47400	48900	52100	51200	35000	42700	47900	26000	49000
29	29300	48600	47900	46900	49100	51500	52100	25900	42300	47000	36600	48900
30	40100	48000	48300	47000	---	50200	52000	39600	44800	48000	38000	49800
31	45000	---	48500	47000	---	49900	---	46900	---	48900	40000	---
MONTH	38960	48300	85070	46690	48310	50060	51150	43260	37630	41790	36240	39360

RED RIVER BASIN

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07299300 LITTLE RED RIVER NEAR TURKEY, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	15.0	7.0	---	2.0	11.0	7.0	21.0	25.0	20.0	---	22.0
2	18.0	15.0	---	---	0.0	12.0	---	14.0	---	23.0	21.0	19.0
3	---	14.0	2.0	4.0	7.0	15.0	18.0	---	20.0	24.0	28.0	---
4	13.0	20.0	3.0	5.0	2.0	5.0	---	23.0	---	20.0	22.0	---
5	15.0	17.0	---	5.0	2.0	---	23.0	20.0	27.0	19.0	21.0	27.0
6	14.0	7.0	4.0	7.0	---	7.0	17.0	15.0	28.0	20.0	---	27.0
7	15.0	---	11.0	5.0	4.0	11.0	18.0	---	27.0	21.0	27.0	20.0
8	17.0	10.0	4.0	5.0	14.0	6.0	11.0	14.0	25.0	22.0	---	24.0
9	14.0	10.0	5.0	---	4.0	11.0	---	23.0	---	---	27.0	23.0
10	---	---	7.0	---	3.0	20.0	25.0	20.0	21.0	28.0	27.0	---
11	11.0	8.0	---	2.0	---	12.0	20.0	17.0	---	22.0	20.0	22.0
12	13.0	20.0	---	---	12.0	---	---	15.0	---	23.0	21.0	22.0
13	14.0	11.0	---	3.0	---	20.0	18.0	16.0	21.0	29.0	---	---
14	13.0	---	5.0	0.0	13.0	22.0	21.0	---	18.0	---	29.0	23.0
15	---	18.0	4.0	---	10.0	15.0	11.0	24.0	20.0	22.0	24.0	25.0
16	16.0	21.0	10.0	---	17.0	---	---	25.0	22.0	---	29.0	22.0
17	---	20.0	8.0	2.0	10.0	---	---	26.0	22.0	26.0	29.0	---
18	17.0	10.0	1.0	4.0	5.0	10.0	22.0	28.0	---	25.0	28.0	23.0
19	13.0	6.0	---	3.0	4.0	17.0	24.0	26.0	30.0	30.0	21.0	27.0
20	10.0	4.0	4.0	---	---	22.0	15.0	18.0	25.0	27.0	23.0	28.0
21	11.0	---	9.0	6.0	18.0	21.0	21.0	---	26.0	29.0	21.0	---
22	15.0	---	12.0	4.0	7.0	22.0	10.0	21.0	22.0	23.0	---	19.0
23	11.0	10.0	7.0	---	17.0	18.0	---	25.0	23.0	---	22.0	15.0
24	---	12.0	12.0	---	9.0	16.0	22.0	---	24.0	22.0	20.0	---
25	13.0	12.0	---	2.0	8.0	8.0	15.0	28.0	---	20.0	20.0	26.0
26	12.0	---	---	2.0	5.0	---	23.0	20.0	27.0	32.0	20.0	19.0
27	9.0	17.0	13.0	4.0	---	14.0	19.0	20.0	27.0	25.0	---	24.0
28	10.0	---	---	4.0	22.0	15.0	21.0	---	---	26.0	21.0	---
29	15.5	7.0	11.0	0.0	20.0	18.0	18.0	19.0	22.0	20.0	32.0	20.0
30	10.0	7.0	4.0	---	---	13.0	---	17.0	27.0	---	---	13.0
31	---	---	6.0	---	---	8.0	---	22.0	---	20.0	21.0	---
MONTH	13.5	---	---	---	9.0	14.0	---	20.5	---	24.0	---	---

RED RIVER BASIN

07299540 PRAIRIE DOG TOWN FORK RED RIVER NEAR CHILDRESS, TEX.

LOCATION.--Lat 34°34'09", long 100°11'37", Childress County, at gaging station at bridge on U.S. Highway 62 and 83, 3.1 miles downstream from Salt Creek, and 10.0 miles north of Childress.

DRAINAGE AREA.--7,725 sq mi, of which 4,769 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1972.

Water temperatures: July 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.							
02...	0930	17	850	160	6000	128	0 2200
16...	0900	2.5	1600	310	18000	132	0 4300
23...	0830	205	460	71	2400	94	0 1200
30...	0945	205	580	89	3600	100	0 1400
NOV.							
01...	0815	78	850	180	5600	140	0 2100
19...	1320	271	400	54	1700	144	0 1100
26...	0820	51	1000	220	8500	158	0 2600
DEC.							
04...	1000	102	880	170	6900	144	0 2200
18...	0900	34	1100	270	10000	156	0 2800
25...	0845	14	1500	310	16000	152	0 3900
JAN.							
06...	1245	14	1400	310	14000	164	0 3700
28...	0845	2.1	1600	370	17000	168	0 4200
FEB.							
15...	1345	3.0	1700	320	1600	152	0 4100
MAR.							
15...	1230	3.6	1600	370	17000	152	0 4400
APR.							
13...	1700	.43	1800	360	20000	130	0 4900
30...	0900	315	880	100	6100	108	0 2200
MAY							
12...	0830	834	450	77	2200	140	0 1200
15...	0800	46	710	130	3800	112	0 1700
23...	1130	8.8	1600	320	18000	98	0 4400
28...	1000	32	1100	190	7900	102	0 3000
JUNE							
01...	1820	13	1100	210	7900	116	0 2800
03...	0900	1.7	1600	360	17000	108	0 4400
15...	1230	459	500	66	1800	144	0 1400
25...	0800	60	770	110	4500	108	0 1900
JULY							
05...	1030	78	620	71	2400	90	0 1600
17...	0945	1.2	1000	200	8200	112	0 2600
30...	0930	.16	1600	340	16000	106	0 4200
AUG.							
03...	0850	.05	1800	350	20000	112	0 4800
16...	1500	26	1000	190	6800	108	0 2500
27...	1000	156	710	150	4900	88	0 1700
SEP.							
03...	0900	196	750	90	2800	108	0 1900
09...	0820	36	740	120	3800	176	0 1900
27...	1245	7.9	1400	300	15000	96	0 3800

RED RIVER BASIN

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07299540 PRAIRIE DOG TOWN FORK RED RIVER NEAR CHILDRESS, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 82,800 micromhos Apr. 26; minimum daily, 6,910 micromhos Oct. 23.

Water temperatures: Maximum, 35.0°C June 30; minimum, freezing point on several days during winter months.

EXTREMES, July 1968 to September 1972.--Specific conductance: Maximum daily, 98,100 micromhos June 18, July 28, and Aug. 9, 1970; minimum daily, 3,000 micromhos Aug. 13, 1971.

Water temperatures: Maximum, 38.0°C Aug. 20, 1969; minimum, freezing point on many days during winter months.

REMARKS.--Conductivity is recorded continuously at this station. See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.							
02...	9600	18900	2800	2700	50	28600	7.2
16...	28000	52500	5400	5300	108	58000	7.4
23...	3900	8120	1400	1400	28	13100	7.3
30...	5700	11400	1800	1700	37	18500	7.3
NOV.							
01...	9000	17800	2800	2700	46	26900	7.8
19...	2600	5960	1200	1100	21	9810	7.7
26...	14000	25900	3500	3300	63	41000	7.6
DEC.							
04...	11000	21200	2900	2800	56	33600	7.7
18...	16000	30200	3900	3800	70	46900	7.7
25...	25000	46600	5000	4900	98	67600	7.6
JAN.							
06...	22000	41700	4900	4800	88	62200	7.6
28...	28000	51200	5500	5400	100	72100	7.7
FEB.							
15...	25000	46600	5600	5500	9.3	69800	7.8
MAR.							
15...	28000	51400	5600	5400	100	75000	7.6
APR.							
13...	32000	59300	6100	6000	113	80500	7.6
30...	9500	18800	2600	2500	52	28600	7.7
MAY							
12...	3500	7530	1400	1300	--	12600	8.0
15...	6200	12600	2300	2200	--	20100	7.9
23...	28000	51400	5400	5300	--	74500	7.4
28...	12000	24600	3600	3500	--	38500	7.7
JUNE							
01...	13000	24600	3500	3400	--	35700	7.8
03...	28000	51400	5600	5500	--	70400	7.8
15...	2700	6460	1500	1400	--	10300	7.9
25...	7100	14400	2400	2300	--	22800	7.7
JULY							
05...	3200	8480	1800	1800	--	13400	7.9
17...	13000	25100	3400	3300	--	37900	7.8
30...	25000	46900	5200	5200	--	68300	7.6
AUG.							
03...	31000	54000	6000	6000	--	80600	7.2
16...	11000	21500	3400	3300	--	33600	7.4
27...	8000	15500	2400	2300	--	24100	7.6
SEP.							
03...	4500	10100	2200	2200	--	15700	7.4
09...	6000	12600	2300	2200	--	19800	7.5
27...	24000	44900	4800	4700	--	66700	7.4

RED RIVER BASIN

07299540 PRAIRIE DOG TOWN FORK RED RIVER NEAR CHILDRESS, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	4641.8	10400	6530	2640	81800	3110	1260	38900	970	393	12200
NOV.	1966.9	21900	14300	2530	76000	7030	1240	37300	1890	335	10100
DEC.	1311.0	45100	29800	3400	105000	15600	1780	55300	2910	332	10300
JAN. 1972, ..	228.1	64500	43400	863	26800	23200	460	14300	3790	75	2340
FEB.	112.8	68500	45600	479	13900	24300	255	7390	4040	42	1230
MAR.	66.21	73700	50500	291	9020	27000	156	4830	4300	25	770
APR.	289.71	35200	23800	621	18600	12300	320	9600	2530	66	1980
MAY	3422.0	28100	18100	5400	167000	9160	2730	84600	2160	643	19900
JUNE	6585.83	14800	9420	5590	168000	4300	2550	76500	1620	959	28800
JULY	11368.6	10800	6720	6650	206000	3020	2990	92800	1210	1200	37100
AUG.	864.88	32700	21500	1620	50100	11300	854	26500	2080	157	4860
SEP.	2639.97	17300	11100	2640	79100	5260	1250	37500	1730	412	12300
TOTAL	33497.80	--	--	--	1000000	--	--	485000	--	--	142000
WTD. AVG.	91.5	17300	11100	2740	--	5370	1330	--	1570	388	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23200	26900	57300	58300	67500	69500	70000	50600	35700	75200	78200	53200
2	28600	37500	25400	63000	68000	70000	70900	77100	46200	80600	78500	20700
3	33200	44000	31100	72100	72400	71000	73900	77100	70400	10700	80600	15700
4	39800	49800	26800	67600	68000	71000	75500	75900	74900	8660	79400	20200
5	46600	58000	35100	63400	67500	72000	74700	65000	74900	13400	76200	27100
6	54000	61900	43000	62200	68000	72000	75000	59400	76300	18000	80300	45800
7	54500	65100	47500	59200	68600	73000	76400	66400	76800	24700	80300	50400
8	61800	67400	50000	62000	65600	73000	76500	70900	77700	17300	24300	25000
9	64000	66900	53100	64800	67300	73000	79100	75400	79700	10000	26700	19800
10	66000	67500	58700	65700	69800	72000	77300	37500	79400	12500	34200	27300
11	69000	68300	58700	57300	64800	73000	77600	26400	79400	13700	60600	43600
12	71000	69200	61400	67400	68200	73000	80900	16700	70000	7500	76500	69400
13	74000	71500	64000	67000	65000	74000	80500	15200	21800	17100	72500	72000
14	75300	70800	65500	66600	69100	74000	79200	19700	13400	9900	40000	74300
15	74600	72200	40900	75400	69800	75000	78600	20100	11000	14100	27900	74300
16	75800	73400	43400	73100	68000	74000	79000	24500	12000	23300	32900	77700
17	75500	30200	41400	64800	69500	75000	77800	34800	12000	37900	43300	80400
18	7900	15300	46900	66400	69800	75000	81500	52200	15800	40000	62100	81700
19	5400	8990	57000	62900	69300	76000	82100	62200	28700	18700	71000	80800
20	7660	16900	58900	63000	71700	78000	77800	66300	45000	10300	75600	22700
21	10700	29000	60900	68900	69800	79000	75600	68600	60400	13000	78800	11200
22	15100	15400	63400	66200	70200	80000	77800	74500	23000	11000	75100	18700
23	6910	13900	68500	65500	71200	78000	82500	74500	14000	12100	77600	34900
24	15000	30900	67400	68500	68000	76000	78100	77300	15400	17000	30000	48800
25	19200	34900	67600	66800	68900	77000	82500	77300	22800	19000	22700	58900
26	25200	41000	68000	68700	69500	77000	82800	55500	21400	23400	31500	63200
27	33400	43200	69800	68500	69500	75000	77800	45400	28700	35000	24100	66700
28	27200	51300	67400	72100	69500	75000	77800	38500	55900	48000	42500	71300
29	16500	52600	68500	70700	69300	75000	60000	34500	66500	58000	37600	73400
30	18500	57100	64000	65000	---	72000	28600	40400	71400	68300	52300	75000
31	28400	---	65700	62700	---	70000	---	39200	---	74300	50000	---
MONTH	39480	47040	54750	65990	68750	74110	75590	52230	46020	27180	55590	50140

RED RIVER BASIN

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07299540 PRAIRIE DOG TOWN FORK RED RIVER NEAR CHILDRESS, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	15.0	3.0	4.0	9.0	6.0	---	12.0	29.0	25.0	24.0	21.0
2	20.0	8.0	10.0	4.0	0.0	10.0	9.0	23.0	30.0	21.0	25.0	19.0
3	17.0	15.0	0.0	4.0	1.0	20.0	9.0	15.0	21.0	20.0	22.0	18.0
4	15.0	9.0	3.0	0.5	4.0	4.0	9.0	20.0	20.0	20.0	22.0	20.0
5	15.0	23.0	5.0	0.0	1.0	5.0	24.0	25.0	19.0	20.0	23.0	21.0
6	20.0	6.0	0.0	2.0	8.0	7.0	23.0	20.0	34.0	18.0	23.0	27.0
7	15.0	5.0	2.0	10.0	0.0	15.0	19.0	13.0	30.0	20.0	29.0	23.0
8	18.0	9.0	---	4.0	10.0	12.0	11.0	14.0	30.0	21.0	24.0	25.0
9	---	6.0	4.0	4.0	10.0	12.0	10.0	25.0	30.0	30.0	21.0	23.0
10	---	15.0	4.0	1.0	0.0	15.0	18.0	20.0	26.0	23.0	27.0	25.0
11	---	15.0	3.0	10.0	4.0	10.0	25.0	17.0	21.0	23.0	30.0	23.0
12	---	9.0	4.0	12.0	0.0	14.0	20.0	15.0	23.0	30.0	22.0	26.0
13	---	10.0	3.0	8.0	4.0	10.0	21.0	15.0	26.0	23.0	21.0	28.0
14	15.0	9.0	10.0	0.0	4.0	21.0	15.0	14.0	25.0	22.0	22.0	25.0
15	15.0	15.0	5.0	0.0	10.0	17.0	13.0	15.0	23.0	23.0	23.0	25.0
16	16.0	19.0	9.0	0.0	11.0	19.0	11.0	30.0	20.0	22.0	31.0	23.0
17	20.0	20.0	5.0	0.0	4.0	11.0	15.0	25.0	21.0	23.0	23.0	25.0
18	17.0	10.0	0.0	12.0	5.0	10.0	21.0	24.0	23.0	---	21.0	27.0
19	15.0	10.0	10.0	11.0	11.0	10.0	25.0	25.0	23.0	---	30.0	30.0
20	10.0	5.0	2.0	12.0	4.0	12.0	15.0	18.0	30.0	---	24.0	22.0
21	10.0	6.0	10.0	12.0	9.0	23.0	13.0	20.0	25.0	---	24.0	10.0
22	20.0	6.0	11.0	0.0	7.0	18.0	12.0	20.0	23.0	---	23.0	20.0
23	12.0	7.0	10.0	6.0	5.0	20.0	13.0	25.0	23.0	---	32.0	18.0
24	12.0	6.0	9.0	5.0	15.0	11.0	11.0	25.0	23.0	---	22.0	18.0
25	15.0	4.0	9.0	10.0	7.0	10.0	17.0	30.0	21.0	---	20.0	24.0
26	20.0	5.0	10.0	10.0	4.0	15.0	22.0	19.0	25.0	31.5	20.0	20.0
27	20.0	5.0	10.0	0.0	9.0	10.0	25.0	23.0	25.0	---	20.0	25.0
28	10.0	8.0	5.0	0.0	8.0	12.0	15.0	19.0	33.0	---	20.0	24.0
29	10.0	5.0	8.0	0.0	20.0	9.0	17.0	23.0	23.0	---	20.0	17.0
30	10.0	4.0	10.0	2.0	---	11.0	15.0	23.0	35.0	24.0	30.0	17.0
31	10.0	---	10.0	5.0	---	9.0	---	21.0	---	23.0	23.0	---
MONTH	15.5	9.5	6.0	5.0	6.5	12.5	16.5	20.5	25.5	---	24.0	22.5

07299750 RED RIVER NEAR QUANAH, TEX.

LOCATION.--Lat 34°24'47", long 99°44'03", Hardeman County, at gaging station at bridge on State Highway 283, 8 miles north of Quanah, and 30 miles upstream from Salt Fork Red River.

DRAINAGE AREA.--8,321 sq mi, of which 4,769 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1972.

Pesticide analyses: March 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.											
20...	1130	1670	15	580	28	--	1900	--	154	0	1400
27...	0830	109	12	650	92	--	3300	--	122	0	1600
NOV.											
16...	1545	7.1	14	870	220	--	4900	--	112	0	2500
DEC.											
20...	1755	70	13	910	230	--	6200	--	172	0	2500
JAN.											
25...	1300	3.5	12	900	270	--	5400	--	70	0	2600
FEB.											
02...	1200	7.0	6.9	620	110	320	--	8.1	176	0	1800
28...	1555	2.4	11	910	160	--	4200	--	108	0	2600
APR.											
03...	1230	.10	10	1100	400	--	5100	--	144	0	2900
MAY											
09...	1055	8.3	10	1100	280	--	8000	--	140	0	2900
JUNE											
13...	1650	.01	15	1300	440	--	6300	--	168	0	3000
19...	1850	44	14	660	100	--	3000	--	90	0	1800
JULY											
18...	0840	12	14	800	140	--	3400	--	118	0	2100
SEP.											
25...	1430	.18	9.8	650	120	--	3200	--	112	0	1700

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUTENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
20...	3000	--	--	6990	1600	1400	21	11100	7.6	14.5
27...	5200	--	--	11000	2000	1900	32	16900	7.5	--
NOV.										
16...	7800	--	--	16400	3100	3000	38	25100	7.6	20.0
DEC.										
20...	9800	--	--	19800	3200	3100	48	31500	7.6	12.0
JAN.										
25...	8600	--	--	17800	3400	3300	--	26700	7.6	10.0
FEB.										
02...	540	.4	1.2	3460	2000	1800	3.1	4870	7.8	--
28...	6500	--	--	14400	3000	2900	--	22300	7.7	--
APR.										
03...	8800	--	--	78400	4400	4300	--	28200	7.7	13.0
MAY										
09...	13000	--	--	25300	3900	3800	--	38800	7.8	19.0
JUNE										
13...	11000	--	--	22200	5000	4900	--	33600	7.7	25.5
19...	4600	.7	.2	10200	2100	2000	29	17200	7.9	34.5
JULY										
18...	5500	--	--	12000	2600	2500	--	17800	7.9	25.0
SEP.										
25...	5100	--	--	10900	2100	2000	--	16100	8.0	30.0

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDT (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
OCT.										
27...	0830	109	.00	.00	.00	.00	.00	.00	.00	.00
FEB.										
02...	1200	7.0	.00	.00	.00	.00	.00	.00	.00	.00
JUNE										
19...	1850	44	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT.									
27...	.00	.0	.00	.00	.00	.00	.00	.00	.00
FEB.									
02...	.00	.0	.00	.00	.00	.00	.00	.00	.00
JUNE									
19...	.00	.0	.00	.00	.00	.00	.00	.02	.00

07300000 SALT FORK RED RIVER NEAR WELLINGTON, TEX.

LOCATION.--Lat 34°57'27", long 100°13'14", Collingsworth County, at gaging station at bridge on U.S. Highway 83, 4 miles downstream from Fort Worth and Denver (Burlington) Railway Co. bridge, 4.5 miles south of Lutie, and 7.2 miles north of Wellington.

DRAINAGE AREA.--1,222 sq mi, of which 209 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.
Water temperatures: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
05...	6.8	--	540	61	--	230	--	104	0	1600
18...	402	--	210	33	--	81	--	116	0	550
27...	21	--	300	76	--	190	--	172	0	910
NOV.										
04...	8.4	20	550	85	--	190	--	188	0	1500
22...	43	16	460	86	--	190	--	180	0	1300
DEC.										
04...	115	--	290	67	--	250	--	172	0	900
20...	18	--	460	81	--	240	--	184	0	1300
JAN.										
10...	26	18	380	110	--	160	--	112	0	1200
23...	25	16	450	97	--	190	--	84	0	1400
FEB.										
07...	13	--	450	100	--	160	--	154	0	1300
26...	14	--	490	100	--	180	--	172	0	1400
MAR.										
11...	7.3	11	490	82	--	190	--	112	0	1400
APR.										
15...	7.3	--	500	81	--	170	--	164	0	1400
30...	266	--	220	40	--	88	--	146	0	560
MAY										
12...	5480	--	--	--	--	--	--	--	--	--
13...	64	--	230	--	--	--	--	--	--	700
29...	1050	--	110	--	--	--	--	120	0	91
30...	61	--	250	53	--	200	--	144	0	760
JUNE										
14...	954	--	140	18	--	54	--	102	0	320
16...	68	--	380	74	--	200	--	148	0	1100
24...	56	--	340	54	--	160	--	124	0	940
JULY										
09...	46	--	210	53	--	91	--	128	0	600
18...	5.4	--	540	100	--	220	--	76	0	1600
28...	4.2	--	520	100	--	130	--	76	0	1600
AUG.										
08...	3.0	--	570	82	--	130	--	88	0	1600
28...	5.4	--	560	86	--	190	--	92	0	1600
31...	41	--	220	27	--	43	--	104	0	510
SEPT.										
02...	68	--	370	72	--	170	--	140	0	1000
17...	5.4	--	550	100	--	130	--	124	0	1600
27...	11	--	550	100	--	170	--	148	0	1600

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	845.0	2340	1710	126	3900	230	17	525	860	63	1960
NOV.	561.3	3200	2590	131	3930	290	15	439	1400	71	2120
DEC.	952	2980	2260	187	5810	330	27	848	1140	95	2930
JAN. 1972, ..	543	3200	2460	116	3610	320	15	469	1340	63	1960
FEB.	425	3160	2560	101	2940	290	11	333	1430	57	1640
MAR.	252.7	3190	2610	57	1780	270	5.9	184	1490	33	1020
APR.	934.2	2060	1590	134	4010	170	14	429	870	73	2190
MAY	3693.9	1690	1190	383	11900	170	55	1700	590	190	5880
JUNE	2208	1730	1220	242	7270	170	34	1010	610	121	3640
JULY	1526.3	2130	1590	211	6550	190	25	783	860	114	3540
AUG.	334.3	2160	1610	47	1450	190	5.5	171	870	25	785
SEP.	630.9	2660	2060	117	3510	300	17	511	1080	61	1840
TOTAL	12906.6	--	--	--	56700	--	--	7400	--	--	29500
WTD. AVG.	35.3	2180	1620	155	--	210	20	--	850	81	--

RED RIVER BASIN

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07300000 SALT FORK RED RIVER NEAR WELLINGTON, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 3,530 micromhos Oct. 31; minimum daily, 995 micromhos June 14.

Water temperatures: Maximum, 37.0°C June 17; minimum, freezing point Jan. 14, 28, Feb. 3.

EXTREMES, October 1967 to September 1972.--Specific conductance: Maximum daily, 4,190 micromhos May 11, 1970; minimum daily, 900 micromhos Apr. 18, 1970.

Water temperatures: Maximum, 37.0°C July 13, 1969, June 17, 1972; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	OIS-SOLVED CHLORIDE (MG/L)	OIS-SOLVED FLUORIDE (MG/L)	TOTAL NITRATE (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
05...	240	--	--	2730	1600	1500	2.5	3180	7.5
18...	120	--	--	1050	660	560	1.4	1460	7.5
27...	270	--	--	1830	1100	920	2.5	2510	7.8
NOV.									
04...	300	.5	1.5	2740	1700	1600	2.0	3320	7.9
22...	300	.5	1.0	2440	1500	1400	2.2	3070	7.9
DEC.									
04...	320	--	--	1910	1000	860	3.4	2670	8.0
20...	320	--	--	2520	1500	1300	2.7	3200	7.6
JAN.									
10...	310	--	1.0	2210	1400	1300	1.9	2950	7.8
23...	370	--	1.1	2480	1500	1400	2.2	3220	7.7
FEB.									
07...	260	--	--	2390	1600	1400	1.7	2980	7.8
26...	280	--	--	2600	1600	1500	2.0	3200	7.9
MAR.									
11...	260	--	1.2	2540	1600	1500	2.1	3110	7.8
APR.									
15...	240	--	--	2500	1600	1400	1.9	3000	7.9
30...	130	--	--	1100	700	580	1.4	1590	7.9
MAY									
12...	97	--	--	--	600	--	--	1350	--
13...	210	--	--	--	840	--	--	2010	8.0
29...	--	--	--	--	320	230	--	775	8.0
30...	260	--	--	1600	840	720	3.0	2290	8.1
JUNE									
14...	76	--	--	657	410	330	1.2	995	7.9
16...	300	--	--	2120	1200	1100	2.5	2760	8.0
24...	240	--	--	1790	1100	970	2.1	2360	8.1
JULY									
09...	150	--	--	1170	740	640	1.5	1610	8.2
18...	330	--	--	2850	1800	1700	2.3	3380	7.9
28...	220	--	--	2560	1700	1700	1.3	3060	7.9
AUG.									
08...	200	--	--	2640	1800	1700	1.3	3050	7.8
28...	260	--	--	2800	1800	1700	2.0	3240	7.8
31...	95	--	--	950	660	580	.7	1330	8.0
SEP.									
02...	280	--	--	2000	1200	1100	2.1	2590	8.1
17...	230	--	--	2660	1800	1700	1.3	3120	7.9
27...	300	--	--	2760	1800	1700	1.7	3330	7.9

RED RIVER BASIN

07300000 SALT FORK RED RIVER NEAR WELLINGTON, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3210	3260	3330	3160	3330	3290	3080	3210	3080	3340	3050	2890
2	3190	3300	3150	3390	3380	3270	3170	3100	3100	3200	3090	2590
3	3210	3320	3420	3360	3430	3150	3250	3160	3090	2500	2990	2800
4	3230	3320	2670	3330	2910	3190	3150	3100	3070	1700	3010	3100
5	3180	3290	2700	3310	3100	3170	3140	2300	3040	2650	3000	3410
6	3170	3200	2850	3270	3050	3150	3140	2650	3000	3100	2990	3340
7	3190	3200	2970	3380	2980	3260	3180	2860	3140	3180	3030	3200
8	3140	3320	2990	3160	3220	3160	3180	3150	3110	2000	3050	3150
9	3140	3310	3030	3050	3240	3200	3210	3060	3100	1500	2890	3110
10	3160	3290	3060	2950	3010	3170	3140	3080	3090	2880	2970	3190
11	3160	3300	3030	3120	3040	3110	3190	2200	3000	3000	3040	3080
12	3170	3300	3050	3200	3280	3160	3250	1350	2980	3240	3060	3110
13	3140	3300	3160	3220	2940	3200	3130	2010	1500	3170	3100	3110
14	3070	3200	2990	3250	2940	3130	3040	2400	995	3220	2910	3030
15	3100	3200	2650	3350	3040	3220	3000	2750	2000	3250	3370	3090
16	3120	3350	2830	3280	3200	3250	3120	3100	2760	3240	3120	3130
17	3150	3040	3040	3110	3270	3160	3030	3260	3210	3190	3070	3120
18	1500	2790	3170	3120	3180	3160	3040	3330	3230	3250	3020	3110
19	2360	3000	3180	3150	3200	3220	3070	3180	3260	3330	3030	3100
20	3200	3300	3190	3090	3230	3200	3070	3220	3260	3140	3040	1900
21	3360	3290	3210	3140	3270	3200	3080	3200	3210	3190	3040	1810
22	3100	3000	3210	3200	3160	3180	3150	3180	3260	3140	3050	3200
23	2640	3340	3240	3220	3170	3160	3030	3340	3200	3070	2530	3370
24	2870	3100	3180	3200	3200	3190	3040	3370	2760	3160	3040	3350
25	3130	3250	3180	3150	3210	3240	3080	3410	3180	3100	2910	3320
26	3320	3360	3100	3220	3200	3210	3120	3310	3170	3140	2930	3320
27	2510	3310	3180	3230	3210	3170	3160	3260	3170	3160	2950	3330
28	3130	3340	3180	3250	3220	3140	3050	3300	3230	3060	3240	3250
29	2960	3360	3250	3070	3230	3150	1800	1550	3170	3110	3210	3350
30	3490	3340	3340	3160	---	3180	1500	2290	3240	3160	2800	3230
31	3530	---	3160	3140	---	3210	---	2750	---	3160	1330	---
MONTH	3050	3260	3090	3200	3170	3190	3020	2880	2940	2980	2960	3070

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	20.0	4.0	8.0	7.0	10.0	12.0	16.0	30.0	30.0	32.0	27.0
2	19.0	8.0	---	5.0	---	12.0	---	13.0	30.0	25.0	32.0	18.0
3	---	10.0	4.0	4.0	0.0	14.0	17.0	25.0	25.0	25.0	31.0	---
4	26.0	11.0	4.0	---	7.0	9.0	19.0	24.0	30.0	---	28.0	---
5	28.0	15.0	---	2.0	6.0	---	24.0	20.0	31.0	34.0	---	28.0
6	29.0	---	7.0	4.0	---	20.0	22.0	17.0	19.0	26.0	30.0	30.0
7	27.0	11.0	7.0	6.0	8.0	14.0	18.0	23.0	30.0	30.0	32.0	24.0
8	23.0	20.0	6.0	8.0	---	8.0	20.0	16.0	32.0	30.0	31.0	---
9	18.0	10.0	---	---	14.0	18.0	22.0	15.0	30.0	35.0	32.0	23.0
10	26.0	20.0	5.0	3.0	5.0	22.0	20.0	17.0	28.0	29.0	26.0	30.0
11	28.0	18.0	4.0	6.0	8.0	24.0	25.0	15.0	---	---	29.0	28.0
12	23.0	20.0	8.0	5.0	6.0	20.0	24.0	14.0	27.0	34.0	32.0	28.0
13	25.0	---	4.0	---	12.0	22.0	24.0	16.0	21.0	33.0	---	30.0
14	18.0	---	10.0	0.0	14.0	18.0	28.0	---	19.0	28.0	30.0	26.0
15	22.0	11.0	11.0	2.0	12.0	19.0	19.0	27.0	24.0	32.0	31.0	33.0
16	27.0	18.0	12.0	4.0	15.0	20.0	21.0	30.0	31.0	28.0	34.0	32.0
17	---	17.0	4.0	3.0	14.0	16.0	23.0	30.0	37.0	27.0	35.0	32.0
18	12.0	11.0	8.0	4.0	11.0	12.0	22.0	29.0	30.0	29.0	32.0	33.0
19	14.0	7.0	---	8.0	14.0	22.0	21.0	25.0	36.0	30.0	---	30.0
20	21.0	9.0	11.0	9.0	---	24.0	18.0	23.0	26.0	31.0	28.0	---
21	23.0	---	9.0	4.0	12.0	23.0	15.0	---	28.0	29.0	24.0	18.0
22	20.0	4.0	8.0	15.0	9.0	18.0	22.0	28.0	32.0	---	32.0	22.0
23	13.0	8.0	16.0	12.0	12.0	15.0	18.0	19.0	31.0	32.0	20.0	22.0
24	24.0	10.0	11.0	---	13.0	12.0	20.0	17.0	35.0	32.0	30.0	---
25	22.0	---	11.0	5.0	8.0	22.0	20.0	24.0	34.0	34.0	19.0	23.0
26	20.0	14.0	---	6.0	10.0	24.0	21.0	23.0	22.0	32.0	30.0	---
27	21.0	12.0	12.0	---	17.0	22.0	22.0	19.0	27.0	31.0	27.0	19.0
28	21.0	---	6.0	0.0	21.0	10.0	23.0	---	27.0	22.0	29.0	29.0
29	10.0	4.0	---	5.0	10.0	13.0	18.0	21.0	29.0	---	33.0	23.0
30	9.0	4.0	5.0	7.0	---	11.0	13.0	25.0	28.0	31.0	32.0	25.0
31	---	---	10.0	8.0	---	12.0	---	27.0	---	30.0	31.0	---
MONTH	21.0	12.0	8.0	5.5	10.5	17.0	20.5	21.5	28.5	30.0	29.5	26.5

RED RIVER BASIN

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07301200 McCLELLAN CREEK NEAR McLEAN, TEX.

LOCATION.--Lat 35°19'45", long 100°36'32", Gray County, at bridge on State Highway 273, 5 miles upstream from mouth, and 6.6 miles north of McLean.

DRAINAGE AREA.--759 sq mi, of which 299 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1964 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 18...	0930	15	20	52	17	110	172	0	120	120
FEB. 28...	1115	16	19	70	16	120	234	0	120	120
APR. 04...	1000	13	20	35	19	120	118	0	130	140
MAY 08...	1220	9.5	21	70	23	110	228	0	120	140
JUNE 13...	1030	45	20	56	17	120	188	8	100	140
JULY 18...	0930	22	19	64	20	110	208	0	110	140

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JAN. 18...	.6	.1	522	200	59	3.3	875	8.0	.5
FEB. 28...	.7	.2	590	240	48	3.3	967	8.1	13.0
APR. 04...	.6	.03	529	170	69	4.1	898	8.2	9.5
MAY 08...	.7	.01	597	270	83	2.9	977	8.3	24.5
JUNE 13...	.6	.3	558	210	42	3.6	955	8.4	23.0
JULY 18...	.7	.01	558	240	70	3.0	947	8.2	22.5

RED RIVER BASIN

07301300 NORTH FORK RED RIVER NEAR SHAMROCK, TEX.

LOCATION.--Lat 35°15'51", long 100°14'29", Wheeler County, at gaging station at bridge on U.S. Highway 83, 2.5 miles north of Shamrock, 16 miles upstream from Oklahoma-Texas State line, and 23 miles downstream from McClellan Creek.

DRAINAGE AREA.--1,082 sq mi, of which 379 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1964 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED CHARGE (CF5)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 16...	1500	3.5	9.3	320	61	250	78	0	810	480
DEC. 21...	0900	13	18	250	48	250	160	0	560	460
JAN. 18...	1045	118	15	180	39	200	88	0	420	390
FEB. 25...	1600	7.9	18	220	59	230	56	0	540	480
FEB. 29...	0900	6.9	15	270	36	280	137	0	650	450
JUNE 14...	0930	162	15	250	28	180	152	0	520	320
AUG. 22...	1715	132	21	120	22	97	240	0	190	150

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 16...	.5	.1	1970	1050	990	3.3	2920	7.6	18.0
DEC. 21...	.6	.5	1670	820	690	3.8	2560	7.7	.0
JAN. 18...	.5	.6	1300	620	550	3.5	1940	7.8	.5
FEB. 25...	.5	.2	1570	790	740	3.5	2260	7.7	8.5
FEB. 29...	.6	.01	1770	820	710	4.2	2470	7.7	5.5
JUNE 14...	.5	1.4	1400	740	620	2.9	2040	7.8	20.0
AUG. 22...	.6	1.1	722	400	200	2.1	1150	7.8	30.0

RED RIVER BASIN

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07301410 SWEETWATER CREEK NEAR KELTON, TEX.

LOCATION.--Lat 35°28'23", long 100°07'14", Wheeler County, at gage at bridge on Farm Road 592, 5 miles north of Kelton, 8 miles upstream from Texas-Oklahoma State line and 8.5 miles northeast of Wheeler.

DRAINAGE AREA.--287 sq mi, of which 20 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 17...	1645	12	27	78	21	54	294	0	100	32
DEC. 21...	1100	11	23	84	22	55	316	0	110	32
JAN. 26...	1010	12	25	66	23	51	236	0	120	32
FEB. 29...	1045	12	19	90	23	47	296	0	130	32
APR. 05...	1100	9.0	19	52	22	53	152	0	160	31
MAY 16...	1130	15	28	96	24	51	340	0	120	28
JUNE 14...	1145	12	26	90	22	53	296	0	140	30
JULY 19...	0930	1.8	20	100	38	57	152	0	340	42
AUG. 23...	1020	.15	26	110	33	84	188	0	340	63

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 17...	.5	.6	464	280	39	1.4	711	8.1	17.0
DEC. 21...	.6	.5	481	300	41	1.4	745	8.0	3.5
JAN. 26...	.6	.7	440	260	66	1.4	684	8.0	4.0
FEB. 29...	.6	.6	486	320	78	1.1	757	8.0	9.5
APR. 05...	.6	.3	412	220	96	1.6	612	8.2	13.0
MAY 16...	.7	1.2	520	340	62	1.2	770	8.3	19.5
JUNE 14...	.6	.7	507	320	72	1.3	766	8.2	23.5
JULY 19...	.6	.00	671	410	286	1.2	991	8.2	22.5
AUG. 23...	.5	.2	757	420	270	1.8	1070	8.3	22.5

RED RIVER BASIN

07307800 PEASE RIVER NEAR CHILDRESS, TEX.

LOCATION.--Lat 34°13'39", long 100°04'24", Cottle County, at gaging station at bridge on Farm Road 104, 0.8 mile upstream from Catfish Creek, 4.4 miles downstream from confluence of North and Middle Forks, and 17 miles southeast of Childress.

DRAINAGE AREA.--3,000 sq mi, of which 800 sq mi is probably noncontributing

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1972.

Water temperatures: July 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.								
05...	0830	18	980	140	5100	148	0	2500
20...	0600	47	520	98	2500	128	0	1300
24...	1100	230	260	73	1000	172	0	690
27...	1500	30	650	120	3300	132	0	1600
NOV.								
01...	1800	56	760	130	4000	162	0	1900
17...	1400	8.5	1100	170	6200	160	0	2700
26...	1730	18	1200	200	7500	164	0	2900
DEC.								
07...	1100	51	680	110	3800	174	0	1800
14...	1800	36	880	200	4900	156	0	2300
25...	1600	13	1100	200	7100	152	0	2900
JAN.								
03...	1600	9.9	1000	200	5800	132	0	2600
30...	1700	5.4	1200	230	8000	164	0	3100
FEB.								
03...	0704	4.8	1200	260	6900	200	0	3100
25...	1700	5.4	1200	260	8200	152	0	3200
29...	0930	4.4	1100	240	6500	172	0	3000
MAR.								
10...	1800	3.6	1200	230	7500	154	0	3100
25...	1600	2.4	1200	230	6200	178	0	2900
APR.								
10...	1430	14	800	110	2600	124	0	2000
18...	1800	.31	1100	140	5200	120	0	2900
24...	1800	.19	1400	260	8400	136	0	3500
30...	1800	386	700	86	2100	188	0	1800
MAY								
08...	1830	378	350	84	1000	100	0	1100
12...	1230	1770	240	28	340	92	0	560
13...	1900	520	280	57	920	124	0	750
25...	1800	5.4	1100	230	7600	106	0	2900
JUNE								
14...	0900	4750	230	20	440	112	0	560
16...	2030	424	230	34	660	146	0	600
25...	1930	18	750	130	3700	128	0	1900
30...	2100	.40	1000	190	4800	136	0	2700
JULY								
04...	1900	712	260	27	520	104	0	640
19...	0830	2.4	1000	230	6300	88	0	2900
29...	1930	.19	890	93	3800	86	0	2400
AUG.								
03...	2100	.15	1300	250	7700	116	0	3300
09...	2030	16	390	45	1400	96	0	940
16...	2100	29	390	45	1200	116	0	960
30...	2000	22	490	92	2100	144	0	1200
SEP.								
05...	1100	1760	140	21	240	176	0	300
29...	0930	14	640	64	1900	96	0	1800

RED RIVER BASIN

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07307800 PEAASE RIVER NEAR CHILDRESS, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 42,600 micromhos Mar. 23, 24; minimum daily 2,000 micromhos Sept. 5.
 Water temperatures: Maximum, 32.0°C June 25; minimum, 1.0°C Jan. 4, 15, Feb. 3.

EXTREMES, July 1968 to September 1972.--Specific conductance: Maximum daily, 42,900 micromhos May 28, 1971; minimum daily, 2,000 micromhos Sept. 5, 1972.
 Water temperatures: Maximum, 37.0°C Aug. 10, 12, 14, 15, 1969; minimum, freezing point Feb. 7, 1971.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.							
05...	8000	16700	3000	2900	40	25700	7.5
20...	4000	8440	1700	1600	26	13500	7.4
24...	1600	3790	950	810	15	6360	7.6
27...	5300	11100	2100	2000	31	18100	7.5
NOV.							
01...	6400	13300	2400	2300	35	20300	7.5
17...	10000	20300	3500	3400	46	29100	7.7
26...	12000	23900	3700	3600	53	36200	7.6
DEC.							
07...	6000	12400	2200	2000	36	19300	7.7
14...	7800	16200	3000	2900	39	24900	7.9
25...	11000	22600	3500	3400	52	34600	7.6
JAN.							
03...	9200	19000	3400	3200	44	28600	7.9
30...	13000	25400	4000	3800	55	38100	7.9
FEB.							
03...	11000	22900	4200	4000	47	34500	7.8
25...	13000	26200	4200	4000	56	39900	7.7
29...	10000	21300	3800	3600	46	32500	7.9
MAR.							
10...	12000	24100	4000	3900	52	36100	7.8
25...	10000	20600	3900	3600	43	31300	7.9
APR.							
10...	4300	9880	2400	2400	23	15300	7.8
18...	8200	17600	3300	3200	39	25700	7.8
24...	14000	27100	4500	4400	54	40400	--
30...	3300	8010	2100	2000	20	12300	7.9
MAY							
08...	1700	4280	1200	1000	13	6770	8.1
12...	550	1760	700	620	5.6	2760	8.0
13...	1400	3520	920	820	13	5850	8.0
25...	12000	23800	3600	3500	--	34000	7.8
JUNE							
14...	670	1980	650	560	7.6	3110	8.0
16...	1000	2600	710	590	11	4160	8.2
25...	6000	12600	2400	3700	--	19900	7.7
30...	7700	16400	3300	3200	--	25200	7.9
JULY							
04...	800	2300	760	680	8.2	3530	8.1
19...	10000	20400	3600	3500	--	29800	7.8
29...	5900	13100	2600	2500	--	19900	7.9
AUG.							
03...	12000	25000	4300	4200	--	37200	7.8
09...	2200	5080	1200	1100	18	8350	8.0
16...	2000	4640	1200	1100	16	7540	8.1
30...	3400	7420	1600	1500	--	12000	8.1
SEP.							
05...	360	1150	430	290	5.1	1920	7.9
29...	2900	7290	1900	1800	--	10800	7.5

RED RIVER BASIN

07307800 PEASE RIVER NEAR CHILDRESS, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS PER DAY TONS	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE PER DAY TONS	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE PER DAY TONS	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	4111.5	12300	7640	2740	84800	3390	1210	37600	1380	493	15300
NOV.	526.4	28400	19500	922	27700	9610	455	13700	2550	121	3630
DEC.	893	25200	16400	1270	39400	7950	618	19200	2280	178	5510
JAN. 1972, ..	250.8	31900	20900	458	14200	10300	226	6990	2790	61	1890
FEB.	181.6	34400	22600	382	11100	11100	188	5460	3020	51	1480
MAR.	92.8	34500	22900	185	5750	11300	92	2840	3040	25	762
APR.	120.19	20000	13000	141	4230	5960	65	1940	2250	24	732
MAY	6867.3	6900	4310	2580	79900	1810	1080	33500	880	525	16300
JUNE	4632.80	5070	3180	1320	39700	1290	538	16100	680	284	8510
JULY	3970.18	6160	4000	1380	42900	1660	573	17800	850	296	9160
AUG.	1404.74	6510	3940	483	15000	1630	199	6170	850	104	3220
SEP.	3789.91	3870	2430	830	24900	820	281	8420	680	232	6950
TOTAL	26841.22	--	--	--	390000	--	--	170000	--	--	73400
WTD. AVG.	73.3	8460	5380	1060	--	2340	464	--	1010	201	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18000	20300	25600	31300	38500	33800	35000	10300	30000	24600	36900	12000
2	20900	19900	26100	31400	36600	32800	38000	18300	27300	25000	37100	5000
3	22000	23000	26100	28600	34500	32900	41700	21500	36600	5000	37200	4000
4	24000	26200	18400	28500	31900	33000	32300	30000	36700	8000	36000	2650
5	25700	26500	34100	32600	31800	31900	32900	37400	23700	10000	36000	2000
6	28000	26900	18300	32600	32700	33000	32100	16700	24400	12400	35300	3500
7	32200	28000	19300	32400	32000	33100	32600	5290	24500	23800	35400	4000
8	18600	29300	19200	31400	32100	32800	33600	6770	24600	23600	33900	8000
9	21600	28800	21100	31300	31300	32000	33800	9080	24800	4500	8000	11000
10	26400	31000	21100	31400	31400	36100	15300	6020	23700	3990	9000	11000
11	26400	33000	22800	31500	31300	33600	42000	11000	21800	4050	16400	13400
12	35500	35800	22800	31500	33000	33400	30200	3840	21800	10000	22300	18600
13	35600	29500	24800	31600	33300	33400	30300	5850	37500	13500	23000	20500
14	35700	28800	24900	31000	33300	38000	30300	11000	3330	20000	10000	21900
15	35900	28800	25500	30900	33700	41400	33300	11600	3500	27100	3500	20300
16	36000	29600	26300	31100	33800	33700	33400	14000	4160	23000	6000	21400
17	30000	29100	24500	33300	33700	35800	25800	16700	6960	22000	11700	21300
18	12700	33200	24400	35000	31900	36000	25700	19000	22900	21400	22100	20100
19	15300	32400	24300	37500	32300	33800	25800	24400	23000	29800	26400	20100
20	13000	36200	29700	31600	32200	33400	31300	29700	26900	17600	26600	20300
21	18500	36900	29600	32200	33100	33200	31000	30100	26500	20000	27000	21000
22	23500	33200	33800	32600	40000	42500	30200	34000	3880	25000	25900	22000
23	14700	31700	33700	31600	39800	42600	30100	18200	7390	32600	29700	23000
24	6360	36800	34600	32000	39900	42600	40400	29500	12500	33900	12000	24000
25	12000	36200	34600	30700	39900	31300	40300	34000	19900	33400	5000	25000
26	15300	36200	34700	31500	41000	31300	25000	30300	31400	33300	9000	27000
27	18100	36700	31700	31900	41000	31300	25000	30600	31500	33300	12400	28000
28	17100	29100	35200	32200	41000	32400	39500	24800	25500	33400	18300	29100
29	5880	29100	29200	30800	32500	32400	39400	14900	33400	34000	24800	11000
30	6020	29200	29900	38100	---	33300	15300	21800	25200	35000	12000	18100
31	12200	---	33200	38200	---	33400	---	35800	---	36000	19300	---
MONTH	21390	30340	27080	32200	34810	34520	31720	19760	22180	21910	21550	16310

RED RIVER BASIN

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07307800 PEASE RIVER NEAR CHILDRESS, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	19.0	3.0	11.0	14.0	14.0	17.0	24.0	26.0	27.0	29.0	26.0
2	20.0	18.0	5.0	12.0	8.0	8.0	22.0	22.0	27.0	---	28.0	24.0
3	20.0	17.0	5.0	5.0	1.0	12.0	18.0	18.0	26.0	23.0	25.0	21.0
4	23.0	20.0	6.0	1.0	2.0	10.0	18.0	23.0	26.0	23.0	28.0	24.0
5	19.0	18.0	7.0	5.0	6.0	17.0	20.0	20.0	26.0	23.0	25.0	24.0
6	23.0	13.0	8.0	9.0	6.0	13.0	26.0	23.0	27.0	23.0	27.0	27.0
7	24.0	14.0	8.0	10.0	7.0	15.0	18.0	18.0	28.0	27.0	25.0	31.0
8	21.0	16.0	5.0	11.0	9.0	22.0	18.0	23.0	27.0	28.0	27.0	31.0
9	19.0	16.0	9.0	10.0	8.0	14.0	23.0	22.0	26.0	28.0	27.0	29.0
10	16.0	18.0	10.0	12.0	12.0	23.0	29.0	18.0	27.0	24.0	26.0	28.0
11	27.0	15.0	12.0	12.0	5.0	22.0	25.0	18.0	28.0	30.0	28.0	29.0
12	23.0	17.0	10.0	11.0	6.0	25.0	26.0	19.0	23.0	31.0	26.0	28.0
13	22.0	19.0	9.0	6.0	12.0	23.0	24.0	21.0	28.0	29.0	---	27.0
14	22.0	15.0	7.0	12.0	12.0	14.0	21.0	22.0	22.0	31.0	---	27.0
15	25.0	15.0	9.0	1.0	13.0	23.0	15.0	26.0	23.0	30.0	25.0	28.0
16	24.0	19.0	8.0	3.0	16.0	24.0	18.0	20.0	26.0	29.0	29.0	24.0
17	22.0	16.0	9.0	7.0	17.0	22.0	21.0	21.0	26.0	29.0	27.0	28.0
18	16.0	16.0	9.0	8.0	7.0	22.0	26.0	25.0	29.0	28.0	29.0	24.0
19	17.0	15.0	10.0	15.0	10.0	19.0	25.0	22.0	28.0	27.0	28.0	27.0
20	21.0	17.0	9.0	12.0	12.0	23.0	22.0	30.0	27.0	28.0	28.0	25.0
21	16.0	16.0	8.0	7.0	16.0	20.0	22.0	28.0	29.0	29.0	26.0	19.0
22	17.0	14.0	17.0	8.0	12.0	19.0	21.0	24.0	29.0	30.0	27.0	24.0
23	19.0	14.0	20.0	8.0	14.0	20.0	20.0	27.0	30.0	27.0	28.0	21.0
24	14.0	13.0	19.0	8.0	13.0	17.0	20.0	25.0	26.0	30.0	29.0	28.0
25	16.0	14.0	21.0	6.0	17.0	20.0	18.0	24.0	32.0	30.0	26.0	27.0
26	20.0	16.0	20.0	6.0	14.0	21.0	19.0	23.0	30.0	31.0	28.0	24.0
27	23.0	15.0	19.0	2.0	12.0	15.0	18.0	28.0	29.0	31.0	24.0	27.0
28	21.0	6.0	11.0	3.0	17.0	19.0	21.0	28.0	30.0	28.0	30.0	29.0
29	16.0	5.0	11.0	5.0	13.0	15.0	19.0	23.0	29.0	31.0	29.0	20.0
30	17.0	7.0	10.0	7.0	---	16.0	22.0	23.0	27.0	30.0	27.0	25.0
31	14.0	---	13.0	6.0	---	11.0	---	28.0	---	23.0	27.0	---
MONTH	20.0	15.0	10.5	7.5	10.5	18.0	21.0	23.0	27.0	28.0	27.0	26.0

RED RIVER BASIN

07308200 PEASE RIVER NEAR VERNON, TEX.

LOCATION.--Lat 34°10'44", long 99°16'40", Wilbarger County, at gaging station at bridge on U.S. Highway 283, 1.9 miles north of Vernon, and 10 miles upstream from mouth.

DRAINAGE AREA.--3,448 sq mi, of which 559 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
13...	1100	38	19	430	60	1800	112	0	1100	2900
20...	1430	153	10	330	43	1200	106	0	1000	1800
NOV.										
16...	1115	15	10	750	80	3000	116	0	1700	4900
DEC.										
21...	1500	34	10	780	160	3800	128	0	2100	6200
JAN.										
25...	1545	10	8.8	790	180	3300	76	0	2000	5600
FEB.										
28...	1145	4.6	7.9	820	160	3000	152	0	2000	5000
APR.										
03...	1020	1.3	7.9	640	160	2300	96	0	1700	3800
MAY										
08...	1450	376	12	390	55	670	104	0	1000	1100
JUNE										
13...	1455	1.2	12	670	140	2400	128	0	1800	3900
AUG.										
22...	1010	5.1	11	380	95	1200	80	0	1000	2100
SEP.										
25...	1735	15	10	400	98	970	116	0	1000	1600

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
13...	--	--	6390	1300	1200	22	10400	7.8	16.5
20...	--	1.2	4440	1000	910	17	6810	7.5	19.0
NOV.									
16...	--	--	10500	2200	2100	28	15800	7.6	18.0
DEC.									
21...	.4	--	13100	2600	2500	32	20800	7.7	13.0
JAN.									
25...	--	--	11800	2700	2600	--	18100	7.6	11.0
FEB.									
28...	--	--	11200	2700	2600	25	17400	7.8	17.0
APR.									
03...	--	--	8610	2200	2200	--	13300	7.7	15.0
MAY									
08...	--	2.0	3260	1200	1100	8.4	5000	7.9	23.0
JUNE									
13...	--	--	8990	2200	2100	--	13700	7.7	30.0
AUG.									
22...	--	.2	4890	1400	1300	--	7560	8.0	25.0
SEP.									
25...	--	--	4220	1400	1300	11	6600	8.1	24.0

RED RIVER BASIN

63

07308400 CHINA CREEK NEAR ELECTRA, TEX.

LOCATION.--Lat 34°06'20", long 98°53'58", Wichita County, at gaging station at bridge on county black-top road, 5.3 miles northeast of Electra.

DRAINAGE AREA.--37 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
NOV. 16...	0850	.02	8.2	400	270	1500	508	0	58
DEC. 20...	0925	1.2	4.0	430	220	1500	296	0	120
JAN. 25...	1700	.03	3.1	400	390	2200	100	0	190
FEB. 29...	1010	.12	3.4	250	260	1500	390	0	160
APR. 03...	1435	.07	4.5	130	190	1200	484	0	100
MAY 09...	1640	1.1	5.0	120	65	460	144	0	44

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 16...	3400	--	5840	2100	1700	14	11500	7.4	18.0
DEC. 20...	3400	--	5900	2000	1700	15	10800	7.7	9.0
JAN. 25...	5000	--	8220	2600	2500	--	14400	7.7	10.0
FEB. 29...	3200	--	5630	1700	1400	--	10100	7.9	13.0
APR. 03...	2200	--	4090	1100	720	15	7410	8.0	20.0
MAY 09...	1000	.9	1770	580	460	8.3	3180	8.0	24.0

RED RIVER BASIN

07308500 RED RIVER NEAR BURKBURNETT, TEX.

LOCATION.--Lat 34°06'30", long 98°32'00", Wichita County, at gaging station at bridge on U.S. Highways 277 and 281, 2 miles northeast of Burkburnett.

DRAINAGE AREA.--20,570 sq mi, of which 5,936 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1972.
Water temperatures: July 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.								
04...	0723	880	320	44	1100	140	0	780
19...	1800	275	190	40	680	136	0	440
31...	1400	6390	150	21	500	108	0	360
NOV.								
02...	1410	2620	260	55	900	148	0	650
10...	1315	425	350	99	1400	152	0	940
24...	1100	344	260	56	893	148	0	660
29...	1330	269	520	130	2500	226	0	1300
DEC.								
13...	1545	388	540	130	2800	228	0	1400
JAN.								
04...	1630	196	450	130	2000	212	0	1200
22...	1730	143	--	--	--	--	0	720
FEB.								
15...	0900	122	430	150	1700	208	0	1200
24...	0830	126	340	120	1400	224	0	940
MAR.								
14...	0745	71	400	140	1900	192	0	1200
26...	0845	136	200	59	740	152	0	520
28...	--	83	280	93	1200	178	0	770
APR.								
20...	0830	58	380	110	1600	180	0	1000
21...	0900	102	260	97	1100	156	0	540
22...	0900	60	240	87	1000	158	0	490
MAY								
01...	1600	5920	87	23	180	130	0	170
08...	0830	2550	240	51	650	136	0	610
13...	0800	11000	210	29	470	128	0	490
27...	1800	294	400	78	1300	144	0	1000
JUNE								
02...	1545	3680	240	34	410	112	0	620
08...	1530	351	340	48	700	110	0	880
18...	0630	4150	180	22	360	124	0	450
28...	1900	196	460	71	1800	124	0	1100
30...	1830	202	390	67	1300	136	0	990
JULY								
01...	0830	86	380	83	1400	140	0	980
14...	1600	1120	280	61	740	100	0	750
25...	0730	48	420	98	1600	100	0	1200
30...	0800	40	750	150	3100	100	0	1900
AUG.								
08...	1230	17	420	100	1600	108	0	1200
12...	1145	281	120	24	270	112	0	330
20...	1930	62	350	50	830	112	0	910
27...	2030	572	250	35	510	168	0	520
SEP.								
10...	2000	701	180	29	400	116	0	450
28...	0730	25	480	96	1900	124	0	1200

RED RIVER BASIN

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07308500 RED RIVER NEAR BURKBURNETT, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 17,400 micromhos July 30; minimum daily, 1,520 micromhos May 3.

Water temperatures: Maximum, 33.0°C Aug. 22; minimum, 0.5°C Feb. 4.

EXTREMES, July 1968 to September 1970, October 1971 to September 1972.--Specific conductance: Maximum daily, 17,400 micromhos July 30, 1972; minimum daily, 889 micromhos Sept. 24, 1970.

Water temperatures: Maximum, 35.0°C July 10, 1969; minimum, freezing point on Dec. 31, 1968, Jan. 18, 19, 20, 21, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DTS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SURP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.							
04...	1700	4000	980	870	15	6640	8.0
19...	1100	2520	640	530	12	4280	7.5
31...	780	1860	460	370	10	3170	7.2
NOV.							
02...	1400	3390	880	760	13	5720	7.9
10...	2200	5090	1300	1200	17	8520	7.4
24...	1400	3370	880	760	13	5870	7.9
29...	4000	8640	1800	1600	25	14000	7.9
DEC.							
13...	4600	9500	1900	1700	28	15000	7.9
JAN.							
04...	3200	7040	1700	1500	21	11400	8.2
22...	1400	--	--	--	--	6090	--
FEB.							
15...	2800	6350	1700	1500	18	10400	8.0
24...	2200	5140	1300	1200	16	9510	8.0
MAR.							
14...	3000	6690	1600	1400	21	11000	7.8
26...	1200	2780	740	620	12	4630	7.6
28...	2000	4380	1100	930	16	7460	7.6
APR.							
20...	2600	5850	1400	1200	19	9620	7.9
21...	2000	4100	1100	930	15	7160	8.0
22...	1800	3680	950	830	14	6380	7.9
MAY							
01...	300	826	310	200	4.5	1460	7.6
08...	1100	2690	820	710	9.9	4260	7.4
13...	740	2000	640	540	8.1	3180	7.2
27...	2100	4950	1300	1200	15	8230	7.3
JUNE							
02...	630	1990	740	650	6.6	3030	8.0
08...	1100	3150	1100	970	9.4	4580	7.8
18...	540	1620	540	440	6.8	2610	8.0
28...	2900	6440	1400	1300	--	10600	7.9
30...	2100	4890	1200	1100	16	8100	8.1
JULY							
01...	2300	5230	1300	1200	17	8410	8.2
14...	1200	3080	950	870	10	5070	8.1
25...	2600	5960	1400	1400	18	9570	8.0
30...	5200	11200	2500	2400	--	17400	7.9
AUG.							
08...	2600	5990	1500	1400	18	9580	7.9
12...	400	1200	410	320	5.8	2010	8.0
20...	1300	3490	1100	990	11	5680	8.0
27...	840	2240	770	630	7.9	3670	8.0
SEP.							
10...	620	1750	580	480	7.2	2780	7.7
28...	3000	6800	1600	1500	--	10800	7.9

RED RIVER BASIN

07308500 RED RIVER NEAR BURKBURNETT, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	28491	5590	3360	8330	258000	1430	3560	110000	650	1600	49600
NOV.	22357	6930	4160	8370	251000	1830	3690	111000	760	1530	46000
DEC.	17519	9610	5970	9110	282000	2800	4270	132000	900	1370	42600
JAN. 1972, ..	4642	10300	6410	2590	80300	2870	1160	36000	1110	447	13900
FEB.	3367	10200	6260	1960	56900	2750	864	25000	1160	364	10600
MAR.	2433	10100	6140	1300	40300	2760	586	18200	1080	228	7070
APR.	4900	6660	3870	1710	51200	1810	799	24000	590	260	7800
MAY	65635	4370	2580	14800	457000	1040	5920	183000	560	3230	100000
JUNE	31530	4110	2620	7430	223000	970	2760	82900	670	1910	57300
JULY	16011	9370	5830	8130	252000	2550	3550	110000	1110	1550	48200
AUG.	3386	3620	2210	652	20200	830	245	7580	540	160	4970
SEP.	13320	3360	2110	2530	75900	790	943	28300	530	636	19100
TOTAL	213591	--	--	--	2050000	--	--	868000	--	--	407000
WTD. AVG.	584	5830	3550	5600	--	1510	2370	--	700	1110	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3790	4000	10600	11900	11000	10000	10900	3510	7050	8410	13500	3420
2	6110	5720	10500	10600	11100	10700	11000	1680	3030	8590	13300	3700
3	7040	6000	10500	11100	11000	10800	11000	1520	3330	8900	12800	4000
4	6640	6300	10500	11400	11100	11000	11200	2880	3300	9350	12200	3600
5	5990	6600	10800	12300	11300	10900	11100	4370	3290	11200	11500	3130
6	7000	6900	11800	11100	10900	10900	11200	4610	3450	10200	11300	3060
7	8050	7470	12500	11600	11000	11300	11400	7420	3770	9050	10600	3710
8	8240	8200	12000	10700	10800	11400	11600	4690	4580	8970	9580	2620
9	8040	8520	11000	10600	10800	11400	11800	4570	4810	9570	9500	2850
10	8240	8520	13000	11100	10900	11000	11800	4120	6310	9660	8030	2780
11	8240	7530	14800	11700	10900	10900	12000	5280	7100	13000	2100	2920
12	8500	8270	14900	10600	10700	11000	12100	5430	7580	8240	2010	3360
13	8850	8270	15000	11000	10600	10900	12200	3380	7790	7910	2400	3810
14	9530	8510	15200	11000	10400	11000	12300	4930	7470	5080	2990	4790
15	8940	8510	14700	11000	10400	11000	11700	4910	6570	7940	3140	5960
16	8940	7500	8780	10800	10700	11100	12500	3730	5170	8250	3050	6880
17	4300	9000	5590	10900	11000	11100	12700	3310	3200	8500	3520	7270
18	4340	9000	5490	10800	11200	11300	13100	3620	2610	8970	5800	7820
19	4280	14000	6470	10800	11400	11300	11000	4290	3780	10900	6510	7980
20	3720	15000	10200	10900	11100	11600	9620	5300	3340	9570	5680	8540
21	4340	11200	10300	6240	9040	11600	7160	6370	3630	9710	5750	7980
22	8860	11200	10300	6090	8580	11700	6380	6700	3610	9800	5830	8270
23	8900	11400	10400	10800	8580	11600	9100	7130	3800	9800	6110	7980
24	9000	11300	10500	6160	8510	11300	10200	7830	3990	9760	6560	8000
25	7530	11200	10400	10800	8550	7240	10900	7700	6740	9570	6000	8200
26	8900	12000	10600	6270	8690	4630	10800	7650	5860	9850	6820	7740
27	7570	12000	10600	9500	8880	6620	10600	8230	10600	10100	3670	8760
28	7530	12000	10700	9000	9060	7460	11100	8590	10600	10500	2370	10800
29	7530	14000	10800	10800	9450	9760	6970	8310	7530	12200	2060	9280
30	3210	14000	10800	10800	---	10300	5200	9340	8100	17400	3130	8800
31	3170	---	11000	11000	---	10900	---	7210	---	13900	2560	---
MONTH	6950	9470	10990	10300	10260	10150	10690	5440	5400	9830	6460	5930

RED RIVER BASIN

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07308500 RED RIVER NEAR BURKBURNETT, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	24.0	6.0	3.0	---	13.0	---	21.0	13.0	28.0	---	22.0
2	22.0	21.0	4.0	6.0	---	10.0	---	23.0	27.0	32.0	31.0	---
3	20.0	17.0	6.0	10.0	---	---	16.0	25.0	25.0	---	30.0	---
4	18.0	22.0	4.0	8.0	0.5	13.0	9.0	23.0	---	23.0	27.0	---
5	24.0	23.0	6.0	7.0	---	---	12.0	21.0	25.0	21.0	27.0	22.0
6	15.0	13.0	7.0	4.0	---	7.0	18.0	18.0	23.0	21.0	29.0	22.0
7	23.0	10.0	6.0	7.0	---	17.0	17.0	23.0	23.0	27.0	30.0	25.0
8	18.0	8.0	7.0	9.0	---	---	13.0	17.0	28.0	22.0	30.0	26.0
9	22.0	9.0	6.0	4.0	---	9.0	20.0	17.0	22.0	29.0	---	25.0
10	25.0	15.0	5.0	8.0	---	20.0	24.0	18.0	21.0	31.0	27.0	30.0
11	21.0	16.0	8.0	11.0	---	20.0	---	18.0	21.0	28.0	28.0	30.0
12	20.0	18.0	11.0	12.0	---	22.0	27.0	18.0	27.0	26.0	26.0	---
13	15.0	17.0	7.5	5.0	---	14.0	24.0	19.0	28.0	29.0	---	30.0
14	22.0	11.0	14.0	10.0	7.0	13.0	27.0	18.0	30.0	29.0	27.0	31.0
15	23.0	12.0	15.0	11.0	5.0	14.0	19.0	20.0	29.0	25.0	24.0	30.0
16	18.0	14.0	16.0	11.0	7.0	10.0	26.0	20.0	27.0	---	23.0	31.0
17	23.0	15.0	5.0	12.0	7.0	11.0	15.0	22.0	---	---	25.0	27.0
18	22.0	14.0	6.0	9.0	9.0	13.0	16.0	23.0	23.0	27.0	24.0	25.0
19	23.0	13.0	7.0	11.0	8.0	18.0	20.0	22.0	27.0	27.0	25.0	25.0
20	19.0	14.0	11.0	7.0	11.0	23.0	20.0	---	28.0	28.0	31.0	27.0
21	22.0	8.0	4.0	10.0	11.0	23.0	16.0	24.0	24.0	---	---	19.0
22	23.0	9.0	10.0	11.0	8.0	23.0	17.0	---	24.0	24.0	33.0	22.0
23	18.0	7.0	5.0	12.0	8.0	25.0	19.0	30.0	26.0	---	31.0	25.0
24	17.0	8.0	13.0	11.0	11.0	16.0	14.0	29.0	26.0	32.0	30.0	---
25	19.0	8.0	15.0	10.0	18.0	13.0	13.0	---	30.0	24.0	28.0	---
26	18.0	10.0	5.0	6.0	6.0	14.0	---	29.0	30.0	23.0	23.0	22.0
27	22.0	9.0	7.0	---	17.0	13.0	15.0	30.0	30.0	24.0	27.0	20.0
28	23.0	---	9.0	---	19.0	13.0	17.0	21.0	32.0	23.0	23.0	22.0
29	20.0	9.0	10.0	4.0	21.0	7.0	18.0	26.0	32.0	23.0	26.0	20.0
30	17.0	5.0	11.0	7.0	---	---	---	19.0	30.0	22.0	23.0	13.0
31	22.0	---	9.0	---	---	17.0	---	18.0	---	30.0	23.0	---
MONTH	20.5	13.0	8.0	8.5	---	15.0	18.0	22.0	26.0	26.0	27.0	24.5

RED RIVER BASIN

07311600 NORTH FORK WICHITA RIVER NEAR PADUCAH, TEX.

LOCATION.--Lat 33°57'02", long 100°03'52", Cottle County, at gaging station at bridge, 4 miles downstream from Cottonwood Creek, 7 miles downstream from Salt Creek, 12 miles upstream from Middle Fork, and 14 miles southeast of Paducah.

DRAINAGE AREA.--540 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.
Water temperatures: October 1967 to September 1972.

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 27,400 micromhos Aug. 4, 8; minimum daily, 871 micromhos Sept. 4.
Water temperatures: Maximum, 32.0°C June 23, Sept. 13; minimum, freezing point on several days during January and February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	HICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.								
01...	1800	12	620	140	3600	156	0	1800
15...	1330	10	820	200	4700	160	0	2400
31...	1800	14	480	110	2500	148	0	1400
NOV.								
02...	1000	13	610	140	3000	176	0	1400
11...	0900	12	900	200	4500	194	0	2400
DEC.								
21...	1300	9.7	850	190	4800	204	0	2400
JAN.								
07...	1100	11	850	160	4500	162	0	2400
FEB.								
08...	1815	9.0	800	190	4100	192	0	2200
21...	1740	8.4	860	200	4600	176	0	2500
MAR.								
15...	1800	8.4	880	190	4800	160	0	2600
APR.								
01...	1830	12	880	190	4700	160	0	2500
23...	0830	9.7	920	140	5900	168	0	2700
MAY								
08...	1930	35	210	57	920	104	0	630
09...	1205	20	330	77	1400	130	0	940
14...	1930	14	380	81	2000	140	0	1100
28...	2030	16	520	110	2800	124	0	1500
JUNE								
04...	1600	10	680	150	3800	148	0	2000
16...	1830	33	240	56	740	112	0	690
24...	0740	15	730	160	4000	158	0	2100
JULY								
02...	2015	12	680	170	3700	100	0	2000
19...	1600	12	880	200	4800	114	0	2500
29...	0545	12	950	180	5100	96	0	2700
AUG.								
04...	0800	12	960	200	5700	124	0	2800
10...	1830	23	380	76	1700	126	0	1000
13...	1800	16	480	110	2500	152	0	1400
SEP.								
05...	1845	162	160	34	660	112	0	400
06...	1315	62	300	56	1400	136	0	760
19...	1800	9.0	360	80	1800	132	0	1000

RED RIVER BASIN

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07311600 NORTH FORK WICHITA RIVER NEAR PADUCAH, TEX.--Continued

EXTREMES, October 1967 to September 1972.--Dissolved solids (1967-68): Maximum, 18,000 mg/l Dec. 1-31, 1967; minimum, 695 mg/l June 17, 1968.

Hardness (1967-68): Maximum, 3,120 mg/l Dec. 1-31, 1967; minimum, 254 mg/l June 17, 1968.

Specific conductance: Maximum daily, 37,500 micromhos Sept. 22, 1968; minimum daily, 710 micromhos Sept. 25, 1971.

Water temperatures: Maximum, 33.0°C July 9, 30, 1970, June 16, 1971; minimum, freezing point on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.							
01...	5600	11900	2200	2000	34	18700	7.7
15...	7400	15700	2800	2700	38	24200	7.7
31...	4000	8560	1600	1500	27	13700	7.5
NOV.							
02...	5000	10300	2100	2000	29	17100	7.7
11...	7100	15100	2800	2600	37	23000	7.7
DEC.							
21...	7500	15800	2900	2700	39	23400	7.9
JAN.							
07...	7000	14900	2800	2700	37	23000	8.0
FEB.							
04...	6600	14000	2800	2600	34	21800	7.9
21...	7200	15500	3000	2800	37	24000	7.9
MAR.							
15...	7600	16200	3000	2800	38	24600	7.9
APR.							
01...	7400	15800	3000	2820	38	23900	7.8
23...	9000	14700	2900	2800	48	27100	7.7
MAY							
04...	1400	3310	760	680	15	5710	8.1
09...	2200	5010	1100	1000	18	8370	8.0
14...	3000	6600	1300	1200	--	10800	8.1
28...	4400	9390	1800	1600	--	15300	8.0
JUNE							
04...	5900	12500	2300	2200	--	19800	7.4
16...	1200	2930	820	730	11	4590	7.8
24...	6300	13400	2500	2400	--	20800	7.8
JULY							
02...	5900	12400	2400	2300	--	19600	7.9
19...	7600	16000	3000	2900	--	24700	7.9
29...	8000	17000	3100	3000	--	25600	7.8
AUG.							
04...	8900	18600	3200	3100	--	27400	7.7
10...	2700	5930	1300	1200	21	9810	7.4
13...	4000	8480	1600	1500	--	13700	8.1
SEP.							
05...	1000	2340	540	450	12	3830	8.0
06...	2100	4690	980	870	19	7890	8.0
19...	2900	6250	1200	1100	--	10200	7.5

RED RIVER BASIN

07311600 NORTH FORK WICHITA RIVER NEAR PADUCAH, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	409.6	19900	12700	454	14100	6040	216	6680	1940	69	2140
NOV.	273.5	22500	14800	364	10900	6950	171	5130	2350	58	1740
DEC.	336.8	22900	15400	453	14000	7330	215	6660	2370	69	2150
JAN. 1972, ..	311.0	23200	15100	408	12600	7080	192	5950	2410	65	2020
FEB.	260.8	23700	15300	372	10800	7160	174	5040	2480	60	1750
MAR.	279.4	24300	16000	390	12100	7510	183	5670	2540	62	1920
APR.	570.2	15800	10600	545	16400	4990	256	7680	1680	86	2580
MAY	993.6	8220	5150	445	13800	2330	201	6250	890	77	2400
JUNE	503.8	15300	9680	439	13200	4480	203	6100	1600	73	2180
JULY	405.7	20900	13500	477	14800	6390	226	7000	2130	75	2340
AUG.	558	21300	14100	687	21300	6710	326	10100	2150	104	3240
SEP.	3148.4	3280	2140	607	18200	930	265	7940	390	110	3310
TOTAL	8050.8	--	--	--	172000	--	--	80200	--	--	27800
WTD. AVG.	22.0	12100	7910	470	--	3690	219	--	1280	76	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18700	16000	22500	22900	23800	24500	23900	10400	19200	19200	26900	20000
2	20300	17100	22300	22000	23500	24500	24300	11000	19200	19600	27000	24000
3	20800	20500	22400	23200	23600	24600	24400	14800	19200	21300	27000	23000
4	21400	22700	22600	23400	23800	24400	24600	18100	19800	10000	27400	871
5	21800	22100	22400	23600	23600	24500	24400	20700	20200	14800	26600	895
6	22300	21200	22500	23300	23700	24500	24700	20000	20600	19200	26900	7890
7	22500	22700	22500	23000	23700	24500	24700	1800	21500	19200	26900	11600
8	23000	22700	22600	22900	21800	24700	24800	5710	21800	20400	27400	15600
9	22900	23000	23000	23100	23600	24500	24900	8370	22000	21200	21800	17600
10	23800	22900	22700	23100	23400	24400	25700	15900	22700	21100	9940	19000
11	23600	23000	23200	23000	23400	24400	25100	15900	23700	21000	9810	20200
12	23900	23000	22700	23100	23500	24500	25500	9590	23800	22200	13700	21000
13	24100	23300	23100	23500	23400	24700	26500	5330	24400	21900	13700	21100
14	24000	23300	23100	22300	23600	24400	25800	10800	13800	22600	21300	21000
15	24200	23200	22800	23400	23700	24600	26100	14300	5650	23400	22900	14000
16	24200	23400	23000	23400	23900	24400	25800	17100	4590	24300	20600	13500
17	24200	23200	22600	23600	23800	24500	24800	18600	8290	24000	20600	13500
18	24600	23800	23000	23400	23700	24600	26600	19100	21500	24500	23300	13000
19	23800	22700	23000	23500	23600	24400	26600	19100	22500	24700	23200	12000
20	20300	23100	23500	23400	24100	24600	24700	20300	22000	24200	25400	13000
21	21800	23600	23400	23300	24000	24500	27200	20300	21200	24200	25400	10000
22	21800	23500	22900	23200	24100	24700	27200	20200	15000	24300	24700	3560
23	23000	23500	23400	23500	24000	24700	27100	21500	17400	24800	24100	17900
24	22900	23600	23100	23400	23700	24400	26600	21700	20800	25300	24500	17900
25	18000	23400	23100	23300	23900	22700	26400	22000	19800	25700	23600	17900
26	19300	23200	23100	23200	24300	24400	26200	22700	19700	25700	22000	20400
27	19400	23700	23000	23500	24200	24000	26200	15500	19200	26500	20800	20000
28	22100	23700	23100	23400	24100	23600	26600	15300	19200	25800	21500	20700
29	15000	23900	23100	23300	24300	23900	23900	18000	19200	25600	19200	20400
30	10000	23900	23200	23400	---	23900	4120	18200	19700	25900	17600	21200
31	13700	---	23200	23400	---	24000	---	19700	---	26100	18900	---
MONTH	21340	22630	22910	23230	23720	24350	24850	15870	18920	22540	22090	15760

RED RIVER BASIN

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07311600 NORTH FORK WICHITA RIVER NEAR PADUCAN, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	18.5	---	9.0	1.5	15.0	21.5	21.0	25.0	23.0	24.0	28.0
2	22.0	14.5	---	10.5	0.5	11.5	21.5	18.5	25.0	29.0	26.0	22.0
3	20.0	13.0	---	5.5	0.0	15.5	18.0	16.5	21.0	27.0	27.0	---
4	19.0	15.5	---	0.0	4.5	7.0	13.0	18.5	27.0	---	25.0	---
5	25.0	18.5	---	0.0	0.0	7.0	14.5	21.0	24.0	25.0	27.0	25.0
6	22.0	10.0	---	0.0	7.0	18.5	20.0	---	25.0	28.0	25.0	25.0
7	20.0	10.5	9.5	4.5	1.0	15.5	21.0	---	26.0	22.0	29.0	24.0
8	20.0	9.5	4.5	6.0	7.0	15.0	---	---	25.0	28.0	24.0	31.0
9	19.0	10.0	5.5	5.5	4.5	18.5	21.5	20.0	27.0	28.0	29.0	31.0
10	23.0	9.5	10.0	7.0	5.0	13.0	---	21.5	25.0	30.0	27.0	30.0
11	18.0	12.0	5.5	5.0	---	9.5	24.0	18.5	24.0	---	28.0	30.0
12	21.0	14.5	10.0	6.5	7.0	9.5	23.5	---	23.0	29.0	26.0	29.0
13	17.0	18.5	6.5	1.5	7.0	22.0	21.0	---	24.0	29.0	28.0	32.0
14	20.0	18.5	4.5	4.0	9.5	15.0	24.0	24.0	---	30.0	29.0	---
15	23.0	12.0	8.5	1.5	6.5	21.5	18.0	26.5	---	31.0	31.0	29.0
16	20.0	18.0	8.0	1.5	7.0	18.5	17.0	29.0	30.0	29.0	28.0	27.0
17	24.0	20.5	8.5	10.0	12.0	7.0	21.0	26.5	25.0	27.0	30.0	---
18	20.0	12.0	4.5	8.5	0.0	18.5	24.0	20.0	---	26.0	29.0	23.0
19	24.0	12.0	10.0	5.5	0.0	8.5	25.5	26.5	25.0	30.0	30.0	22.0
20	24.0	11.0	7.0	---	20.0	6.5	18.5	24.0	27.0	28.0	30.0	---
21	23.0	12.0	9.0	10.0	21.0	6.0	22.0	24.0	23.0	27.0	30.0	---
22	19.0	---	4.5	1.5	15.5	17.0	20.5	23.0	---	27.0	30.0	25.0
23	24.0	11.0	9.0	18.5	20.5	16.5	16.5	31.0	32.0	---	29.0	25.0
24	22.0	4.5	11.0	10.0	18.5	18.0	18.0	26.0	25.0	---	27.0	26.0
25	16.0	9.5	10.0	---	18.5	21.0	21.0	24.0	30.0	30.0	28.0	28.0
26	15.0	12.0	10.0	9.5	15.5	16.5	16.5	25.0	24.0	29.0	---	24.0
27	20.0	7.0	7.0	4.5	1.5	15.0	20.5	---	30.0	31.0	29.0	28.0
28	20.0	13.0	9.5	1.0	15.5	14.5	18.5	28.0	29.0	30.0	28.0	27.0
29	---	7.0	6.5	1.0	15.0	7.0	19.5	22.0	27.0	31.0	29.0	23.0
30	---	4.5	10.5	0.0	---	4.5	---	25.0	25.0	31.0	29.0	17.0
31	10.0	---	10.0	0.0	---	18.5	---	26.0	---	25.0	25.0	---
MONTH	20.5	12.5	8.0	5.0	8.5	14.0	20.0	23.5	26.0	28.0	28.0	26.5

RED RIVER BASIN

07311622 NORTH FORK WICHITA RIVER NEAR CROWELL, TEX.

LOCATION.--Lat 33°52'12", long 99°56'48", Foard County, at gaging station on left bank 152 ft downstream from ranch road, 2.0 miles upstream from Middle Fork and 15.0 miles southwest of Crowell.

DRAINAGE AREA.--591 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1970 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT.								
06...	1505	11	--	720	170	3700	132	0
20...	1840	12	--	640	150	3200	156	0
NOV.								
11...	1740	10	--	790	190	4200	140	0
26...	1535	12	--	840	200	4400	156	0
DEC.								
17...	1100	13	--	820	180	4200	180	0
29...	1030	13	--	820	180	4600	164	0
JAN.								
20...	1135	10	--	850	230	4500	172	0
FEB.								
02...	1015	13	--	860	210	4400	182	0
23...	1013	9.6	--	880	210	4700	160	0
MAR.								
14...	1040	13	--	910	200	4900	136	0
17...	1010	13	--	910	220	4900	138	0
APR.								
03...	1735	13	2.7	960	200	5000	132	0
06...	1400	13	2.5	940	210	4900	126	0
17...	1510	8.2	--	1100	190	5800	108	0
29...	2130	670	--	150	33	670	80	0
29...	2200	1310	--	200	27	380	60	0
29...	2230	2130	--	300	27	210	64	0
MAY								
03...	1115	14	--	370	62	1600	116	0
06...	2130	670	--	200	39	670	92	0
24...	0940	8.1	--	780	210	3800	132	0
JUNE								
13...	1625	12	--	890	190	4600	106	0
15...	0300	670	--	200	30	640	104	0
15...	0310	1310	--	240	26	640	110	0
JULY								
26...	1030	4.1	--	1000	230	5600	88	0
SEP.								
04...	0950	1310	--	92	13	130	96	0
04...	2115	2130	--	130	21	390	100	0

RED RIVER BASIN

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07311622 NORTH FORK WICHITA RIVER NEAR CROWELL, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 28,500 micromhos Apr. 25; minimum daily, 861 micromhos Sept. 5.

EXTREMES, October 1970 to September 1972.--Specific conductance: Maximum daily, 35,300 micromhos May 3, 1971; minimum daily, 861 micromhos Sept. 5, 1972.

REMARKS.--Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
06...	2100	5900	12700	2500	2400	32	19800	7.7
20...	1900	5100	11100	2200	2100	30	17600	7.5
NOV.								
11...	2400	6600	14100	2800	2600	35	21800	7.6
26...	2400	6900	14800	2900	2800	35	22600	7.4
DEC.								
17...	2400	6600	14200	2800	2600	35	21800	7.8
29...	2400	7200	15400	2800	2600	38	22600	7.8
JAN.								
20...	2500	7200	15400	3000	2900	35	23200	7.9
FEB.								
02...	2500	7000	15000	3000	2800	35	22900	7.9
23...	2600	7400	15800	3000	2900	37	23900	7.9
MAR.								
14...	2700	7600	16400	3100	3000	38	24800	7.8
17...	2800	7700	16500	3200	3100	38	25000	7.8
APR.								
03...	2800	7800	16700	3200	3100	38	25000	7.9
06...	2700	7800	16700	3200	3100	38	24900	7.8
17...	3000	9000	19100	3400	3400	43	27800	7.8
29...	390	1100	2340	510	440	13	3870	7.2
29...	540	580	1770	610	560	6.7	2800	7.2
29...	760	330	1670	870	820	3.0	2360	7.6
MAY								
03...	1000	2400	5460	1200	1100	20	8730	7.8
06...	530	1100	2540	670	600	11	4070	7.5
24...	2300	6100	13300	2800	2700	--	20500	7.9
JUNE								
13...	2600	7200	15500	3000	2900	37	23900	7.6
15...	430	1000	2330	560	480	12	3680	7.8
15...	580	1000	2540	720	630	10	4250	7.8
JULY								
26...	3100	8800	14700	3500	3400	--	27000	7.7
SEP.								
04...	210	190	678	280	210	3.3	1120	7.7
04...	320	600	1510	420	330	8.3	2520	7.7

RED RIVER BASIN

07311622 NORTH FORK WICHITA RIVER NEAR CROWELL, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	516.2	14800	9340	420	13000	4270	192	5950	1610	72	2240
NOV.	363	18100	11400	371	11100	5220	171	5120	1950	64	1920
DEC.	413	20800	13700	493	15300	6380	230	7120	2240	81	2500
JAN. 1972, ..	336	21600	14100	413	12800	6530	191	5920	2340	69	2130
FEB.	325	23300	15400	465	13500	7180	217	6300	2550	77	2230
MAR.	419	24900	16400	598	18500	7650	279	8660	2730	100	3090
APR.	846.4	12400	8240	628	18800	3730	284	8530	1460	111	3330
MAY	1044.8	6420	4090	372	11500	1730	157	4880	840	76	2370
JUNE	833.5	8180	5010	375	11300	2170	163	4880	1000	75	2250
JULY	360.2	15700	9680	304	9410	4380	137	4260	1750	55	1700
AUG.	284.4	14600	9500	235	7300	4360	108	3340	1670	41	1280
SEP.	2620.2	3530	2200	520	15600	920	218	6540	430	102	3060
TOTAL	8361.7	--	--	--	158000	--	--	71500	--	--	28100
WTD. AVG.	22.8	10900	7010	432	--	3170	195	--	1240	77	--

RED RIVER BASIN

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07311622 NORTH FORK WICHITA RIVER NEAR CROWELL, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14800	10700	17900	22000	23200	24400	25000	6000	14000	21000	26600	16600
2	16200	12500	15500	20800	23100	24600	25000	7000	15500	22000	26400	15000
3	17000	12000	15800	20600	23900	24600	25000	8730	16800	20000	26500	13600
4	18300	14800	17000	19700	23200	24900	25000	10600	17300	7500	26200	2220
5	18800	15500	16400	19700	22800	24600	25000	12400	19600	7000	26000	861
6	19800	16600	16400	19700	22900	24400	24900	3710	20900	8500	25700	1130
7	19700	16600	17900	19100	22900	24400	25000	3460	22000	10000	26000	1500
8	19900	17900	18800	19700	23200	24800	25300	2220	22700	14000	24900	4330
9	19800	19700	18800	19700	23000	24800	26200	5310	23900	16000	21000	10000
10	19800	20000	18800	19500	23100	24700	26200	6960	24000	18000	15000	12500
11	20800	21800	19700	19700	23000	24800	26000	8270	24500	20000	13000	15000
12	21200	18800	19700	19900	23100	24900	26000	4070	23400	21000	14000	16200
13	21500	19700	21500	20200	23000	24800	26500	5870	23900	22000	13000	17000
14	22400	20800	22400	18600	23200	24800	26800	5680	7310	23000	12000	14300
15	22500	21500	20200	20200	23400	24900	27300	5870	3910	24000	13500	11700
16	23500	22000	21600	20200	23200	24800	27800	6720	7190	25000	14000	10600
17	21800	18800	21800	20800	23600	25000	27800	7720	5310	24000	14700	11100
18	19200	17900	22000	22000	23400	25200	27800	8890	6790	25000	15400	15000
19	17000	17900	23200	22700	23700	25000	28000	9920	8580	24000	16000	16000
20	17600	18800	23700	23200	23600	25200	27300	11100	9920	26500	16600	15000
21	17900	19700	22800	23800	23700	25000	27300	13100	11400	27000	17300	14400
22	17400	17900	22800	23600	23800	24800	27600	16200	7000	26500	18000	12900
23	13600	17900	23900	23200	23900	25000	28300	17000	5000	27000	16000	13400
24	16200	18800	24600	23500	23600	24800	28300	20500	6000	27000	17100	14100
25	18800	18800	24600	23600	23400	24800	28500	2000	6500	26500	18000	15000
26	19700	19700	24600	23600	23900	25000	19700	20300	7000	27000	12200	15700
27	15500	19700	26200	23300	23500	25000	14800	10600	10000	27000	10000	16100
28	17000	20800	22600	23500	23600	25200	24200	15500	12000	26800	11000	16600
29	4650	19700	22600	23600	23500	25000	4390	16200	15000	26000	12000	17300
30	9220	18400	22500	23800	---	25200	5160	17000	20000	26200	13500	18000
31	7700	---	22100	23500	---	25200	---	13600	---	26400	15000	---
MONTH	17720	18190	20920	21520	23360	24860	24410	9760	13910	21740	17630	12440

RED RIVER BASIN

07311648 MIDDLE FORK WICHITA RIVER NEAR TRUSCOTT, TEX.

LOCATION.--Lat 33°51'12", long 99°57'44", Foard County, at gaging station on right bank 32 ft downstream from ranch road, 11.1 miles northwest of Truscott.

DRAINAGE AREA.--161 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1970 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.									
06...	1045	4.7	--	290	55	540	8	0	820
21...	1255	5.1	--	720	150	2000	106	0	2100
NOV.									
11...	1440	5.4	--	700	160	2000	102	0	2100
26...	1310	5.3	--	800	160	2400	128	0	2400
DEC.									
29...	1300	5.5	--	850	160	2400	132	0	2400
JAN.									
20...	1640	6.2	--	840	200	2400	136	0	2500
FEB.									
02...	1215	5.7	--	830	140	2600	148	0	2500
23...	1325	4.1	--	860	170	2500	108	0	2500
MAR.									
14...	1410	3.8	--	870	190	2600	84	0	2600
16...	1705	3.8	--	890	190	2600	72	0	2700
APR.									
04...	1240	5.6	.3	900	180	2700	56	0	2700
06...	1210	5.5	.9	880	170	2700	54	0	2700
11...	1430	12	--	920	130	2900	54	0	2600
29...	2100	84	--	--	--	--	--	--	--
29...	2130	221	--	150	21	80	120	0	360
29...	2200	410	--	280	50	590	76	0	730
MAY									
03...	1500	3.1	--	450	72	940	64	0	1200
05...	2400	84	--	240	46	280	88	0	630
06...	2030	221	--	270	47	530	80	0	700
06...	2100	410	--	190	11	89	80	0	460
06...	2330	800	--	260	39	400	88	0	690
06...	2400	1150	--	240	29	270	98	0	600
24...	1255	3.5	--	710	150	2000	72	0	2200
JUNE									
14...	0345	84	--	760	160	2300	76	0	2300
14...	0530	221	--	360	69	840	120	0	960
22...	0300	410	--	200	20	230	130	0	440
26...	1605	3.4	--	290	39	340	70	0	780
JULY									
04...	--	84	--	480	160	1400	66	0	1500
26...	1405	2.6	--	950	230	2800	44	0	--
AUG.									
16...	--	4.0	--	840	210	2800	46	0	2600
SEP.									
04...	0700	84	--	630	140	2000	52	0	1900
04...	0745	221	--	310	56	810	92	0	850
04...	0800	410	--	--	--	--	--	--	--
04...	0900	800	--	110	16	110	80	0	250
13...	1240	3.1	--	420	81	910	105	0	1100

RED RIVER BASIN

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07311648 MIDDLE FORK WICHITA RIVER NEAR TRUSCOTT, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 19,500 micromhos Aug. 12; minimum daily, 880 micromhos Sept. 4.

EXTREMES, October 1970 to September 1972.--Specific conductance: Maximum daily, 19,500 micromhos Aug. 12, 1972; minimum daily, 880 micromhos Sept. 4, 1972.

REMARKS.--Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
06...	850	--	--	2600	950	880	7.6	3860	7.4
21...	3200	--	--	8310	2400	2300	18	12700	7.5
NOV.									
11...	3200	--	--	8210	2400	2300	18	12400	7.7
26...	3700	--	--	9450	2600	2500	20	13900	7.2
DEC.									
29...	3800	--	--	9770	2800	2700	20	14500	7.7
JAN.									
20...	3900	--	--	9900	2900	2800	19	14700	7.7
FEB.									
02...	3900	--	--	9990	2600	2500	22	14600	7.8
23...	4000	--	--	10000	2900	2800	20	14900	7.8
MAR.									
14...	4200	--	--	10500	3000	2900	21	15600	7.9
16...	4200	--	--	10600	3000	2900	21	15500	7.8
APR.									
04...	4200	--	--	10700	3000	3000	22	15800	7.7
06...	4200	--	--	10600	2900	2900	22	15700	7.4
11...	4600	--	--	11200	2800	2800	24	16900	7.3
29...	1100	--	--	--	--	--	--	4530	--
29...	120	--	--	785	460	360	1.6	1180	7.4
29...	960	--	--	2650	890	830	8.6	4060	7.7
MAY									
03...	1500	--	--	4230	1400	1400	11	6340	7.7
05...	470	--	--	1720	800	730	4.3	2570	7.5
06...	860	--	--	2440	860	790	7.8	3710	7.5
06...	120	--	--	896	510	440	1.7	1290	7.4
06...	630	--	--	2060	810	740	6.1	3120	7.4
06...	430	--	--	1610	720	640	4.4	2440	7.3
24...	3100	--	--	8130	2400	2300	--	12100	7.5
JUNE									
14...	3600	--	--	9290	2600	2500	--	13700	7.5
14...	1400	--	--	3630	1200	1100	11	5670	7.9
22...	380	--	--	1330	580	470	4.2	1810	8.1
26...	540	--	--	2020	890	830	4.9	2940	7.7
JULY									
04...	2200	--	--	5830	1800	1800	14	9000	7.6
26...	--	--	--	11500	3300	3300	--	16900	7.5
AUG.									
16...	4500	--	--	11000	3000	2900	--	15700	7.1
SEP.									
04...	3200	--	--	7920	2200	2100	--	12100	7.5
04...	1300	--	--	3350	1000	920	11	5280	7.7
04...	--	--	--	--	--	--	--	1930	--
04...	180	--	--	707	340	270	2.6	1160	7.8
13...	1500	--	--	4080	1400	1300	11	6200	7.4

RED RIVER BASIN

07311648 MIDDLE FORK WICHITA RIVER NEAR TRUSCOTT, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	223.5	10000	6510	127	3930	2490	48	1500	1700	33	1020
NOV.	160.9	12900	8670	126	3770	3380	49	1470	2200	32	957
DEC.	173.3	14300	9620	145	4500	3790	57	1770	2390	36	1120
JAN. 1972, ..	172.7	14700	9890	149	4610	3900	59	1820	2480	37	1160
FEB.	131.4	14900	10100	123	3570	3960	49	1410	2520	31	893
MAR.	134.8	15600	10500	124	3830	4160	49	1510	2640	31	963
APR.	419.8	10600	7170	271	8120	2740	104	3110	1880	71	2130
MAY	613.2	6270	4200	224	6950	1480	79	2450	1230	66	2040
JUNE	521.1	5110	3460	162	4860	1140	53	1600	1120	52	1570
JULY	184.9	11300	7560	122	3770	2960	48	1480	1930	31	966
AUG.	466.1	6660	4540	184	5710	1700	69	2140	1220	49	1530
SEP.	781.4	2110	1440	102	3050	480	34	1020	430	30	897
TOTAL	3983.1	--	--	--	56700	--	--	21300	--	--	15200
WTD. AVG.	10.9	7830	5270	155	--	1980	58	--	1420	42	--

RED RIVER BASIN

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07311648 MIDDLE FORK WICHITA RIVER NEAR TRUSCOTT, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7000	9320	14000	14600	14400	15200	15500	6080	13500	5600	18000	9000
2	6000	9220	13900	14600	14600	15300	15700	6240	13300	6800	18500	8000
3	6280	9220	14000	14600	14700	15300	15600	6340	13200	8000	18300	6630
4	5000	9560	13800	14800	14900	15400	15800	6790	13400	9730	19000	880
5	4500	10300	13900	15200	14900	15700	15800	7100	13500	10400	18900	1870
6	3860	10700	13900	15200	14900	15700	15700	3050	13400	9400	19100	4220
7	4200	11600	13600	15100	14900	15700	15900	6200	13500	9100	19200	5500
8	4890	12000	13800	15100	15000	15800	16300	6960	13600	9100	19300	5800
9	5740	12400	13700	14900	15000	15900	16800	6600	13700	9400	19400	6100
10	6960	12500	14000	14800	15000	15800	17300	6800	13600	10100	19200	6000
11	8580	12400	14300	14800	15000	15700	16900	7300	13900	11100	19400	5900
12	9920	12300	14300	14700	15000	15700	16000	6890	14200	12000	19500	6100
13	11100	12400	14300	14600	15000	15800	15800	6500	14000	13100	12000	6200
14	11700	13100	14100	14700	15000	15600	16000	6700	6030	13600	14000	6500
15	12200	13600	14100	14700	14900	15600	16100	7500	5500	14100	15300	6800
16	12500	14000	14200	14800	15000	15600	16000	8500	5600	14300	15700	7100
17	12800	14000	14300	14800	15000	15600	16200	9000	5000	14500	15600	7500
18	12300	14000	14400	14800	15000	15600	16200	10000	5200	14800	15700	7700
19	12000	14200	14400	14800	15000	15700	16000	11500	5500	14900	15800	8000
20	12000	14500	14500	14700	15000	15700	15800	12000	5900	15100	15700	8500
21	12700	14600	14500	14600	14900	15700	16100	11500	6020	15300	15800	9000
22	12400	14400	14600	14400	14900	15600	16300	11000	2540	15500	15500	10000
23	12000	14400	14600	14400	14900	15600	16000	12000	2300	16000	15700	10400
24	12100	14600	14700	14700	14900	15600	15900	12100	2500	16200	15600	11000
25	12000	14300	14700	14600	14900	15500	15800	12400	2700	16500	15000	12200
26	11800	13900	14900	14600	15000	15500	15500	12600	2940	16900	3550	13100
27	11500	14200	14900	14400	15000	15600	15200	12500	3200	17000	3220	13800
28	11000	14800	14900	14300	15000	15600	15000	12800	3800	17300	5280	14000
29	11000	14800	14500	14500	15200	15700	5320	13000	4300	17200	5900	14700
30	9560	14500	14800	14600	---	15700	5460	13200	4700	17500	6500	15000
31	9320	---	14800	13800	---	15700	---	13300	---	17700	7500	---
MONTH	9510	12860	14300	14680	14930	15620	15270	9180	8350	13170	14750	8250

RED RIVER BASIN

07311700 NORTH FORK WICHITA RIVER NEAR TRUSCOTT, TEX.

LOCATION.--Lat 33°49'14", long 99°47'10", Knox County, at gaging station at bridge on State Highway 283, 4.5 miles north of Truscott.

DRAINAGE AREA.--937 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1972.

Water temperatures: July 1968 to September 1972.

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 28,000 micromhos Aug. 7; minimum daily, 1,200 micromhos Sept. 5.

Water temperatures: Maximum, 37.0°C July 27; minimum, freezing point Jan. 15, 16, 28, 30, Feb. 3.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.									
04...	0815	29	--	240	42	630	80	0	630
18...	0630	88	--	570	130	2200	90	0	1700
23...	1030	148	--	260	53	880	94	0	730
30...	1405	147	--	430	89	1600	104	0	1200
NOV.									
02...	0800	32	--	400	90	1400	120	0	1100
05...	0900	22	--	560	130	2200	134	0	1600
28...	1030	14	--	820	200	3700	140	0	2400
DEC.									
03...	1000	36	--	700	170	3100	134	0	2000
JAN.									
05...	1115	11	--	840	210	3800	136	0	2500
FEB.									
07...	0730	27	--	880	200	3900	156	0	2500
MAR.									
14...	1000	26	--	960	220	4400	116	0	2900
APR.									
16...	0615	15	--	1100	260	5100	112	0	3200
27...	0900	1170	--	130	22	300	110	0	330
28...	0800	53	--	320	49	930	88	0	880
29...	1100	25	--	480	110	1600	94	0	1400
MAY									
01...	0800	275	--	200	49	660	108	0	590
06...	1030	189	--	--	--	470	110	0	790
07...	0700	2100	--	--	--	--	--	--	530
12...	0800	1900	--	80	29	120	86	--	250
29...	0930	50	--	620	100	3200	116	0	1800
JUNE									
07...	1530	15	--	830	180	3300	128	0	2400
14...	1130	1610	--	180	37	370	84	0	460
15...	1145	1370	--	260	42	460	88	0	740
18...	1000	54	--	430	86	1300	108	0	1200
23...	1030	119	--	300	45	640	84	0	770
JULY									
05...	0730	251	--	340	56	940	80	0	980
19...	0700	42	--	110	20	190	80	0	270
23...	0700	12	--	980	240	3800	112	0	2700
30...	0700	11	--	1200	240	4500	110	0	2900
AUG.									
06...	0700	7.4	--	1200	290	5100	108	0	3400
15...	0730	29	--	490	92	1900	80	0	1400
26...	1200	2750	--	170	23	380	92	0	440
28...	0940	116	--	330	48	830	88	0	860
30...	1930	13	--	520	88	1900	104	0	1300
SEP.									
05...	1000	4800	--	74	11	120	104	0	170
10...	1900	40	--	440	95	1600	124	0	1200
19...	1900	19	--	680	140	2700	106	0	1900

RED RIVER BASIN

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07311700 NORTH FORK WICHITA RIVER NEAR TRUSCOTT, TEX.--Continued

EXTREMES, October 1968 to September 1972.--Specific conductance: Maximum daily, 33,800 micromhos Aug. 19, 1970;
minimum daily, 840 micromhos Sept. 23, 1969.

Water temperatures: Maximum daily, 39.0°C Aug. 21, 23, 1969; minimum daily, freezing point on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AN- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
04...	1000	--	--	2570	760	690	10	4130	7.8
18...	3500	--	--	8190	2000	1900	22	12800	7.1
23...	1400	--	--	3350	880	800	13	5770	7.3
30...	2500	--	--	5860	1400	1400	18	9580	7.4
NOV.									
02...	2300	--	--	5440	1400	1300	17	8840	7.7
05...	3500	--	--	8070	2000	1800	22	12700	7.6
28...	5900	--	--	13100	2900	2800	30	20000	7.7
DEC.									
03...	5000	--	--	11100	2400	2300	27	17000	7.9
JAN.									
05...	6000	--	--	13300	3000	2800	30	20300	7.9
FEB.									
07...	6200	--	--	13700	3000	2900	31	21000	7.8
MAR.									
14...	7000	--	--	15400	3300	3200	33	23200	7.9
APR.									
16...	8000	--	--	17700	3700	3600	36	25200	7.8
27...	460	--	--	1290	420	330	6.4	2060	8.0
28...	1400	--	--	3670	1000	930	13	5910	7.7
29...	2500	--	--	6070	1600	1600	17	9810	7.7
MAY									
01...	1000	--	--	2580	700	610	11	4090	8.2
06...	720	--	--	--	900	810	--	3400	7.7
07...	280	--	--	--	620	--	--	1890	7.8
12...	170	--	--	693	320	250	2.9	1110	7.7
29...	5000	--	--	10800	2000	1900	--	15800	7.9
JUNE									
07...	5300	--	--	12100	2800	2700	--	18400	8.0
14...	610	--	--	1700	600	530	6.6	2720	7.9
15...	700	--	--	2240	820	750	7.0	3290	7.7
18...	2100	--	--	5220	1400	1300	15	8310	7.8
23...	1000	--	--	2410	920	850	9.1	4330	7.8
JULY									
05...	1400	--	--	3810	1100	1000	12	5980	8.0
19...	300	--	--	932	350	280	4.5	1560	8.1
23...	6200	--	--	14000	3400	3300	--	20900	7.9
30...	7600	--	--	16500	4000	3900	--	24800	7.9
AUG.									
06...	8300	--	--	18000	4200	4100	--	27000	7.8
15...	3000	--	--	6980	1600	1500	--	11300	7.8
26...	570	--	--	1620	520	440	7.2	2630	8.0
28...	1300	--	--	3430	1000	950	11	5540	7.8
30...	3100	--	--	7030	1700	1600	--	11200	8.0
SEP.									
05...	160	--	--	588	230	140	3.4	981	8.1
10...	2600	--	--	5890	1500	1400	18	9450	8.0
19...	4400	--	--	9830	2200	2200	--	14900	7.9

RED RIVER BASIN

07311700 NORTH FORK WICHITA RIVER NEAR TRUSCOTT, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	1443	8500	5380	677	21000	2270	286	8860	1140	144	4460
NOV.	630	16000	10300	585	17600	4570	259	7770	1980	112	3370
DEC.	649	18000	11800	668	20700	5350	302	9370	2100	119	3690
JAN. 1972, ..	633	20500	13500	742	23000	6030	332	10300	2550	140	4350
FEB.	775	21100	13800	995	28900	6200	447	13000	2510	181	5260
MAR.	803	23300	15500	1080	33600	7000	490	15200	2860	200	6200
APR.	3549	5320	3500	1120	33500	1460	467	14000	730	234	7020
MAY	4828	3700	2360	993	30800	920	386	12000	560	237	7350
JUNE	3252	4760	3070	897	26900	1220	357	10700	720	212	6350
JULY	834.1	10800	6970	507	15700	2980	217	6720	1450	105	3270
AUG.	2260.8	6290	3990	786	24400	1680	331	10300	860	168	5220
SEP.	7641.8	2760	1740	1190	35800	680	468	14000	360	249	7470
TOTAL	27298.7	--	--	--	312000	--	--	132000	--	--	64000
WTD. AVG.	74.6	6540	4230	852	--	1790	361	--	870	175	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10000	7690	17400	20800	20900	22600	23500	3890	18100	13600	25200	13700
2	6700	8840	17400	20200	20700	22800	23400	3710	18600	14500	25600	14600
3	3000	12500	17000	19900	21000	22600	23600	6540	17800	14700	25800	13000
4	5000	12600	17100	20300	21000	22800	23500	8490	17500	7150	26100	1770
5	8000	12700	17000	20300	21000	22700	23700	9380	17500	8100	27300	1200
6	10000	13600	17000	21100	21000	22700	24000	3710	17800	7220	27000	3130
7	13900	14900	17100	19800	21000	22900	24200	2740	18400	9030	28000	5970
8	14600	15500	17500	20000	21100	23100	24300	2780	19400	9530	27500	7250
9	14600	16100	17500	20000	21000	23000	24600	3280	19200	11000	27800	9490
10	14800	17300	16000	20000	21000	23000	25000	2610	19800	12100	23700	9450
11	16600	17900	17500	20000	20900	23000	23500	5890	19900	12500	20000	10700
12	16500	18200	19700	20500	20000	23000	25000	1240	20800	13100	21000	11200
13	17600	18600	18200	20500	20800	23100	23500	3660	20300	14500	21000	12500
14	17600	18900	18500	20500	20800	23200	24000	7430	2610	15300	18200	13000
15	18100	18700	16000	20500	20900	23500	23800	7240	3840	16900	11300	12000
16	18700	19100	17000	21300	20900	23300	25200	7910	5630	17400	15000	12800
17	11600	18900	17000	20000	21200	23400	25900	8680	6320	18600	15400	9200
18	10000	13600	17800	20400	21000	23700	25800	10900	8310	5610	16700	12000
19	12600	18700	18000	20600	21200	23400	25700	10900	8340	2070	17900	14900
20	12600	15600	19000	20600	21500	24200	22000	10900	8890	10600	20500	14400
21	15000	17600	19400	20600	21700	24000	23200	11800	10300	18900	18900	13600
22	13900	19000	19800	20700	21200	24000	25200	12700	2850	21100	20900	9950
23	5000	19100	19600	20700	21800	23900	25600	13600	3840	20900	20700	11600
24	8000	19300	19600	20900	21600	23300	26500	14500	4110	21500	22000	11400
25	12200	19300	19500	20900	21500	23800	27200	15000	8740	22200	21800	9040
26	14000	19300	19700	20900	21500	23600	27400	16000	11800	23000	3060	10400
27	15400	19600	19500	21100	21500	24400	1910	12000	12300	23700	4070	11300
28	14200	2000	19700	21000	21500	24000	5910	10500	13300	23800	5540	12100
29	7310	20000	19000	21000	21500	23900	9810	15800	13200	24300	7280	12300
30	5560	20000	19700	21000	---	23700	2240	12600	13900	24800	11200	10800
31	7830	---	19700	20800	---	23600	---	15600	---	24600	12900	---
MONTH	11960	16170	18220	20550	21130	23360	21970	8770	12780	15560	19010	10490

RED RIVER BASIN

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07311700 NORTH FORK WICHITA RIVER NEAR TRUSCOTT, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	20.0	3.0	12.0	4.0	15.0	---	---	---	25.0	23.0	27.0
2	20.0	14.0	1.0	7.0	4.0	10.0	---	---	---	25.0	23.0	23.0
3	18.0	14.0	1.0	12.0	0.0	11.0	20.0	24.5	---	25.0	22.0	20.0
4	19.0	15.0	7.0	2.0	2.0	10.0	19.0	---	---	22.0	23.0	21.0
5	25.0	16.0	3.0	1.0	7.0	15.0	25.0	---	---	21.0	34.0	22.0
6	25.0	14.0	4.0	5.0	3.0	20.0	29.0	---	---	20.0	25.0	26.0
7	25.0	11.0	5.0	3.0	1.0	15.0	22.0	---	---	26.0	31.0	30.0
8	21.0	14.0	6.0	9.0	4.0	15.0	11.0	---	---	22.0	29.0	28.0
9	18.0	10.0	5.0	---	6.0	20.0	16.0	---	---	34.0	33.0	25.0
10	17.0	15.0	7.0	---	5.0	10.0	24.0	---	---	32.0	26.0	30.0
11	17.0	16.0	11.0	8.0	6.0	19.0	22.0	---	---	26.0	---	30.0
12	17.0	15.0	9.0	12.0	10.0	18.0	---	---	---	25.0	---	25.0
13	22.0	18.0	6.0	9.0	8.0	18.0	---	---	---	36.0	---	28.0
14	23.0	19.0	11.0	10.0	7.0	19.0	---	---	25.0	30.0	25.0	28.0
15	19.0	15.0	12.0	0.0	9.0	20.0	---	---	24.0	35.0	25.0	30.0
16	24.0	19.0	9.0	0.0	7.0	20.0	---	---	26.0	25.0	24.0	30.0
17	21.0	18.0	9.0	5.0	9.0	18.0	---	---	26.0	29.0	26.0	27.0
18	24.0	11.0	7.0	14.0	14.0	20.0	---	---	29.0	24.0	29.0	22.0
19	23.0	8.0	6.0	11.0	13.0	16.0	---	---	27.0	22.0	25.0	29.0
20	23.0	10.0	6.0	14.0	18.0	22.0	---	---	27.0	24.0	32.0	25.0
21	20.0	12.0	12.0	---	9.0	18.0	---	---	24.0	29.0	25.0	19.0
22	17.0	9.0	5.0	17.0	15.0	25.0	---	---	24.0	28.0	30.0	20.0
23	16.0	11.0	13.0	18.0	18.0	19.0	---	---	29.0	27.0	29.0	20.0
24	15.0	12.0	12.0	16.0	15.0	18.0	---	25.0	21.0	25.0	30.0	19.0
25	13.0	13.0	14.0	5.0	14.0	24.0	---	---	29.0	27.0	25.0	23.0
26	19.0	12.0	10.0	10.0	---	23.0	---	---	29.0	25.0	23.0	25.0
27	20.0	2.0	12.0	7.0	---	16.0	18.5	---	27.0	37.0	20.0	---
28	18.0	---	5.0	0.0	---	18.0	---	---	33.0	26.0	25.0	28.0
29	19.0	7.0	7.0	5.0	---	16.0	---	---	33.0	25.0	34.0	23.0
30	18.0	5.0	10.0	0.0	---	10.0	---	---	31.0	24.0	30.0	20.0
31	13.0	---	13.0	5.0	---	9.0	---	---	---	23.0	33.0	---
MONTH	19.5	13.0	8.0	8.0	8.5	17.0	---	---	---	26.5	27.0	25.0

RED RIVER BASIN

07311780 SOUTH FORK WICHITA RIVER NEAR GUTHRIE, TEX.

LOCATION.--Lat 33°37'29", long 100°13'04", King County, at gaging station 60 ft upstream from ranch road, 3.9 miles upstream from Willow Creek, and 6.1 miles east of Guthrie.

DRAINAGE AREA.--239 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1970 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT.								
05...	--	--	--	800	200	5300	152	0
19...	1605	5.9	--	890	240	6400	164	0
NOV.								
09...	1105	5.4	--	1000	230	7000	180	0
22...	1420	5.7	--	990	240	6500	190	0
DEC.								
15...	1010	6.0	--	1000	230	6500	208	0
27...	1615	5.3	--	1000	240	7000	178	0
JAN.								
18...	1735	5.2	--	1100	240	7000	184	0
31...	1745	4.8	--	1100	260	7200	184	0
FEB.								
24...	1607	4.6	--	1200	280	8400	160	0
MAR.								
15...	1535	4.7	--	1200	260	8300	164	0
APR.								
05...	1315	4.3	9.2	1200	240	8800	164	0
05...	1345	4.3	9.4	1200	240	8800	164	0
12...	0930	3.8	--	1200	230	9100	164	0
MAY								
02...	0935	4.2	--	1200	220	9100	160	0
22...	1820	4.2	--	1200	290	9000	120	0
JUNE								
12...	1400	34	--	720	150	4500	80	0
12...	1605	24	--	640	130	4000	84	0
JULY								
03...	1420	4.5	--	1100	280	8900	136	0
24...	1840	4.2	--	1300	230	9800	104	0
AUG.								
14...	1540	20	--	310	65	1700	84	0
22...	1620	5.3	--	1000	260	9000	122	0
23...	1710	--	--	--	280	8800	118	0
SEP.								
07...	1350	4.9	--	880	220	6000	152	0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	278.9	25300	16400	398	12300	8210	199	6180	2030	49	1530
NOV.	175.2	32300	20300	321	9620	10200	161	4820	2510	40	1190
DEC.	174.4	32600	21000	319	9890	10500	159	4920	2670	41	1260
JAN. 1972, ..	153.8	35100	22900	307	9510	11500	154	4760	2870	38	1190
FEB.	125.5	37100	24600	288	8340	12500	146	4230	2860	33	967
MAR.	142.4	40300	26300	326	10100	13300	165	5120	3100	38	1190
APR.	119.6	40100	26300	283	8500	13400	145	4340	3000	32	970
MAY	130.8	40700	27500	314	9720	14100	160	4970	3140	36	1110
JUNE	161.6	31900	20800	302	9060	10700	155	4650	2350	34	1020
JULY	127.4	43400	29100	323	10000	15000	167	5180	3180	35	1090
AUG.	226.4	26300	17500	344	10700	8950	176	5470	1950	39	1190
SEP.	167.9	30700	20600	312	9360	10400	157	4710	2550	38	1150
TOTAL	1983.9	--	--	--	117000	--	--	59400	--	--	13900
WTD. AVG.	5.42	33300	21900	320	--	11100	162	--	2590	38	--

07311780 SOUTH FORK WICHITA RIVER NEAR GUTHRIE, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 45,300 micromhos Aug. 3; minimum daily, 9,150 micromhos Aug. 14.

EXTREMES, August 1970 to September 1972.--Specific conductance: Maximum daily, 47,300 micromhos Aug. 11, 1971; minimum daily, 2,230 micromhos Aug. 25, 1971.

REMARKS.--Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
05...	2100	8600	17000	2800	2700	43	26400	7.8
19...	2400	10000	20200	3200	3000	49	32300	7.7
NOV.								
09...	2700	11000	22100	3400	3300	52	35100	7.7
22...	2600	10000	20800	3400	3300	48	33000	7.8
DEC.								
15...	2600	10000	21000	3500	3300	48	32600	7.9
27...	2800	11000	22400	3600	3400	52	34600	7.8
JAN.								
18...	2800	11000	22400	3800	3600	50	34400	7.8
31...	2800	12000	22900	3800	3600	51	35200	7.9
FEB.								
24...	3000	14000	26500	4000	3900	57	39700	7.8
MAR.								
15...	3100	13000	26100	4000	3900	57	40000	8.0
APR.								
05...	3100	14000	27500	4100	4000	61	41300	7.9
05...	3100	14000	27500	4100	4000	61	41300	7.8
12...	3100	14000	28100	4000	3900	63	42500	7.8
MAY								
02...	3200	14000	28200	3900	3800	63	41600	7.9
22...	3200	14000	28100	4100	4000	61	41800	7.7
JUNE								
12...	1600	7400	14400	2400	2300	40	23300	7.5
12...	1500	6500	12800	2100	2000	38	20400	7.5
JULY								
03...	3100	14000	27600	4000	3900	62	41200	7.8
24...	3300	16000	30200	4200	4100	--	44800	7.8
AUG.								
14...	800	2600	5530	1000	970	22	9150	7.3
22...	2800	14000	27300	3600	3500	--	38500	7.7
23...	2800	14000	26900	3700	3600	--	39000	7.6
SEP.								
07...	2400	9500	19000	3100	3000	--	28700	7.8

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35500	26200	32900	33600	35400	39200	40200	41000	40200	41000	44800	28300
2	28000	28800	31900	33800	35400	40600	40200	41600	40200	41000	45000	37000
3	12000	29800	30000	34300	37000	40200	39900	40900	40200	41200	45300	32800
4	19000	30800	30800	36200	36500	39800	40900	41300	39900	41700	45100	27200
5	26400	30800	31900	35100	36500	41700	41300	41300	39200	42000	44800	27500
6	32600	31900	31900	35100	35600	39800	41300	38600	39000	42400	44700	28000
7	34800	32500	31900	33800	37000	38300	42000	37000	38600	42400	45000	28700
8	34600	34000	32900	33600	36800	39900	41700	39000	38200	43500	45200	29000
9	35100	35100	33100	34300	36500	39900	41700	38200	38200	43500	45100	29400
10	36700	33300	31900	34300	36800	38900	41400	38200	37700	43800	44700	29600
11	36400	32900	32600	34600	36700	38900	43200	40000	37400	43800	44300	29900
12	36500	32900	32600	34300	35900	38900	42000	40200	22000	43500	44800	29500
13	36600	32400	33300	35100	35600	38900	42000	41700	17000	43200	12100	29700
14	37000	33100	32900	35900	35600	40600	41700	41700	26000	43500	9150	29000
15	35700	32600	32600	36500	36500	40000	42000	41000	24000	43800	10000	28700
16	30000	32900	33000	34800	37000	42400	42800	41400	27900	43800	12500	29300
17	16000	32400	33200	34300	37600	41700	42000	42000	27600	43500	14000	29900
18	24600	33100	30000	34400	37600	40600	42000	42000	31900	43200	17800	30600
19	30000	32900	31000	35600	37000	41700	34300	42500	34300	43000	20200	31200
20	34300	32400	31300	35400	37000	40600	38600	42000	37000	43300	25600	32100
21	30000	32600	32000	35900	37000	41000	38900	41400	39000	43500	33200	32500
22	27900	33000	32500	35600	37300	41300	38600	41800	34300	43800	38500	32400
23	23200	32600	33000	35400	38000	40200	38900	41300	31900	44300	39000	32800
24	19700	32600	33300	35100	39700	39200	39200	42000	37000	44800	40900	33100
25	26200	32600	33600	35900	39700	41700	38900	41300	39000	44300	42300	33000
26	27900	32900	34600	36200	38000	40200	39200	41300	39000	45100	30400	33300
27	29800	33300	34600	38000	38300	40900	37300	41000	40000	44500	25000	33500
28	24200	32600	34800	36700	38000	42000	37600	41700	39000	44500	29400	33400
29	19700	33800	34000	35600	38000	41700	37300	40200	40000	44300	29600	33200
30	18800	34100	33700	35400	---	40900	40000	40200	41000	44800	33900	33500
31	20800	---	34000	35200	---	41300	---	40200	---	44800	37300	---
MONTH	28550	32360	32640	35160	37030	40420	40240	40770	35220	43410	33540	30940

RED RIVER BASIN

07311790 SOUTH FORK WICHITA RIVER AT ROSS RANCH, NEAR BENJAMIN, TEX.

LOCATION.--Lat 33°39'18", long 100°00'49", King County, at gaging station on ranch road, 6.7 miles north of U.S. Highway 82 and 13.7 miles northwest of Benjamin.

DRAINAGE AREA.--499 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1970 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.									
14...	1515	8.9	--	900	260	4300	126	0	2400
21...	1645	14	--	720	150	2900	120	0	1900
NOV.									
09...	1530	10	--	890	200	4000	142	0	2400
26...	1025	8.6	--	980	190	4700	158	0	2500
DEC.									
27...	1350	9.2	--	980	240	5100	146	0	2700
JAN.									
18...	1155	5.2	--	1000	260	5300	166	0	2800
31...	1510	5.2	--	1000	260	5500	164	0	2800
FEB.									
24...	1335	5.7	--	1100	270	6100	142	0	3000
MAR.									
16...	1240	7.0	--	1200	290	6600	124	0	3200
22...	1145	7.0	--	1200	280	6700	116	0	3300
APR.									
05...	1645	5.0	3.5	1300	280	6700	114	0	3300
17...	1240	2.5	--	1300	140	7700	116	0	3500
24...	1905	2.3	--	940	220	5000	92	0	2600
26...	1800	1.9	--	1300	150	7600	110	0	3500
26...	2100	171	--	460	50	390	62	0	1200
26...	2130	375	--	420	42	740	68	0	1000
26...	2200	625	--	460	60	420	72	0	1200
26...	2230	900	--	500	30	120	80	0	1300
MAY									
01...	1600	6.2	--	950	200	4200	124	0	2500
06...	2130	171	--	510	84	1400	72	0	1400
06...	2200	375	--	510	65	280	80	0	1400
22...	1540	4.6	--	1100	280	--	448	0	3000
JUNE									
26...	1240	7.0	--	930	190	4200	100	0	2500
JULY									
24...	1605	1.0	--	1300	300	7200	92	0	3600
AUG.									
13...	1545	171	--	520	100	1700	64	0	1400
13...	1645	375	--	590	130	2100	64	0	1600
13...	1800	625	--	360	44	590	72	0	940
17...	1040	18	--	680	140	2800	108	0	1800
SEP.									
04...	0600	171	--	420	55	750	76	0	1100
04...	0815	375	--	380	38	150	60	0	950
04...	0910	625	--	360	25	320	66	0	920
04...	1000	900	--	380	29	180	134	0	900
07...	1705	27	--	590	120	1800	134	0	1500

RED RIVER BASIN

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07311790 SOUTH FORK WICHITA RIVER AT ROSS RANCH, NEAR BENJAMIN, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 36,400 micromhos Apr. 17, 19, 25; minimum daily, 2,500 micromhos Sept. 4.

EXTREMES, August 1970 to September 1972.--Specific conductance: Maximum daily, 43,900 micromhos May 16, 17, 1971; minimum daily, 2,300 micromhos Aug. 27, 1971.

REMARKS.--Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
14...	7200	--	--	15100	3300	3200	33	23400	7.6
21...	4700	--	--	10500	2400	2300	26	16500	7.7
NOV.									
09...	6500	--	--	14100	3000	2900	32	21800	7.7
26...	7600	--	--	16100	3200	3100	36	24900	7.7
DEC.									
27...	8200	--	--	17400	3400	3300	38	25600	7.7
JAN.									
18...	8600	--	--	18000	3600	3500	39	27200	7.9
31...	8900	--	--	18600	3600	3500	40	27900	7.8
FEB.									
24...	9800	--	--	20200	3800	3700	43	29400	7.8
MAR.									
16...	11000	--	--	21900	4000	4000	44	32900	7.8
22...	11000	--	--	22300	4100	4000	45	33700	7.9
APR.									
05...	11000	--	--	22700	4400	4300	44	34500	7.8
17...	12000	--	--	24600	3900	3800	54	36400	7.8
24...	8100	--	--	16900	3200	3200	--	25000	7.6
26...	12000	--	--	24300	3800	3700	53	36400	7.8
26...	630	--	--	2760	1300	1300	4.6	3620	7.7
26...	1200	--	--	3480	1200	1200	9.2	4990	7.6
26...	700	--	--	2870	1400	1300	4.9	3950	7.7
26...	180	--	--	2130	1400	1300	1.4	2500	7.4
MAY									
01...	6800	--	--	14800	3200	3100	32	22600	7.8
06...	2200	--	--	5690	1600	1600	15	8900	7.6
06...	460	--	--	2740	1500	1500	3.1	3310	7.4
22...	9200	--	--	19700	4000	3600	40	29100	7.7
JUNE									
26...	6800	--	--	14600	3100	3000	33	22200	7.7
JULY									
24...	11500	--	--	24000	4500	4400	--	35300	7.8
AUG.									
13...	2700	--	--	6420	1700	1700	17	9900	--
13...	3500	--	--	7910	2000	2000	--	12500	7.7
13...	940	--	--	2910	1100	1000	7.8	4180	7.6
17...	4500	--	--	9930	2300	2200	--	15500	7.7
SEP.									
04...	1200	--	--	3550	1300	1200	9.2	5460	7.7
04...	280	--	--	1820	1100	1000	2.0	2400	7.6
04...	480	--	--	2130	1000	950	4.3	2960	7.6
04...	300	--	--	1860	1100	970	2.4	2480	7.5
07...	3000	--	--	7220	2000	1900	--	11100	7.9

RED RIVER BASIN

07311790 SOUTH FORK WICHITA RIVER AT ROSS RANCH, NEAR BENJAMIN, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
CT. 1971, ..	1136.0	11300	7240	717	22200	3060	303	9390	1520	151	4680
NOV.	332.2	21300	13700	410	12300	6340	189	5680	2320	70	2090
DEC.	351.2	24600	16700	511	15800	7880	241	7470	2640	81	2500
JAN. 1972, ..	236.7	26700	17700	365	11300	8460	174	5410	2740	56	1750
FEB.	187.4	28700	19100	334	9680	9150	160	4630	2940	51	1490
MAR.	199.1	32500	21600	375	11600	10500	181	5620	3180	55	1710
APR.	451.1	13400	8940	363	10900	3940	160	4800	1730	70	2100
MAY	458.4	11600	7160	286	8860	2910	116	3600	1520	61	1890
JUNE	502.06	6900	4650	210	6310	1740	79	2360	1210	55	1650
JULY	240.24	21100	14600	305	9440	6590	138	4270	2600	54	1680
AUG.	1781.64	6770	4210	654	20300	1390	216	6690	1290	201	6220
SEP.	1029.5	7700	5240	486	14600	2020	187	5610	1330	123	3690
TOTAL	6905.54	--	--	--	153000	--	--	65500	--	--	31400
WTD. AVG.	18.9	12500	8220	419	--	3520	179	--	1680	86	--

RED RIVER BASIN

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07311790 SOUTH FORK WICHITA RIVER AT ROSS RANCH, NEAR BENJAMIN, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20200	10000	26200	26500	28000	30000	34200	22600	31000	22600	---	12000
2	10000	11000	23700	26700	28200	30200	34100	22900	31500	25000	---	15000
3	5000	12000	22600	26200	27900	30300	34300	22400	31300	26000	---	10000
4	7000	14000	22600	25000	28000	30400	34400	25000	31500	15000	---	2500
5	12000	16000	22400	26200	28100	30300	34500	26000	32000	18000	---	3000
6	14000	18000	22800	26600	28200	30500	34500	5790	32500	20000	---	10000
7	15000	20000	23200	26500	28300	30700	34200	6040	32000	24000	18000	11100
8	16000	21000	23200	26900	28200	30900	34400	8270	31500	26000	20000	13600
9	17500	21800	23400	27200	28000	31000	34000	10000	31000	29000	23000	17400
10	18800	22500	23600	27000	28400	31300	30000	11500	31500	33000	21000	20600
11	19900	23800	23600	26500	28600	31500	32000	12500	32500	34000	21000	22600
12	21300	22300	24600	26200	28500	31900	33000	13000	32000	34200	18000	22600
13	22400	25200	25400	26400	28300	32000	34000	13500	8000	34400	6500	22600
14	23400	24900	27900	26900	28500	32400	34500	14000	5000	34600	6000	22900
15	24000	24800	23200	26700	28600	32600	35000	14500	4000	34800	7000	23200
16	20000	23600	27600	26900	28800	32900	35700	16000	3500	35400	15000	24800
17	16000	23200	24600	27000	28600	33000	36400	18000	4000	35500	15500	25200
18	12000	24900	23200	27200	28700	33200	36200	20000	5000	35200	16000	24000
19	14000	25900	23400	26900	28900	33100	36400	22000	8000	34800	17000	24800
20	15000	27000	24600	26700	29000	33400	36000	24000	10000	34200	18000	24800
21	16500	25200	26200	26200	29200	33600	35600	26000	12000	34800	18500	24000
22	17000	25600	28000	26500	29000	33700	35900	29100	4000	35000	19000	24000
23	15000	25500	26000	27000	29300	33600	36000	29600	3000	35100	19500	24000
24	14000	26900	25500	27200	29400	33700	36200	30000	10000	35300	20000	24800
25	15000	25500	26000	27500	29600	33900	36400	30500	15000	35500	8000	25000
26	16000	24900	26200	27000	29400	33800	3530	31000	22200	35700	6000	25700
27	16500	24600	25600	26900	29600	34000	6780	32000	23000	35500	4000	25800
28	17000	25100	25800	26500	29800	33900	14800	32500	24000	35600	5000	25900
29	11000	26400	26000	27000	30000	34200	17900	32000	24300	36000	8000	26000
30	10000	26600	26500	27500	---	34300	20000	31000	24800	36200	12000	26200
31	8000	---	26000	27900	---	34100	---	31500	---	---	15000	---
MONTH	15470	22270	24830	26750	28730	32400	31030	21390	19670	31350	14280	20140

RED RIVER BASIN

07311800 SOUTH FORK WICHITA RIVER NEAR BENJAMIN, TEX.

LOCATION.--Lat 33°38'39", long 99°48'02", Knox County, at gaging station at bridge on State Highway 283, 2 miles downstream from Panhandle and Santa Fe Railway Co. bridge, 4 miles north of Benjamin.

DRAINAGE AREA.--584 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

Water temperatures: October 1967 to September 1972.

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 36,200 micromhos Apr. 24; minimum daily, 1,170 micromhos Sept. 4.

Water temperatures: Maximum, 35.5°C July 30; minimum, 0.5°C Feb. 11.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.								
03...	1400	545	360	41	310	112	0	940
06...	0800	37	520	83	1700	96	0	1300
20...	0800	90	370	58	1000	96	0	930
23...	1000	71	200	31	330	100	0	540
NOV.								
01...	0800	31	540	110	1800	122	0	1500
23...	0800	20	920	220	4000	152	0	2500
DEC.								
10...	0750	32	670	160	2200	150	0	1900
15...	0800	39	370	87	1100	108	0	1100
19...	1345	18	880	220	3500	174	0	2500
JAN.								
02...	1400	10	530	87	3100	108	0	1700
13...	0815	9.9	820	280	4900	176	0	2400
28...	0815	7.0	1100	280	5200	172	0	2900
FEB.								
11...	1330	9.9	980	260	4600	168	0	2600
27...	1400	6.2	1100	320	5600	164	0	3100
MAR.								
11...	0800	6.6	1200	330	6300	156	0	3300
25...	1210	7.8	980	260	4900	124	0	2700
APR.								
09...	1430	3.8	1300	340	7200	132	0	3700
11...	0745	8.2	800	200	3400	94	0	2200
28...	0730	110	410	45	390	76	0	1000
29...	0730	34	590	100	1300	82	0	1500
30...	1330	400	310	26	100	80	0	790
MAY								
02...	0815	22	540	69	590	89	0	1400
07...	1000	1220	400	54	380	104	0	1000
12...	0800	1600	160	22	170	118	0	420
15...	0815	26	720	160	1800	128	0	1800
26...	0820	6.2	1200	270	4300	156	0	2900
JUNE								
03...	0900	3.6	1200	340	4800	152	0	3100
16...	0815	72	460	71	1100	84	0	1100
22...	0815	1360	230	31	490	108	0	610
26...	0800	16	700	110	1800	100	0	1800
JULY								
04...	1030	1220	160	28	89	68	0	420
17...	0800	14	1100	280	3300	132	0	2500
27...	0820	.55	680	140	1200	120	0	1600
AUG.								
03...	0820	.02	630	85	560	132	0	1200
08...	0830	.05	740	86	940	104	0	1400
25...	0800	2160	160	22	190	136	0	390
29...	0950	134	270	26	270	98	0	580
SEP.								
05...	0820	1960	310	28	220	98	0	730
07...	0800	67	520	79	840	128	0	1300
12...	0800	24	740	160	2000	124	0	1900

RED RIVER BASIN

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07311800 SOUTH FORK WICHITA RIVER NEAR BENJAMIN, TEX.--Continued

EXTREMES, October 1967 to September 1972.--Dissolved solids (1967-68): Maximum, 18,800 mg/l Oct. 25-31, 1967; minimum, 1,080 mg/l July 19, 1968.

Hardness (1967-68): Maximum, 4,260 mg/l Oct. 25-31, 1967; minimum, 544 mg/l July 19, 1968.

Specific conductance: Maximum daily, 48,900 micromhos May 13, 1971; minimum daily, 1,050 micromhos May 28, 1971.

Water temperatures: Maximum, 38.0°C Sept. 7, 1969; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.							
03...	490	2200	1100	990	4.1	3090	7.5
06...	2900	6400	1600	1600	18	10400	7.3
20...	1700	4160	1200	1100	13	6820	7.2
23...	510	1670	640	560	5.7	2680	7.4
NOV.							
01...	2800	6760	1800	1700	19	10700	7.6
23...	6600	14300	3200	3100	31	21800	7.6
DEC.							
10...	3600	8630	2400	2200	20	13200	7.7
15...	1600	4370	1300	1200	13	6750	7.4
19...	5700	12900	3100	3000	27	19100	7.9
JAN.							
02...	4600	10000	1700	1600	33	16200	7.7
13...	7900	16400	3200	3100	38	25000	7.7
24...	8600	18200	3800	3700	36	27100	7.8
FEB.							
11...	7600	16200	3500	3400	34	24700	7.9
27...	9200	19400	4100	4000	38	29100	7.8
MAR.							
11...	10000	21400	4400	4200	42	32600	7.9
25...	8000	16900	3500	3400	36	25700	7.8
APR.							
09...	12000	24200	4700	4600	46	35700	7.7
11...	5400	12100	2800	2700	28	18600	7.7
28...	640	2560	1200	1200	4.8	3540	7.7
29...	2200	5800	1900	1800	13	8960	7.7
30...	160	1430	880	810	1.5	1850	7.8
MAY							
02...	1000	3610	1600	1600	6.4	5230	7.2
07...	630	2530	1200	1100	4.6	3580	7.0
12...	230	1070	500	400	3.3	1660	7.1
15...	3200	7790	2400	2300	--	12000	7.1
26...	7300	16000	4000	3900	--	24200	7.2
JUNE							
03...	8100	17600	4400	4300	--	26400	7.9
16...	1800	4680	1400	1400	13	7550	8.0
22...	740	2160	700	610	8.0	3370	8.1
26...	3000	7410	2200	2100	--	11500	7.9
JULY							
04...	140	869	500	440	1.7	1290	7.9
17...	5900	13100	3900	3800	--	19900	7.6
27...	2100	5770	2200	2150	11	8740	8.0
AUG.							
03...	1300	3790	1900	1800	5.6	5710	8.0
08...	2000	5120	2200	2100	8.1	7860	7.9
25...	280	1110	500	390	3.7	1720	8.0
29...	480	1680	780	700	4.2	2600	7.9
SEP.							
05...	380	1720	890	810	3.3	2380	8.0
07...	1400	4190	1600	1500	9.0	6070	8.1
12...	3400	8350	2500	2400	--	12800	7.9

RED RIVER BASIN

07311800 SOUTH FORK WICHITA RIVER NEAR BENJAMIN, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	2478	6770	4340	937	29000	1730	373	11600	1020	220	6820
NOV.	581	20300	13200	693	20800	6070	318	9530	2320	122	3650
DEC.	662	17400	11500	661	20500	5180	299	9260	2100	121	3760
JAN. 1972, ..	254.4	22900	15000	332	10300	7130	158	4900	2310	51	1580
FEB.	224.9	27100	18000	376	10900	8470	177	5140	2900	61	1760
MAR.	196.0	32400	21300	363	11300	10200	174	5390	3280	56	1740
APR.	4736.2	2300	1700	725	21700	390	167	5020	680	290	8700
MAY	1915.2	4740	3210	535	16600	1060	177	5480	990	165	5110
JUNE	1476.1	6510	4210	559	16800	1660	221	6620	1000	133	3990
JULY	1574.99	4960	3260	448	13900	1180	162	5010	920	126	3920
AUG.	4346.13	3820	2510	950	29500	830	313	9710	780	296	9160
SEP.	4776.8	2940	2080	893	26800	580	249	7460	760	328	9830
TOTAL	23221.72	--	--	--	228000	--	--	85100	--	--	60000
WTD. AVG.	63.4	5440	3640	623	--	1360	233	--	960	164	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20200	10700	23100	17700	24400	31400	33300	7000	25700	15300	13300	3110
2	4620	12300	20400	16200	26200	31700	33700	5230	26200	18400	11900	8000
3	3000	13400	18200	20000	26900	31600	34100	7270	26400	16700	---	4940
4	4260	15600	18200	18000	26100	32200	34500	9560	26800	1840	---	1170
5	8200	17800	16400	18100	26600	32200	34300	12000	26600	4100	---	2010
6	10400	18600	16900	21100	26600	32100	34500	11500	26600	4610	---	5000
7	11200	18900	17300	20300	27100	32100	34900	3560	26800	8000	18600	5980
8	12400	18600	18700	19300	27200	32500	35400	6000	27100	9500	18600	7350
9	13700	19100	18400	22000	27200	32500	35700	7690	27300	11700	---	8800
10	15000	20000	13200	22200	27200	32700	25000	11800	27100	12400	---	10600
11	16100	20700	16500	21100	24700	32600	18600	6000	26900	13600	---	11600
12	17000	20800	18200	23000	25300	32900	26100	1730	26400	14600	---	12800
13	18000	21100	19300	25000	25700	31300	27700	4110	26300	15300	4990	13500
14	18800	21600	10000	23900	25900	32700	30600	8000	18600	17800	4820	14900
15	19500	21900	9000	25800	26500	33400	30600	12000	4090	18600	5600	15600
16	12000	22300	12900	26000	26800	33400	31100	13800	8500	19000	11300	16200
17	10000	22600	16600	26400	27100	33600	33000	16300	11900	19900	11400	16700
18	8000	23100	19300	24000	27700	33700	35200	17600	11300	3050	12400	17400
19	16000	23600	19100	24600	27800	33900	28000	18800	12900	1700	13600	17500
20	6300	24000	20000	23000	27900	34500	20900	20100	16600	3500	14900	18200
21	9860	23000	20900	23000	27800	34400	22400	21400	18400	4000	15600	15400
22	3000	22700	21900	26100	28700	34400	28900	21700	4050	5000	16500	16700
23	3170	21800	21500	23600	28500	34600	35700	22200	7000	5860	17600	16900
24	10000	23000	21800	26300	28700	28300	36200	22900	7770	6500	19600	18200
25	14300	23000	22300	25100	28600	25700	35800	23300	9350	7130	2030	18200
26	17800	23400	22200	23700	29100	31600	1620	24200	11500	7910	2590	19000
27	15000	23900	22600	27200	29100	32500	1390	24300	13400	8740	2600	19300
28	10200	24500	23100	27100	29400	32100	5000	24800	14600	9000	2790	19800
29	4670	24600	23000	26600	29600	33400	10000	25000	15900	10100	2970	20200
30	8000	23600	22100	26200	---	33800	2100	25000	17100	11700	5630	20700
31	11700	---	23100	26700	---	33600	---	25400	---	12000	7870	---
MONTH	11370	20670	18910	23200	27260	32500	26540	14850	18310	10240	---	13190

RED RIVER BASIN

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07311800 SOUTH FORK WICHITA RIVER NEAR BENJAMIN, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.5	15.5	6.0	12.0	4.0	11.5	20.5	16.0	23.0	23.5	24.5	24.0
2	21.5	11.0	1.5	10.0	5.0	5.0	15.5	16.5	20.5	29.5	22.0	23.0
3	19.5	10.0	1.0	6.0	1.5	5.5	14.0	16.5	23.5	24.5	---	20.5
4	18.5	9.0	2.0	1.5	3.0	15.0	16.0	18.5	32.0	20.0	---	20.5
5	18.0	11.0	6.0	4.0	2.0	15.0	12.0	16.5	23.0	20.0	---	22.0
6	16.5	10.0	5.5	4.0	7.0	14.5	17.0	16.0	22.0	21.0	---	23.5
7	17.0	11.5	7.0	5.0	1.5	13.0	18.0	16.0	21.5	14.5	23.5	25.0
8	19.5	10.0	6.0	4.5	5.0	9.0	23.5	15.0	22.0	23.5	23.5	25.5
9	17.0	5.5	4.0	11.0	3.0	9.5	25.5	19.0	21.0	32.0	---	26.0
10	20.0	8.0	4.0	7.0	6.5	12.0	22.0	16.5	22.0	25.0	---	30.0
11	14.5	9.5	7.0	6.0	0.5	13.5	21.0	19.0	26.5	24.0	---	25.0
12	16.5	10.5	10.5	8.0	5.0	25.5	21.0	16.5	24.0	24.5	---	25.5
13	18.0	10.0	4.5	3.0	13.0	20.0	19.5	18.0	24.0	24.5	22.0	21.0
14	14.5	21.0	9.5	2.0	10.5	21.0	20.0	25.5	21.0	24.0	---	25.5
15	18.0	15.5	5.5	3.0	9.0	14.0	17.0	15.5	22.0	24.5	25.5	24.0
16	16.0	18.0	4.0	5.5	6.0	10.0	28.5	20.0	24.0	31.5	24.5	24.0
17	21.5	18.0	3.5	4.0	6.0	11.0	15.5	21.0	25.0	21.0	25.5	30.0
18	19.0	9.5	2.0	6.0	5.5	13.0	17.0	21.0	27.0	23.5	25.5	25.5
19	17.0	5.0	12.0	4.5	4.5	22.0	20.0	21.5	24.0	23.5	25.0	25.5
20	14.0	5.5	5.0	6.0	16.5	14.5	20.5	21.0	26.5	24.5	29.5	24.0
21	13.5	9.5	4.0	6.0	10.5	13.5	15.5	31.0	23.5	24.5	25.5	20.5
22	14.0	10.0	3.5	3.5	9.0	20.5	14.5	21.0	21.5	21.0	24.0	18.0
23	30.0	9.5	5.5	19.0	6.5	16.5	26.0	20.0	23.0	24.5	25.5	18.5
24	19.0	8.0	9.5	6.0	10.0	18.0	14.5	21.0	25.5	25.5	24.0	25.5
25	14.5	8.5	10.0	3.5	9.0	20.0	15.0	23.0	33.0	24.5	21.5	21.5
26	18.0	7.0	16.0	4.0	6.5	24.0	17.0	23.5	25.0	23.5	23.5	23.0
27	12.0	6.0	11.5	1.0	16.5	13.5	11.0	21.5	26.0	24.0	25.5	18.5
28	14.0	13.5	7.0	1.0	10.0	18.5	16.0	31.5	26.0	24.0	25.0	22.0
29	19.5	5.0	8.5	5.5	11.5	17.0	18.5	23.5	26.0	24.0	25.5	23.0
30	17.0	5.0	6.0	5.5	---	11.5	15.0	20.0	24.5	35.5	25.5	15.5
31	16.0	---	9.5	1.5	---	16.5	---	18.5	---	22.0	25.0	---
MONTH	17.5	10.0	6.5	5.5	7.0	15.0	18.0	20.0	24.5	24.5	---	23.0

RED RIVER BASIN

07311900 WICHITA RIVER NEAR SEYMOUR, TEX.

LOCATION.--Lat 33°42'01", long 99°23'18", Baylor County, at gaging station at bridge on Ranch Road 1919, 6 miles upstream from head of Lake Kemp, 10 miles downstream from confluence of North and South Forks, and 10.5 miles northwest of Seymour.

DRAINAGE AREA.--1,874 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

Water temperatures: October 1967 to September 1972.

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 26,100 micromhos Apr. 17; minimum daily, 890 micromhos May 12.

Water temperatures: Maximum, 34.0°C June 19, July 25; minimum, 1.0°C Jan. 5, 15, 16.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.								
03...	1855	1130	180	34	470	66	0	520
06...	2050	118	300	53	700	64	0	830
08...	2040	58	520	98	1800	140	0	1400
29...	1910	91	560	98	590	104	0	860
NOV.								
01...	0645	116	460	97	1300	100	0	1100
14...	2100	27	750	130	2500	140	0	1800
27...	1925	25	790	190	3000	160	0	2100
DEC.								
05...	1840	174	340	76	1300	158	0	940
08...	2100	51	600	150	2200	126	0	1700
16...	0725	116	320	68	800	124	0	940
26...	1635	34	780	190	3000	130	0	2200
JAN.								
22...	1835	23	850	230	3600	134	0	2400
FEB.								
15...	1120	28	890	240	3700	148	0	2500
MAR.								
15...	1400	15	1000	280	4400	142	0	2800
24...	1730	23	860	210	3400	128	0	2400
APR.								
01...	1630	16	940	240	4100	96	0	2700
28...	1645	3070	140	18	130	92	0	350
29...	1805	359	180	22	200	86	0	480
30...	2100	4750	140	23	160	120	0	320
MAY								
01...	1940	1060	310	36	670	116	0	740
08...	1815	1440	220	30	220	88	0	560
17...	1850	152	360	62	920	112	0	890
20...	1635	95	460	92	1300	124	0	1200
23...	1750	63	500	120	1600	124	0	1300
28...	1720	38	600	140	2000	96	0	1700
JUNE								
01...	1620	34	660	160	2300	136	0	1700
17...	1900	273	190	27	350	82	0	530
22...	1830	970	110	21	240	112	0	260
27...	1750	71	420	64	990	108	0	1100
JULY								
04...	1630	410	190	31	310	92	0	510
12...	1730	36	490	120	1400	104	0	1100
20...	0800	400	250	48	580	82	0	760
25...	1647	12	580	200	2100	112	0	1700
AUG.								
05...	1730	2.6	640	160	2300	96	0	1700
14...	1720	40	200	39	650	82	0	500
26...	1930	1130	160	29	150	88	0	430
28...	1920	940	250	23	310	80	0	630
31...	1930	108	280	41	510	92	0	710
SEP.								
06...	1630	3170	170	15	100	92	0	400
13...	1640	152	430	94	1200	128	0	1100
26...	0930	72	610	140	2200	132	0	1600

RED RIVER BASIN

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07311900 WICHITA RIVER NEAR SEYMOUR, TEX.--Continued

EXTREMES, October 1967 to September 1972.--Dissolved (1967-68): Maximum, 12,300 mg/l Jan. 1-18, 1968; minimum, 1,220 mg/l Jan. 19-23, 1968.

Hardness (1967-68): Maximum, 2,810 mg/l Jan. 1-18, 1968; minimum, 399 mg/l Jan. 19-23, 1968.

Specific conductance: Maximum daily, 30,800 micromhos Feb. 12, 1969; minimum daily, 735 micromhos Sept. 22, 1969.

Water temperatures: Maximum, 37.0°C Aug. 11, 1969; minimum, freezing point Dec. 29, 1969, Jan. 5, 1971.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.							
03...	720	1960	600	550	8.2	3100	7.7
06...	1100	3030	980	930	9.7	4660	6.8
08...	2900	6780	1700	1600	19	10700	7.8
29...	1500	3660	1800	1700	6.1	6220	7.5
NOV.							
01...	2200	5240	1600	1500	14	8380	7.2
14...	4200	9470	2400	2300	22	14600	7.6
27...	5000	11200	2800	2600	25	17300	7.7
DEC.							
05...	2100	4880	1200	1000	17	8030	7.9
08...	3500	8220	2100	2000	21	13000	7.9
16...	1200	3410	1100	980	11	5560	8.0
26...	4900	11100	2700	2600	25	17100	7.8
JAN.							
22...	5800	13000	3000	2900	28	19800	7.8
FEB.							
15...	6100	13500	3200	3100	28	20600	7.6
MAR.							
15...	7200	15900	3700	3600	32	23700	7.7
24...	5600	12500	3000	2900	27	19100	7.7
APR.							
01...	6700	14700	3300	3200	31	21800	7.8
28...	180	853	410	330	2.8	1340	8.0
29...	290	1220	550	480	3.7	1470	7.9
30...	250	452	430	330	3.4	1540	8.0
MAY							
01...	1100	2890	920	820	9.6	4560	6.9
08...	340	1410	660	590	3.7	2170	7.1
17...	1500	3780	1100	1000	12	6050	7.1
20...	2200	5330	1500	1400	15	8650	7.2
23...	2600	6160	1800	1600	16	9800	7.1
28...	3300	7800	2100	2000	--	12100	7.2
JUNE							
01...	3800	8640	2300	2200	--	13700	8.0
17...	520	1660	580	520	6.3	2600	8.0
22...	360	1060	350	260	5.7	1670	8.1
27...	1600	4210	1300	1200	12	6820	7.9
JULY							
04...	480	1560	600	520	5.5	2300	8.1
12...	2600	5700	1700	1620	15	9480	7.9
20...	880	2560	820	760	8.8	3860	8.0
25...	3500	8120	2200	2200	--	12500	7.9
AUG.							
05...	3800	8600	2200	2200	--	13300	7.6
14...	1000	2320	660	590	11	4110	7.6
26...	240	1050	520	450	2.9	1650	8.0
28...	480	1740	720	650	5.1	2630	7.9
31...	840	2430	880	800	7.5	3780	7.8
SEP.							
06...	160	891	480	410	2.1	1340	7.8
13...	1900	4760	1500	1400	13	7540	7.9
26...	3600	8220	2100	2000	--	13100	7.8

RED RIVER BASIN

07311900 WICHITA RIVER NEAR SEYMOUR, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.0	19.0	7.0	---	4.0	12.0	16.0	20.0	28.0	---	33.0	25.0
2	25.0	18.0	4.0	10.0	4.0	9.0	16.0	22.0	28.0	---	32.0	27.0
3	20.0	15.0	8.0	7.0	7.0	9.0	15.0	23.0	27.0	28.0	32.0	27.0
4	21.0	14.0	10.0	4.0	8.0	19.0	17.0	25.0	25.0	---	33.0	26.0
5	23.0	12.0	13.0	1.0	9.0	19.0	19.0	22.0	28.0	26.0	33.0	25.0
6	22.0	10.0	11.0	2.0	9.0	10.0	22.0	23.0	29.0	23.5	33.0	26.0
7	23.0	12.0	14.0	4.0	8.0	12.0	21.0	20.0	30.0	---	32.0	25.0
8	20.0	13.0	7.0	11.0	6.0	10.0	22.0	21.0	28.0	28.0	30.0	27.0
9	23.0	14.0	9.0	10.0	9.0	9.0	20.0	22.0	29.0	---	28.0	29.0
10	25.0	15.0	10.0	8.0	11.0	20.0	25.0	20.0	30.0	32.0	27.0	30.0
11	25.0	17.0	12.0	6.0	13.0	12.0	24.0	20.0	31.0	---	25.0	31.0
12	24.0	18.0	13.0	5.0	14.0	22.0	22.0	19.0	30.0	33.0	29.0	30.0
13	21.0	19.0	11.0	4.0	16.0	22.0	21.0	20.0	27.0	---	29.0	29.0
14	20.0	18.0	12.0	3.0	18.0	17.0	22.0	21.0	23.0	---	31.0	26.0
15	22.0	19.0	10.0	1.0	17.0	15.0	19.0	25.0	25.0	30.0	30.0	27.0
16	21.0	20.0	8.0	1.0	16.0	21.0	17.0	28.0	26.0	33.0	30.0	27.0
17	19.0	19.0	6.0	3.0	17.0	19.0	22.0	29.0	29.0	---	31.0	28.0
18	20.0	18.0	9.0	6.0	17.0	20.0	26.0	29.0	30.0	28.0	29.0	26.0
19	18.0	17.0	10.0	9.0	18.0	21.0	23.0	27.0	34.0	---	30.0	27.0
20	16.0	16.0	8.0	8.0	18.0	18.0	22.0	23.0	30.0	---	32.0	25.0
21	21.0	15.0	9.0	9.0	21.0	25.0	---	21.0	32.0	32.0	31.0	21.0
22	20.0	13.0	11.0	11.0	20.0	23.0	20.0	30.0	28.0	29.0	30.0	19.0
23	21.0	11.0	12.0	14.0	19.0	26.0	19.0	29.0	29.0	33.0	32.0	20.0
24	19.0	8.0	9.0	12.0	19.0	20.0	25.0	29.0	31.0	---	---	22.0
25	20.0	10.0	13.0	11.0	17.0	24.0	25.0	29.0	28.0	34.0	28.0	23.0
26	19.0	12.0	11.0	11.0	15.0	23.0	25.0	31.0	29.0	---	26.0	20.0
27	18.0	13.0	10.0	4.0	14.0	21.0	24.0	30.0	32.0	27.5	27.0	24.0
28	21.0	14.0	9.0	4.0	11.0	20.0	19.0	30.0	32.0	---	29.0	25.0
29	20.0	11.0	9.0	5.0	12.0	16.0	22.0	28.0	29.0	31.0	29.0	23.0
30	19.0	9.0	7.0	7.0	---	15.0	18.0	25.0	30.0	30.0	28.0	20.0
31	20.0	---	7.0	5.0	---	15.0	---	27.0	---	33.0	30.0	---
MONTH	21.0	14.5	9.5	6.5	13.5	17.5	21.0	25.0	29.0	---	30.0	25.5

RED RIVER BASIN

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07311900 WICHITA RIVER NEAR SEYMOUR, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	6202	4130	2580	1390	43200	980	531	16500	660	357	11100
NOV.	1150	13100	8440	874	26200	3710	384	11500	1640	170	5090
DEC.	2107	10600	6640	1220	37800	2810	516	16000	1390	256	7920
JAN. 1972, ..	761	19400	12700	843	26100	5720	379	11800	2370	157	4870
FEB.	647	20600	13500	814	23600	6100	368	10700	2480	149	4330
MAR.	564	22400	14900	734	22700	6790	333	10300	2690	132	4090
APR.	14095.8	1810	1180	1500	44900	340	429	12900	400	503	15100
MAY	20282	2040	1340	2370	73600	370	653	20200	490	863	26700
JUNE	10707	3030	1930	1860	55800	710	680	20400	500	479	14400
JULY	3021.1	5190	3290	866	26900	1280	338	10500	807	212	6580
AUG.	6135.4	2970	1880	1010	31200	600	319	9880	600	323	10000
SEP.	18289	2350	1510	2490	74700	450	745	22300	500	821	24600
TOTAL	83961.3	--	--	--	487000	--	--	173000	--	--	135000
WTD. AVG.	229	3330	2140	1330	--	760	473	--	600	368	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7200	8300	16500	18100	20200	22200	21800	1890	13700	8800	11700	2500
2	4310	8870	12000	18200	20000	22200	21700	3610	13900	9000	13100	2380
3	2970	9670	8120	18600	21500	22200	22800	3620	14000	9310	13300	1500
4	2900	10500	8000	18600	20200	22300	22400	3600	14100	4000	13100	1060
5	3500	10500	8030	18600	20200	22300	21700	5380	14300	2800	13300	1190
6	4660	10500	8000	18600	20000	22300	24000	5500	14400	3200	13300	1250
7	5300	11300	12900	18600	20000	22300	24200	1210	14600	4500	13200	1800
8	5800	13300	13000	18600	20300	22700	24300	2310	14800	6990	13200	2960
9	6200	13200	9720	18600	20300	22600	24300	2800	14700	9530	12500	4040
10	6800	13300	9670	18700	20300	22700	23700	2380	14900	7510	12400	4500
11	7300	13400	9670	19800	20200	22600	23700	2100	15000	8500	12400	5600
12	8500	14600	9630	19900	20300	23100	24100	890	15300	9480	12500	6450
13	9500	14600	9630	19900	20200	22900	24900	1280	15400	9800	12500	7000
14	10700	14600	9630	19900	20200	22700	22500	1500	1900	10300	4110	7510
15	10800	14600	4000	19900	20600	23700	22400	2500	1600	10600	4870	8500
16	10900	16800	5560	19900	20600	23700	22400	3500	4130	12100	5200	9500
17	4000	16800	7390	19900	20600	23800	26100	6050	2960	12500	8200	10500
18	3500	16800	10400	19900	20600	23800	21700	6500	4080	13000	11000	10000
19	4500	16800	17100	19900	20600	23800	21800	7000	6200	10100	11500	9900
20	3100	16800	17100	19800	20700	23800	17600	8650	7500	5190	11800	8000
21	6000	16900	17100	20200	20600	23800	16600	8620	12200	9900	12200	6710
22	8610	16200	17100	19800	21000	23200	16900	9800	3050	10000	12500	7090
23	3500	16200	17100	19800	21000	23300	19000	10000	2740	10100	10700	8500
24	4000	16200	17100	19800	21100	19100	22000	10400	2500	10200	12000	10000
25	4880	17300	17100	20000	20800	19100	23800	10700	4000	10300	2120	11600
26	5000	17300	17100	20000	21200	24100	21600	11000	5000	10500	1690	12000
27	2900	17300	17100	19800	21200	24100	1440	11500	6820	10600	2110	12300
28	5000	17300	17200	19900	21200	24400	1400	12100	7300	11000	2380	12600
29	6200	16500	17200	20000	22100	20600	1730	13000	7880	11500	3510	13100
30	4900	16500	17500	20000	---	20500	940	13800	8300	12400	3770	12800
31	7500	---	17400	20000	---	21800	---	14900	---	12500	4000	---
MONTH	5840	14430	12740	19460	20610	22640	19450	6390	9240	9230	9130	7090

RED RIVER BASIN

07312100 WICHITA RIVER NEAR MABELLE, TEX.

LOCATION.--Lat 33°45'36", long 99°08'33", Baylor County, at gaging station at bridge on U.S. Highways 183 and 283, 0.3 mile downstream from Lake Kemp Dam, 6 miles north of Mabelle, and 13 miles northeast of Seymour.

DRAINAGE AREA.--2,086 sq mi, all of which is above Lake Kemp Dam.

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1972.
Water temperatures: October 1966 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED MAG- NE- SIUM (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.								
05...	0905	14	260	66	780	106	0	760
26...	2140	28	72	24	220	104	0	210
NOV.								
15...	1530	18	230	55	700	100	0	710
DEC.								
05...	1215	28	160	36	480	114	0	460
10...	2040	18	37	16	94	164	0	68
14...	2000	24	130	32	340	136	0	330
27...	1950	18	240	56	720	106	0	680
JAN.								
07...	1805	17	180	35	420	80	0	480
12...	1915	17	240	59	720	108	0	680
FEB.								
15...	2200	11	250	60	760	112	0	720
MAR.								
02...	1820	9.4	280	50	790	112	0	750
28...	2150	53	260	59	830	114	0	740
APR.								
10...	2230	120	280	57	880	112	0	770
30...	1825	13	280	53	880	116	0	770
MAY								
03...	2200	12	200	120	840	114	0	780
31...	2030	142	240	71	780	112	0	700
JUNE								
02...	1310	75	270	45	770	112	0	700
25...	2200	171	240	51	670	120	0	640
30...	1445	150	240	44	660	116	0	630
JULY								
08...	1835	128	230	51	680	120	0	660
31...	1330	334	220	52	600	104	0	600
AUG.								
03...	1925	424	220	51	630	104	0	610
12...	1535	104	220	48	690	108	0	600
SEP.								
05...	1900	19	230	53	620	112	0	610
29...	1530	15	210	54	580	180	0	570

RED RIVER BASIN

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07312100 WICHITA RIVER NEAR MABELLE, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 5,780 micromhos May 3; minimum daily, 3,600 micromhos Sept. 30.
Water temperatures: Maximum, 32.0°C Sept. 4; minimum, 5.0°C Feb. 10.

EXTREMES, October 1968 to September 1972.--Specific conductance: Maximum daily, 6,190 micromhos May 25, 1971; minimum daily, 2,420 micromhos Feb. 13, 1969.
Water temperatures: Maximum, 32.0°C Sept. 4, 1972; minimum, 4.0°C on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.							
05...	1200	3150	920	830	11	4990	7.8
26...	330	911	280	200	5.8	1540	7.3
NOV.							
15...	1100	2800	800	720	11	4400	7.6
DEC.							
05...	740	1940	560	470	8.9	3200	7.7
10...	110	408	160	26	3.2	825	7.8
14...	520	1420	450	340	7.0	2460	7.9
27...	1100	2880	830	740	11	4620	7.7
JAN.							
07...	660	1810	580	510	7.6	3040	7.8
12...	1100	2870	830	740	11	4620	7.9
FEB.							
15...	1200	3040	880	790	11	4860	7.8
MAR.							
02...	1200	3160	900	810	11	5170	7.8
28...	1300	3240	900	810	12	5350	7.9
APR.							
10...	1400	3420	920	830	13	5520	8.0
30...	1400	3410	920	820	13	5630	8.0
MAY							
03...	1400	3360	990	900	12	5780	8.2
31...	1200	3080	880	790	11	5170	8.1
JUNE							
02...	1200	3060	860	770	11	4800	8.0
25...	1100	2740	820	720	10	4240	8.0
30...	1000	2660	780	680	10	4090	8.0
JULY							
08...	1000	2730	780	680	11	4180	8.0
31...	960	2480	750	660	9.6	3950	7.9
AUG.							
03...	1000	2560	760	680	10	3960	8.0
12...	1100	2720	760	670	11	4300	7.8
SEP.							
05...	1000	2570	790	700	9.6	4000	8.0
29...	900	2400	740	590	9.3	3610	8.0

RED RIVER BASIN

07312100 WICHITA RIVER NEAR MABELLE, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	519	4660	2930	132	4110	1150	52	1610	700	32	981
NOV.	526	4410	2770	131	3930	1050	50	1490	700	33	994
DEC.	539	4500	2800	131	4070	1080	51	1570	680	32	990
JAN. 1972, ..	511	4640	2880	128	3970	1130	50	1560	680	30	938
FEB.	323.1	4850	3030	91	2640	1200	36	1050	710	21	619
MAR.	2207.1	5300	3230	621	19200	1300	250	7750	730	140	4350
APR.	4098	5580	3420	1260	37800	1380	509	15300	770	284	8520
MAY	512	5430	3210	143	4440	1290	58	1780	750	33	1040
JUNE	4513	4360	2810	1140	34200	1110	451	13500	650	264	7920
JULY	8484	3990	2560	1890	58600	1000	739	22900	610	451	14000
AUG.	6430	4010	2570	1440	44600	1000	560	17400	610	342	10600
SEP.	1880	3960	2550	431	12900	990	168	5030	610	103	3100
TOTAL	30542.2	--	--	--	230000	--	--	90900	--	--	54100
WTD. AVG.	83.4	4430	2800	630	--	1100	248	--	650	148	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5330	4370	4420	4490	4670	5160	5400	5730	4850	4240	3940	3980
2	5270	4400	4390	4610	4750	5170	5420	5770	4800	4210	3970	3990
3	4490	4400	4300	4550	4740	5200	5400	5780	4740	4230	3970	4000
4	4980	4400	4160	4560	4860	5200	5580	5760	4740	4250	3970	4000
5	4990	4400	4350	4560	4840	5210	5630	5740	4760	4290	3970	4000
6	5220	4420	4530	4630	4790	5210	5610	5670	4710	4270	3980	4000
7	5220	4410	4620	4610	4790	5220	5550	5630	4710	4220	4030	4030
8	5050	4400	4720	4590	4800	5200	5540	5660	4700	4180	4000	4010
9	4860	4400	4690	4600	4790	5200	5540	5710	4680	4190	4010	4000
10	4880	4410	4610	4620	4780	5200	5520	5520	4670	4150	4010	4000
11	4680	4400	4530	4630	4800	5220	5530	5450	4660	4120	4200	4040
12	4630	4400	4440	4620	4810	5250	5540	5460	4640	4060	4300	4000
13	4570	4410	4430	4620	4810	5210	5550	5470	4630	4040	4020	4010
14	4590	4420	4440	4630	4860	5240	5570	5480	4570	4030	4020	4000
15	4570	4400	4400	4640	4860	5210	5570	5520	4630	3980	4020	4000
16	4570	4400	4430	4640	4940	5250	5540	5430	4630	3970	4020	3990
17	4580	4400	4470	4640	4940	5250	5600	5360	4620	3960	4020	3990
18	4550	4420	4450	4650	4890	5280	5580	5400	4620	3960	4030	3970
19	4300	4410	4460	4650	4910	5340	5580	5370	4480	3950	4030	3960
20	4470	4410	4480	4660	4920	5270	5610	5370	4400	3950	4030	3920
21	4530	4420	4470	4640	4930	5270	5610	5410	4160	3950	4020	3930
22	4510	4400	4480	4650	4910	5290	5610	5330	4280	3950	4030	3980
23	4510	4420	4490	4660	4910	5290	5630	5350	4270	3950	4050	3990
24	4450	4420	4480	4670	4910	5320	5660	5340	4150	3950	4060	3910
25	4470	4430	4590	4720	4880	5340	5690	5360	4240	3940	3980	3800
26	4420	4420	4590	4770	4880	5340	5690	5330	4230	3940	4060	3730
27	4410	4420	4620	4750	4910	5350	5660	5290	4220	3950	4060	3710
28	4420	4450	4540	4720	4930	5350	5690	5300	4190	3950	4050	3700
29	4410	4440	4590	4710	4940	5380	5720	5290	4160	3960	4060	3610
30	4420	4460	4540	4740	---	5370	5630	5260	4090	3940	4100	3600
31	4410	---	4650	4740	---	5370	---	5170	---	3950	4110	---
MONTH	4670	4410	4500	4640	4850	5260	5580	5470	4510	4050	4040	3930

RED RIVER BASIN

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07312100 WICHITA RIVER NEAR MABELLE, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	18.0	12.0	12.0	8.0	13.0	---	19.0	22.0	24.0	26.0	27.0
2	22.0	19.0	10.0	9.0	7.0	12.0	15.0	18.0	21.0	23.0	26.0	26.0
3	20.0	17.0	10.0	8.0	8.0	12.0	14.0	20.0	20.0	---	26.0	24.0
4	18.0	---	9.0	7.0	6.0	10.0	15.0	---	21.0	22.0	27.0	32.0
5	19.0	17.0	9.0	7.0	7.0	15.0	14.0	21.0	22.0	21.0	25.0	27.0
6	19.0	16.0	10.0	9.0	9.0	16.0	15.0	23.0	21.0	22.0	26.0	27.0
7	23.0	15.0	---	10.0	6.0	12.0	15.0	18.0	---	---	26.0	26.0
8	---	16.0	9.0	10.0	7.0	11.0	15.0	23.0	21.0	24.0	26.0	29.0
9	23.0	16.0	9.0	10.0	8.0	---	17.0	20.0	21.0	23.0	---	28.0
10	21.0	15.0	8.0	9.0	5.0	13.0	16.0	21.0	21.0	23.0	25.0	27.0
11	22.0	17.0	11.0	9.0	---	14.0	17.0	20.0	20.0	24.0	---	26.0
12	22.0	16.0	9.0	11.0	8.0	17.0	---	---	---	23.0	26.0	26.0
13	22.0	17.0	---	7.0	10.0	17.0	18.0	20.0	22.0	24.0	26.0	25.0
14	23.0	17.0	12.0	---	8.0	16.0	19.0	21.0	20.0	25.0	26.0	---
15	22.0	17.0	10.0	7.0	6.0	15.0	18.0	22.0	22.0	23.0	26.0	---
16	23.0	18.0	9.0	8.0	8.0	16.0	19.0	21.0	23.0	---	26.0	---
17	22.0	15.0	11.0	10.0	9.0	14.0	20.0	21.0	25.0	25.0	27.0	---
18	22.0	13.0	10.0	---	11.0	14.0	21.0	21.0	22.0	25.0	26.0	---
19	---	---	10.0	8.0	10.0	15.0	20.0	23.0	23.0	25.0	27.0	---
20	20.0	16.0	11.0	10.0	---	15.0	19.0	23.0	21.0	24.0	26.0	---
21	20.0	16.0	11.0	7.0	13.0	16.0	---	22.0	22.0	25.0	26.0	23.0
22	20.0	12.0	10.0	7.0	8.0	16.0	20.0	24.0	22.0	25.0	26.0	25.0
23	19.0	13.0	12.0	9.0	14.0	15.0	18.0	25.0	22.0	26.0	26.0	22.0
24	20.0	14.0	14.0	11.0	16.0	---	19.0	---	22.0	27.0	25.0	23.0
25	19.0	13.0	13.0	---	17.0	16.0	18.0	23.0	23.0	26.0	26.0	26.0
26	17.0	15.0	11.0	8.0	12.0	18.0	19.0	23.0	---	26.0	27.0	26.0
27	20.0	12.0	11.0	6.0	14.0	16.0	22.0	23.0	23.0	27.0	27.0	27.0
28	23.0	11.0	11.0	6.0	12.0	14.0	18.0	19.0	24.0	26.0	26.0	25.0
29	21.0	11.0	10.0	6.0	10.0	14.0	21.0	21.0	24.0	25.0	28.0	26.0
30	20.0	11.0	12.0	8.0	---	14.0	22.0	19.0	24.0	26.0	28.0	26.0
31	20.0	---	11.0	8.0	---	13.0	---	20.0	---	27.0	29.0	---
MONTH	21.0	15.0	10.5	8.5	9.5	14.5	18.0	21.0	22.0	24.5	26.5	---

RED RIVER BASIN

07312700 WICHITA RIVER NEAR CHARLIE, TEX.

LOCATION.--Lat 34°03'11", long 98°17'47", Clay County, at gaging station at bridge on Farm Road 810, 3.0 miles southeast of Charlie, and 5.7 miles northwest of Petrolia.

DRAINAGE AREA.--3,439 sq mi, of which 2,086 sq mi is above Lake Kemp Dam and 143 sq mi is above Lake Wichita Dam.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

Chemical and biochemical analyses: October 1968 to September 1972.

Water temperatures: October 1967 to September 1972.

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 4,420 mg/l Apr. 24-27; minimum, 529 mg/l Oct. 4-5, 22. Hardness: Maximum, 1,400 mg/l Apr. 24-27; minimum, 190 mg/l Oct. 4-5, 22, May 13.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.								
01-02	393	12	180	66	480	184	0	380
03...	1350	9.5	100	29	260	124	0	180
04-05	3180	6.5	52	14	120	100	0	64
06-10	1220	8.0	140	46	420	136	0	300
11-20	308	12	180	66	480	184	0	380
21...	1660	9.5	100	29	260	124	0	180
22...	1940	6.5	52	14	120	100	0	64
23...	786	9.5	100	29	260	124	0	180
24-31	351	8.0	140	46	420	136	0	300
NOV.								
01-05	186	9.1	190	62	500	208	0	380
06-18	148	6.3	220	76	590	238	0	440
19-25	151	6.4	200	72	540	216	0	420
26-30	129	6.3	220	76	590	238	0	440
DEC.								
01-02	186	5.6	180	68	530	208	0	340
03-04	428	5.5	120	41	350	148	0	200
05-08	460	4.9	140	51	440	124	0	150
09-10	514	5.0	84	29	230	120	0	120
11-16	431	5.5	120	41	350	148	0	200
17-31	217	5.6	180	68	530	208	0	340
JAN.								
01-05	150	5.8	180	58	470	190	0	340
06-10	147	3.9	220	84	560	236	0	420
11-13	143	3.0	140	48	350	162	0	250
14-24	134	3.9	220	84	560	236	0	420
25-31	103	4.0	240	99	680	260	0	500
FEB.								
01-12	84	4.1	240	100	660	253	0	500
13-15	82	4.3	220	93	600	235	0	460
16-29	68	2.5	240	110	670	250	0	490
MAR.								
01-15	63	4.4	260	92	790	268	0	530
16-31	77	7.0	250	95	690	252	0	510
APR.								
01-22	92	7.2	240	91	670	212	0	500
23...	171	12	110	21	280	144	0	180
24-27	107	5.2	350	140	1100	180	0	420
28-30	356	8.6	200	47	570	152	0	410
MAY								
01-03	232	6.2	110	40	340	138	0	220
04-07	134	3.1	200	85	670	196	0	420
08-10	783	5.5	86	26	230	144	0	110
11-12	472	6.2	110	40	340	138	0	220
13...	1430	--	56	13	130	124	0	59
14-16	564	6.0	64	20	180	130	0	87
17-19	135	6.2	110	40	340	138	0	220
20-24	45	4.4	160	75	480	196	0	360
25-31	77	3.1	200	85	670	196	0	420
JUNE								
01-09	89	4.1	240	86	710	172	0	530
10-11	118	7.6	250	96	770	192	0	620
12-21	182	4.1	240	86	710	172	0	530
22...	459	8.6	110	39	340	140	0	200
23-24	1440	8.0	82	23	200	144	0	96
25-29	177	8.6	110	39	340	140	0	200
30...	90	8.2	180	62	570	148	0	390
JULY								
01-06	102	6.5	160	70	540	184	0	370
07-22	90	2.2	210	85	750	126	0	550
23...	85	5.6	240	90	810	158	0	640
24-31	92	7.2	230	93	760	140	0	620
AUG.								
01-22	124	7.0	230	82	770	144	0	620
23-27	229	6.7	200	70	630	126	0	490
28-31	138	4.8	220	84	720	152	0	550
SEP.								
01-04	133	4.2	140	58	460	140	0	320
05-09	550	7.6	88	29	260	130	0	150
10-12	117	4.2	140	58	460	140	0	320
13-30	106	6.0	180	80	570	160	0	410
WTD. AVG.	--	6.7	151	54	438	159	0	302
TIME WTD.								
AVG.	220	5.9	199	75	588	188	0	422
TOT. LOAD (TONS)	--	1430	32900	11700	95300	34700	0	65700

RED RIVER BASIN

07312700 WICHITA RIVER NEAR CHARLIE, TEX.--Continued

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EXTREMES, October 1971 to September 1972.--Continued.

Specific conductance: Maximum daily, 10,000 micromhos Apr. 25; minimum daily, 864 micromhos Oct. 4.

Water temperatures: Maximum, 31.5°C June 28; minimum, 2.0°C Jan. 15, Feb. 12.

EXTREMES, October 1967 to September 1972.--Dissolved solids: Maximum, 4,420 mg/l Apr. 24-27, 1972; minimum, 304 mg/l Aug. 16-17, 1971.

Hardness: Maximum, 1,400 mg/l Apr. 24-27, 1972; minimum, 120 mg/l Aug. 16-17, 1971.

Specific conductance: Maximum daily, 10,000 micromhos Apr. 25, 1972; minimum daily, 384 micromhos Aug. 16, 1971.

Water temperatures: Maximum, 33.0°C July 31, 1970; minimum, freezing point on several days during December, January, and February.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA: WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL)	DIS- SOLVED FLUO- RIDE (F)	TOTAL NITRATE (N)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- TUENTS)	HARD- NESS (CA+MG)	NON- CAR- BONATE HARD- NESS	SODIUM AN- ION SODIUM RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-02	860	.4	1.2	2070	720	570	7.7	3460	8.0
03...	450	.3	1.2	1100	370	270	5.8	1980	7.8
04-05	220	.2	1.0	524	190	110	3.9	971	7.6
06-10	720	.3	1.0	1700	540	420	7.8	2890	7.5
11-20	860	.4	1.2	2070	720	570	7.7	3460	8.0
21...	450	.3	1.2	1100	370	270	5.8	1980	7.8
22...	220	.2	1.0	524	190	110	3.9	971	7.6
23...	450	.3	1.2	1100	370	270	5.8	1980	7.8
24-31	720	.3	1.0	1700	540	430	7.8	2890	7.5
NOV.									
01-05	890	--	1.8	2150	730	560	8.1	3580	7.8
06-18	1100	--	1.7	2510	860	660	8.8	4170	8.0
19-25	970	--	1.6	2330	800	620	8.4	3870	7.9
26-30	1100	--	1.7	2510	860	660	8.8	4170	8.0
DEC.									
01-02	960	.4	2.0	2200	740	570	8.5	3740	7.6
03-04	640	.3	1.7	1440	480	350	7.0	2510	7.2
05-08	840	.2	2.1	1730	560	460	8.0	3150	7.3
09-10	420	.2	1.4	957	330	230	5.5	1770	7.6
11-16	640	.3	1.7	1440	480	350	7.0	2510	7.2
17-31	960	.4	2.0	2200	740	570	8.5	3740	7.6
JAN.									
01-05	850	.2	2.0	2010	700	540	--	3420	7.9
06-10	1000	.2	2.0	2430	880	690	8.2	4050	8.0
11-13	640	.2	1.3	1510	540	410	6.4	2590	7.9
14-24	1000	.2	2.0	2430	880	690	8.2	4050	8.0
25-31	1200	.3	3.0	2900	1000	810	9.2	4790	8.0
FEB.									
01-12	1200	--	3.4	2860	1000	810	8.9	4710	7.8
13-15	1100	--	3.6	2610	930	740	8.6	4310	7.6
16-29	1300	--	2.8	2910	1000	840	9.1	4830	7.9
MAR.									
01-15	1400	--	4.7	3210	1000	800	11	5340	8.1
16-31	1300	--	2.4	2950	1000	800	9.5	4850	8.0
APR.									
01-22	1200	--	2.5	2840	960	790	9.4	4740	7.9
23...	450	.3	3.9	1130	350	230	6.4	1930	8.0
24-27	2300	.3	2.1	4420	1400	1300	13	7730	7.6
28-30	970	--	2.4	2280	680	560	10	3700	7.7
MAY									
01-03	590	.3	2.0	1390	440	330	7.1	2430	7.6
04-07	1200	--	1.8	2680	850	690	10	4530	7.6
08-10	420	.3	1.6	958	320	200	5.7	1740	7.9
11-12	590	.3	2.0	1390	440	330	7.1	2430	7.6
13...	220	--	1.8	541	190	92	4.0	995	7.8
14-16	310	.3	1.4	740	240	130	5.1	1360	7.6
17-19	590	.3	2.0	1390	440	330	7.1	2430	7.6
20-24	860	--	1.8	2040	720	560	7.7	3420	7.7
25-31	1200	--	1.8	2680	850	690	10	4530	7.6
JUNE									
01-09	1300	--	1.9	2930	940	800	10	4560	7.9
10-11	1340	--	1.9	3190	1000	860	11	5370	7.9
12-21	1300	--	1.9	2930	940	800	10	4560	7.9
22...	600	.3	1.7	1380	440	330	7.0	2340	7.9
23-24	360	.3	1.2	841	300	180	4.9	1490	8.1
25-29	600	.3	1.7	1380	440	330	7.0	2340	7.9
30...	1000	--	1.7	2290	690	570	9.5	3630	7.8
JULY									
01-06	950	--	1.8	2210	700	550	8.9	3570	8.3
07-22	1300	--	1.5	2970	880	780	11	4690	8.1
23...	1400	--	1.4	3250	980	850	12	5020	8.3
24-31	1300	--	1.5	3100	960	850	11	4880	8.1
AUG.									
01-22	1300	--	.4	3060	910	790	11	4720	8.1
23-27	1100	--	1.7	2540	780	680	9.8	4030	8.0
28-31	1200	--	1.4	2890	880	760	11	4530	7.9
SEP.									
01-04	800	.4	2.0	1860	590	480	8.2	3070	8.0
05-09	440	.4	1.6	1050	340	230	6.1	1850	8.0
10-12	800	.4	2.0	1860	590	480	8.2	3070	8.0
13-30	1000	.4	1.6	2370	780	650	8.9	3760	8.1
WTD. AVG.									
TIME WTD.	782	--	1.6	1820	598	469	7.5	3050	7.8
AVG.									
TOT. LOAD	1050	--	2.0	2440	800	651	9.0	4020	7.9
(TONS)	170000	--	349	395000	--	--	--	--	--

RED RIVER BASIN

07312700 WICHITA RIVER NEAR CHARLIE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	RICAR- BONATE (HC03) (MG/L)
OCT. 26...	1720	301	8.6	140	45	--	390	--	134
DEC. 06...	1420	575	7.0	120	47	--	360	--	116
FEB. 02...	0915	94	3.8	250	95	660	--	6.6	244
APR. 17...	1440	146	10	200	79	--	620	--	202
JUNE 19...	1505	133	5.8	170	56	--	630	--	126
AUG. 08...	1400	144	9.8	220	71	--	710	--	138

DATE	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT. 26...	0	320	670	.3	.020	.22	.6	.49	1650
DEC. 06...	0	130	740	.2	.030	.44	1.0	.76	1470
FEB. 02...	0	520	1200	.4	.089	.72	1.4	1.6	2900
APR. 17...	0	500	1100	.5	.34	.56	.3	2.3	2580
JUNE 19...	0	310	1100	.4	.47	.42	1.0	1.2	2390
AUG. 08...	0	630	1200	.4	.77	.32	.6	1.6	2870

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 26...	540	430	7.3	2870	7.8	20.0	7.6	84	1.6
DEC. 06...	500	410	7.0	2740	7.5	7.0	10.5	87	3.3
FEB. 02...	1000	810	9.1	4270	8.0	4.0	12.8	99	2.8
APR. 17...	830	670	9.4	4310	8.1	25.5	11.6	140	18
JUNE 19...	660	560	11	4280	7.5	29.5	6.6	87	4.8
AUG. 08...	850	740	11	4690	8.0	29.5	10.0	132	10

07312700 WICHITA RIVER NEAR CHARLIE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3120	3110	4010	2200	4630	5550	4900	2750	4960	3500	4800	4170
2	3200	3390	3480	3280	4760	5250	5450	2340	5360	3570	4900	3260
3	1840	3650	2200	3480	4600	5230	5520	2750	4710	3680	4940	3330
4	864	3820	2310	3830	4780	5320	5230	4600	4690	3910	4700	2640
5	1200	3890	3140	3560	4800	5300	5550	5350	4700	4050	4520	2300
6	2420	4000	2780	4120	4700	4850	4630	5050	4610	3760	4740	2050
7	2720	4060	3250	4210	4720	5310	4630	4260	4690	4580	4730	1490
8	2780	3890	3410	4140	4750	5750	4860	1470	4850	4470	4500	1430
9	2850	4120	1640	4300	4830	5750	4860	1910	4830	4190	4670	1930
10	2860	4140	1900	4180	4710	5300	4320	1880	5370	4020	4360	2340
11	3130	4140	2360	3010	4700	5530	4310	2640	5350	4110	4110	2650
12	3220	4240	2370	2450	4640	5460	4320	2180	4690	4260	3760	2980
13	3320	4160	2780	2750	4440	4790	4850	995	4750	4580	4420	3230
14	3470	4230	2930	3900	3970	5270	4740	1230	4480	4470	4540	3740
15	3630	4220	2520	4080	4530	5640	4950	1370	3900	4660	4380	3420
16	3770	4170	2520	3420	4680	5140	4670	1470	4120	4840	4420	3620
17	3900	4120	3490	4230	4670	4830	4240	1940	4640	4690	4600	3700
18	3940	4090	3140	4050	4600	5230	4760	2310	4890	4370	4770	4150
19	3980	3890	4250	4180	4720	4730	4430	2640	3900	4370	4590	4060
20	3200	3740	3160	3770	4950	4950	4290	3010	3680	4830	4380	4010
21	1830	3740	3280	3700	4910	4890	4510	3130	4010	4710	4430	3580
22	879	4050	3440	4050	4940	5220	4930	3380	2620	4810	4450	2550
23	1930	4070	3660	3960	4880	5230	1930	3630	1560	5020	3750	---
24	2420	3740	3680	4370	4750	5080	7020	3950	1430	4980	4870	3680
25	2710	3810	---	4720	4800	4620	10000	4070	1970	4750	4380	3950
26	2880	4160	3810	4190	4800	3980	7980	4100	2030	4720	4090	4510
27	2980	4170	3950	4600	4800	4790	6340	4060	2250	4770	4140	4450
28	3100	4350	4180	5330	4860	4920	5110	4360	2470	4840	4770	3750
29	4050	4350	4230	5400	5330	4740	2440	4320	2760	4820	4380	3490
30	2960	4450	4020	4740	---	4710	3630	4880	3140	4670	4700	3990
31	2930	---	4070	4610	---	4500	---	4880	---	4880	4360	---
MONTH	2840	4000	3200	3960	4730	5090	4980	3130	3910	4450	4490	3260

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.5	20.0	6.5	10.5	5.5	15.0	17.0	23.5	26.0	29.0	30.5	26.5
2	24.5	18.5	5.5	10.5	5.0	13.5	19.0	23.0	28.0	26.5	29.0	24.5
3	21.5	17.0	5.5	7.0	4.5	14.0	18.5	24.0	28.5	29.5	29.0	23.5
4	21.0	16.5	5.5	---	5.0	12.0	18.0	22.0	29.0	24.5	29.0	23.5
5	21.5	16.0	6.5	3.0	8.5	13.0	20.0	24.0	29.0	25.0	29.5	24.0
6	21.0	14.5	7.0	3.0	5.5	10.0	22.0	24.5	29.0	26.0	29.0	25.0
7	23.0	13.0	8.5	5.0	5.0	16.5	24.0	21.0	---	24.0	29.0	26.5
8	23.5	13.0	5.5	8.0	5.5	14.5	23.0	19.5	28.5	28.0	29.0	29.0
9	21.0	13.0	8.0	9.5	6.5	15.5	20.0	19.5	27.0	29.5	28.5	29.5
10	20.0	15.0	8.5	9.0	5.5	18.0	20.0	22.0	28.0	29.5	28.5	25.5
11	20.0	15.5	9.0	9.0	4.5	19.0	25.5	25.0	29.0	28.5	26.5	29.5
12	---	15.0	9.5	10.0	2.0	21.5	27.0	21.5	28.5	29.0	28.0	29.5
13	21.0	18.5	8.0	7.0	8.0	20.0	26.5	20.0	28.0	29.5	28.5	29.5
14	21.5	18.5	5.5	5.5	10.0	19.5	26.5	21.0	28.0	28.5	29.0	28.5
15	23.0	19.0	11.0	2.0	10.0	18.0	24.0	24.5	29.0	29.5	29.5	25.5
16	24.5	18.5	11.0	3.5	10.0	18.0	23.0	26.0	29.0	28.5	29.5	29.0
17	25.0	---	10.0	6.5	11.0	18.5	24.0	26.5	29.0	29.0	30.0	29.0
18	23.5	15.5	8.5	10.0	12.0	18.0	24.0	28.0	29.0	29.0	30.0	29.0
19	22.0	13.0	10.0	11.0	12.0	19.0	24.5	26.5	30.0	29.0	30.0	29.0
20	20.0	13.0	10.5	11.0	14.0	19.5	24.5	28.0	31.0	29.5	19.5	26.0
21	17.0	13.0	10.5	10.0	12.0	21.0	23.5	28.0	29.0	29.5	30.5	22.0
22	18.5	12.0	9.5	8.0	13.0	20.0	24.0	26.5	27.0	29.5	29.0	22.0
23	19.0	10.0	10.5	10.0	15.5	21.0	18.5	29.5	26.5	29.5	27.0	---
24	18.5	11.0	11.5	10.5	16.0	20.0	23.5	29.5	26.5	29.5	29.0	24.5
25	19.0	9.5	---	10.0	16.0	8.0	20.0	29.5	30.5	31.0	27.0	26.0
26	18.5	10.5	15.5	13.5	14.0	20.0	18.5	29.5	31.0	30.5	26.0	26.5
27	18.5	13.0	13.0	---	15.0	21.0	20.0	29.0	31.0	31.0	26.0	26.0
28	19.0	10.5	10.5	9.5	16.5	18.0	24.0	29.5	31.5	30.0	29.0	27.0
29	19.5	8.5	11.0	4.5	18.5	15.5	21.5	26.5	29.5	30.0	29.0	24.5
30	19.5	6.5	11.0	5.5	---	14.5	23.0	24.5	29.5	30.0	29.0	20.5
31	19.5	---	11.0	5.0	---	14.5	---	30.0	---	30.5	28.5	---
MONTH	21.0	14.0	9.0	8.0	10.0	17.0	22.5	25.0	29.0	29.0	28.5	26.0

RED RIVER BASIN

07315000 LITTLE WICHITA RIVER NEAR HENRIETTA, TEX.

LOCATION.--Lat 33°50'02", long 98°12'31", Clay County, at gaging station at bridge on State Highway 148, 1.5 miles northwest of Henrietta, 4 miles upstream from Turkey Creek, and 5 miles upstream from Dry Fork Little Wichita River.

DRAINAGE AREA.--1,037 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1952 to January 1956, March 1959 to September 1966, January 1968 to September 1972.

Water temperatures: December 1952 to January 1956, March 1959 to September 1966.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
DEC. 22...	1250	4.0	9.6	16	3.9	18	72	0	6.0	19
MAY 15...	1020	96	8.0	14	3.4	15	62	0	6.8	14
JULY 20...	0910	12	5.0	40	17	85	148	0	17	150

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
DEC. 22...	.2	.9	112	56	0	1.0	184	7.5	10.0
MAY 15...	.1	1.2	97	49	0	.9	160	7.6	21.0
JULY 20...	.3	.2	390	170	46	2.8	711	8.0	27.0

RED RIVER BASIN

107

07315200 EAST FORK LITTLE WICHITA RIVER NEAR HENRIETTA, TEX.

LOCATION.--Lat 33°48'46", long 98°05'05", Clay County, at gaging station at bridge on U.S. Highway 82, 5.8 miles upstream from Little Wichita River, 6.4 miles east of Henrietta, and 8.9 miles west of Ringgold.

DRAINAGE AREA.--178 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1968, October 1969 to September 1972.
Sediment records: October 1965 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
DEC. 22...	1620	1.5	11	20	5.4	21	80	0	9.6	28
MAY 11...	1620	3.2	10	16	3.2	20	66	0	8.8	19
13...	1200	3890	3.9	6.2	1.6	6.5	24	0	6.0	5.3
14...	1425	874	5.8	8.8	1.5	9.5	35	0	6.8	7.2
JUNE 12...	0930	.01	19	49	63	140	532	0	44	140

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHQS)	PH (UNITS)	TEMPER- ATURE (DEG C)
DEC. 22...	.1	.6	137	72	6	1.1	241	7.3	11.0
MAY 11...	.1	1.5	116	53	0	1.2	220	7.7	20.0
13...	.1	.7	45	22	2	.6	68	6.8	21.0
14...	.0	.8	60	28	0	.8	90	7.4	22.5
JUNE 12...	.5	.4	709	380	0	3.1	1150	8.2	24.0

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
MAY 13...	1210	3730	21.0	182	1830
13...	1535	2840	23.0	178	1370
14...	1425	874	22.5	120	283

RED RIVER BASIN

07315500 RED RIVER NEAR TERRAL, OKLA.

LOCATION.--Lat 33°52'43", long 97°56'03", Jefferson County, at gaging station at bridge on U.S. Highway 81, 0.5 mile downstream from Chicago, Rock Island and Pacific Railroad Co. bridge, 1.2 miles south of Terral, Oklahoma, and 3.6 miles downstream from Little Wichita River.

DRAINAGE AREA.--28,723 sq mi, of which 5,936 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

Water temperatures: October 1967 to September 1972.

EXTREMES, October 1971 to September 1972.--Dissolved solids: -Maximum, 4,830 mg/l Nov. 24-30; minimum, 376 mg/l May 13.

Hardness: Maximum, 1,300 mg/l June 18; minimum, 190 mg/l May 13.

Specific conductance: Maximum daily, 9,670 micromhos Nov. 25, July 7; minimum daily, 711 micromhos May 13.

Water temperatures: Maximum, 29.0°C June 21, 25-27, July 1; minimum, freezing point Jan. 15, 27, 28, Feb. 3.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-04	2890	10	170	37	540	--	8.4	108	0	430
05-07	6780	8.5	93	21	--	270	--	100	0	190
08-10	2080	10	170	37	540	--	8.4	108	0	430
11-22	1170	11	230	57	--	830	--	148	0	560
23-24	2740	10	170	37	540	--	8.4	108	0	430
25-31	1330	11	230	57	--	830	--	148	0	560
NOV.										
01...	6940	10	280	64	--	940	--	200	0	630
02-04	4090	8.5	120	21	--	310	--	140	0	230
05-07	1150	8.5	180	35	--	480	--	140	0	380
08-09	771	9.4	230	50	--	710	--	170	0	520
10-23	554	10	280	64	--	940	--	200	0	630
24-30	604	10	340	85	--	1300	--	210	0	820
DEC.										
01-05	904	10	270	74	--	1100	--	196	0	640
06-13	3720	9.5	160	42	--	630	--	144	0	340
14-15	1960	10	270	74	--	1100	--	196	0	640
16-22	3230	9.5	160	42	--	630	--	144	0	340
23-31	1030	10	270	74	--	1100	--	196	0	640
JAN.										
01-31	504	4.3	300	79	1100	--	7.5	246	0	720
FEB.										
01-29	292	.0	280	86	--	1100	--	238	0	740
MAR.										
01-28	196	1.8	270	100	--	1000	--	223	0	700
29-31	217	4.7	220	77	--	790	--	216	0	500
APR.										
01-20	150	4.9	280	94	970	--	9.9	250	0	670
21-28	392	6.1	170	59	--	560	--	188	0	380
29-30	2660	6.8	71	19	--	160	--	132	0	110
MAY										
01-06	3250	8.5	72	20	--	160	--	124	0	140
07-12	2630	8.9	170	35	--	410	--	120	0	400
13...	20500	8.2	60	9.4	--	64	--	132	0	38
14-21	6330	8.9	170	35	--	410	--	120	0	400
22-31	429	8.9	270	60	--	800	--	164	0	670
JUNE										
01-17	501	8.1	270	60	--	680	--	152	0	660
18...	4440	15	400	71	--	1400	--	140	0	1000
19-27	1600	9.3	200	36	--	470	--	120	0	460
28-30	471	8.1	270	60	--	680	--	152	0	660
JULY										
01-03	385	10	260	51	850	--	10	158	0	710
04-05	388	6.3	150	29	--	480	--	144	0	330
06-31	502	8.8	330	72	--	1200	--	144	0	860
AUG.										
01-14	160	5.7	290	87	--	950	--	137	6	740
15-21	188	6.6	210	57	--	610	--	138	6	520
22-24	145	5.7	290	87	--	950	--	137	6	740
25-31	271	6.6	210	57	--	610	--	138	6	520
SEP.										
01-04	300	9.2	160	33	--	430	--	128	0	400
05-08	2370	9.7	110	22	--	280	--	134	4	250
09-16	466	9.2	160	33	--	430	--	128	0	400
17-30	195	7.2	220	54	--	680	--	150	0	510
WTD. AVG.										
TIME WTD.	--	8.6	188	45	--	581	--	147	0	437
AVG.										
TOT. LOAD	1070	6.9	245	65	--	806	--	177	1	600
(TONS)	--	9160	199000	47400	--	614000	--	155000	198	463000

RED RIVER BASIN

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07315500 RED RIVER NEAR TERRAL, OKLA.--Continued

EXTREMES, October 1967 to September 1972.--Dissolved solids: Maximum, 6,410 mg/l June 4, 1970; minimum, 165 mg/l Mar. 17-20, 1969.

Hardness: Maximum, 1,520 mg/l Apr. 23-25, 1970; minimum, 139 mg/l Sept. 22-27, 1970.

Specific conductance: Maximum daily, 10,700 micromhos Apr. 23, 1970; minimum daily, 538 micromhos Sept. 25, 1970.

Water temperatures: Maximum, 31.0°C June 19, 21, 1970; minimum, freezing point on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-04	880	--	.8	2130	580	490	9.8	3650	7.6
05-07	440	.2	1.7	1090	320	240	6.7	1950	7.5
08-10	880	--	.8	2130	580	490	9.8	3650	7.6
11-22	1400	--	.5	3130	820	700	13	5360	7.8
23-24	880	--	.8	2130	580	490	9.8	3650	7.6
25-31	1400	--	.5	3130	820	700	13	5360	7.8
NOV.									
01...	1600	--	.8	3570	960	800	13	5890	7.9
02-04	500	.3	1.0	1260	380	270	6.9	2230	7.5
05-07	780	--	.9	1930	580	470	8.6	3270	7.7
08-09	1200	--	.8	2760	780	640	11	4580	7.7
10-23	1600	--	.8	3570	960	800	13	5890	7.9
24-30	2200	--	--	4830	1200	1000	17	7920	8.0
DEC.									
01-05	1800	--	1.2	4070	980	820	16	6770	7.5
06-13	1000	--	1.2	2290	570	450	12	3990	7.1
14-15	1800	--	1.2	4070	980	820	16	6770	7.5
16-22	1000	--	1.2	2290	570	450	12	3990	7.1
23-31	1800	--	1.2	4070	980	820	16	6770	7.5
JAN.									
01-31	1800	.3	.8	4160	1100	860	15	6970	8.1
FEB.									
01-29	1800	.4	.6	4170	1100	870	15	6870	8.0
MAR.									
01-28	1700	.6	.6	3960	1100	900	14	6710	7.9
29-31	1300	--	1.0	3040	880	700	12	5260	7.8
APR.									
01-20	1600	--	.7	3790	1100	880	13	6330	8.1
21-28	940	--	1.9	2220	670	520	9.4	3750	8.0
29-30	260	.4	1.3	697	260	150	4.3	1280	8.0
MAY									
01-06	260	.3	1.5	721	260	160	4.3	1300	7.9
07-12	670	.3	1.1	1760	580	480	7.4	2910	7.8
13...	120	.2	2.0	376	190	80	2.0	711	7.7
14-21	670	.3	1.1	1760	580	480	--	2910	7.8
22-31	1300	--	.6	3190	920	790	11	5230	7.9
JUNE									
01-17	1100	--	.7	2870	920	800	9.7	4610	8.0
18...	2200	--	--	5240	1300	1200	17	8390	7.7
19-27	760	--	1.0	1990	640	540	--	3310	8.0
28-30	1100	--	.7	2870	920	800	9.7	4610	8.0
JULY									
01-03	1300	--	.6	3310	850	720	13	5390	6.3
04-05	760	--	.8	1830	500	380	9.3	3090	7.6
06-31	1900	--	1.0	4440	1100	1000	15	7240	7.9
AUG.									
01-14	1600	--	.4	3760	1100	960	13	6260	8.5
15-21	1000	--	.7	2500	760	640	9.6	4180	8.5
22-24	1600	--	.4	3760	1100	960	13	6260	8.5
25-31	1000	--	.7	2500	760	640	9.6	4180	8.5
SEP.									
01-04	680	.4	.6	1770	540	440	8.0	2910	8.3
05-08	420	.4	1.3	1160	370	260	6.2	1940	8.4
09-16	680	.4	.6	1770	540	440	8.0	2910	8.3
17-30	1100	--	.5	2690	770	650	11	4490	8.1
WTD. AVG.									
TIME WTD.	985	--	1.1	2350	658	536	10	3960	7.7
AVG.									
TOT. LOAD	1370	--	.8	3230	889	736	12	5380	7.9
(TONS)	1044000	--	1120	2493000	--	--	--	--	--

RED RIVER BASIN

07315500 RED RIVER NEAR TERRAL, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3440	5470	8440	7100	6980	6210	5710	1570	5000	5440	6650	2680
2	4070	2530	8520	7030	7150	6280	6550	1270	5560	5670	6650	3690
3	4280	1910	7700	6950	7210	6380	6510	1040	5810	5020	6800	3320
4	3470	2240	6560	7380	7010	6120	6700	1150	3850	3050	6980	3240
5	1790	3200	5580	7420	6670	6800	6490	1390	3910	3110	7170	1990
6	1910	2900	4020	7130	7220	6800	6370	1400	3680	5820	6840	1240
7	2170	3640	4840	7160	7190	6670	6610	2350	3710	9670	6230	2160
8	3210	4260	4420	6300	7370	6800	6570	2500	3790	9270	6250	2340
9	3540	4860	2590	7210	6760	6890	6740	3420	3950	8420	5880	2730
10	4090	5310	4840	6940	7160	6710	6400	3110	4140	8320	5500	2470
11	4470	5370	3830	6880	---	6840	6070	2930	4720	8120	5770	2450
12	4410	5570	3160	7030	---	6860	6210	2660	4740	8290	5690	2640
13	4740	5830	4470	7230	6920	7100	6250	711	4980	7940	5870	2610
14	4720	5980	5750	7340	6930	7270	6360	2110	5280	8790	6560	2740
15	4900	6000	6480	7110	6400	7050	6030	2550	5680	8640	3250	2940
16	5140	6050	4750	6990	6890	6480	6050	5180	5310	6890	3480	3370
17	5630	6110	3100	6850	6670	6820	5930	3600	5460	5880	3970	3740
18	5810	6100	3830	6220	6520	6650	7120	3240	8390	7580	4180	4230
19	5420	6070	4020	7420	6620	6500	6270	2960	4090	6980	4430	5120
20	5260	5960	3830	6960	7080	6980	5580	3060	3320	6980	4330	4000
21	5600	6070	3290	6460	7080	6620	4740	3430	3420	6900	4500	4240
22	5110	6160	4500	6640	7610	6910	4220	3980	3590	5410	5970	4400
23	3410	5980	5260	6750	7380	6170	2730	4570	3840	5250	6020	4450
24	3440	7640	6540	6750	7160	6300	3010	4800	3900	6010	5280	4650
25	5230	9670	6680	6890	6480	6480	3280	4810	2210	6270	4270	4840
26	5830	7850	6590	7010	6370	6300	3600	5240	2880	6460	4570	3960
27	6440	7470	6630	6710	6350	6750	3850	5620	3360	6510	4740	3960
28	6780	7260	6700	6750	6180	7430	4570	5730	4390	6550	4770	4600
29	6100	7500	6760	6820	6190	5610	1460	5730	4820	6740	4220	5490
30	4710	8070	6820	6960	---	4840	1090	5830	4810	6530	4940	5490
31	4740	---	7070	7120	---	5240	---	5650	---	6590	2800	---
MONTH	4510	5630	5410	6950	6870	6540	5300	3340	4420	6750	5310	3530

RED RIVER BASIN

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07315500 RED RIVER NEAR TERRAL, OKLA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	18.0	7.0	10.0	6.0	17.0	12.0	20.0	22.0	29.0	25.0	24.0
2	25.0	17.0	6.0	8.0	6.0	7.0	15.0	20.0	23.0	25.0	24.0	24.0
3	24.0	15.0	5.0	9.0	0.0	9.0	16.0	20.0	25.0	25.0	25.0	23.0
4	21.0	14.0	6.0	2.0	1.0	11.0	12.0	20.0	25.0	24.0	26.0	23.0
5	21.0	13.0	7.0	1.0	6.0	10.0	15.0	21.0	25.0	23.0	26.0	23.0
6	21.0	13.0	7.0	1.0	5.0	11.0	25.0	20.0	26.0	23.0	27.0	---
7	20.0	11.0	15.0	3.0	5.0	15.0	21.0	20.0	26.0	23.0	26.0	---
8	22.0	10.0	8.0	7.0	4.0	11.0	17.0	18.0	26.0	24.0	27.0	---
9	21.0	10.0	9.0	10.0	6.0	11.0	14.0	20.0	25.0	25.0	28.0	---
10	20.0	11.0	8.0	8.0	7.0	14.0	18.0	20.0	25.0	27.0	27.0	---
11	19.0	12.0	7.0	8.0	---	19.0	21.0	19.0	25.0	25.0	25.0	---
12	20.0	14.0	8.0	8.0	---	19.0	24.0	20.0	26.0	25.0	25.0	---
13	20.0	15.0	7.0	7.0	6.0	18.0	23.0	20.0	25.0	26.0	26.0	---
14	19.0	17.0	10.0	4.0	5.0	17.0	22.0	21.0	24.0	27.0	26.0	---
15	20.0	18.0	9.0	0.0	8.0	19.0	26.0	21.0	27.0	27.0	27.0	---
16	20.0	18.0	9.0	2.0	9.0	14.0	20.0	22.0	26.0	26.0	26.0	25.0
17	23.0	18.0	9.0	3.0	9.0	15.0	19.0	23.0	26.0	26.0	27.0	25.0
18	22.0	15.0	8.0	9.0	9.0	18.0	19.0	25.0	26.0	25.0	26.0	26.0
19	20.0	11.0	9.0	10.0	9.0	17.0	22.0	25.0	27.0	25.0	27.0	25.0
20	20.0	12.0	8.0	10.0	13.0	16.0	23.0	24.0	28.0	26.0	27.0	25.0
21	18.0	11.0	9.0	10.0	14.0	18.0	18.0	24.0	29.0	26.0	28.0	24.0
22	19.0	11.0	8.0	8.0	11.0	17.0	19.0	25.0	26.0	25.0	26.0	19.0
23	19.0	9.0	8.0	9.0	14.0	18.0	18.0	24.0	27.0	26.0	26.0	19.0
24	18.0	9.0	11.0	10.0	12.0	20.0	19.0	25.0	27.0	27.0	24.0	21.0
25	19.0	9.0	11.0	7.0	14.0	13.0	17.0	25.0	29.0	27.0	25.0	22.0
26	19.0	9.0	12.0	7.0	12.0	16.0	15.0	25.0	29.0	26.0	25.0	24.0
27	17.0	9.0	15.0	0.0	11.0	17.0	16.0	25.0	29.0	27.0	25.0	24.0
28	18.0	8.0	10.0	0.0	12.0	17.0	18.0	25.0	28.0	26.0	26.0	25.0
29	20.0	10.0	10.0	4.0	17.0	11.0	18.0	25.0	28.0	27.0	25.0	26.0
30	20.0	9.0	10.0	4.0	---	11.0	19.0	23.0	28.0	26.0	24.0	16.0
31	17.0	---	9.0	5.0	---	10.0	---	22.0	---	27.0	25.0	---
MONTH	20.0	12.5	9.0	6.0	8.5	14.5	18.5	22.0	26.5	25.5	26.0	---

RED RIVER BASIN

07316000 RED RIVER NEAR GAINESVILLE, TEX.

LOCATION.--Lat 33°43'40", long 97°09'35", Cook County, at gaging station at bridge on U.S. Highway 77, 5 miles downstream from Fish Creek, and 7 miles north of Gainesville.

DRAINAGE AREA.--30,782 sq mi, of which 5,936 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: May 1944 to April 1946, October 1952 to September 1963, October 1966 to September 1972.

Pesticide analyses: April 1968 to September 1972.

Water temperatures: October 1952 to September 1963, October 1966 to September 1972.

WATER QUALITY DATA. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-06	3560	9.6	160	37	490	--	7.7	128	0	360
07-09	4350	7.7	88	19	--	240	--	110	0	160
10-19	1160	9.6	160	37	490	--	7.7	128	0	360
20-21	2260	7.7	88	19	--	240	--	110	0	160
22-26	2220	9.6	160	37	490	--	7.7	128	0	360
27-31	1260	11	260	50	--	860	--	131	0	600
NOV.										
01-03	2720	9.0	260	66	--	950	--	200	0	600
04-09	2540	8.5	170	34	--	500	--	140	0	380
10-20	862	10	220	56	--	730	--	176	0	510
21-30	574	9.0	260	66	--	950	--	200	0	600
DEC.										
01-02	562	9.7	230	60	--	810	--	200	0	320
03-08	1600	7.0	140	36	--	430	--	150	0	140
09-11	6800	6.4	52	9.8	--	94	--	114	0	46
12-15	5350	7.4	68	15	--	230	--	116	0	110
16-26	2610	7.0	140	36	--	430	--	150	0	140
27-31	943	9.7	230	60	--	810	--	200	0	320
JAN.										
01-31	537	3.5	250	79	930	--	6.9	226	0	630
FEB.										
01-29	391	3.0	310	77	--	960	--	272	0	610
MAR.										
01-22	271	3.9	250	96	--	880	--	252	0	590
23-25	251	6.0	180	16	--	680	--	234	0	330
26-31	253	3.9	250	96	--	880	--	252	0	590
APR.										
01-03	248	6.0	280	85	--	1000	--	222	0	660
04-07	232	5.2	220	73	--	770	--	252	0	480
08-20	217	7.0	280	83	--	880	--	304	0	570
21-22	956	8.2	120	36	--	330	--	178	0	190
23-30	670	9.0	150	50	--	460	--	206	0	290
MAY										
01-13	2830	6.6	76	23	--	170	--	136	0	150
14-15	15900	5.1	52	12	--	110	--	104	0	90
16-17	8000	7.0	110	29	--	310	--	136	0	200
18-19	3760	7.3	220	40	--	560	--	160	0	510
20-24	1540	9.4	180	29	--	400	--	134	0	420
25-31	653	7.3	220	40	--	560	--	160	0	510
JUNE										
01-06	762	9.3	240	65	--	690	--	180	0	570
07-21	858	10	260	59	--	530	--	152	0	610
22-26	1540	10	230	40	--	480	--	146	0	550
27-30	1170	8.8	140	27	--	350	--	116	0	280
JULY										
01-08	642	10	210	57	--	610	--	158	0	490
09-19	903	11	380	69	--	1400	--	136	0	1000
20-26	405	10	320	68	--	1100	--	146	0	830
27-31	195	9.1	250	67	--	960	--	164	0	630
AUG.										
01-11	166	5.7	260	87	--	990	--	96	0	730
12-17	218	4.4	240	68	--	860	--	116	0	630
18-31	176	5.7	260	87	--	990	--	96	0	730
SEPT.										
01-08	580	9.2	150	35	--	380	--	140	0	340
09-11	2580	9.0	130	28	--	340	--	134	0	290
12-19	684	9.2	150	35	--	380	--	140	0	340
20-30	247	7.3	190	53	--	650	--	124	0	470
WTD. AVG.										
TIME WTD.	--	7.6	160	39	--	460	--	148	0	338
AVG.										
TOT. LOAD	1150	7.1	221	59	--	708	--	177	0	503
(TONS)	--	8610	182000	44300	--	523000	--	168000	0	383000

07316000 RED RIVER NEAR GAINESVILLE, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 5,230 mg/l July 9-19; minimum, 431 mg/l Dec. 9-11.
 Hardness: Maximum, 1,200 mg/l July 9-19; minimum, 170 mg/l Dec. 9-11.
 Specific conductance: Maximum daily, 11,100 micromhos July 16; minimum daily, 562 micromhos Dec. 9.
 Water temperatures: Maximum, 31.5°C July 27, 30; minimum, 3.0°C Jan. 4, 29.

EXTREMES, May 1944 to April 1946, October 1952 to September 1963, October 1966 to September 1972.--Dissolved solids: Maximum, 6,480 mg/l Apr. 11, 1953; minimum, 115 mg/l Nov. 4, 1958.
 Hardness: Maximum, 1,510 mg/l Apr. 11, 1953; minimum, 83 mg/l Nov. 4, 1958.
 Specific conductance: Maximum daily, 11,100 micromhos July 16, 1972; minimum daily, 176 micromhos Nov. 4, 1958.
 Water temperatures (1952-63, 1966-72): Maximum, 35.0°C July 13, 1954; minimum, freezing going on many days during winter months.

REMARKS.--Chemical analyses 1944-46, 1952-63 are available in district office, Oklahoma City, Okla. See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-06	820	--	.4	1940	540	440	9.2	3370	7.9
07-09	400	.2	1.2	980	300	210	6.1	1780	7.9
10-19	820	--	.4	1940	540	440	9.2	3370	7.9
20-21	400	.2	1.2	980	300	210	6.1	1780	7.9
22-25	820	--	.4	1940	540	440	9.2	3370	7.9
27-31	1400	--	1.1	3240	840	730	13	5490	7.7
NOV.									
01-03	1600	--	.6	3540	920	760	14	5940	7.7
04-09	800	--	.8	1960	560	450	9.2	3310	7.5
10-20	1200	--	.6	2810	780	650	11	4760	7.6
21-30	1600	--	.6	3540	920	760	14	5940	7.7
DEC.									
01-02	1500	.4	1.2	3000	830	660	12	5690	7.5
03-08	810	--	1.0	1640	480	360	8.5	3220	7.5
09-11	160	--	.4	431	170	76	3.1	865	6.9
12-15	360	--	.7	848	230	140	6.4	1560	6.9
16-26	810	--	1.0	1640	480	360	8.5	3220	7.5
27-31	1500	.4	1.2	3000	830	660	12	5690	7.5
JAN.									
01-31	1500	.2	.2	3550	940	760	13	5910	8.2
FEB.									
01-29	1600	--	.2	3750	1100	870	13	6260	8.1
MAR.									
01-22	1500	.5	.5	3450	1000	810	12	5800	8.0
23-25	1000	--	.7	2360	510	320	13	4030	7.9
26-31	1500	.5	.5	3450	1000	810	12	5800	8.0
APR.									
01-03	1700	--	.8	3890	1000	870	14	6580	8.1
04-07	1300	--	.7	2980	860	650	11	4780	8.1
08-20	1500	--	.6	3470	1000	790	12	5910	8.2
21-22	580	.5	.3	1360	460	310	--	2370	7.9
23-30	780	--	1.4	1840	580	410	--	3000	7.9
MAY									
01-13	280	--	1.5	772	280	170	--	1360	7.8
14-15	160	.2	.8	479	180	95	3.4	851	7.5
16-17	520	--	1.5	1250	380	270	7.0	1960	7.6
18-19	890	--	.6	2310	700	570	9.2	3690	7.7
20-24	630	.3	1.2	1750	570	460	7.3	2780	7.5
25-31	890	--	.6	2310	700	570	9.2	3690	7.7
JUNE									
01-06	1200	.4	.7	2820	880	730	--	4430	8.0
07-21	900	.4	.8	2440	880	760	--	3840	8.0
22-26	780	.4	.6	2170	740	620	--	3440	7.9
27-30	580	.3	1.2	1450	460	360	--	2470	8.0
JULY									
01-08	1000	--	.6	2480	760	630	9.6	4020	7.8
09-19	2200	--	.1	5230	1200	1100	--	8280	7.7
20-26	1800	--	.7	4150	1100	960	14	6820	7.9
27-31	1600	--	.6	3550	900	770	14	5820	7.7
AUG.									
01-11	1600	--	1.5	3780	1000	940	13	6390	7.8
12-17	1400	--	1.1	3290	880	780	13	5560	7.8
18-31	1600	--	1.5	3780	1000	940	13	6390	7.8
SEP.									
01-08	620	.5	1.0	1610	520	410	7.3	2590	7.9
09-11	540	.4	1.4	1410	440	330	7.0	2280	8.0
12-19	620	.5	1.0	1610	520	410	7.3	2590	7.9
20-30	1100	.4	.7	2510	690	590	11	3890	7.8
WTD. AVG.									
TIME WTD.	802	--	.8	1910	555	436	8.5	3240	7.7
AVG.									
TOT. LOAD	1190	--	.7	2790	789	649	11	4670	7.9
(TONS)	909000	--	927	2161000	--	--	--	--	--

RED RIVER BASIN
07316000 RED RIVER NEAR GAINESVILLE, TEX.--Continued
WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	ALDRIN (UG/L)	DOD (UG/L)	ODE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
OCT. 18...	0815	.00	.00	.00	.00	.00	.00	.00	.00
FEB. 11...	1550	.00	.00	.00	.00	.00	.00	.00	.00
MAR. 27...	0900	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 05...	1145	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 16...	1620	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT. 18...	.00	.0	.00	.00	.00	.00	.00	.00	.00
FEB. 11...	.00	.0	.03	.00	.00	.00	.00	.00	.00
MAR. 27...	.00	.0	.02	.00	.00	.00	.00	.01	.00
JUNE 05...	.00	.0	.02	.00	.00	.00	.00	.02	.00
AUG. 16...	.00	.0	.01	.00	.00	.00	.00	.00	.00

RED RIVER BASIN

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03716000 RED RIVER NEAR GAINESVILLE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2880	5450	6710	5350	---	5950	6480	2120	4280	3740	6320	---
2	3240	4630	6500	5600	---	5730	7010	1160	4060	4380	6490	---
3	3000	6040	2960	5020	---	5790	6230	855	4090	4630	6440	---
4	2880	2910	3760	5990	---	5650	4820	1690	4530	4460	6430	---
5	2660	3000	3270	5940	---	5760	4650	1220	4630	2720	6500	---
6	2550	3380	3940	5940	---	5680	4820	1120	5950	3790	6430	---
7	1810	3530	3270	5890	---	5480	5430	1320	3930	4260	6430	2910
8	1770	3760	2830	5890	---	5680	5730	1390	3730	4090	6450	2090
9	1930	3230	562	5890	---	5730	6070	1660	3780	9900	6200	2200
10	2590	4610	1070	5510	---	5600	6130	1640	3600	9360	6220	2310
11	3080	4680	962	6050	5790	5850	5980	2960	3570	9200	6420	2340
12	3310	4690	1340	5580	5990	5850	6010	1710	3290	8580	5140	2780
13	3610	4720	1670	6010	6040	5990	6040	1210	3380	8050	4570	2520
14	3880	4800	1740	5920	5660	6020	5970	884	3580	8140	5960	2430
15	4100	4870	1490	5940	5690	6050	5950	816	3710	8170	5920	---
16	4290	5160	2440	6060	5750	5950	6010	1620	3880	11100	5660	2680
17	4320	5260	3020	6110	5770	6050	5780	2140	4110	8920	5740	2710
18	4290	3730	2560	6280	6260	6020	5830	3930	4140	8720	6220	2770
19	2360	5180	2870	6300	6060	6260	5830	3320	4580	7350	---	2890
20	1760	5160	3110	5940	5940	6250	5450	2910	7360	5990	---	3060
21	1660	5420	3020	5860	6080	6080	2830	2630	3950	6490	---	3020
22	3600	5420	3920	5890	5950	5390	2400	2610	3280	7180	---	3390
23	3600	5260	3230	6480	5750	3800	4710	2850	3360	7050	---	3960
24	4360	5370	2950	6360	5790	4110	3090	2660	3370	7100	---	4140
25	3070	5220	3440	5970	5940	4190	3910	3150	3620	7250	---	4240
26	3270	5420	3980	5790	6240	5280	2880	3410	3820	6810	---	3810
27	4290	5640	4690	5800	6460	5480	2350	3720	2090	5730	---	4040
28	5160	6910	5420	5870	6600	5680	2710	3840	2550	5490	---	4270
29	5770	8880	5360	5790	6440	5470	2920	3900	2730	5820	---	4410
30	6210	7400	5400	5860	---	5700	2720	3950	3040	5890	---	4470
31	5880	---	5570	5960	---	6070	---	4020	---	6170	---	---
MONTH	3460	4990	3320	5900	---	5630	4890	2340	3870	6660	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	18.0	7.0	10.0	---	16.0	13.0	22.5	26.5	30.5	28.0	---
2	24.0	17.0	7.0	9.0	---	12.0	18.5	22.0	27.5	28.0	---	---
3	23.0	16.0	5.0	10.0	---	12.5	17.0	23.0	28.0	27.0	28.5	---
4	21.0	14.0	6.0	3.0	---	13.5	18.0	21.5	28.5	25.5	29.5	---
5	22.0	15.0	9.0	7.0	---	14.5	18.5	21.5	28.0	29.5	29.5	---
6	20.0	16.0	6.5	5.0	---	16.0	22.5	22.0	29.0	30.0	29.0	---
7	19.0	18.0	8.0	7.0	---	17.0	23.0	18.5	29.0	30.5	26.0	29.0
8	20.0	18.0	8.0	8.0	---	15.0	20.0	22.0	27.5	27.5	31.0	29.0
9	19.0	16.0	9.0	8.0	---	13.5	20.0	23.5	28.0	29.0	29.0	29.5
10	18.0	19.0	9.0	10.0	---	16.0	20.5	20.5	28.0	27.0	28.0	29.0
11	16.0	16.0	8.0	9.0	6.0	19.5	24.0	20.5	28.0	27.0	29.5	29.0
12	22.0	15.0	7.0	11.0	5.5	22.0	27.0	21.5	27.0	27.5	28.0	29.0
13	19.0	14.0	8.0	9.0	9.0	21.5	24.0	22.5	27.5	29.0	27.5	29.5
14	19.0	17.0	9.0	12.0	14.0	22.0	23.5	22.5	29.0	27.5	27.5	29.5
15	20.0	18.0	9.0	6.0	12.0	18.5	23.0	23.5	28.5	28.0	31.0	---
16	24.0	17.0	9.0	11.0	13.0	16.0	18.5	24.0	28.0	29.5	30.5	27.0
17	23.0	18.0	8.0	13.0	13.0	15.0	19.0	25.0	28.0	29.5	29.5	27.0
18	19.0	15.0	9.0	10.0	12.0	20.0	24.5	25.5	29.0	28.0	30.0	28.5
19	22.0	16.0	9.0	12.0	11.5	19.5	26.0	26.0	29.0	27.5	---	29.0
20	23.0	18.0	9.0	13.0	14.5	17.0	23.5	26.0	30.0	27.5	---	28.5
21	18.0	13.0	8.0	11.0	13.5	18.0	21.0	26.5	28.0	28.0	---	22.0
22	18.0	11.0	7.0	12.0	13.0	20.0	22.5	27.0	29.5	28.5	---	21.0
23	18.0	9.0	9.0	9.0	16.0	17.0	24.0	26.5	27.5	30.5	---	22.0
24	17.0	12.0	9.0	10.0	17.5	19.5	22.5	26.5	29.5	31.0	---	25.0
25	17.0	10.0	12.0	8.0	14.5	19.5	20.0	28.0	30.5	30.5	---	27.0
26	18.0	9.0	13.0	11.0	15.0	21.5	20.0	29.0	31.0	30.5	---	27.5
27	16.0	10.0	16.0	7.0	16.0	23.0	17.0	28.0	30.0	31.5	---	28.0
28	18.0	11.0	8.0	4.0	13.0	19.0	16.0	28.5	30.0	29.0	---	27.0
29	19.0	9.0	12.0	3.0	15.0	16.5	19.5	25.0	29.0	30.0	---	22.0
30	17.0	12.0	11.0	4.0	---	14.5	23.0	23.0	28.0	31.5	---	21.0
31	19.0	---	10.0	5.0	---	11.0	---	21.0	---	30.0	---	---
MONTH	20.0	14.5	9.0	8.5	---	17.5	21.0	24.0	28.5	29.0	---	---

RED RIVER BASIN

07316200 MINERAL CREEK NEAR SADLER, TEX.

LOCATION.--Lat 33°42'08", long 96°50'51", Grayson County, at gaging station at bridge on Farm Road 901, 1.4 miles north of Sadler, and 2.0 miles upstream from Mustang Creek.

DRAINAGE AREA.--26.0 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 07...	1115	.58	9.5	38	9.5	63	166	0	47	58
DEC. 05...	1700	255	6.9	12	2.0	9.2	36	0	8.6	12
JAN. 13...	1210	1.9	6.8	90	24	130	310	0	140	150
FEB. 16...	1200	.83	3.6	96	22	140	300	0	160	160
MAR. 29...	1125	.70	12	94	26	160	348	14	150	160
MAY 03...	1210	1.4	11	60	12	67	176	0	70	86
JUNE 06...	1250	.01	1.5	46	26	200	360	4	110	170

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 07...	.2	1.0	312	130	0	2.4	545	7.5	18.0
DEC. 05...	.1	.7	72	38	8	.6	122	6.4	6.5
JAN. 13...	.3	4.4	700	320	70	3.2	1170	7.6	7.0
FEB. 16...	.3	.02	718	330	86	3.3	1210	7.6	10.5
MAR. 29...	.4	2.5	800	340	32	3.9	1320	8.4	15.5
MAY 03...	.3	1.4	400	200	56	2.1	674	7.7	20.0
JUNE 06...	.5	.7	745	220	0	5.9	1240	8.4	29.0

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
MAR. 29...	1125	.70	15.5	12	.02
MAY 03...	1200	1.3	20.0	64	.22

RED RIVER BASIN

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07316230 SANDY CREEK NEAR SADLER, TEX.

LOCATION.--Lat 33°44'14", long 96°51'04", Grayson County, at bridge on Farm Road 901, and 3.9 miles north of Sadler.

DRAINAGE AREA.--24 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 07...	0900	.26	9.0	110	33	150	59	0	52	450
NOV. 09...	1440	.04	12	860	290	1100	116	0	300	3800
DEC. 05...	1730	319	7.9	10	2.2	7.6	32	0	8.4	9.8
JAN. 12...	1025	.65	7.8	190	71	250	130	0	160	740
FEB. 16...	1020	2.5	8.0	220	61	320	124	0	190	860
MAR. 29...	1020	.12	10	300	90	350	152	0	220	1100
MAY 03...	1030	.50	11	110	39	140	122	0	86	390
JUNE 06...	1325	.01	10	1300	450	1600	96	0	380	5700

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 07...	.2	.3	832	400	350	3.2	1670	6.8	18.0
NOV. 09...	--	--	6450	3300	3200	8.3	11900	6.2	--
DEC. 05...	.0	.5	64	34	8	.6	104	6.4	7.0
JAN. 12...	.2	.1	1480	760	660	4.0	2690	7.1	6.0
FEB. 16...	.1	.1	1720	810	710	4.9	3070	7.6	9.0
MAR. 29...	.3	.01	2130	1100	1000	4.6	3720	7.9	15.5
MAY 03...	.3	.3	839	440	340	2.9	1530	7.1	20.0
JUNE 06...	--	.2	9470	5000	5000	--	16600	7.5	31.5

RED RIVER BASIN

07331600 RED RIVER AT DENISON DAM, NEAR DENISON, TEX.

LOCATION.--Lat 33°49'08", long 96°33'47", Grayson County, at gaging station, 1,800 feet downstream from Denison Dam powerhouse, 0.4 mile upstream from Shawnee Creek, and 4.5 miles north of Denison.

DRAINAGE AREA.--39,720 sq mi, of which 5,936 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: May 1944 to September 1972.
Water temperatures: October 1945 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HC03) (MG/L)	CAR-BONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)
OCT. 01-31	2200	5.2	90	25	180	--	4.9	136	0	170
NOV. 01-30	2500	4.2	80	24	--	200	--	136	0	170
DEC. 01-31	2810	4.7	83	24	--	220	--	126	0	180
JAN. 01-31	4820	4.6	82	24	210	--	4.7	126	0	180
FEB. 01-29	4450	4.8	82	23	--	220	--	124	0	190
MAR. 01-31	2320	5.7	88	23	--	220	--	132	0	180
APR. 01-30	1100	4.2	86	23	210	--	4.7	132	0	170
MAY 01-31	1740	3.9	88	27	--	200	--	124	0	170
JUNE 01-30	2970	3.6	86	28	--	220	--	140	0	180
JULY 01-31	1750	2.7	86	24	220	--	4.7	136	0	190
AUG. 01-31	953	5.8	90	25	--	230	--	134	0	200
SEP. 01-30	1080	5.7	78	25	--	260	--	130	0	200
WTD. AVG. TIME WTD. AVG.	-- 2390	4.5 4.6	84 85	24 25	-- --	-- --	-- --	130 131	0 0	181 182
TOT. LOAD (TONS)	--	10700	199000	57700	--	--	--	307000	0	426000

SPECIFIC CINDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

07331600 RED RIVER AT DENISON DAM, NEAR DENISON, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 1,020 mg/l Sept. 1-30; minimum, 860 mg/l Oct. 1-31.
Hardness: Maximum, 330 mg/l Oct. 1-31, May 1-31, June 1-30, Aug. 1-31; minimum, 300 mg/l Nov. 1-30; Jan. 1-31, Feb. 1-29, Sept. 1-30.

EXTREMES, May 1944 to September 1972.--Dissolved solids: Maximum, 1,430 mg/l Aug. 11-20, Sept. 1-10, 1944; minimum, 464 mg/l Oct. 21-31, 1945.
Hardness: Maximum, 522 mg/l Aug. 11-20, Sept. 1-10, 1944; minimum, 233 mg/l Dec. 21-31, 1945, Jan. 11-20, 1946.
Specific conductance (1944-1969): Maximum daily, 3,520 micromhos Aug. 14, 1944; minimum daily, 656 micromhos Oct. 16, 1945.
Water temperatures (1945-1969): Maximum, 31.0°C July 17, 1969; minimum, 3.0°C Feb. 2-4, 7, 1966.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	310	.2	.4	860	330	220	4.4	1510	7.9
NOV.									
01-30	320	.2	.3	865	300	190	5.1	1540	7.5
DEC.									
01-31	340	.3	.1	910	310	200	5.4	1620	7.1
JAN.									
01-31	340	.2	.4	915	300	200	5.3	1650	7.4
FEB.									
01-29	340	.2	.6	920	300	200	5.5	1640	7.2
MAR.									
01-31	340	.3	.6	929	310	210	5.3	1650	7.9
APR.									
01-30	340	.2	.4	906	310	200	5.1	1630	6.6
MAY									
01-31	340	.3	.2	901	330	230	4.8	1650	8.0
JUNE									
01-30	360	.3	.6	941	330	220	5.2	1680	7.9
JULY									
01-31	350	.3	.6	944	310	200	5.3	1670	7.9
AUG.									
01-31	360	.3	.5	982	330	220	5.6	1740	7.5
SEPT.									
01-30	380	.3	.3	1020	300	190	6.6	1810	7.5
WTD. AVG.	341	.2	.4	917	311	206	5.3	1640	7.5
TIME WTD.									
AVG.	343	.3	.4	924	313	207	5.3	1650	7.5
TOT. LOAD (TONS)	803000	584	1010	2162000	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	20.5	14.5	---	6.5	---	---	17.0	23.5	22.0	26.5	26.0
2	---	---	14.0	---	6.5	---	---	16.5	23.5	22.0	---	---
3	---	20.5	13.0	10.5	6.0	---	13.5	---	---	---	26.5	26.0
4	23.0	20.0	---	10.0	6.0	---	13.5	17.0	---	---	---	---
5	---	20.0	---	9.5	---	---	13.5	17.0	23.5	---	---	---
6	23.0	---	13.5	9.5	---	8.0	13.5	---	24.0	23.5	---	26.0
7	23.0	---	13.0	9.5	6.0	8.0	14.0	---	24.0	24.5	26.0	26.0
8	---	19.0	13.5	---	6.0	8.0	---	18.0	---	25.0	26.0	26.0
9	---	18.5	---	---	---	8.5	---	18.5	24.5	---	26.0	---
10	---	18.0	12.0	9.5	6.0	9.0	14.5	18.5	---	---	26.0	---
11	22.0	18.0	---	9.0	6.0	---	14.5	18.5	---	---	26.0	26.0
12	---	18.0	---	9.5	---	---	14.5	18.5	24.5	26.0	---	26.0
13	22.0	---	11.5	9.0	---	---	---	---	---	26.0	---	26.0
14	22.0	---	11.5	9.0	6.0	10.0	15.0	---	22.0	26.0	26.0	26.0
15	23.0	---	11.5	---	6.0	---	---	---	24.5	26.5	26.0	26.0
16	---	17.0	11.5	---	---	10.0	---	20.0	24.5	---	26.0	---
17	---	16.5	11.5	8.0	6.0	10.5	15.0	20.5	---	---	26.0	---
18	22.0	16.5	---	8.0	6.0	---	15.0	21.0	---	---	26.0	26.0
19	---	16.0	---	8.0	---	---	15.5	21.0	24.5	26.5	---	26.0
20	21.5	---	11.5	8.0	---	11.0	16.0	---	24.5	26.5	---	26.0
21	21.5	---	11.5	8.0	---	---	15.5	---	25.0	27.0	26.0	26.0
22	21.5	15.5	11.5	---	6.0	12.0	---	21.0	---	26.5	---	18.0
23	---	15.5	11.5	---	6.0	11.5	---	21.0	24.5	27.0	---	---
24	---	15.5	---	---	6.5	12.0	16.5	21.5	---	---	26.0	---
25	---	---	---	8.5	6.5	---	16.5	21.5	---	---	26.0	26.0
26	---	14.5	---	8.5	---	---	---	---	25.0	27.0	---	25.5
27	---	---	10.5	8.0	---	12.0	16.5	---	---	27.0	---	25.5
28	21.0	---	10.5	7.0	---	13.0	16.5	---	25.0	---	26.5	25.5
29	21.0	14.0	10.5	---	7.0	13.0	---	---	---	---	26.5	25.5
30	---	14.0	---	---	---	13.5	---	23.0	25.5	27.0	26.0	---
31	---	---	---	6.5	---	13.5	---	---	---	---	26.0	---

RED RIVER BASIN

07332600 BOIS d'ARC CREEK NEAR RANDOLPH, TEX.

LOCATION.--Lat 33°28'32", long 96°12'52", Fannin County, at gaging station at bridge on Farm Road 1218, 2.3 miles upstream from Henson Creek, and 2.4 miles east of Randolph.

DRAINAGE AREA.--72 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 16...	1120	9.8	4.2	94	3.8	23	292	0	35	15
DEC. 16...	1230	74	10	96	3.0	19	304	0	26	9.6
JAN. 27...	1100	25	4.0	100	5.0	28	330	0	42	17
MAR. 03...	1130	8.0	5.6	90	4.7	29	294	0	41	16
APR. 05...	0935	3.8	7.8	77	1.9	41	258	0	43	22
MAY 10...	1115	3.5	7.4	64	3.0	43	234	0	40	20
JUNE 14...	1200	.24	7.2	58	2.8	66	236	0	42	42

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 16...	.3	.3	308	250	0	.6	555	7.8	--
DEC. 16...	--	.9	317	250	3	.5	512	8.1	12.0
JAN. 27...	.2	.9	366	280	10	.7	605	7.9	7.0
MAR. 03...	.3	.3	333	240	3	.8	555	7.8	7.5
APR. 05...	.4	.2	321	200	0	1.3	523	7.8	16.0
MAY 10...	.5	.6	296	170	0	1.4	482	7.9	--
JUNE 14...	.5	.9	338	160	0	2.3	565	8.0	--

RED RIVER BASIN

121

07336750 LITTLE PINE CREEK NEAR KANAWHA, TEX.

LOCATION.-- Lat 33°50'26", long 95°15'55", Red River County, at bridge on Farm Road 410, 1.6 miles south of Kanawha, and 2.5 miles upstream from mouth.

DRAINAGE AREA.--75.4 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 14...	1000	.01	7.0	27	5.0	22	83	0	39	18
NOV. 16...	1220	.38	17	28	6.4	30	65	0	56	35
DEC. 12...	1105	320	6.8	7.5	2.0	5.3	20	0	15	4.5
JAN. 26...	1620	5.9	13	34	7.6	31	48	0	95	32
FEB. 29...	1100	4.1	10	37	8.2	36	52	0	110	36
APR. 13...	1525	.58	10	45	7.7	54	83	0	100	58
MAY 16...	1015	.09	8.8	41	8.2	47	112	0	78	45

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 14...	.2	.2	160	88	20	1.0	295	6.7	20.0
NOV. 16...	.1	.1	205	96	43	1.3	347	6.5	--
DEC. 12...	.0	.05	51	27	11	.4	85	6.3	10.0
JAN. 26...	.0	.2	238	120	77	1.3	390	6.9	8.0
FEB. 29...	.1	.1	261	130	83	1.4	434	6.9	14.0
APR. 13...	.2	.4	322	140	76	2.0	535	7.4	23.0
MAY 16...	.2	.4	285	140	44	1.8	481	7.3	19.0

RED RIVER BASIN

123

07336800 PECAN BAYOU NEAR CLARKSVILLE, TEX.

LOCATION.--Lat 33°41'07", long 94°59'41", Red River County, at gaging station at bridge of Farm Road 1159, 0.2 mile downstream from Tanyard Bayou, 4.3 miles upstream from Little White Oak Creek, and 6.0 miles northeast of Clarksville.

DRAINAGE AREA.--100 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 17...	0845	.03	5.2	17	2.8	9.6	70	0	4.4	8.4
DEC. 12...	0900	1520	3.9	3.8	.1	1.5	12	0	.4	1.5
14...	1635	820	5.9	6.8	1.2	5.9	22	0	9.8	4.4
JAN. 26...	1135	4.1	5.8	14	3.2	19	30	0	38	18
MAR. 01...	1005	4.1	2.8	18	5.1	24	40	0	48	25
APR. 13...	1145	.44	4.4	23	3.5	28	91	0	19	26

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 17...	.1	.2	82	54	0	.6	150	6.7	--
DEC. 12...	.2	.05	18	10	0	.2	32	6.7	9.0
14...	--	.1	45	22	4	.5	72	6.6	13.5
JAN. 26...	.0	.1	113	48	23	1.2	201	6.7	8.0
MAR. 01...	.0	.05	143	66	33	1.3	260	6.7	11.5
APR. 13...	.2	.2	150	72	0	1.4	284	6.5	22.0

RED RIVER BASIN

07336820 RED RIVER NEAR DeKALB, TEX.

LOCATION.--Lat 33°41'15", long 94°41'39", Bowie County, at bridge on U.S. Highway 259, 13 miles north of DeKalb.

DRAINAGE AREA.--47,348 sq mi, of which 5,936 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: January 1968 to September 1972.

Chemical and biochemical analyses: January 1968 to September 1972.

Pesticide analyses: October 1970 to September 1972.

Water temperatures: January 1968 to September 1972.

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 949 mg/l Sept. 23-27; minimum, 92 mg/l Dec. 12-15.

Hardness: Maximum, 340 mg/l Aug. 16-31; minimum, 67 mg/l Dec. 12-15.

Specific conductance: Maximum daily, 1,680 micromhos Aug. 25; minimum daily, 148 micromhos Dec. 14.

Water temperatures: Maximum, 32.0°C June 20, 21; minimum, 6.0°C Feb. 3, 5.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.								
01-02	4050	7.9	44	7.8	61	118	0	53
03-06	3930	5.8	66	18	140	140	0	120
07-09	7990	7.9	44	7.8	61	118	0	53
10-19	3530	5.8	66	18	140	140	0	120
20-29	29900	6.9	32	4.9	26	96	0	26
30-31	5960	7.9	44	7.8	61	118	0	53
NOV.								
01-05	4340	5.6	60	12	96	154	0	80
06-20	4300	4.5	66	17	130	148	0	110
21-26	9710	5.7	42	9.5	63	108	0	56
27-30	5570	4.5	66	17	130	148	0	110
DEC.								
01-07	10600	6.2	51	10	71	132	0	64
08-11	90000	5.6	29	3.8	19	90	0	20
12-15	132000	4.8	22	2.9	7.3	75	0	9.2
16-20	49400	5.6	29	3.8	19	90	0	20
21-25	17900	8.2	36	5.4	33	107	0	31
26-31	10100	6.2	51	10	71	132	0	64
JAN.								
01-07	11500	7.2	46	8.5	60	120	0	55
08-31	9850	5.5	70	18	130	156	0	120
FEB.								
01-29	8950	5.5	70	19	150	140	0	130
MAR.								
01-05	7090	3.8	77	23	160	156	0	140
06-19	3870	6.1	78	21	120	228	8	98
20-31	5910	4.5	72	19	140	160	0	120
APR.								
01-22	3590	3.4	80	27	150	184	0	130
23-26	17000	5.2	22	3.7	14	74	0	19
27-30	4920	5.2	28	7.3	19	104	0	23
MAY								
01-13	3920	7.3	35	8.0	28	136	0	28
14-16	6590	7.2	62	14	99	156	0	86
17-19	6110	7.3	35	8.0	28	136	0	28
20-31	4740	3.2	80	20	160	150	0	140
JUNE								
01-18	3030	9.5	72	20	150	162	0	120
19-23	2730	4.1	84	24	170	172	0	140
24-30	4790	3.4	90	21	211	154	0	170
JULY								
01-06	3710	3.3	88	25	200	160	0	170
07-16	1150	5.9	76	21	120	244	0	92
17-31	3120	3.9	84	23	190	172	0	150
AUG.								
01-15	1450	5.2	87	27	180	212	0	150
16-31	1390	5.2	90	28	180	224	0	150
SEP.								
01-12	610	7.7	84	26	140	288	0	110
13-22	1900	4.0	84	27	210	92	0	180
23-27	2920	4.0	86	26	220	156	0	170
28-30	1540	5.3	46	13	90	154	0	66
WTD. AVG.								
TIME WTD.	--	5.6	47	11	72	119	0	64
AVG.								
TOT. LOAD	8860	5.5	67	18	127	159	0	108
(TONS)	--	49000	413000	93700	632000	1045000	1170	561000

RED RIVER BASIN

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07336820 RED RIVER NEAR DeKALB, TEX.--Continued

EXTREMES, January 1968 to September 1972.--Dissolved solids: Maximum, 949 mg/l Sept. 23-27, 1972; minimum, 92 mg/l Dec. 12-15, 1971.
 Hardness: Maximum, 340 mg/l Aug. 16-31, 1972; minimum, 67 mg/l Dec. 12-15, 1971.
 Specific conductance: Maximum daily, 1,680 micromhos Aug. 25, 1972; minimum daily, 132 micromhos Mar. 25, 1968.
 Water temperatures: Maximum, 34.0°C on several days during July and August, 1969 and 1970; minimum, 1.0°C Jan. 8, 9, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-02	86	.2	.3	319	140	46	2.2	556	7.3
03-06	220	.2	.3	636	240	130	4.0	1120	7.3
07-09	86	.2	.3	319	140	46	2.2	556	7.3
10-19	220	.2	.3	636	240	130	4.0	1120	7.3
20-29	35	.2	.4	180	100	21	1.1	325	7.3
30-31	86	.2	.3	319	140	46	2.2	556	7.3
NOV.									
01-05	140	--	.1	470	200	72	3.0	801	7.7
06-20	190	--	.2	590	230	110	3.6	1080	7.9
21-26	94	--	.4	325	140	56	2.3	562	7.6
27-30	190	--	.2	590	230	110	3.6	1080	7.9
DEC.									
01-07	100	.1	.4	373	170	60	2.4	668	7.5
08-11	24	.1	.4	147	88	14	.9	260	7.2
12-15	7.2	.0	.4	92	67	6	.4	158	7.6
16-20	24	.1	.4	147	88	14	--	260	7.2
21-25	44	.1	.3	212	110	24	1.4	369	7.6
26-31	100	.1	.4	373	170	60	2.4	668	7.5
JAN.									
01-07	88	.1	.3	325	150	52	2.1	576	7.8
08-31	200	.2	.3	628	250	120	3.7	1120	8.0
FER.									
01-29	230	.2	.2	674	250	140	--	1220	7.9
MAR.									
01-05	260	.3	.02	741	280	160	4.2	1330	8.0
06-19	180	.3	.04	623	280	93	3.2	1070	8.3
20-31	220	.2	.2	665	260	120	3.9	1190	8.0
APR.									
01-22	240	.3	.06	730	310	160	3.7	1300	8.1
23-26	13	.2	.6	116	70	9	.7	212	7.1
27-30	22	.1	.4	156	100	15	.8	283	7.5
MAY									
01-13	28	.1	.2	202	120	9	1.1	351	7.5
14-16	150	.2	.3	495	210	84	3.0	870	7.7
17-19	28	.1	.2	202	120	9	1.1	351	7.5
20-31	260	.2	.1	745	280	160	4.3	1310	7.7
JUNE									
01-18	230	.2	.3	687	260	130	--	1180	7.9
19-23	280	.3	.08	793	310	170	4.3	1370	8.0
24-30	330	.3	.08	901	310	190	--	1530	8.0
JULY									
01-06	320	.3	.1	891	320	190	4.9	1570	8.1
07-16	160	.3	.3	598	280	76	3.1	1040	8.2
17-31	290	.3	.3	830	300	160	--	1440	8.0
AUG.									
01-15	280	.3	.5	837	330	160	--	1440	8.1
16-31	280	.3	.5	852	340	160	--	1460	8.0
SEP.									
01-12	200	.3	.5	709	320	79	3.5	1220	8.2
13-22	320	.3	.3	916	320	170	5.2	1550	8.2
23-27	360	.3	.3	949	320	190	5.5	1610	8.1
28-30	120	.3	.6	417	170	42	3.0	714	8.2
WTD. AVG.									
TIME WTD.	108	.1	.3	370	161	64	--	654	7.6
AVG.	193	.2	.2	602	242	111	--	1060	7.9
TOT. LOAD									
(TONS)	946000	1210	2830	3237000	--	--	--	--	--

RED RIVER BASIN

07386820 RED RIVER NEAR DeKALB, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CAL- CIUM (CA) (MG/L)	DIS-SOLVED MAG- NE- SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	DIS-SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
20...	1130	21900	5.7	39	14	44	114	0	46	76	.2	.50
DEC.												
04...	1305	8040	6.7	71	17	130	162	0	110	200	.3	.52
JAN.												
29...	1410	9360	5.6	72	18	150	148	0	120	230	.3	.03
MAR.												
28...	1250	7680	3.8	77	18	180	138	0	140	270	.3	.17
JUNE												
06...	1300	3180	2.9	62	21	120	196	0	100	180	.2	.19
AUG.												
16...	1140	1980	4.2	90	27	220	204	0	180	320	.3	.25

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.												
20...	.010	.11	.5	.46	283	626	--	150	60	1.5	493	6.9
DEC.												
04...	.014	.08	.2	.14	613	134	16	240	110	3.6	1060	7.3
JAN.												
29...	.009	.13	.2	.070	674	68	6	260	130	4.1	1170	7.7
MAR.												
28...	.007	.05	.09	.10	759	64	13	260	150	4.7	1350	7.9
JUNE												
06...	.000	.04	.07	.15	583	28	21	240	80	3.5	1030	7.9
AUG.												
16...	.004	.11	.01	.18	936	44	12	340	170	5.1	1570	7.9

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
20...	21.5	55	180	6.6	74	22	1.8	0	.03	80	0	1
DEC.												
04...	6.5	20	60	12.2	98	0	1.9	2	.02	--	--	--
JAN.												
29...	6.0	5	25	11.4	91	15	1.8	0	.06	20	0	0
MAR.												
28...	18.0	7	9	9.9	104	9	3.0	2	.00	10	0	0
JUNE												
06...	28.5	10	15	7.9	101	8	3.3	0	.04	20	0	0
AUG.												
16...	29.5	0	20	7.7	100	26	5.0	2	.08	30	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.											
20...	0	0	4	140	0	0	5	1.1	0	320	40
DEC.											
04...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
29...	0	0	2	10	0	0	40	.4	0	760	30
MAR.											
28...	0	0	3	0	0	10	0	.2	0	730	90
JUNE											
06...	0	0	3	10	0	0	0	.2	0	670	80
AUG.											
16...	0	0	3	10	0	20	0	.2	0	1200	60

RED RIVER BASIN

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07336820 RED RIVER NEAR DeKALB, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
OCT. 20...	1130	21900	.00	<.2	.00	<.2	.01	<.2	.02	<.2
JAN. 29...	1410	9360	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAR. 28...	1250	7680	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 06...	1300	3180	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 16...	1140	1980	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
OCT. 20...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JAN. 29...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAR. 28...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 06...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 16...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT. 20...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
JAN. 29...	.0	<1.0	.01	.00	.00	.00	.00	.00	.00
MAR. 28...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
JUNE 06...	.0	<1.0	.00	.00	.00	.00	.06	.00	.00
AUG. 16...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00

RED RIVER BASIN

07336820 RED RIVER NEAR DeKALB, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	461	646	790	404	1130	1380	---	378	1180	1540	1590	1510
2	684	967	773	582	1100	1360	1350	365	---	1520	1470	1330
3	957	812	645	580	1150	1340	1330	367	---	1510	1450	1240
4	1100	816	1090	581	1290	1240	1340	332	---	1590	1390	1180
5	1140	744	898	634	1220	1270	1250	310	---	1480	1320	1130
6	1210	1030	544	638	1270	1160	1150	---	---	1400	1300	1200
7	567	---	524	582	1370	1130	1120	272	---	1230	1510	1230
8	383	1220	279	1100	1240	1120	1380	---	---	1140	1610	1210
9	636	1190	272	1120	1260	1080	1390	323	---	1100	1570	1180
10	943	1180	203	1070	1280	---	1210	346	---	1080	1420	1160
11	1110	1150	242	1060	1290	---	---	425	---	1040	1270	1160
12	1170	897	169	1130	1290	840	1400	371	---	1010	1330	1100
13	1060	893	149	1030	1290	1110	1330	424	---	1000	1370	1070
14	948	1310	148	1070	1240	1060	1170	872	---	976	1370	1360
15	881	1310	149	1070	1170	1180	1330	872	---	877	1410	1620
16	952	1310	258	1140	1120	1140	1450	---	---	957	1560	1570
17	1460	1210	259	1140	1120	836	1470	315	---	1530	1620	1570
18	1460	1170	270	1190	1290	1100	1450	345	---	1490	---	1620
19	1280	1150	266	1280	1270	1070	1300	323	1400	1450	1560	1600
20	448	1150	166	1170	1150	1220	1210	1200	1370	1480	1440	1660
21	308	540	361	1260	1090	1210	---	1170	1490	1400	1400	1630
22	293	354	391	995	1120	1230	1020	1490	1430	1270	1400	1570
23	211	423	352	995	1220	1090	---	1470	1260	1670	1560	1520
24	222	549	338	1170	1170	1010	213	1390	1580	1650	1640	1620
25	338	954	398	1230	1090	1320	201	1170	1630	1600	1680	1640
26	380	551	544	864	1250	1210	210	1020	1540	1550	1650	1590
27	337	1040	666	1230	1310	1280	---	1400	1510	1500	1640	1500
28	340	1090	670	1250	1250	1330	258	1400	1450	1370	1590	805
29	307	1010	573	1170	1230	1280	282	1330	---	1630	1530	649
30	551	804	471	1100	---	1100	307	1330	---	1630	1470	668
31	657	---	411	1090	---	990	---	1380	---	1560	1440	---
MONTH	735	952	428	998	1220	1160	1040	800	---	1360	1490	1330

RED RIVER BASIN

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07336820 RED RIVER NEAR DEKALB, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	23.0	10.0	11.0	8.0	16.0	---	22.0	27.5	29.5	29.0	26.5
2	26.5	22.0	8.0	11.0	7.0	14.0	17.0	21.0	---	29.5	29.0	27.0
3	25.0	18.0	8.0	11.0	6.0	13.0	16.0	24.0	---	29.0	29.0	26.5
4	24.0	16.0	9.0	8.0	7.0	13.0	17.0	24.0	---	27.0	---	26.5
5	24.0	17.0	9.0	7.0	6.0	13.0	19.0	23.0	---	26.0	29.5	25.0
6	24.0	16.0	8.0	7.0	9.0	13.0	19.0	---	---	25.5	29.5	26.0
7	24.0	---	9.0	7.0	8.0	15.0	20.0	22.0	---	26.0	29.0	27.0
8	23.0	14.0	9.0	8.0	9.0	15.0	19.0	---	---	26.5	29.5	28.5
9	22.0	14.0	9.0	9.0	9.0	15.0	18.0	24.0	---	27.5	29.5	29.5
10	21.0	15.0	11.0	9.0	8.5	---	20.0	20.0	---	28.5	28.0	28.0
11	21.0	15.0	12.0	9.5	10.0	---	---	21.0	---	28.5	28.0	28.0
12	22.0	16.0	12.0	12.0	10.0	20.0	23.0	23.0	---	28.5	28.5	29.0
13	22.0	16.0	11.0	10.0	10.0	19.0	24.0	24.0	---	29.0	28.0	28.5
14	23.0	18.5	12.0	9.0	11.5	18.0	24.0	24.0	---	29.0	28.5	27.0
15	23.0	17.0	12.0	7.0	11.0	18.0	24.0	25.0	---	28.5	29.5	28.0
16	24.0	18.0	12.0	7.0	12.0	19.0	23.0	---	---	29.0	---	28.0
17	23.0	17.0	12.0	7.0	11.5	20.0	23.0	26.0	---	29.0	29.0	27.5
18	24.0	17.0	11.0	7.0	10.0	19.0	23.0	26.0	---	28.0	---	28.0
19	24.0	16.0	11.0	10.0	10.0	18.0	23.0	26.0	30.0	29.0	29.0	28.5
20	22.0	15.0	12.0	12.0	10.0	18.5	24.0	27.0	32.0	29.5	31.0	29.0
21	21.0	15.5	11.5	12.0	8.0	18.5	---	28.0	32.0	29.5	30.5	28.0
22	21.0	11.0	12.0	12.0	10.0	19.0	23.0	27.0	30.5	28.5	30.0	25.5
23	20.0	11.5	12.0	13.0	12.0	20.5	---	26.0	28.5	28.5	29.0	24.5
24	29.0	11.5	12.0	13.0	14.0	17.5	21.0	28.0	28.5	29.5	29.0	24.5
25	19.5	11.0	15.0	10.0	16.0	17.0	21.0	27.0	28.0	29.5	28.5	24.5
26	20.0	11.0	14.0	9.0	16.0	16.0	20.0	29.0	28.5	30.5	28.5	25.0
27	21.0	11.5	15.0	9.5	16.0	19.0	---	28.0	29.5	30.5	29.0	25.5
28	22.0	12.0	14.0	9.0	16.0	19.0	20.0	27.0	29.0	30.0	28.0	25.5
29	22.0	10.0	15.0	7.0	16.0	17.0	20.0	28.0	---	30.0	28.0	25.5
30	22.0	10.0	14.0	7.0	---	15.0	20.0	27.5	---	29.0	27.0	21.0
31	23.0	---	11.0	8.0	---	16.0	---	27.0	---	29.0	27.0	---
MONTH	23.0	15.0	11.5	9.5	10.5	17.0	21.0	25.0	---	28.5	29.0	26.5

RED RIVER BASIN

07342500 SOUTH SULPHUR RIVER NEAR COOPER, .TEX.

LOCATION.--Lat 33°21'20", long 95°35'39", Delta County, at gaging station at bridge on State Highway 154, 1.0 mile downstream from Big Creek, 1.0 mile upstream from Brushy Creek, 4.5 miles downstream from Doctors' Creek, and 5.6 miles southeast of Cooper.

DRAINAGE AREA.--527 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1958 to September 1966, October 1967 to September 1972.
Water temperatures: October 1958 to September 1966, October 1967 to September 1972.

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 1,500 mg/l Sept. 25-27; minimum, 77 mg/l Dec. 6-12.
Hardness: Maximum, 330 mg/l Mar. 8-24, Sept. 25-27; minimum, 44 mg/l Oct. 19-21.
Specific conductance: Maximum daily, 2,720 micromhos Sept. 27; minimum daily, 100 micromhos Dec. 10.
Water temperatures: Maximum, 30.0°C July 25; minimum, 3.0°C on several days during January and February.

WATER QUALITY DATA. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.								
01-18	114	6.7	36	2.5	24	138	0	24
19-21	16500	--	15	1.6	7.0	62	0	6.0
22-25	3180	8.0	22	2.2	9.7	86	0	9.0
26-31	45	12	34	3.2	17	130	0	16
NOV.								
01-20	9.9	13	49	4.3	32	200	0	24
21-30	22	9.4	58	4.7	39	200	0	50
DEC.								
01-02	22	10	66	6.2	46	236	0	46
03-05	1410	4.8	24	2.0	12	85	0	16
06-12	12000	4.9	17	2.3	8.0	68	0	8.8
13-16	2100	4.8	24	2.0	12	85	0	16
17-20	313	8.6	38	3.0	19	134	0	24
21-25	36	10	52	4.4	28	186	0	31
26-31	17	10	66	6.2	46	236	0	46
JAN.								
01-04	212	6.8	66	6.7	43	220	0	60
05-08	244	7.2	37	4.1	21	124	0	33
09-15	41	8.2	55	5.5	34	178	0	51
16-27	11	8.2	82	7.2	57	282	0	70
28-31	65	6.8	66	6.7	43	220	0	60
FEB.								
01-02	15	4.8	53	9.2	69	198	0	80
03-20	16	4.9	72	11	80	260	0	93
21-29	5.8	5.3	89	11	83	322	0	98
MAR.								
01-07	3.8	3.8	95	11	92	353	0	100
08-24	36	4.0	110	14	100	416	0	110
25-26	1020	6.6	35	2.4	19	105	0	30
27-29	70	8.0	46	5.2	27	148	0	41
30-31	16	8.5	60	2.5	33	182	0	45
APR.								
01-03	10	1.4	42	3.7	38	144	0	48
04-09	5.1	3.8	50	5.7	45	188	0	52
10-30	3.7	8.6	84	8.4	61	324	0	53
MAY								
01-11	21	2.2	64	7.4	90	284	8	68
12-15	12	2.7	35	5.0	50	160	0	47
16-27	8.9	6.2	55	4.6	74	230	0	70
28-31	1.9	7.0	35	4.1	37	144	0	35
JUNE								
01-12	.15	7.4	42	4.7	41	176	0	37
13-18	14	8.8	50	3.6	60	220	0	46
19-30	30	7.7	24	1.5	24	97	0	23
JULY								
01-14	1.0	8.0	32	3.0	25	128	0	23
15...	.98	7.2	48	3.9	120	140	0	50
16-30	.10	6.5	42	3.2	49	164	0	32
31...	.00	--	--	--	--	--	--	--
AUG.								
01-08	.00	--	--	--	--	--	--	--
09-10	.01	6.4	45	5.3	43	196	0	27
11-15	.07	5.5	41	5.3	33	184	0	19
16-28	.27	5.8	38	4.2	32	174	0	17
29-31	.00	--	--	--	--	--	--	--
SEP.								
01-24	.00	--	--	--	--	--	--	--
25-27	3.2	7.3	110	13	450	196	4	38
28-30	38	8.0	27	4.0	97	220	6	28
WTD. AVG.	--	5.4	19	2.2	9.9	76	0	11
TIME WTD.								
AVG.	465	7.0	55	5.8	52	209	0	47
TOT. LOAD (TONS)	--	1770	8890	1020	4560	34700	7	4890

07342500 SOUTH SULPHUR RIVER NEAR COOPER, TEX.--Continued

EXTREMES, October 1958 to September 1966, October 1967 to September 1972.--Dissolved solids: Maximum, 1,500 mg/l Sept. 25-27, 1972; minimum, 68 mg/l June 24-25, 1961.
 Hardness: Maximum, 347 mg/l Feb. 1-28, 1963; minimum, 42 mg/l June 24-25, 1961.
 Specific conductance: Maximum daily, 2,720 micromhos Sept. 27, 1972; minimum daily, 92 micromhos Dec. 11, 1960.
 Water temperatures: Maximum, 36.0°C Aug. 6, 1960, Aug. 10, 1962; minimum, freezing point on Jan. 31, 1966.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-18	10	--	.3	172	100	0	1.0	288	8.1
19-21	1.6	--	--	61	44	0	--	111	7.4
22-25	3.0	--	.3	97	64	0	.5	160	7.7
26-31	7.2	--	.3	155	98	0	.7	247	7.5
NOV.									
01-20	14	--	.2	235	140	0	1.2	384	7.8
21-30	22	--	.4	283	160	0	1.3	473	7.9
DEC.									
01-02	33	.3	.2	324	190	0	1.4	529	7.8
03-05	5.2	.2	.1	107	68	0	.6	181	7.1
06-12	2.6	.1	.1	77	52	0	.5	130	7.2
13-16	5.2	.2	.1	107	68	0	.6	181	7.1
17-20	8.6	.2	.1	168	110	0	.8	270	7.5
21-25	17	.1	.09	234	150	0	1.0	385	7.3
26-31	33	.3	.2	324	190	0	1.4	529	7.8
JAN.									
01-04	29	--	.2	320	190	12	--	525	7.8
05-08	13	--	.3	178	110	7	.9	304	7.3
09-15	24	--	.2	267	160	14	--	445	7.8
16-27	38	--	.4	403	230	3	1.6	649	8.2
28-31	29	--	.2	320	190	12	--	525	7.8
FEB.									
01-02	52	.1	.06	365	170	8	2.3	617	7.7
03-20	63	.2	.02	452	220	10	--	746	8.0
21-29	56	.2	.6	503	270	2	2.2	816	8.1
MAR.									
01-07	59	.3	.02	539	280	0	2.4	871	8.1
08-24	68	.3	.04	612	330	0	2.4	981	8.2
25-26	10	--	1.7	163	97	11	.8	273	7.5
27-29	17	.3	6.6	224	140	15	1.0	369	7.7
30-31	21	.3	1.3	265	160	11	1.1	433	7.9
APR.									
01-03	23	.4	.4	229	120	2	1.5	377	7.3
04-09	26	.3	.1	275	150	0	1.6	466	7.6
10-30	39	.3	.3	415	240	0	1.7	671	7.9
MAY									
01-11	48	.4	.3	429	190	0	2.8	713	8.3
12-15	24	.4	.6	246	110	0	2.1	414	7.9
16-27	37	.4	.5	362	160	0	2.6	592	8.1
28-31	18	.3	1.2	213	100	0	1.6	361	8.2
JUNE									
01-12	21	.4	.1	241	120	0	1.6	403	8.0
13-18	29	.4	.3	307	140	0	2.2	507	8.0
19-30	7.6	.3	.8	140	66	0	1.3	235	7.4
JULY									
01-14	12	.4	.04	167	92	0	1.1	286	8.0
15...	160	.5	.5	460	140	22	4.4	818	8.0
16-30	39	.5	.2	254	120	0	--	428	7.8
31...	--	--	--	--	--	--	--	--	--
AUG.									
01-08	--	--	--	--	--	--	--	--	--
09-10	25	.4	.5	250	130	0	--	431	8.2
11-15	17	.3	.3	212	120	0	1.3	363	8.0
16-28	13	.3	.4	198	110	0	--	336	8.0
29-31	--	--	--	--	--	--	--	--	--
SEP.									
01-24	--	--	--	--	--	--	--	--	--
25-27	780	.4	.8	1500	330	170	--	2590	8.4
28-30	50	.4	1.0	333	84	0	4.6	552	8.5
WTD. AVG.									
TIME WTD.	3.7	--	.1	87	57	0	--	148	7.3
AVG.									
TOT. LOAD	36	--	.3	310	160	3	--	508	7.9
(TONS)	1720	--	56	40000	--	--	--	--	--

RED RIVER BASIN

07342500 SOUTH SULPHUR RIVER NEAR COOPER, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	278	432	455	639	613	842	314	675	365	248	---	---
2	288	312	490	520	634	856	342	721	361	256	---	---
3	311	317	194	506	718	863	380	676	373	266	---	---
4	---	323	185	500	723	867	406	903	389	267	---	---
5	251	329	209	303	739	890	441	718	393	228	---	---
6	232	337	129	262	745	898	473	794	404	266	---	---
7	250	349	133	307	723	914	475	618	412	282	---	---
8	227	352	147	329	708	931	---	642	420	287	---	---
9	260	358	152	380	745	944	509	685	421	290	---	---
10	279	364	100	435	759	990	581	682	---	294	401	---
11	284	371	106	469	779	1010	603	740	443	295	297	---
12	315	376	133	487	944	1010	612	398	449	300	345	---
13	317	385	142	510	595	980	626	416	451	304	362	---
14	323	392	161	530	600	971	640	394	414	358	365	---
15	330	400	172	547	680	976	642	426	511	818	369	---
16	337	407	195	565	699	980	650	613	553	547	360	---
17	343	411	228	574	685	990	677	473	452	480	333	---
18	241	398	259	592	750	985	670	569	679	474	317	---
19	152	415	283	603	797	990	677	596	317	471	316	---
20	101	424	308	625	764	1000	686	602	233	456	325	---
21	118	560	334	648	791	995	654	611	226	425	333	---
22	150	453	359	665	782	1000	668	620	224	400	343	---
23	157	454	385	677	794	1020	691	632	280	393	350	---
24	164	448	410	686	810	922	698	618	178	390	355	---
25	170	455	437	695	826	239	713	636	218	391	360	---
26	200	471	468	707	836	299	720	598	205	395	365	2700
27	229	471	490	729	829	344	713	551	218	398	368	2720
28	249	473	520	538	829	369	688	383	225	404	374	347
29	259	465	549	440	835	395	720	354	235	406	---	1070
30	271	461	594	630	---	422	744	353	244	428	---	245
31	287	---	668	675	---	447	---	355	---	---	---	---
MONTH	246	405	303	541	749	817	600	582	355	374	---	---

RED RIVER BASIN

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07342500 SOUTH SULPHUR RIVER NEAR COOPER, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	19.0	8.0	11.0	5.0	16.0	14.0	20.0	20.0	27.0	---	---
2	24.0	19.0	8.0	9.0	5.0	13.0	13.0	20.0	21.0	27.0	---	---
3	24.0	16.0	5.0	10.0	3.0	10.0	16.0	19.0	22.0	27.0	---	---
4	---	14.0	5.0	8.0	3.0	12.0	14.0	20.0	21.0	26.0	---	---
5	20.0	14.0	6.0	5.0	3.0	11.0	15.0	20.0	22.0	24.0	---	---
6	21.0	16.0	7.0	3.0	7.0	11.0	18.0	21.0	27.0	22.0	---	---
7	19.0	13.0	7.0	3.0	5.0	14.0	19.0	21.0	23.0	22.0	---	---
8	19.0	16.0	8.0	3.0	4.0	15.0	---	19.0	23.0	22.0	---	---
9	19.0	10.0	10.0	6.0	7.0	12.0	15.0	19.0	24.0	24.0	---	---
10	16.0	10.0	12.0	6.0	6.0	19.0	17.0	19.0	---	24.0	24.0	---
11	15.0	10.0	11.0	8.0	7.0	15.0	19.0	20.0	29.0	25.0	24.0	---
12	16.0	11.0	11.0	7.0	6.0	17.0	20.0	20.0	24.0	25.0	25.0	---
13	18.0	13.0	10.0	8.0	6.0	18.0	22.0	20.0	25.0	25.0	25.0	---
14	17.0	15.0	10.0	6.0	7.0	17.0	23.0	21.0	25.0	25.0	24.0	---
15	19.0	16.0	12.0	4.0	9.0	18.0	23.0	20.0	25.0	26.0	24.0	---
16	20.0	15.0	11.0	3.0	9.0	16.0	20.0	21.0	25.0	26.0	25.0	---
17	21.0	15.0	11.0	3.0	10.0	15.0	19.0	21.0	25.0	26.0	25.0	---
18	23.0	17.0	10.0	6.0	9.0	16.0	19.0	22.0	25.0	25.0	25.0	---
19	22.0	13.0	10.0	8.0	8.0	15.0	21.0	22.0	25.0	25.0	26.0	---
20	22.0	12.0	10.0	10.0	10.0	16.0	22.0	21.0	25.0	25.0	26.0	---
21	20.0	12.0	10.0	11.0	11.0	17.0	22.0	22.0	27.0	26.0	26.0	---
22	19.0	11.0	10.0	10.0	13.0	16.0	19.0	22.0	27.0	25.0	27.0	---
23	19.0	9.0	10.0	10.0	11.0	17.0	20.0	23.0	25.0	26.0	29.0	---
24	18.0	9.0	10.0	12.0	13.0	17.0	19.0	23.0	25.0	25.0	25.0	---
25	18.0	8.0	12.0	10.0	15.0	14.0	18.0	23.0	26.0	30.0	25.0	---
26	18.0	10.0	14.0	8.0	14.0	16.0	17.0	23.0	27.0	26.0	25.0	26.0
27	20.0	9.0	15.0	9.0	13.0	17.0	18.0	23.0	27.0	26.0	25.0	24.0
28	20.0	10.0	13.0	7.0	13.0	17.0	17.0	24.0	27.0	26.0	24.0	23.0
29	19.0	9.0	13.0	6.0	15.0	15.0	18.0	24.0	28.0	26.0	---	25.0
30	19.0	9.0	13.0	5.0	---	14.0	19.0	23.0	26.0	26.0	---	20.0
31	19.0	---	12.0	4.0	---	13.0	---	21.0	---	---	---	---
MONTH	19.5	12.5	10.0	7.0	8.5	15.0	18.5	21.0	25.0	25.5	---	---

RED RIVER BASIN

07343000 NORTH SULPHUR RIVER NEAR COOPER, TEX.

LOCATION.--Lat 33°28'25", long 95°35'15", Delta County, at gaging station at bridge on State Highways 19 and 24, 2.3 miles upstream from Auds Creek, and 8.7 miles northeast of Cooper.

DRAINAGE AREA.--276 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.
Water temperatures: October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-02	1.7	9.1	72	7.4	--	46	--	160	0	130
03-05	776	10	50	3.7	--	25	--	132	0	61
06-16	49	9.1	72	7.4	--	46	--	160	0	130
17-18	298	8.7	50	2.7	--	22	--	132	0	57
19-20	25300	8.1	40	2.0	--	6.9	--	118	0	20
21-22	430	8.7	50	2.7	--	22	--	132	0	57
23-31	50	9.1	72	7.4	--	46	--	160	0	130
NOV.										
01-17	10	6.2	100	8.4	--	68	--	208	0	190
18-24	246	7.5	70	5.2	--	39	--	168	0	110
25-30	32	7.1	92	7.4	--	49	--	216	0	140
DEC.										
01-02	43	8.2	97	6.8	--	54	--	256	0	120
03-08	1900	7.5	56	4.0	--	22	--	160	0	53
09-10	9300	6.2	34	1.7	--	9.0	--	102	0	21
11-16	479	7.5	56	4.0	--	22	--	160	0	53
17-31	64	8.2	97	6.8	--	54	--	256	0	120
JAN.										
01-05	155	7.2	93	7.3	--	48	--	242	0	120
06-14	51	5.8	98	8.6	--	58	--	248	0	145
15-31	30	2.9	100	7.4	--	81	--	220	0	190
FEB.										
01-13	22	2.4	100	11	--	82	--	220	0	200
14-29	13	1.9	110	13	--	88	--	241	0	220
MAR.										
01-08	8.5	3.2	94	12	--	97	--	196	0	220
09-31	20	4.6	110	13	--	110	--	220	0	250
APR.										
01-14	2.6	4.3	110	17	--	120	--	198	0	300
15-30	3.3	6.7	120	17	--	140	--	194	0	350
MAY										
01-19	3.8	5.4	130	15	--	150	--	160	0	390
20-21	.00	--	--	--	--	--	--	--	--	--
22-31	.40	1.8	120	12	--	140	--	122	0	390
JUNE										
01-04	.02	2.7	140	19	--	180	--	112	0	500
05-09	.00	--	--	--	--	--	--	--	--	--
10...	.02	2.7	140	19	--	180	--	112	0	500
11-13	.00	--	--	--	--	--	--	--	--	--
14-23	10	2.7	140	19	--	180	--	112	0	500
24-30	7.8	6.0	72	5.0	--	89	--	102	0	210
JULY										
01-14	1.6	4.0	76	12	--	110	--	72	0	290
15-21	.32	3.9	86	14	--	140	--	66	0	350
22-31	.00	--	--	--	--	--	--	--	--	--
AUG.										
01-10	.00	--	--	--	--	--	--	--	--	--
11...	34	3.7	94	13	--	160	--	58	0	400
12-19	18	4.9	50	4.7	--	40	--	106	0	100
20-23	.25	4.9	54	8.1	--	50	--	120	0	120
24-31	.00	4.8	56	6.9	--	59	--	124	0	130
SEP.										
01-24	.00	--	--	--	--	--	--	--	--	--
25...	2.8	3.5	50	62	--	38	--	88	0	150
26-30	.73	4.8	90	13	--	94	--	108	0	260
WTD. AVG.										
TIME WTD.	--	7.6	45	2.8	--	15	--	128	0	37
AVG.										
TOT. LOAD	259	5.4	94	11	--	87	--	177	0	220
(TONS)	--	1940	11600	705	--	3710	--	32800	0	9540

RED RIVER BASIN

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07343000 NORTH SULPHUR RIVER NEAR COOPER, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 1,040 mg/l June 1-4, 10, 14-23; minimum, 127 mg/l Dec. 9-10.

Hardness: Maximum, 420 mg/l June 1-4, 10, 14-23; minimum, 92 mg/l Dec. 9-10.

Specific conductance: Maximum daily, 1,720 micromhos June 20; minimum daily, 191 micromhos Oct. 12, Dec. 10.

Water temperatures: Minimum, freezing point Jan. 5, 6.

EXTREMES, October 1968 to September 1972.--Dissolved solids: Maximum, 1,520 mg/l Oct. 1-8, 1969; minimum, 127 mg/l Dec. 9-10, 1971.

Hardness: Maximum, 628 mg/l Oct. 1-8, 1969; minimum, 92 mg/l Dec. 9-10, 1971.

Specific conductance: Maximum daily, 2,290 micromhos Sept. 17, 1969; minimum daily, 191 micromhos Oct. 12, Dec. 10, 1971.

Water temperatures: Maximum, 35.0°C June 22, 1970; minimum, freezing point on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-02	28	--	.7	377	210	79	--	588	7.8
03-05	11	--	1.8	234	140	32	--	369	7.6
06-16	28	--	.7	377	210	79	1.4	588	7.8
17-18	9.8	--	.8	219	140	28	.8	351	7.6
19-20	2.6	--	.5	140	110	11	.3	246	7.5
21-22	9.8	--	.8	219	140	28	.8	351	7.6
23-31	28	--	.7	377	210	79	1.4	588	7.8
NOV.									
01-17	47	--	.06	519	280	110	1.8	809	8.0
18-24	21	--	.7	335	200	58	1.2	523	8.0
25-30	32	--	.3	441	260	83	1.3	690	8.1
DEC.									
01-02	32	.4	.5	452	270	60	1.4	712	7.9
03-08	10	.3	.9	237	160	25	.8	381	7.4
09-10	2.3	.3	.5	127	92	8	.4	207	7.3
11-16	10	.3	.9	237	160	25	.8	381	7.4
17-31	32	.4	.5	452	270	60	1.4	712	7.9
JAN.									
01-05	28	--	.2	425	260	64	1.3	677	7.8
06-14	36	--	.2	474	280	77	1.5	784	7.8
15-31	57	--	.03	543	280	100	2.1	868	7.8
FEB.									
01-13	60	.2	.1	562	300	120	2.1	890	8.0
14-29	64	.2	.04	617	330	130	2.1	957	8.0
MAR.									
01-08	74	.3	.05	596	280	120	2.5	953	8.0
09-31	98	.3	.08	688	330	150	2.7	1070	8.1
APR.									
01-14	95	.3	.00	740	350	190	2.7	1150	8.1
15-30	120	.4	.00	855	380	220	3.2	1300	7.9
MAY									
01-19	120	.3	.01	886	380	250	--	1310	8.0
20-21	--	--	--	--	--	--	--	--	--
22-31	100	.4	.07	832	350	250	--	1240	7.8
JUNE									
01-04	140	.4	.1	1040	420	320	--	1500	7.9
05-09	--	--	--	--	--	--	--	--	--
10...	140	.4	.1	1040	420	320	--	1500	7.9
11-13	--	--	--	--	--	--	--	--	--
14-23	140	.4	.1	1040	420	320	--	1500	7.9
24-30	62	.6	.4	497	200	120	2.7	749	7.8
JULY									
01-14	79	.6	.5	605	240	180	3.0	930	7.8
15-21	100	.7	.3	725	270	220	--	1120	7.4
22-31	--	--	--	--	--	--	--	--	--
AUG.									
01-10	--	--	--	--	--	--	--	--	--
11...	120	.7	.3	819	290	240	--	1240	7.6
12-19	27	.5	.4	281	140	57	1.4	471	7.9
20-23	35	.5	.2	333	170	70	1.7	551	7.9
24-31	39	.6	.2	360	170	66	2.0	587	8.0
SEP.									
01-24	--	--	--	--	--	--	--	--	--
25...	43	.7	.5	396	380	310	--	612	7.7
26-30	88	.6	.9	603	280	190	2.4	953	7.8
WTD. AVG.									
TIME WTD.	7.0	--	.5	181	126	19	--	301	7.5
AVG.									
TOT. LOAD	65	--	.2	571	279	133	--	883	7.9
(TONS)	1780	--	151	46200	--	--	--	--	--

RED RIVER BASIN

07343000 NORTH SULPHUR RIVER NEAR COOPER, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	597	693	734	711	868	896	1090	1290	1390	788	---	---
2	599	720	730	661	879	935	1080	1270	1430	823	---	---
3	602	730	289	704	890	909	1090	1180	1370	812	---	---
4	330	746	378	629	890	985	1130	1270	1390	923	---	---
5	400	763	464	688	906	944	1130	1250	---	931	---	---
6	465	781	265	739	910	962	1150	1280	---	953	---	---
7	513	796	252	777	902	995	1130	1290	---	953	---	---
8	527	812	382	785	882	1000	1140	1290	---	958	---	---
9	298	822	218	771	890	1050	1180	1480	---	985	---	---
10	391	835	191	763	902	1020	1170	1500	1500	990	---	---
11	280	849	328	785	910	1040	1180	1390	---	967	1230	---
12	191	854	460	809	935	1040	1210	1280	---	985	337	---
13	317	864	559	815	839	1070	1200	1180	---	990	524	---
14	402	868	402	819	931	1070	1220	1160	1550	981	618	---
15	515	864	340	831	953	1080	1240	1150	1610	1060	419	---
16	578	879	404	858	971	1070	1250	1150	1550	1070	428	---
17	---	887	518	865	981	1080	1230	1180	1520	1090	435	---
18	---	611	597	883	971	1070	1240	1160	1690	1100	472	---
19	---	397	657	887	962	1090	1260	1200	1710	1080	500	---
20	---	445	711	862	962	1100	1290	---	1720	1100	543	---
21	---	492	723	862	962	1090	1310	---	1600	1090	544	---
22	---	537	733	876	953	1090	1310	1240	1490	---	552	---
23	---	568	752	891	948	1090	1320	1270	1380	---	562	---
24	---	604	783	895	957	1080	1320	1270	639	---	---	---
25	621	636	787	902	953	1060	1330	1300	823	---	---	---
26	658	658	778	906	953	1040	1360	1270	690	---	---	935
27	681	678	778	910	953	1030	1320	1290	743	---	---	931
28	699	706	774	872	962	1040	1350	1300	762	---	---	953
29	693	722	637	828	976	1050	1360	1270	795	---	---	967
30	686	741	689	848	---	1080	1320	1330	795	---	---	981
31	690	---	731	869	---	1080	---	1350	---	---	---	---
MONTH	---	719	550	816	929	1040	1230	1270	---	---	---	---

RED RIVER BASIN

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07343000 NORTH SULPHUR RIVER NEAR COOPER, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	20.0	7.0	9.0	5.0	17.0	15.0	22.0	20.0	26.0	---	---
2	24.0	19.0	8.0	8.0	5.0	9.0	12.0	21.0	21.0	27.0	---	---
3	23.0	15.0	5.0	9.0	1.0	8.0	17.0	20.0	23.0	26.0	---	---
4	20.0	13.0	6.0	5.0	1.0	12.0	12.0	20.0	23.0	26.0	---	---
5	20.0	13.0	6.0	0.0	4.0	10.0	14.0	21.0	---	24.0	---	---
6	20.0	16.0	7.0	0.0	8.0	11.0	18.0	21.0	---	21.0	---	---
7	19.0	10.0	7.0	1.0	5.0	15.0	20.0	20.0	---	22.0	---	---
8	19.0	10.0	9.0	4.0	4.0	14.0	15.0	19.0	---	22.0	---	---
9	18.0	9.0	10.0	9.0	5.0	12.0	12.0	19.0	---	25.0	---	---
10	16.0	10.0	11.0	9.0	6.0	12.0	22.0	18.0	24.0	25.0	---	---
11	15.0	10.0	8.0	7.0	7.0	16.0	19.0	19.0	---	30.0	26.0	---
12	16.0	8.0	9.0	7.0	7.0	18.0	21.0	20.0	---	26.0	24.0	---
13	18.0	14.0	8.0	9.0	6.0	17.0	21.0	21.0	---	28.0	25.0	---
14	17.0	17.0	11.0	7.0	9.0	17.0	22.0	22.0	25.0	26.0	24.0	---
15	20.0	17.0	11.0	1.0	10.0	18.0	22.0	21.0	25.0	25.0	25.0	---
16	21.0	15.0	10.0	1.0	9.0	16.0	18.0	21.0	26.0	25.0	26.0	---
17	21.0	16.0	11.0	1.0	10.0	15.0	17.0	23.0	26.0	26.0	26.0	---
18	22.0	17.0	7.0	7.0	9.0	16.0	18.0	21.0	26.0	25.0	27.0	---
19	21.0	11.0	9.0	12.0	8.0	7.0	21.0	21.0	26.0	28.0	27.0	---
20	21.0	10.0	11.0	15.0	9.0	6.0	22.0	---	26.0	27.0	27.0	---
21	18.0	11.0	10.0	14.0	11.0	8.0	21.0	---	28.0	27.0	27.0	---
22	17.0	9.0	10.0	11.0	15.0	18.0	17.0	22.0	27.0	---	27.0	---
23	18.0	7.0	10.0	10.0	11.0	---	17.0	23.0	25.0	---	25.0	---
24	18.0	7.0	11.0	12.0	14.0	16.0	18.0	22.0	27.0	---	---	---
25	17.0	7.0	14.0	9.0	16.0	12.0	16.0	26.0	25.0	---	---	---
26	18.0	11.0	15.0	7.0	14.0	17.0	14.0	25.0	28.0	---	---	24.0
27	18.0	8.0	16.0	7.0	12.0	20.0	7.0	24.0	28.0	---	---	24.0
28	18.0	9.0	9.0	5.0	13.0	18.0	16.0	25.0	26.0	---	---	23.0
29	21.0	8.0	12.0	4.0	16.0	15.0	18.0	22.0	28.0	---	---	24.0
30	20.0	8.0	12.0	3.0	---	12.0	20.0	21.0	26.0	---	---	25.0
31	20.0	---	11.0	4.0	---	12.0	---	21.0	---	---	---	---
MONTH	19.0	12.0	9.5	6.5	8.5	14.0	17.5	21.5	---	---	---	---

07343200 SULPHUR RIVER NEAR TALCO, TEX.

LOCATION.--Lat 33°23'11", long 95°07'57", Titus County, at gaging station at bridge on U.S. Highway 271, 2.2 miles northwest of Talco, and 3.2 miles downstream from Mustang Creek.

DRAINAGE AREA.--1,365 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1972.

Chemical and biochemical analyses: October 1967 to September 1972.

Pesticide analyses: January 1969 to September 1972.

Water temperatures: October 1966 to September 1972.

WATER QUALITY DATA. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.								
01-19	396	9.2	47	2.6	26	140	0	48
20-25	27900	7.9	30	1.7	11	104	0	14
26-31	1820	7.8	42	2.2	16	138	0	25
NOV.								
01-03	173	8.7	44	3.5	18	136	0	38
04-11	87	9.0	54	4.2	23	156	0	52
12-18	73	9.2	68	4.5	40	200	0	74
19-23	412	9.0	54	4.2	23	156	0	52
24-30	98	9.2	68	4.5	40	200	0	74
DEC.								
01-03	1260	10	71	4.6	38	196	0	81
04-06	10600	7.6	40	2.0	15	126	0	23
07-10	29600	7.0	33	1.6	11	108	0	16
11-14	32000	6.0	26	1.3	7.6	88	0	9.6
15-23	6010	7.0	33	1.6	11	108	0	16
24-28	829	7.6	40	2.0	15	126	0	23
29-31	612	9.5	56	4.0	21	174	0	38
JAN.								
01-02	584	9.2	67	5.1	31	200	0	60
03-05	991	9.8	58	4.7	31	184	0	48
06-08	649	10	50	5.7	22	160	0	43
09-10	351	9.2	67	5.1	31	200	0	60
11-14	214	8.8	74	5.7	38	216	0	73
15-24	105	8.8	100	7.7	60	278	0	120
30-31	268	8.8	74	5.7	38	216	0	73
FEB.								
01-03	116	8.8	77	7.8	42	218	0	90
04-07	67	6.2	89	9.2	56	252	0	110
08-12	59	4.8	110	11	71	280	0	154
13-16	242	5.6	79	7.5	49	212	0	100
17-21	69	6.2	89	9.2	56	252	0	110
22-29	29	4.8	110	11	71	280	0	154
MAR.								
01-24	21	3.7	130	12	100	336	0	200
25...	1360	5.1	64	6.0	54	176	0	82
26...	2090	6.2	35	3.6	17	97	0	35
27-28	688	7.0	46	3.2	27	132	0	48
29-31	98	7.2	60	4.4	36	166	0	68
APR.								
01-08	30	8.8	78	7.2	34	214	0	72
09-18	10	7.5	100	12	68	284	0	130
19-30	13	6.8	120	12	92	324	0	170
MAY								
01-07	54	6.2	100	10	120	304	0	180
08-09	78	5.2	60	7.4	38	192	0	58
10-13	42	6.5	83	8.0	94	292	0	110
14-31	16	6.2	100	10	120	304	0	180
JUNE								
01-17	6.3	7.6	46	38	110	320	0	140
18-23	42	8.8	78	7.2	34	214	0	72
24-25	296	6.0	60	9.4	86	124	0	120
26-30	38	6.5	50	5.7	44	122	0	86
JULY								
01-06	30	6.7	56	6.4	50	152	0	92
07-18	4.3	7.0	52	4.9	35	168	0	53
19-31	1.1	.0	70	6.2	50	244	0	66
AUG.								
01-15	5.8	7.7	77	6.8	60	266	0	80
16-21	13	5.6	110	12	130	144	0	310
22-31	.49	6.2	94	10	99	180	0	230
SEP.								
01-30	.18	5.8	96	12	100	240	0	190
WTD. AVG.								
TIME WTD.	--	7.2	33	1.8	12	109	0	18
AVG.	1510	6.9	77	9.2	63	225	0	112
TOT. LOAD (TONS)	--	10800	49500	2750	18500	163000	0	27200

07343200 SULPHUR RIVER NEAR TALCO, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 736 mg/l Aug. 16-21; minimum, 97 mg/l Dec. 11-14.

Hardness: Maximum, 370 mg/l Mar. 1-24; minimum, 70 mg/l Dec. 11-14.

Specific conductance: Maximum daily, 1,230 micromhos Aug. 18; minimum daily, 159 micromhos Oct. 22.

Water temperatures: Maximum, 29.5°C June 29.

EXTREMES, October 1966 to September 1972.--Dissolved solids: Maximum, 736 mg/l Aug. 16-21, 1972; minimum, 97 mg/l Dec. 11-14, 1971.

Hardness: Maximum, 370 mg/l Mar. 1-24, 1972; minimum, 66 mg/l Jan. 1-2, 1970.

Specific conductance: Maximum daily, 1,230 micromhos Aug. 18, 1972; minimum daily, 159 micromhos June 2, Nov. 1, 1967, Oct. 22, 1971.

Water temperatures: Maximum, 34.0°C July 14-15, 1969; minimum, freezing point Jan. 7, 8, 10, 12, 13, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	DIS- SOLVED FLUOR- IDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- UENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-19	11	.4	1.2	215	130	13	--	355	7.1
20-25	2.0	.3	.4	120	82	0	.5	195	6.9
26-31	6.0	.2	.4	169	110	1	.7	280	7.2
NOV.									
01-03	8.1	--	.3	189	120	13	.7	305	7.9
04-11	14	--	.3	234	150	24	.8	383	7.6
12-18	23	--	.3	318	190	24	1.3	512	8.1
19-23	14	--	.3	234	150	24	--	383	7.6
24-30	23	--	.3	318	190	24	1.3	512	8.1
DEC.									
01-03	22	.3	.6	324	200	36	1.2	525	8.1
04-06	7.1	.2	.6	160	110	5	.6	263	7.7
07-10	4.0	.2	.4	128	89	0	.5	209	7.7
11-14	2.2	.2	.3	97	70	0	.4	159	7.7
15-23	4.0	.2	.4	128	89	0	.5	209	7.7
24-28	7.1	.2	.6	160	110	5	.6	263	7.7
29-31	13	.2	.4	230	160	13	.7	368	7.8
JAN.									
01-02	20	.2	.4	292	190	24	1.0	465	7.9
03-05	20	.2	.4	264	160	13	1.1	425	7.8
06-08	12	.2	.5	224	148	17	.8	365	7.8
09-10	20	.2	.4	292	190	24	1.0	465	7.9
11-14	26	.2	.3	333	210	31	1.1	535	7.9
15-29	41	.2	.1	481	290	58	1.5	748	8.1
30-31	26	.2	.3	333	210	31	1.1	535	7.9
FEB.									
01-03	28	.2	.8	364	220	46	1.2	585	7.9
04-07	40	.2	.4	438	260	54	1.5	701	7.9
08-12	52	.2	.2	538	310	80	1.8	857	7.9
13-16	38	.2	.6	387	230	54	1.4	632	7.9
17-21	40	.2	.4	438	260	54	1.5	701	7.9
22-29	52	.2	.2	538	310	80	1.8	857	7.9
MAR.									
01-24	80	.3	.2	692	370	94	2.4	1070	--
25...	48	.3	.9	350	180	40	1.7	593	7.9
26...	11	.3	1.7	164	100	22	.7	273	7.4
27-28	17	.3	1.3	219	130	20	1.0	365	7.7
29-31	24	.3	1.0	286	170	32	1.2	464	7.7
APR.									
01-08	32	.2	.7	338	220	48	1.0	593	7.7
09-18	54	.3	.3	514	300	68	1.7	801	8.1
19-30	74	.3	.3	636	350	84	2.1	990	8.0
MAY									
01-07	82	.4	.2	654	300	51	3.0	1030	8.1
08-09	30	.3	.4	295	180	22	1.2	504	8.1
10-13	63	.3	.2	511	240	0	2.6	814	8.2
14-31	82	.4	.2	654	300	51	3.0	1030	8.1
JUNE									
01-17	70	.4	.2	570	270	8	2.9	920	8.1
18-23	32	.2	.7	338	220	48	--	598	7.7
24-25	100	.4	.6	450	190	86	2.7	760	7.9
26-30	35	.5	1.0	292	150	48	1.6	480	7.9
JULY									
01-06	36	.4	.5	325	170	42	1.7	527	8.1
07-18	21	.4	.4	254	150	12	1.2	420	8.0
19-31	28	.4	.1	341	200	0	1.5	562	8.1
AUG.									
01-15	33	.4	.2	397	220	2	1.8	645	8.1
16-21	100	.5	.4	736	310	190	3.1	1090	7.9
22-31	75	.5	.2	601	280	130	2.6	923	8.0
SEP.									
01-30	76	.5	.08	603	290	94	2.6	944	8.1
WTD. AVG.									
TIME WTD.	4.6	.2	.4	133	90	2	.5	217	7.4
AVG. LOAD									
TOT. LOAD	44	.3	.3	427	230	45	1.8	674	7.9
(TONS)	6910	349	612	198000	--	--	--	--	--

RED RIVER BASIN

07343200 SULPHUR RIVER NEAR TALCO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 20...	1400	24300	5.5	30	1.3	12	104	0	16	1.6	.3	.61
DEC. 04...	1130	8680	7.6	38	1.8	22	124	0	24	15	.3	.73
JAN. 29...	1050	349	6.9	84	7.4	48	240	0	94	35	.2	.19
MAR. 28...	1010	297	7.5	50	3.2	28	138	0	53	19	.3	.28
JUNE 06...	1050	3.0	7.2	100	9.4	120	344	0	150	84	.4	.25
AUG. 16...	0925	21	7.5	100	11	110	220	0	220	95	.4	.41

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 20...	.010	.06	.3	1.2	119	1960	340	80	0	.6	181	7.3
DEC. 04...	.013	.02	.7	.62	173	756	80	100	0	.9	275	6.9
JAN. 29...	.009	.13	.2	.13	395	110	16	240	44	1.3	644	7.8
MAR. 28...	.027	.18	.9	.74	233	2380	1910	140	25	1.0	393	7.1
JUNE 06...	.000	.02	.1	.12	643	49	26	290	6	3.2	980	7.4
AUG. 16...	.006	.22	.07	.15	660	63	18	300	120	2.7	1020	7.3

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 20...	21.5	140	230	7.2	81	56	1.7	0	.00	90	0	3
DEC. 04...	5.5	50	400	10.8	86	31	5.4	0	.00	--	--	--
JAN. 29...	6.0	15	40	11.0	88	21	1.9	0	.08	20	0	0
MAR. 28...	17.5	40	300	6.6	69	35	4.6	1	.00	40	10	0
JUNE 06...	26.0	15	30	5.5	67	15	2.4	0	.08	0	0	0
AUG. 16...	26.5	5	35	4.6	56	17	3.1	4	.02	10	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 20...	28	12	0	4	130	6	0	3	1.4	3	240	20
DEC. 04...	--	--	--	--	--	--	--	--	--	--	--	--
JAN. 29...	0	--	0	2	20	0	0	70	7.7	0	880	20
MAR. 28...	0	--	0	7	60	0	0	0	.2	4	380	120
JUNE 06...	0	--	0	2	0	0	20	190	.2	0	1200	90
AUG. 16...	0	--	0	3	0	0	20	160	.2	0	1200	70

RED RIVER BASIN

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07343200 SULPHUR RIVER NEAR TALCO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
OCT. 20...	1400	24300	.00	--	.00	--	.06	--	.05	--
DEC. 04...	1130	8680	--	<.2	--	2.1	--	7.2	--	5.1
JAN. 29...	1050	349	.00	<.2	.00	4.9	.00	6.6	.00	5.4
MAR. 28...	1010	297	.00	<.2	.00	9.6	.01	24	.04	12
JUNE 06...	1050	3.0	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 16...	0925	21	.00	<.2	.00	8.4	.00	12	.00	5.0

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
OCT. 20...	.00	--	.00	--	.00	--	.00	--	.00	--
DEC. 04...	--	<.2	--	<.2	--	<.2	--	<.2	--	<.2
JAN. 29...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAR. 28...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 06...	.00	.7	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 16...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT. 20...	.0	--	.00	.00	.00	.00	.00	.00	.00
DEC. 04...	--	<1.0	--	--	--	--	--	--	--
JAN. 29...	.0	<1.0	.01	.00	.00	.00	.00	.00	.00
MAR. 28...	.0	<1.0	.00	.00	.00	.00	--	--	--
JUNE 06...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
AUG. 16...	.0	<1.0	.01	.00	.00	.00	.00	.02	.00

07343200 SULPHUR RIVER NEAR TALCO, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	345	304	215	543	558	966	537	1090	968	523	603	924
2	360	306	220	---	585	976	549	1090	909	538	612	932
3	376	318	227	---	620	1000	563	1120	938	553	619	932
4	464	334	228	---	671	---	587	1090	968	548	627	923
5	351	361	233	---	718	1000	610	1040	898	540	623	928
6	317	380	238	---	750	976	633	1090	917	473	633	932
7	282	384	244	---	773	1000	658	943	930	384	639	932
8	315	387	248	---	803	1040	673	556	913	382	641	936
9	332	395	257	---	829	1050	706	454	959	383	645	963
10	346	406	263	---	850	1060	727	758	959	392	653	941
11	361	416	269	---	872	1070	746	863	972	396	649	945
12	368	436	274	---	872	1070	766	810	950	410	657	972
13	383	456	285	---	682	1090	792	820	977	424	659	953
14	395	473	290	---	595	1100	811	980	925	438	656	958
15	408	488	304	---	646	1100	835	1040	909	454	777	976
16	424	505	326	---	602	1110	856	1050	883	469	1010	1000
17	470	523	339	---	646	1120	878	1050	861	479	1200	1010
18	371	522	347	---	661	1140	898	966	779	489	1230	1000
19	339	553	428	---	681	1150	922	976	796	501	1110	972
20	195	393	456	---	710	1150	944	1010	926	519	1040	967
21	237	378	---	---	730	---	967	1020	879	559	990	1000
22	159	417	---	---	763	1170	1000	1030	913	527	945	986
23	168	374	---	---	787	1170	1020	1020	796	564	928	953
24	185	481	---	---	815	1130	860	1030	692	583	924	936
25	259	605	---	---	853	585	940	1030	831	581	916	915
26	231	545	---	---	886	275	985	1030	464	578	920	945
27	277	538	---	---	910	354	1020	1020	478	578	920	967
28	278	553	---	---	935	391	1050	1010	462	580	915	928
29	---	562	---	---	953	469	1070	971	474	575	919	949
30	---	582	---	---	---	499	1100	976	499	585	928	920
31	291	---	---	---	---	---	---	981	---	595	936	---
MONTH	320	446	---	---	750	936	823	965	828	503	823	953

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	21.0	10.0	5.0	7.0	17.0	14.5	22.0	24.5	28.0	26.0	24.0
2	24.5	20.5	12.0	---	6.5	13.0	13.5	22.0	24.0	28.5	26.0	25.0
3	24.5	19.0	11.0	---	4.5	14.0	17.5	21.0	23.5	29.0	26.0	24.0
4	21.5	16.5	---	---	4.0	---	15.5	20.5	24.0	27.0	27.5	25.0
5	23.0	16.5	12.0	---	5.0	12.5	15.5	21.5	24.0	26.0	27.0	24.0
6	22.5	17.0	13.5	---	7.5	12.0	18.0	25.0	24.5	24.0	26.0	23.5
7	20.0	13.5	13.0	---	6.5	15.0	19.0	22.5	25.0	24.0	26.5	25.0
8	20.5	12.0	14.5	---	6.0	15.0	17.0	20.0	25.0	24.0	26.0	26.0
9	20.0	13.0	14.0	---	6.0	13.5	17.0	20.0	26.0	25.0	26.5	26.0
10	18.0	12.0	15.0	---	7.0	14.0	18.0	21.5	25.0	25.5	25.0	25.5
11	19.0	12.0	15.5	---	8.0	16.0	20.0	21.5	25.0	25.5	25.5	24.0
12	22.0	12.0	16.5	---	7.5	17.0	21.0	22.0	25.5	25.5	25.5	26.0
13	19.0	13.0	15.0	---	7.0	18.0	22.0	---	26.0	26.0	25.5	25.5
14	19.0	15.0	15.0	---	8.0	17.0	24.0	23.0	26.0	26.0	26.0	25.0
15	19.5	15.5	14.0	---	9.0	18.0	22.0	20.0	25.0	27.0	26.5	24.5
16	21.0	16.0	14.5	---	10.0	17.0	21.0	23.0	26.0	26.5	26.5	25.0
17	22.0	16.0	14.0	---	10.5	16.5	20.5	23.5	26.5	27.0	27.0	25.5
18	23.0	17.0	14.5	---	10.0	17.5	20.5	24.0	26.0	26.5	27.5	25.5
19	23.0	15.5	13.0	---	9.0	17.0	22.0	24.0	27.0	27.0	28.0	25.5
20	22.0	13.0	13.0	---	10.0	17.5	23.0	24.0	29.0	27.0	27.5	25.5
21	18.0	12.0	---	---	11.0	---	23.0	24.5	29.0	26.5	27.0	25.0
22	21.0	11.0	---	---	12.5	17.0	21.0	24.5	29.0	26.0	28.0	24.5
23	21.5	10.5	---	---	12.0	17.5	20.5	25.0	27.5	26.0	28.0	24.0
24	19.5	10.0	---	---	13.0	18.5	23.0	25.0	27.5	26.0	26.0	24.0
25	23.0	8.0	---	---	14.0	16.0	23.0	25.0	27.0	26.5	27.0	23.5
26	19.0	10.0	---	---	14.0	16.0	19.0	25.0	27.5	27.0	26.5	23.5
27	21.0	10.0	---	---	14.0	18.0	19.0	25.0	28.5	27.5	26.0	24.0
28	19.0	10.0	---	---	14.0	17.0	19.0	26.0	28.0	28.0	25.0	24.0
29	---	10.0	---	---	16.0	15.0	19.0	26.5	29.5	27.5	25.0	24.5
30	---	10.0	---	---	---	14.5	19.5	25.0	28.0	27.0	24.0	19.0
31	21.0	---	---	---	---	---	---	24.0	---	27.0	24.0	---
MONTH	21.0	13.5	---	---	9.5	16.0	19.5	23.0	26.5	26.5	26.5	24.5

RED RIVER BASIN

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07343480 WHITE OAK CREEK NEAR MOUNT VERNON, TEX.

LOCATION.--Lat 33°16'25", long 95°14'20", Franklin County, at bridge on State Highway 37 and 6.0 miles north of Mount Vernon.

DRAINAGE AREA.--434 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAP- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 17...	0935	8.8	9.5	12	4.1	19	49	0	21	16
NOV. 19...	1600	14	8.0	8.2	2.8	16	33	0	13	18
DEC. 16...	1700	1300	7.2	8.5	3.6	13	25	0	24	12
FEB. 02...	1050	112	9.6	17	7.2	27	38	0	52	30
APR. 10...	1405	13	12	34	15	63	84	0	110	70
MAY 19...	1415	3.2	11	34	15	79	128	0	90	82
AUG. 03...	1215	1.8	8.8	22	8.5	29	126	0	17	22
SEP. 11...	1545	.22	6.6	20	8.3	31	126	0	12	23

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 17...	.2	.8	109	47	7	1.2	210	6.6	24.5
NOV. 19...	.1	.4	84	32	5	1.2	146	6.4	--
DEC. 16...	--	.3	82	36	16	.9	140	6.5	11.5
FEB. 02...	.0	.8	165	72	41	1.4	282	6.8	5.5
APR. 10...	.2	.9	344	150	79	2.2	586	7.7	18.0
MAY 19...	.4	.8	378	150	43	2.8	638	7.9	24.0
AUG. 03...	.3	.3	171	90	0	1.3	300	7.0	--
SEP. 11...	.3	.6	166	84	0	1.5	303	6.9	--

RED RIVER BASIN

07343500 WHITEOAK CREEK NEAR TALCO, TEX.

LOCATION.--Lat 33°19'20", long 95°05'33", Titus County, at gaging station at bridge on U.S. Highway 271, 2.4 miles upstream from Ripley Creek, and 2.7 miles south of Talco.

DRAINAGE AREA.--494 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

Water temperatures: October 1967 to September 1972.

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 408 mg/l May 1-7; minimum, 32 mg/l Dec. 6-16.

Hardness: Maximum, 160 mg/l Mar. 11-13, Apr. 14-30, May 1-7; minimum, 15 mg/l Dec. 6-16.

Specific conductance: Maximum daily, 1,220 micromhos June 15; minimum daily, 41 micromhos Dec. 12-13.

Water temperatures: Minimum, 3.5°C Jan. 6, 7, Feb. 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.								
01-20	39	9.5	10	2.2	18	42	0	18
21-26	2860	6.2	5.5	1.5	6.3	23	0	6.4
27-31	216	9.5	10	2.2	18	42	0	18
NOV.								
01-04	16	11	12	2.9	15	41	0	20
05-09	9.7	11	14	3.9	21	49	0	26
10-19	12	12	16	5.4	28	62	0	34
20-21	195	11	12	2.9	15	41	0	20
22-30	47	11	14	3.9	21	49	0	26
DEC.								
01-03	36	8.5	16	5.6	28	42	0	44
04-05	562	5.1	8.8	3.2	12	29	0	19
06-16	10700	2.0	4.2	1.1	5.4	18	0	6.0
17-20	888	5.1	8.8	3.2	12	29	0	19
21-31	119	8.5	16	5.6	28	42	0	44
JAN.								
01-03	577	9.5	11	5.2	19	30	0	34
04-10	1340	8.1	9.5	2.5	12	26	0	20
11-14	170	10	18	6.1	28	39	0	52
15-29	79	12	24	8.8	39	49	0	74
30-31	484	10	18	6.1	28	39	0	52
FEB.								
01-03	280	9.4	16	6.6	24	34	0	48
04-10	82	9.5	19	8.9	33	42	0	65
11-15	193	9.0	25	12	47	52	0	90
16-23	114	7.4	17	8.2	28	40	0	56
24-29	46	9.0	25	12	47	52	0	90
MAR.								
01-10	32	6.8	33	14	63	73	0	110
11-13	61	5.7	37	16	75	82	0	130
14-25	37	6.8	33	14	63	73	0	110
26-31	325	7.2	16	6.3	27	40	0	44
APR.								
01-04	56	8.5	16	6.3	28	43	0	43
05-13	19	11	23	11	41	66	0	67
14-30	10	9.7	35	17	66	104	0	100
MAY								
01-07	16	9.2	35	17	86	124	0	100
08-09	59	7.7	22	8.5	75	81	0	60
10-15	16	7.2	17	9.1	40	63	0	48
16-20	8.4	8.7	29	12	70	118	0	68
21-31	2.2	9.0	32	15	81	134	0	82
JUNE								
01-16	6.8	7.2	30	11	100	140	0	72
17-18	160	8.6	12	5.8	31	52	0	34
19-30	126	7.6	9.5	3.5	19	40	0	20
JULY								
01-04	9.3	9.5	13	5.5	23	52	0	30
05...	18	9.4	18	6.6	103	68	0	31
06-11	12	7.4	9.5	4.4	19	47	0	17
12-15	2.6	8.2	16	5.6	78	60	0	22
16-31	.56	8.9	14	6.6	44	68	0	21
AUG.								
01-06	.12	10	17	6.5	37	86	0	18
07-31	.00	--	--	--	--	--	--	--
SEP.								
01-29	.00	--	--	--	--	--	--	--
30...	141	12	18	7.1	40	94	0	16
WTD. AVG.								
TIME WTD.	--	3.6	6.2	1.9	8.8	22	0	12
AVG.	458	8.7	19	7.9	41	63	0	51
TOT. LOAD								
(TONS)	--	1640	2790	861	4000	10100	0	5400

07343500 WHITEOAK CREEK NEAR TALCO, TEX.--Continued

EXTREMES, October 1967 to September 1972.--Dissolved solids: Maximum, 506 mg/l Oct. 30-31, 1970; minimum, 31 mg/l Nov. 1-4, 1967.
 Hardness: Maximum, 180 mg/l Apr. 11-30, 1971; minimum, 14 mg/l Nov. 1-4, 1967.
 Specific conductance: Maximum daily, 1,220 micromhos June 15, 1972; minimum daily, 33 micromhos May 16, 1969.
 Water temperatures: Maximum, 34.0°C July 15, 1969; minimum, freezing poing on Jan. 8, 1968, Jan. 10, 13, 14, 1970.
 REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	DIS- SOLVED FLUOR- IDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-20	12	.3	.8	94	34	0	1.3	132	6.8
21-26	4.6	.2	.3	43	20	1	--	67	6.4
27-31	12	.3	.8	94	34	0	--	132	6.8
NOV.									
01-04	14	--	.4	97	42	8	1.0	157	6.8
05-09	20	--	.5	122	51	11	1.3	203	6.8
10-14	25	--	.3	152	62	11	1.5	254	7.0
20-21	14	--	.4	97	42	8	1.0	157	6.8
22-30	20	--	.5	122	51	11	1.3	203	6.8
DEC.									
01-03	29	.1	.5	154	63	29	1.5	263	7.0
04-05	11	.0	.4	75	35	11	.9	131	6.8
06-16	3.2	.1	.3	32	15	0	.6	55	6.5
17-20	11	.0	.4	75	35	11	.9	131	6.8
21-31	29	.1	.5	154	63	29	1.5	263	7.0
JAN.									
01-03	20	.1	.4	116	49	24	--	200	6.7
04-10	12	.1	.4	79	34	13	.9	131	6.7
11-14	30	.2	.5	166	70	38	--	282	6.9
15-29	43	.1	.5	227	96	56	1.7	395	7.0
30-31	30	.2	.5	166	70	38	1.5	282	6.9
FEB.									
01-03	28	.0	.6	152	67	39	1.3	267	6.5
04-10	37	.0	.5	196	84	50	1.6	340	6.7
11-15	54	.1	.5	265	110	69	1.9	453	7.0
16-23	32	.0	.5	171	76	43	--	302	6.8
24-29	54	.1	.5	265	110	69	1.9	453	7.0
MAR.									
01-10	69	.3	.2	336	140	80	2.3	569	7.3
11-13	85	.3	.4	389	160	93	2.6	666	7.1
14-25	69	.3	.2	336	140	80	--	569	7.3
26-31	30	.2	1.0	155	66	33	1.4	271	6.6
APR.									
01-04	30	.2	1.1	154	66	31	1.5	273	6.9
05-13	45	.2	.9	231	100	48	1.8	410	7.1
14-30	78	.3	.5	359	160	71	2.3	609	7.5
MAY									
01-07	94	.3	.5	408	160	54	3.0	691	7.8
08-09	86	.2	.8	303	90	24	3.4	530	7.5
10-15	44	.2	.5	199	80	28	1.9	357	7.2
16-20	74	.3	.4	322	120	24	2.8	549	7.5
21-31	85	.3	.2	371	140	30	3.0	630	7.7
JUNE									
01-16	110	.3	.2	401	120	2	4.1	681	7.8
17-18	27	.2	1.1	150	54	11	1.8	254	7.2
19-30	16	.2	1.0	100	38	5	--	172	7.0
JULY									
01-04	19	.2	1.1	131	55	12	1.3	218	7.2
05-11	144	.2	1.4	351	72	16	5.3	632	7.5
06-11	17	.2	.5	100	42	4	--	165	7.3
12-15	110	.2	.3	274	63	14	4.3	499	7.5
16-31	56	.2	.2	185	62	6	2.4	325	7.1
AUG.									
01-06	42	.2	.3	174	69	0	--	316	7.5
07-31	--	--	--	--	--	--	--	--	--
SEP.									
01-29	--	--	--	--	--	--	--	--	--
30-31	47	.3	.04	187	74	0	--	336	7.5
WTD. AVG.	7.3	.1	.3	52	23	5	--	89	6.6
TIME WTD.									
AVG.	44	.2	.4	205	81	29	--	350	7.1
TOT. LOAD (TONS)	3290	51	155	23600	--	--	--	--	--

RED RIVER BASIN

07343500 WHITEOAK CREEK NEAR TALCO, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	148	239	270	266	556	235	701	640	205	307	---
2	142	158	238	210	265	542	271	663	621	217	302	---
3	153	164	319	180	266	546	286	684	621	222	302	---
4	162	175	156	144	280	540	303	679	625	221	300	---
5	168	182	107	125	300	558	323	686	625	632	304	---
6	169	189	81	121	320	578	345	696	625	227	305	---
7	146	198	71	116	334	611	368	711	627	113	---	---
8	143	206	61	120	354	620	386	436	625	115	---	---
9	108	214	58	129	379	617	408	617	619	161	---	---
10	118	221	49	151	406	617	431	379	621	176	---	---
11	125	231	47	202	438	662	451	306	621	258	---	---
12	128	231	41	245	430	685	471	341	717	530	---	---
13	128	237	41	276	---	699	492	350	625	593	---	---
14	129	282	46	299	437	616	510	366	846	479	---	---
15	132	256	63	313	396	511	528	393	1220	418	---	---
16	134	257	82	340	323	518	544	469	532	381	---	---
17	135	258	118	365	295	535	550	552	331	360	---	---
18	136	253	126	325	307	532	567	564	237	345	---	---
19	136	305	132	299	288	534	588	573	162	334	---	---
20	141	143	145	298	296	547	604	586	183	333	---	---
21	88	153	172	408	319	571	609	609	200	329	---	---
22	64	226	204	369	349	591	614	623	218	322	---	---
23	59	200	231	330	379	610	626	625	243	320	---	---
24	59	204	252	448	438	633	652	622	155	317	---	---
25	63	209	256	481	408	656	652	633	138	313	---	---
26	70	214	258	485	471	292	648	640	133	311	---	---
27	---	222	264	487	502	238	657	640	153	310	---	---
28	108	189	289	582	527	268	661	640	177	311	---	---
29	119	194	335	435	544	284	677	634	171	308	---	---
30	129	222	396	314	---	289	688	626	185	306	---	336
31	138	---	265	282	---	---	---	625	---	307	---	---
MONTH	123	211	166	295	368	535	505	570	450	315	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	20.0	8.5	11.0	6.0	16.0	13.5	21.5	23.5	27.0	27.0	---
2	23.5	19.5	8.5	10.0	6.0	13.0	14.0	21.0	25.0	28.0	26.5	---
3	24.0	17.5	7.0	10.0	4.0	11.0	17.0	20.5	23.0	28.0	27.0	---
4	22.0	15.0	7.0	8.0	3.5	13.0	14.5	20.0	23.5	27.0	28.0	---
5	22.0	15.0	8.0	5.0	5.0	12.5	15.0	20.5	23.5	25.0	27.5	---
6	20.5	16.0	8.0	3.5	7.0	12.0	17.0	22.0	24.0	23.5	27.0	---
7	19.5	13.0	8.0	3.5	6.0	14.0	19.0	21.0	25.0	23.0	---	---
8	19.0	12.0	9.0	4.0	5.0	14.0	17.0	19.0	25.0	23.0	---	---
9	19.5	11.0	10.0	7.0	5.0	13.0	16.5	19.5	26.0	24.0	---	---
10	18.0	10.5	12.0	7.0	---	13.0	17.5	19.5	25.5	24.5	---	---
11	16.0	11.0	11.5	7.5	7.0	15.0	19.5	19.0	25.0	25.0	---	---
12	26.0	12.0	12.0	7.0	7.0	17.0	21.0	20.5	26.0	25.0	---	---
13	17.0	13.0	11.0	8.0	---	17.5	22.0	21.0	25.5	26.0	---	---
14	17.0	15.0	13.0	7.0	6.5	16.5	23.5	22.0	---	26.0	---	---
15	19.5	15.5	14.0	5.5	9.0	18.0	23.0	21.0	25.0	26.5	---	---
16	20.0	15.0	11.0	4.5	9.0	17.0	21.0	22.0	25.5	27.0	---	---
17	21.5	16.0	12.0	4.0	9.5	15.5	20.0	23.0	24.5	27.0	---	---
18	22.5	17.0	10.5	7.0	9.0	16.5	20.5	23.0	24.0	26.5	---	---
19	23.0	14.0	10.0	9.0	8.0	16.0	22.5	23.0	25.5	27.0	---	---
20	22.0	13.0	11.0	11.5	9.0	17.0	22.0	22.5	26.0	27.0	---	---
21	20.5	12.0	10.0	12.0	11.0	17.0	23.0	23.0	27.5	27.0	---	---
22	26.0	11.0	10.0	11.0	13.0	16.5	21.0	23.5	26.5	26.5	---	---
23	18.5	9.5	---	12.0	11.0	17.0	20.5	24.5	26.0	27.0	---	---
24	---	9.5	11.0	12.5	14.5	17.0	23.0	24.5	26.0	26.5	---	---
25	18.0	9.0	13.0	11.0	13.5	15.0	24.0	25.0	25.5	27.0	---	---
26	17.5	10.0	14.0	9.5	14.5	15.0	19.0	24.0	26.0	27.0	---	---
27	---	9.5	15.0	10.0	14.0	17.0	19.0	24.5	27.0	27.5	---	---
28	18.0	10.0	14.0	7.0	13.5	16.0	18.0	25.5	27.0	28.0	---	---
29	19.0	9.0	13.5	7.0	15.5	14.0	18.5	25.0	28.0	27.5	---	---
30	19.0	9.0	13.0	6.0	---	14.0	19.0	24.5	27.5	27.0	---	21.0
31	19.0	---	12.0	4.5	---	---	---	23.5	---	27.0	---	---
MONTH	20.5	13.0	11.0	8.0	9.0	15.0	19.5	22.0	25.5	26.5	---	---

RED RIVER BASIN

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07343850 WHITE OAK CREEK NEAR OMAHA, TEX.

LOCATION.--Lat 33°16'30", long 94°44'30", Morris County, at bridge on U.S. Highway 259, and 6.2 miles north of Omaha.

DRAINAGE AREA.--773 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 15...	1735	25	9.5	8.8	3.9	17	40	0	17	14
NOV. 18...	1625	485	6.5	6.0	1.7	10	23	0	9.2	10
DEC. 16...	1220	8600	4.5	3.5	1.0	6.1	17	0	5.2	4.6
JAN. 27...	1415	82	12	24	11	52	48	0	87	62
MAR. 02...	1010	--	8.8	24	11	51	50	0	82	61
APR. 12...	1620	31	11	24	9.7	53	61	0	66	66
MAY 18...	0910	20	8.9	26	10	90	84	0	67	110
JUNE 20...	1005	160	6.0	23	9.4	110	164	0	52	110
AUG. 02...	1230	.16	3.2	20	8.8	46	92	0	35	52

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 15...	.2	.9	94	38	5	1.2	155	6.4	24.5
NOV. 18...	.0	.4	56	22	3	.9	96	6.3	--
DEC. 16...	--	.1	33	13	0	.7	54	6.8	15.0
JAN. 27...	.0	.3	273	110	68	2.2	462	6.9	10.5
MAR. 02...	.1	.9	267	110	65	2.2	449	6.7	12.0
APR. 12...	.2	.8	263	100	50	2.3	450	7.1	23.5
MAY 18...	.2	1.2	360	110	37	3.8	630	7.1	20.0
JUNE 20...	.2	1.0	395	96	0	5.0	579	7.7	--
AUG. 02...	.2	.2	211	86	11	2.2	374	6.8	--

RED RIVER BASIN

07344500 BIG CYPRESS CREEK NEAR PITTSBURG, TEX.

LOCATION.--Lat 33°01'15", long 94°52'55", Camp County, at gaging station at bridge on State Highway 11, 0.5 mile upstream from Louisiana and Arkansas Railway Co. bridge and 5.2 miles east of Pittsburg.

DRAINAGE AREA.--366 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

Water temperatures: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
01-20	4.1	13	25	10	120	70	0	65	150
21-24	24	14	22	6.1	86	50	0	56	110
25-31	13	14	18	4.2	45	46	0	38	56
NOV.									
01-14	3.3	15	22	7.1	69	66	0	48	86
15-17	3.4	14	23	12	--	64	0	69	150
18-21	458	7.8	8.5	3.6	14	22	0	14	20
22-30	33	13	14	6.6	34	26	0	44	46
DEC.									
01-07	277	18	18	7.6	40	28	0	58	53
08-14	2160	7.2	6.0	2.7	9.9	17	0	16	11
15-19	748	9.2	11	3.8	17	21	0	31	21
20-31	99	18	18	7.6	40	28	0	58	53
JAN.									
01-08	1120	10	9.5	4.0	15	20	0	28	18
09-11	385	15	15	5.7	25	22	0	47	32
12-29	119	19	20	9.0	39	26	0	68	54
30-31	665	15	15	5.7	25	22	0	47	32
FEB.									
01-03	418	14	16	6.3	29	22	0	52	38
04-13	110	17	20	9.3	40	26	0	71	54
14-29	79	13	24	9.3	46	30	0	78	62
MAR.									
01-02	75	14	22	10	46	39	0	69	62
03-09	117	13	20	9.3	40	33	0	64	54
10-24	51	14	22	10	46	39	0	69	62
25-31	133	11	18	6.6	33	32	0	48	45
APR.									
01-13	37	16	22	8.5	51	40	0	66	65
14-23	17	17	24	9.7	61	50	0	61	82
24-30	21	--	23	7.9	61	26	0	57	99
MAY									
01-19	20	16	21	8.7	58	44	0	52	76
20-31	11	14	20	6.1	51	43	0	48	60
JUNE									
01-11	5.8	12	25	9.1	84	78	0	51	100
12-15	65	7.8	18	5.6	41	54	0	36	43
16-23	119	13	12	4.4	25	30	0	33	27
24-27	270	10	10	3.9	20	27	0	28	21
28-30	39	13	12	4.4	25	30	0	33	27
JULY									
01-06	17	14	18	7.1	45	46	0	40	58
07-11	21	13	14	4.6	32	34	0	35	36
12-18	7.9	14	18	7.1	45	46	0	40	58
19-31	3.5	11	24	8.8	89	78	0	49	110
AUG.									
01-31	3.0	11	25	10	130	92	0	52	160
SEP.									
01-23	2.7	10	27	9.1	120	101	0	49	160
24-30	14	9.8	20	7.3	69	42	0	48	92
WTD. AVG. TIME WTD.	--	11	12	4.9	23	23	0	35	29
AVG.	133	13	20	7.9	63	49	0	53	81
TOT. LOAD (TONS)	--	1430	1550	642	2970	3060	0	4560	3750

07344500 BIG CYPRESS CREEK NEAR PITTSBURG, TEX.--Continued

EXTREAMS, October 1971 to September 1972.--Dissolved solids: Maximum, 479 mg/l Aug. 1-31; minimum, 63 mg/l Dec. 8-14.
 Hardness: Maximum, 110 mg/l Nov. 15-17; minimum, 26 mg/l Dec. 8-14.
 Specific conductance: Maximum daily, 941 micromhos Sept. 1; minimum daily, 89 micromhos Dec. 14.
 Water temperatures: Maximum, 31.0°C Aug. 6, 21; minimum, 4.0°C Jan. 5, 6.

EXTREMES, October 1968 to September 1972.--Dissolved solids: Maximum, 479 mg/l Aug. 1-31, 1972; minimum, 63 mg/l Dec. 8-14, 1971.
 Hardness: Maximum, 110 mg/l July 1-23, Sept. 6, 14, 19-23, 1971, Nov. 15-17; minimum, 26 mg/l Dec. 8-14, 1971.
 Specific conductance (1968-69, 1971-72): Maximum daily, 941 micromhos Sept. 1, 1972; minimum daily, 69 micromhos July 30, 1969.
 Water temperatures (1968-69, 1971-72): Maximum, 32.0°C Aug. 20, 1969; minimum, 4.0°C Jan. 5, 6, 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-20	.4	5.0	440	100	46	5.0	812	7.0
21-24	.4	4.0	334	80	39	4.2	595	6.9
25-31	.4	.6	201	62	24	2.5	370	6.6
NOV.								
01-14	--	2.2	289	84	30	3.3	500	7.2
15-17	--	--	404	110	56	--	771	7.4
18-21	--	6.2	85	36	18	1.0	165	6.5
22-30	--	1.3	176	62	41	1.9	306	6.6
DEC.								
01-07	.1	1.1	214	76	53	--	361	6.8
08-14	.0	.4	63	26	12	.8	107	6.4
15-19	.0	.4	105	43	26	1.1	178	6.6
20-31	.1	1.1	214	76	53	2.0	361	6.8
JAN.								
01-08	.0	.4	96	40	24	--	164	6.6
09-11	.1	.6	154	61	43	1.4	253	6.6
12-29	.1	1.2	227	87	66	1.8	379	6.6
30-31	.1	.6	154	61	43	1.4	253	6.6
FEB.								
01-03	.2	.6	169	66	48	1.6	285	6.9
04-13	.2	.9	229	88	67	1.9	382	6.8
14-29	.2	1.0	252	98	73	--	432	6.9
MAR.								
01-02	.2	1.2	248	96	64	2.0	441	6.8
03-09	.2	1.2	226	88	61	--	386	7.0
10-24	.2	1.2	248	96	64	2.0	441	6.8
25-31	.2	1.3	184	72	46	--	318	6.8
APR.								
01-13	.2	1.9	257	90	57	--	433	6.7
14-23	.4	3.3	295	100	59	2.7	506	6.0
24-30	1.0	--	306	90	69	--	551	7.1
MAY								
01-19	.7	4.4	273	88	52	--	468	7.1
20-31	.5	3.9	238	75	40	--	402	7.1
JUNE								
01-11	.6	4.8	345	100	36	3.7	609	7.5
12-15	.3	3.9	196	68	24	2.2	345	7.3
16-23	.2	1.3	135	48	23	--	226	7.0
24-27	.2	1.1	111	41	19	--	187	6.9
28-30	.2	1.3	135	48	23	1.6	226	7.0
JULY								
01-06	.3	2.7	217	74	36	2.3	367	7.4
07-11	.3	1.9	160	54	26	1.9	269	7.2
12-18	.3	2.7	217	74	36	2.3	367	7.4
19-31	.5	4.0	350	96	32	4.0	626	7.5
AUG.								
01-31	1.0	8.2	479	100	28	--	851	7.8
SEP.								
01-23	1.0	2.9	429	100	22	4.9	824	7.8
24-30	.6	3.9	285	80	46	3.4	536	7.0
WTD. AVG.	.1	.9	128	50	31	--	220	6.6
TIME WTD.								
AVG.	.4	2.9	275	83	43	--	488	7.0
TOT. LOAD (TONS)	9.8	128	16800	--	--	--	--	--

RED RIVER BASIN

07344500 BIG CYPRESS CREEK NEAR PITTSBURG, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	868	393	140	224	256	434	428	544	510	309	816	941
2	803	412	357	170	---	451	429	460	498	325	750	801
3	---	444	402	149	301	306	301	420	532	331	---	---
4	796	449	393	147	350	401	419	443	552	358	729	667
5	899	482	---	154	349	377	---	526	598	386	736	740
6	731	494	---	155	359	395	464	528	607	380	861	774
7	761	483	305	---	364	377	453	538	---	232	883	---
8	745	476	132	198	391	367	---	518	614	285	879	884
9	823	531	120	231	415	---	463	488	663	280	923	835
10	823	582	94	267	414	395	464	470	632	281	861	839
11	826	581	104	307	---	413	458	464	885	---	---	936
12	---	581	93	338	---	430	433	466	429	414	816	866
13	---	560	105	---	415	433	462	449	319	344	764	805
14	846	560	89	350	442	433	499	---	281	340	871	820
15	833	---	186	361	423	464	541	542	---	380	861	737
16	813	771	183	370	417	465	519	476	182	413	850	763
17	886	---	178	375	300	---	518	509	237	432	---	---
18	807	163	204	375	424	459	504	381	209	---	829	855
19	833	159	---	374	442	458	495	516	206	505	843	---
20	---	154	260	396	424	446	492	355	218	543	843	864
21	570	193	296	408	424	423	487	382	215	569	895	874
22	---	224	320	412	435	425	---	442	206	607	891	855
23	626	242	383	408	---	450	489	---	231	609	876	---
24	---	---	360	405	448	500	579	427	155	617	868	721
25	476	390	365	412	442	366	653	---	---	609	861	655
26	431	---	402	412	429	301	---	398	---	609	829	512
27	325	283	359	---	441	---	511	393	160	---	850	486
28	334	390	369	350	414	302	418	---	235	647	846	322
29	327	---	362	342	---	352	---	413	246	657	864	517
30	327	---	412	264	---	393	551	423	272	736	864	602
31	340	---	410	242	---	427	---	503	---	814	854	---
MONTH	674	417	264	307	397	409	481	462	380	465	843	747

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	21.0	10.0	12.0	7.0	18.0	15.0	20.0	26.0	30.0	30.0	26.0
2	26.0	20.5	13.0	11.0	---	14.0	18.0	20.0	26.0	30.0	29.0	27.0
3	---	18.0	---	10.0	6.0	16.0	17.0	21.0	26.0	29.0	---	---
4	23.0	---	---	5.0	6.0	15.0	17.0	20.0	27.0	29.0	30.0	28.0
5	25.0	15.0	---	4.0	6.0	16.0	---	21.0	28.0	29.0	30.0	28.0
6	25.0	14.5	---	4.0	7.0	16.0	18.0	21.0	27.0	30.0	31.0	30.0
7	25.0	13.0	---	---	6.0	16.0	18.0	22.0	---	30.0	30.0	---
8	25.0	---	---	5.0	6.5	16.0	---	22.0	28.0	30.0	30.0	29.0
9	23.0	13.0	11.0	6.0	7.0	---	18.0	21.0	28.0	29.0	30.0	28.0
10	20.0	13.0	15.0	8.0	8.0	15.0	19.0	21.0	27.0	30.0	30.0	28.0
11	17.0	13.0	11.0	8.0	---	18.0	18.0	22.0	26.0	---	---	29.0
12	---	14.0	23.0	10.0	9.0	18.0	18.0	23.0	26.0	30.0	28.0	---
13	---	14.0	11.0	---	9.0	20.0	20.0	23.0	26.0	29.0	28.0	29.0
14	---	14.0	13.0	9.0	10.0	20.0	18.0	---	26.0	30.0	28.0	29.0
15	21.0	---	13.0	9.0	10.5	20.0	---	24.0	---	30.0	29.0	28.0
16	24.5	16.0	12.0	5.0	10.0	20.0	21.0	23.0	26.0	30.0	29.0	27.0
17	---	---	12.0	6.0	10.0	---	21.0	---	27.0	29.0	---	---
18	---	13.0	10.0	7.5	10.0	25.0	21.0	24.0	27.0	---	30.0	27.0
19	23.0	13.0	---	8.0	10.5	26.0	22.0	25.0	27.0	30.0	30.0	---
20	---	12.0	---	9.0	11.0	19.0	22.0	25.0	29.0	30.0	30.0	27.0
21	20.0	12.0	12.0	---	12.0	20.0	22.0	23.0	28.0	29.0	31.0	27.0
22	---	11.0	12.0	13.0	11.0	19.0	---	24.0	27.0	29.0	30.0	27.0
23	18.0	10.0	12.0	---	11.0	19.0	22.0	---	26.0	30.0	30.0	---
24	---	---	12.0	12.0	12.0	17.0	22.0	26.0	27.0	28.0	30.0	26.0
25	19.0	10.0	12.0	12.0	12.0	17.0	20.0	---	---	30.0	28.5	25.0
26	18.0	---	11.0	---	13.0	---	---	25.0	---	30.0	28.0	25.0
27	18.0	10.0	12.0	---	14.0	---	18.0	26.0	28.0	---	30.0	24.0
28	20.0	10.0	12.0	8.0	14.0	---	20.0	---	30.0	30.0	30.0	26.0
29	---	---	12.0	8.0	---	15.0	---	26.0	29.0	30.0	28.0	23.0
30	21.0	---	10.0	7.0	---	15.0	19.0	26.0	29.0	30.0	27.0	22.0
31	21.0	---	13.0	7.0	---	13.0	---	26.0	---	30.0	25.0	---
MONTH	---	---	---	8.0	9.5	18.0	19.5	23.0	27.0	29.5	29.5	27.0

RED RIVER BASIN

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07346045 BLACK CYPRESS BAYOU AT JEFFERSON, TEX.

LOCATION.--Lat 32°46'40", long 94°21'26", Marion County, at gaging station on U.S. Highway 59, 1.1 miles north of Jefferson, and 2.0 miles upstream from Texas and Pacific Railway Co. bridge.

DRAINAGE AREA.--365 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 27...	0930	23	18	4.0	1.5	8.9	19	0	5.4	9.8
DEC. 01...	1100	67	20	4.0	1.5	5.5	7	0	12	6.7
JAN. 13...	1220	584	15	3.0	1.6	3.3	7	0	8.0	4.8
FEB. 15...	1515	244	17	3.5	1.0	8.0	12	0	8.0	8.3
MAR. 21...	1245	130	12	4.5	1.4	6.0	16	0	5.0	7.6
MAY 02...	1415	220	15	4.0	1.0	5.9	10	0	7.2	7.2
JUNE 07...	0955	3.8	18	5.0	1.8	8.8	22	0	4.2	11
JULY 11...	1000	7.8	18	6.0	1.5	5.5	21	0	7.2	5.5
AUG. 15...	1705	1.2	15	7.5	1.8	8.9	30	0	4.6	11

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 27...	.1	.1	57	16	0	1.0	70	6.8	18.0
DEC. 01...	.1	.04	53	16	10	.6	68	5.9	9.0
JAN. 13...	.0	.1	39	14	8	.4	51	6.3	9.0
FEB. 15...	.0	.1	52	13	3	1.0	64	6.5	9.5
MAR. 21...	.1	.2	46	17	4	.6	67	6.8	17.0
MAY 02...	.0	.3	47	14	6	.7	61	6.0	19.0
JUNE 07...	.0	.3	61	20	2	.9	83	6.7	--
JULY 11...	.0	.2	55	21	4	.5	72	6.8	--
AUG. 15...	.1	.08	64	26	1	.8	96	6.7	--

RED RIVER BASIN

07346070 LITTLE CYPRESS CREEK NEAR JEFFERSON, TEX.

LOCATION.--Lat 32°42'46", long 94°20'44", Marion County, at gaging station at bridge on U.S. Highway 59, 0.3 mile downstream from Texas and Pacific Railway Co. bridge, and 3.5 miles south of Jefferson.

DRAINAGE AREA.--675 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

Chemical and biochemical analyses: October 1967 to September 1972.

Pesticide analyses: January 1968 to September 1972.

Water temperatures: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.								
01-31	3.9	13	5.5	2.3	17	29	0	14
NOV.								
01-20	10	16	5.5	1.5	16	25	0	14
21-24	43	14	5.5	1.8	23	20	0	20
25-26	94	12	6.5	2.6	46	12	0	24
27-30	118	14	5.5	1.8	23	20	0	20
DEC.								
01-24	296	16	6.5	2.1	18	8	0	23
25-31	457	18	9.8	3.1	29	8	0	27
JAN.								
01-02	400	18	7.5	3.0	22	8	0	23
03-08	982	13	5.2	2.9	12	5	0	17
09-13	1890	12	4.5	1.6	11	6	0	16
14-16	1350	13	5.2	2.9	12	5	0	17
17-20	848	18	7.5	3.0	22	8	0	23
21-31	416	22	9.5	3.7	33	10	0	27
FEB.								
01-03	614	19	8.5	3.4	27	9	0	28
04-12	589	18	7.5	2.7	20	7	0	27
13-29	311	19	8.5	3.4	27	9	0	28
MAR.								
01-06	418	13	7.8	2.6	21	10	0	16
07-27	235	17	9.5	3.0	29	18	0	22
28-29	272	17	10	3.7	47	17	0	16
30-31	248	17	9.5	3.0	29	18	0	22
APR.								
01-10	178	17	8.0	3.4	27	19	0	22
11-22	90	20	10	3.2	32	25	0	20
23-30	80	21	9.5	3.5	36	25	0	17
MAY								
01...	182	19	8.5	2.9	41	19	0	17
02...	257	16	--	--	74	10	0	16
03-05	267	17	7.0	2.1	29	15	0	19
06-19	97	19	8.5	2.9	41	19	0	17
20-31	32	17	7.0	2.1	27	25	0	16
JUNE								
01-15	7.4	18	9.0	2.3	31	35	0	14
16-23	51	16	8.0	2.9	34	18	0	27
24-30	202	13	6.0	1.7	20	13	0	16
JULY								
01-10	75	17	11	3.3	47	24	0	22
11-21	15	17	13	4.5	65	23	0	16
22-31	11	18	12	4.9	98	24	0	15
AUG.								
01-12	1.9	17	10	4.6	84	34	0	13
13-22	.76	14	9.5	4.2	84	36	0	13
23-31	.04	16	9.5	4.4	67	38	0	11
SEPT.								
01-12	.01	13	9.5	3.5	68	38	0	10
13-23	.00	--	--	--	--	--	--	--
24-28	.04	12	9.0	3.5	63	37	0	8.8
29-30	45	13	10	4.1	65	44	0	20
WTD. AVG.	--	16	7.3	2.7	23	10	0	21
TIME WTD.								
AVG.	192	16	8.2	3.0	36	21	0	18
TOT. LOAD (TONS)	--	3070	1370	515	4270	1930	0	4060

RED RIVER BASIN

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07346070 LITTLE CYPRESS CREEK NEAR JEFFERSON, TEX.--Continued

EXTREMES, October 1967 to September 1972.--Dissolved solids: Maximum, 322 mg/l July 22-31; minimum, 63 mg/l Jan. 9-13.
 Hardness: Maximum, 51 mg/l July 11-21; minimum, 18 mg/l Jan. 9-13.
 Specific conductance: Maximum daily, 685 micromhos July 23, 24; minimum daily, 76 micromhos Nov. 18.
 Water temperatures: Maximum, 28.5°C July 28; minimum, 5.0°C Jan. 6, 7, 8, Feb. 4, 5.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	14	--	.3	81	23	0	1.5	128	6.7
NOV.									
01-20	13	--	.2	79	20	0	1.6	116	6.9
21-24	22	--	.05	96	21	5	2.2	154	6.3
25-26	65	--	.2	163	27	17	3.9	278	6.2
27-30	22	--	.05	96	21	5	2.2	154	6.3
DEC.									
01-24	24	.0	.1	94	25	18	--	154	6.2
25-31	46	.0	.4	139	37	30	2.1	233	6.1
JAN.									
01-02	33	.1	.4	112	31	24	--	182	6.3
03-08	20	.1	.5	74	25	21	1.0	125	5.8
09-13	14	.1	.2	63	18	13	1.1	100	6.1
14-16	20	.1	.5	74	25	21	1.0	125	5.8
17-20	33	.1	.4	112	31	24	1.7	182	6.3
21-31	52	.2	.3	154	39	31	--	251	6.5
FEB.									
01-03	40	.1	.2	131	35	28	2.0	224	6.3
04-12	27	.0	.1	106	30	24	1.6	174	6.0
13-29	40	.1	.2	131	35	28	2.0	224	6.3
MAR.									
01-06	16	--	.5	103	30	22	--	180	6.2
07-27	43	.1	.1	133	36	21	2.1	224	6.5
28-29	78	--	.3	181	40	26	3.2	332	6.4
30-31	43	.1	.1	133	36	21	2.1	224	6.5
APR.									
01-10	38	.2	.3	126	34	18	2.0	215	6.8
11-22	45	.1	.5	144	38	18	2.3	240	6.7
23-30	54	.1	--	156	38	18	--	283	6.7
MAY									
01...	62	.1	.4	161	33	17	3.1	276	6.7
02...	120	.0	1.2	256	44	36	4.8	468	7.0
03-05	39	.0	.5	122	26	14	2.5	199	6.6
06-19	62	.1	.4	161	33	17	3.1	276	6.7
20-31	32	.0	.5	115	26	6	2.3	186	6.8
JUNE									
01-15	39	.2	.4	132	32	3	2.4	221	6.9
16-23	44	.1	.3	142	32	17	2.6	249	6.5
24-30	27	.0	.3	91	22	11	1.9	157	6.4
JULY									
01-10	71	.1	.3	185	41	21	3.2	299	6.8
11-21	110	.1	.4	238	51	32	4.0	431	6.8
22-31	160	.1	.2	322	50	30	6.0	597	6.8
AUG.									
01-12	130	.2	.1	276	44	16	5.5	498	7.2
13-22	130	.1	.09	270	41	12	5.7	430	7.0
23-31	100	.1	.1	229	42	11	4.5	417	7.5
SEP.									
01-12	100	.2	.1	226	38	7	--	407	7.3
13-23	--	--	--	--	--	--	--	--	--
24-28	95	.2	.05	210	37	7	--	387	7.1
29-30	89	.1	.2	224	42	6	4.4	403	7.6
WTD. AVG.	33	.1	.2	109	29	21	1.7	183	6.2
TIME WTD.									
AVG.	52	.1	.2	145	33	16	2.7	249	6.6
TOT. LOAD (TONS)	6160	15	53	20600	--	--	--	--	--

RED RIVER BASIN

07346070 LITTLE CYPRESS CREEK NEAR JEFFERSON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 20...	0815	16	15	6.5	2.6	20	42	0	12	16	.1	.39
DEC. 04...	1500	95	15	6.0	2.4	23	11	0	31	23	.1	.51
JAN. 30...	1145	555	17	7.5	2.0	22	10	0	19	32	.1	.22
MAR. 28...	1600	260	17	10	3.4	42	17	0	17	70	.1	.31
JUNE 06...	1630	6.6	18	8.0	2.9	31	33	0	14	40	.1	.33
AUG. 15...	1430	1.5	17	10	3.9	73	34	0	14	110	.1	.36

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 20...	.000	.09	.1	.11	94	12	--	27	0	1.7	140	6.2
DEC. 04...	.004	.02	.06	.12	106	25	3	25	16	2.0	160	6.7
JAN. 30...	.006	.10	.2	.010	106	40	9	27	19	1.8	177	6.0
MAR. 28...	.008	.14	.3	.080	169	21	12	39	25	2.9	299	6.4
JUNE 06...	.000	.09	.2	.24	131	63	29	32	5	2.4	227	7.0
AUG. 15...	.006	.14	.1	.12	248	43	12	41	13	5.0	435	6.7

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUR- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 20...	21.5	70	15	4.8	54	12	1.2	0	.09	70	0	0
DEC. 04...	7.5	45	20	10.2	85	9	4.0	0	.06	--	--	--
JAN. 30...	6.0	50	25	9.9	79	28	3.3	0	.18	110	0	0
MAR. 28...	20.0	120	15	7.8	85	26	4.8	8	.00	40	0	0
JUNE 06...	30.0	90	35	9.9	130	44	7.7	0	.12	420	0	0
AUG. 15...	30.5	40	20	6.5	86	26	4.9	1	.05	120	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 20...	0	0	2	1300	9	0	530	1.4	3	200	30
DEC. 04...	--	--	--	--	--	--	--	--	--	--	--
JAN. 30...	0	0	4	760	0	0	120	.4	0	140	20
MAR. 28...	0	0	1	1700	0	20	170	.4	0	290	70
JUNE 06...	0	0	5	1600	0	10	360	.2	0	310	70
AUG. 15...	0	0	4	940	0	20	1000	.2	0	520	40

07346070 LITTLE CYPRESS CREEK NEAR JEFFERSON, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	125	152	254	230	264	218	246	210	---	522	430
2	---	---	154	193	205	210	215	468	210	---	511	415
3	118	115	163	---	201	196	214	223	211	230	505	414
4	122	110	160	129	186	179	215	185	214	242	500	412
5	123	111	---	115	180	146	216	192	216	269	501	410
6	125	111	---	128	169	194	207	224	218	295	494	410
7	125	111	139	131	---	213	206	325	220	334	492	407
8	125	112	265	128	150	224	210	270	---	341	490	407
9	126	114	162	103	155	221	---	243	224	349	---	409
10	126	115	147	93	167	226	223	236	222	382	487	404
11	127	116	185	95	182	232	239	240	222	430	490	400
12	127	116	154	99	192	---	249	245	223	459	469	403
13	127	116	160	103	202	229	252	251	223	469	---	---
14	127	118	158	110	208	230	241	249	218	443	429	---
15	129	118	162	119	214	---	---	336	228	402	439	---
16	125	119	155	130	227	226	227	298	186	370	425	---
17	125	119	147	---	229	225	224	---	287	372	431	---
18	127	75	157	166	221	225	233	343	195	391	432	---
19	180	121	145	187	215	225	239	247	188	435	425	---
20	129	---	134	204	213	220	245	207	305	494	428	---
21	121	165	131	218	216	222	238	188	215	514	424	---
22	112	182	131	226	217	221	258	174	285	609	424	---
23	109	146	139	237	219	216	311	175	314	685	420	---
24	110	153	148	246	226	212	285	181	157	645	419	378
25	110	236	---	256	---	209	265	135	---	650	415	379
26	112	320	140	268	232	207	253	191	158	614	415	377
27	115	140	213	286	231	241	---	---	158	585	415	376
28	115	---	229	280	241	343	261	---	143	564	415	374
29	117	139	243	252	239	323	331	---	148	547	415	427
30	---	149	---	171	---	242	220	---	165	538	415	381
31	---	---	262	174	---	236	---	---	---	530	415	---
MONTH	123	136	172	176	206	226	241	248	213	456	450	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	20.0	9.0	14.0	7.0	14.5	14.0	19.5	24.0	---	28.0	26.0
2	---	---	8.5	12.5	7.0	14.0	14.0	19.0	24.5	---	27.5	26.0
3	25.0	18.0	8.0	---	6.0	13.0	15.0	19.0	24.5	27.0	27.5	26.5
4	24.5	16.5	7.0	10.0	5.0	12.0	15.0	18.5	24.5	26.0	27.5	26.5
5	24.0	15.5	---	7.0	5.0	12.0	15.5	19.0	24.5	25.0	27.5	26.5
6	24.0	15.5	---	5.0	6.5	11.5	16.5	19.0	25.0	25.0	28.0	26.5
7	23.0	14.0	9.0	5.0	---	12.5	17.5	19.5	26.0	24.0	28.0	27.0
8	22.0	13.0	9.0	5.0	6.5	13.0	17.0	20.0	---	24.0	28.0	27.5
9	21.0	13.5	10.0	6.0	6.5	13.0	---	20.0	26.5	25.0	---	27.5
10	20.0	13.0	11.0	7.5	6.5	13.5	17.5	20.0	26.0	25.0	28.0	28.0
11	19.0	13.0	11.5	8.0	7.0	14.0	18.5	21.0	25.0	24.5	28.0	28.0
12	18.5	13.0	11.5	8.5	7.0	---	19.5	21.0	26.0	25.0	28.0	28.0
13	18.5	13.0	11.0	9.5	8.0	16.0	21.0	20.5	26.0	25.0	---	---
14	19.0	14.5	11.5	9.0	8.0	17.0	22.0	21.0	25.5	26.0	28.0	---
15	20.0	15.5	11.5	8.0	9.0	---	---	21.0	26.0	26.0	27.0	---
16	21.0	15.5	11.5	7.0	9.0	17.0	22.0	21.5	25.5	27.0	26.0	---
17	21.5	15.5	11.5	---	10.0	16.5	21.0	---	25.0	27.0	26.0	---
18	22.5	15.5	11.0	8.0	9.5	16.5	21.0	22.0	25.5	27.0	27.0	---
19	22.0	14.0	10.5	9.0	9.0	17.0	20.0	22.5	26.0	27.0	27.5	---
20	22.0	---	11.0	11.0	9.0	16.0	21.0	22.5	27.0	27.0	28.0	---
21	21.5	12.5	11.0	12.5	10.0	16.5	21.0	22.5	26.0	27.0	28.0	---
22	20.5	11.0	11.0	13.0	11.0	16.5	20.0	23.0	26.5	27.0	28.0	---
23	20.0	10.0	11.0	13.5	11.0	17.0	20.5	23.5	26.0	27.0	27.5	---
24	20.5	10.0	11.0	14.0	12.0	17.0	20.0	24.0	26.0	27.0	27.5	25.0
25	19.5	9.0	---	13.0	---	16.5	19.0	24.5	---	28.0	27.0	24.5
26	19.0	9.0	12.5	12.0	15.0	16.0	18.0	24.5	26.5	28.0	27.5	25.0
27	19.0	10.0	13.5	12.0	15.0	16.0	---	---	26.5	28.0	28.0	25.0
28	19.0	---	13.5	10.0	14.0	17.0	17.0	---	27.0	28.5	27.0	25.0
29	20.0	9.0	14.0	9.0	14.5	17.0	18.0	---	27.0	28.0	27.0	25.0
30	---	9.0	---	8.0	---	16.0	19.0	---	27.0	28.0	26.5	23.5
31	---	---	14.0	7.0	---	15.0	---	---	---	28.0	26.0	---
MONTH	21.0	13.5	11.0	9.5	9.0	15.0	18.5	21.0	26.0	26.5	27.5	---

RED RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE RED RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

07312200 BEAVER CREEK NEAR ELECTRA, TEX. (Lat 33°54'21", long 98°54'17")

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM
MAY 10...	1730	571	--	8890	13700	93	99
JUNE 22...	1425	1600	25.0	7880	34000	--	--
23...	0915	192	--	9530	4940	99	100
23...	1050	158	26.0	9660	4120	--	--

DATE	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
MAY 10...	100	47	56	65	74	86
JUNE 22...	--	--	--	--	--	--
23...	--	62	72	83	89	95
23...	--	--	--	--	--	--

07312500 WICHITA RIVER AT WICHITA FALLS, TEX. (Lat 33°54'34", long 98°32'00")

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
JUNE 23...	1125	1480	25.0	7560	30200	--	--	--	--	--
23...	1450	1420	26.0	6220	23800	38	54	73	90	99

07314500 LITTLE WICHITA RIVER NEAR ARCHER CITY, TEX. (Lat 33°39'45", long 98°36'46")

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT (T/DAY)
MAY 14...	1615	7600	22.0	502	10300
SEP. 05...	1710	140	24.0	2820	1070

07314800 LAKE ARROWHEAD NEAR HENRIETTA, TEX. (Lat 33°45'51", long 98°22'17")

DATE	TIME	REFER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED POT- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 04...	1330	94680	3.5	44	14	96	8.2	150	0	7.4	180

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED BORON (B) (UG/L)
OCT. 04...	.3	.5	426	170	44	3.2	837	7.7	24.0	80

RED RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE RED RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

07315950 MOSS LAKE NEAR GAINESVILLE, TEX. (Lat 33°46'26", long 97°12'52")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (HC03) (MG/L)	BICAR- BONATE (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
FEB. 11...	1710	23100	7.2	60	20	55	3.6	19	184	0	16

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FEB. 11...	18	.2	.2	210	150	1	.7	356	7.9	5.0

07335390 PAT MAYSE LAKE NEAR CHICOTA, TEX. (Lat 33°51'10", long 95°32'38")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (HC03) (MG/L)	BICAR- BONATE (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
JAN. 29...	0930	135300	3.5	330	20	20	1.0	8.1	64	0	11

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JAN. 29...	4.1	.3	.3	80	54	2	.5	137	7.1	8.0

07344200 LAKE TEXARKANA NEAR TEXARKANA, TEX. (Lat 33°18'16", long 94°09'38")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (HC03) (MG/L)	BICAR- BONATE (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
JAN. 29...	1635	574600	6.4	380	10	24	1.2	8.5	79	0	11

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JAN. 29...	4.2	.2	.2	95	65	0	.5	162	7.0	9.0

RED RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE RED RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

07345500 ELLISON CREEK RESERVOIR NEAR DAINGERFIELD, TEX. (Lat 32°55'05", long 94°43'35")

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
JAN. 29...	1745	5.8	390	40	25	4.5	15	36	0	47

DATE	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	DIS- SOLVED FLUOR- IDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
JAN. 29...	23	.3	.5	141	81	52	.7	250	6.9

07345900 LAKE O'THE PINES NEAR JEFFERSON, TEX. (Lat 32°45'04", long 94°29'59")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
JAN. 29...	1830	262300	9.4	130	20	10	3.4	16	28	0	23

DATE	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	DIS- SOLVED FLUOR- IDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JAN. 29...	18	.2	.1	94	39	16	1.1	165	6.7	10.0

SABINE RIVER BASIN

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08017500 SABINE RIVER NEAR EMORY, TEX.

LOCATION.--Lat 32°46'23", long 95°47'56", Rains County, at gaging station at bridge on State Highway 19, 3.7 miles upstream from Sandy Creek, and 7.2 miles south of Emory.

DRAINAGE AREA.--888 sq mi, including Little and Yellow Steer Sloughs.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1967 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 19...	1135	1020	4.2	5.5	1.5	5.9	18	0	11
DEC. 04...	0935	479	4.6	16	2.7	11	66	0	11
JAN. 30...	1935	245	2.8	26	2.2	13	96	0	14
MAR. 28...	0800	32	.7	26	3.0	13	96	0	14
JUNE 06...	0905	.20	2.9	34	1.5	14	119	0	13

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 19...	3.7	.1	.010	.03	.3	.41	42	20	5
DEC. 04...	5.0	.2	.009	.00	.2	.19	83	51	0
JAN. 30...	4.9	.2	.004	.09	.3	.040	112	74	0
MAR. 28...	6.8	.2	.024	.07	.4	.090	113	77	0
JUNE 06...	7.2	.2	.008	.00	.1	.11	132	91	0

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUF ACTIVE SUR- STANCE (MG/L)
OCT. 19...	.6	68	6.5	22.0	5.9	67	4.8	--
DEC. 04...	.7	140	7.8	7.0	9.8	80	2.6	--
JAN. 30...	.7	195	7.4	8.0	11.6	97	2.8	--
MAR. 28...	.6	204	6.8	17.5	7.6	79	2.1	--
JUNE 06...	.6	237	6.8	23.5	3.8	44	1.9	.01

SABINE RIVER BASIN

08018200 GRAND SALINE CREEK NEAR GRAND SALINE, TEX.

LOCATION.--Lat. 32°40'20", long 95°36'36", Van Zandt County, at bridge on U.S. Highway 80, and 5.5 miles east of Grand Saline.

DRAINAGE AREA.--91.4 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1968 to September 1972.
Water temperatures: February 1968 to September 1972.

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 13,300 mg/l Aug. 1-12, 17-31; minimum, 47 mg/l Dec. 9-11.

Hardness: Maximum, 660 mg/l Aug. 1-12, 17-31; minimum, 22 mg/l Dec. 9-11.

Specific conductance: Maximum daily, 27,600 micromhos Aug. 20, 21, 22; minimum daily, 78 micromhos Dec. 10.

Water temperatures: Maximum, 33.0°C June 29; minimum, 4.0°C Feb. 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-18	.55	.6	130	21	3500	--	8.7	150	0	280
19...	132	--	32	11	--	900	--	16	0	83
20-22	341	6.1	9.0	2.3	--	95	--	16	0	26
23...	60	12	30	10	--	310	--	34	0	85
24-30	7.3	12	25	8.1	--	180	--	34	0	69
31...	.90	12	30	10	--	310	--	34	0	85
NOV.										
01-05	.85	17	46	19	--	320	--	49	0	160
06-17	.85	17	68	28	--	430	--	78	0	240
18...	452	14	35	15	--	160	--	21	0	140
19-22	72	9.1	18	7.3	--	94	--	19	0	63
23-30	24	14	35	15	--	160	--	21	0	140
DEC.										
01-02	20	19	52	23	--	190	--	32	0	190
03-08	115	12	27	12	--	110	--	22	0	94
09-11	3410	2.3	5.0	2.2	--	7.7	--	12	--	12
12...	350	4.0	8.5	3.0	--	34	--	14	--	18
13-24	25	12	27	12	--	110	--	22	0	94
25-31	1.2	18	48	22	--	150	--	33	0	170
JAN.										
01...	830	16	40	19	170	--	3.6	30	0	140
02-05	360	6.5	9.5	4.4	--	39	--	20	0	27
06-09	20	11	22	11	--	100	--	26	0	76
10-29	31	16	40	19	170	--	3.6	30	0	140
30-31	184	11	22	11	--	100	--	26	0	76
FER.										
01-03	40	13	30	15	93	--	4.4	28	0	120
04-29	18	15	49	23	--	180	--	36	0	190
MAR.										
01-24	9.4	18	56	26	--	200	--	51	0	200
25-31	7.6	18	66	27	--	430	--	55	0	220
APR.										
01-16	3.5	18	60	28	190	--	4.4	63	0	210
17-23	2.6	3.4	74	34	--	420	--	80	0	230
24-25	1.9	8.6	160	42	--	2300	--	77	--	360
26-30	5.7	10	98	34	--	1200	--	78	0	270
MAY										
01-02	5.1	14	56	23	--	320	--	70	0	190
03-11	1.4	13	69	27	--	670	--	66	0	190
12...	40	--	34	10	--	150	--	31	0	110
13-14	16	13	69	27	--	670	--	66	0	190
15-30	1.7	14	56	23	--	320	--	70	0	190
31...	4.2	6.2	110	23	--	2700	--	14	0	230
JUNE										
01-13	.38	3.6	140	37	--	2600	--	66	0	310
14...	702	--	8.0	2.2	--	32	--	5	0	22
15-30	43	13	40	16	--	380	--	45	0	120
JULY										
01-11	.72	14	66	26	340	--	5.2	102	0	220
12-31	.81	3.3	160	44	--	3400	--	100	0	350
AUG.										
01-12	.67	2.5	210	34	--	4900	--	108	0	440
13-16	.59	6.0	65	17	--	1200	--	230	0	140
17-31	.38	2.5	210	34	--	4900	--	108	0	440
SEP.										
01-30	.65	6.9	170	26	--	4700	--	143	0	350
WTD. AVG.										
TIME WTD.	--	6.4	16	6.7	--	81	--	19	0	50
AVG.										
TOT. LOAD	54	11	84	24	--	1490	--	70	0	221
(TONS)	--	324	843	359	--	4320	--	998	0	2680

SABINE RIVER BASIN

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08018200 GRAND SALINE CREEK NEAR GRAND SALINE, TEX.--Continued

EXTREMES, February 1968 to September 1972.--Dissolved solids: Maximum, 22,000 mg/l Aug. 23-31, 1970; minimum, 47 mg/l Dec. 9-11, 1971.

Hardness: Maximum, 664 mg/l July 27-31, 1970; minimum, 22 mg/l Dec. 9-11, 1971.

Specific conductance: Maximum daily, 50,200 micromhos Aug. 23, 1970; minimum daily, 78 micromhos Dec. 10, 1971.

Water temperatures: Maximum, 35.0°C Aug. 18, 19, 26, 1968, July 11, 1970; minimum, 2.0°C Jan. 7, 8, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	DIS- SOLVED FLUOR- IDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-18	5400	.2	--	9450	410	290	75	16200	8.0
19...	1400	--	1.3	2440	120	110	35	4630	6.9
20-22	140	--	.4	288	32	19	7.3	545	6.7
23...	480	.1	.4	940	120	88	12	1750	6.7
24-30	270	.2	.6	582	96	68	7.9	1090	7.0
31...	480	.1	.4	940	120	88	12	1750	6.7
NOV.									
01-05	480	.2	.5	1060	190	150	10	1930	7.0
06-17	640	--	2.2	1470	280	220	11	2580	7.0
18...	230	--	.4	599	150	130	5.5	1050	6.6
19-22	140	--	.3	342	75	60	4.7	632	6.5
23-30	230	--	.4	599	150	130	5.5	1050	6.6
DEC.									
01-02	280	.2	.1	774	220	200	5.4	1340	6.2
03-08	160	--	.1	426	120	99	4.3	783	6.2
09-11	11	--	.1	47	22	12	.7	88	6.0
12...	54	--	.05	129	34	22	2.5	254	5.9
13-24	160	--	.1	426	120	99	4.3	783	6.2
25-31	240	--	.1	667	210	180	4.6	1180	6.3
JAN.									
01...	270	.2	.1	681	180	150	5.6	1250	7.3
02-05	58	.1	.2	155	42	25	2.6	294	6.7
06-09	160	.1	.2	398	100	79	4.5	738	6.9
10-29	270	.2	.1	681	180	150	5.6	1250	7.3
30-31	160	.1	.2	398	100	79	4.5	738	6.9
FEB.									
01-03	140	.1	.2	424	140	110	3.5	754	7.0
04-29	270	--	.2	737	220	190	5.2	1320	7.3
MAR.									
01-24	300	.2	.4	827	250	200	5.5	1450	7.0
25-31	660	--	.5	1450	280	230	11	2560	7.4
APR.									
01-16	300	.3	.3	843	260	210	5.1	1460	6.5
17-23	660	.2	.4	1470	320	260	--	2630	7.7
24-25	3600	--	.6	6480	560	500	--	11200	7.5
26-30	1800	--	.6	3400	380	320	--	6130	7.4
MAY									
01-02	480	.2	.2	1120	240	180	9.1	2030	7.2
03-11	1000	--	.6	2060	280	230	17	3650	7.6
12...	220	.2	.2	543	130	100	5.8	1010	6.9
13-14	1000	--	.6	2060	280	230	17	3650	7.6
15-30	480	.2	.2	1120	240	180	9.1	2030	7.2
31...	4200	--	--	7330	370	360	--	12900	6.7
JUNE									
01-13	4200	--	--	7300	500	450	--	12800	7.6
14...	44	.1	5.8	119	29	21	2.6	209	6.3
15-30	580	.2	.7	1170	170	130	13	2120	7.5
JULY									
01-11	500	.2	.4	1210	270	190	8.9	2160	6.4
12-31	5300	--	1.3	9290	580	500	--	15400	7.4
AUG.									
01-12	7600	--	--	13300	660	580	--	22400	7.1
13-16	1800	--	1.3	3370	230	44	35	6290	7.4
17-31	7600	--	--	13300	660	580	--	22400	7.1
SEP.									
01-30	7300	--	--	12600	530	410	--	20800	7.1
WTD. AVG.									
TIME WTD.	136	--	.3	316	68	52	--	572	6.4
AVG.									
TOT. LOAD	2190	--	.5	3990	309	251	--	6780	7.1
(TONS)	7270	--	20	16800	--	--	--	--	--

SABINE RIVER BASIN

08018200 GRAND SALINE CREEK NEAR GRAND SALINE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19200	1720	1380	1100	627	1370	1250	2010	14300	1760	17500	24700
2	18200	1890	1300	237	780	1400	1300	1560	13600	1940	17600	24100
3	16000	1890	1060	317	859	1280	1380	5210	13500	2040	17600	24000
4	17000	2030	783	367	1160	1460	1410	4790	13600	2100	---	23600
5	16700	2070	786	251	1050	1380	1580	4440	13400	2140	17400	23600
6	17600	2850	655	612	1140	1300	1660	3840	13200	2140	17400	23200
7	16000	2950	692	850	1250	1360	1490	3500	12800	2250	17200	23000
8	14500	2640	653	668	1370	1450	1500	3290	12600	2300	17200	22700
9	14700	2510	91	712	1220	1470	1440	3030	12200	2300	17100	22500
10	14500	2420	78	1100	1140	1210	1320	2680	12000	2290	17000	18100
11	12700	2490	97	1060	1200	1360	1280	2450	11700	2520	16800	18300
12	12700	2360	254	1390	1200	1400	1290	1010	11400	13300	14700	17900
13	13000	2540	621	1270	1890	1490	1730	3790	11000	14600	6910	17600
14	13100	2440	909	1440	1300	1550	1550	3120	209	13800	5830	17600
15	14000	2360	1110	1290	1350	1530	1560	2360	1530	14500	5980	17600
16	16800	2560	609	1420	1290	1530	1690	2220	1610	13100	6380	17000
17	22100	2660	528	1230	1380	1490	1930	2220	1860	12500	18300	16200
18	21700	1170	724	1300	1380	1410	2130	2100	1800	12100	25000	24000
19	4630	573	748	1370	1300	1520	2610	1940	1700	11900	26400	24600
20	631	587	789	1490	1400	1360	2960	1970	1590	12900	27600	24600
21	439	701	894	1330	1380	1460	3160	2010	1690	14200	27600	23500
22	569	661	894	1280	1390	1550	3060	1990	3690	17900	27600	23000
23	1690	939	751	1230	1320	1700	6020	2010	4870	18800	27500	21500
24	1140	973	843	1210	1360	1720	13200	2010	4500	16200	27500	20800
25	1120	982	995	1230	1400	3950	9200	2010	1480	16700	27400	16600
26	1100	799	1100	1230	1390	3820	7810	2030	1240	17100	27000	22000
27	1050	932	1180	1100	1320	2940	6370	2030	1330	17400	24900	21300
28	1200	1040	1180	1040	1300	2280	5490	2030	1460	17500	24800	16800
29	949	1270	1280	1120	1420	1970	4870	2030	1570	17500	25000	16800
30	1090	1340	1090	866	---	1580	2500	1920	1660	17500	24900	16500
31	1820	---	1460	716	---	1320	---	12900	---	17600	24900	---
MONTH	9930	1750	824	1030	1260	1700	3160	2920	6640	10670	19970	20790

SABINE RIVER BASIN

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08018200 GRAND SALINE CREEK NEAR GRAND SALINE, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	23.0	10.0	12.0	6.0	19.0	14.0	22.0	25.0	27.0	29.0	26.0
2	27.0	23.0	9.0	10.0	8.0	13.0	20.0	23.0	25.0	27.0	30.0	28.0
3	---	18.0	8.0	12.0	5.0	12.0	20.0	20.0	26.0	29.0	30.0	25.0
4	22.0	16.0	8.0	8.0	4.0	15.0	15.0	20.0	24.0	27.0	---	28.0
5	22.0	15.0	9.0	8.0	7.0	12.0	15.0	21.0	26.0	28.0	31.0	26.0
6	21.0	17.0	9.0	6.0	11.0	14.0	18.0	23.0	30.0	25.0	28.0	26.0
7	23.0	13.0	9.0	5.0	9.0	16.0	24.0	21.0	24.0	28.0	32.0	29.0
8	20.0	11.0	11.0	8.0	6.0	15.0	22.0	27.0	28.0	25.0	31.0	27.0
9	21.0	16.0	15.0	10.0	7.0	13.0	16.0	20.0	28.0	25.0	31.0	29.0
10	19.0	11.0	---	11.0	8.0	14.0	19.0	21.0	29.0	30.0	28.0	30.0
11	20.0	11.0	12.0	10.0	10.0	16.0	21.0	23.0	25.0	28.0	28.0	28.0
12	17.0	14.0	13.0	10.0	8.0	18.0	22.0	20.0	28.0	29.0	26.0	28.0
13	20.0	14.0	12.0	12.0	7.0	19.0	22.0	22.0	28.0	28.0	28.0	27.0
14	19.0	12.0	13.0	10.0	9.0	18.0	24.0	22.0	24.0	30.0	21.0	27.0
15	21.0	12.0	13.0	6.0	11.0	19.0	24.0	22.0	27.0	28.0	29.0	27.0
16	23.0	18.0	12.0	5.0	12.0	19.0	20.0	22.0	27.0	28.0	29.0	26.0
17	23.0	18.0	13.0	6.0	11.0	16.0	20.0	23.0	25.0	29.0	30.0	26.0
18	23.0	17.0	---	9.0	11.0	16.0	20.0	26.0	30.0	28.0	30.0	28.0
19	23.0	12.0	12.0	12.0	9.0	15.0	22.0	20.0	31.0	28.0	28.0	28.0
20	22.0	12.0	14.0	15.0	11.0	16.0	22.0	20.0	32.0	30.0	31.0	27.0
21	20.0	12.0	13.0	15.0	14.0	17.0	22.0	24.0	28.0	29.0	30.0	28.0
22	18.0	11.0	11.0	13.0	15.0	21.0	19.0	23.0	28.0	25.0	29.0	27.0
23	19.0	9.0	13.0	13.0	15.0	19.0	24.0	24.0	30.0	27.0	28.0	28.0
24	18.0	8.0	13.0	15.0	16.0	19.0	24.0	23.0	30.0	31.0	29.0	25.0
25	18.0	8.0	15.0	12.0	17.0	17.0	24.0	23.0	28.0	31.0	28.0	25.0
26	18.0	13.0	15.0	10.0	17.0	17.0	23.0	24.0	32.0	30.0	28.0	25.0
27	19.0	16.0	14.0	11.0	17.0	18.0	18.0	24.0	28.0	32.0	29.0	26.0
28	20.0	13.0	16.0	7.0	15.0	23.0	18.0	25.0	31.0	29.0	28.0	26.0
29	---	12.0	16.0	6.0	16.0	19.0	20.0	25.0	33.0	31.0	27.0	26.0
30	25.0	11.0	16.0	5.0	---	14.0	25.0	25.0	28.0	31.0	27.0	23.0
31	23.0	---	15.0	6.0	---	14.0	---	25.0	---	31.0	27.0	---
MONTH	21.0	14.0	12.5	9.5	11.0	16.5	20.5	22.5	28.0	28.5	28.5	27.0

SABINE RIVER BASIN

08018500 SABINE RIVER NEAR MINEOLA, TEX.

LOCATION.--Lat 32°36'46", long 95°29'08", Wood County, at gaging station at bridge on U.S. Highway 69, 3.5 miles south of Mineola, 4.5 miles upstream from Missouri Pacific Railway Lines bridge, and 16.2 miles upstream from Lake Fork Creek.

DRAINAGE AREA.--1,357 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

Water temperatures: October 1967 to September 1972.

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 3,290 mg/l Sept. 8-11; minimum, 47 mg/l Dec. 11-13.

Hardness: Maximum, 450 mg/l Sept. 8-11; minimum, 20 mg/l Dec. 11-13.

Specific conductance: Maximum daily, 6,160 micromhos Sept. 10, 11; minimum daily, 70 micromhos Dec. 12.

Water temperatures: Maximum, 28.0°C June 26, 27, 28, July 2, 3; minimum, 3.5°C Jan. 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-19	18	12	16	4.0	59	--	4.2	47	0	27
20...	453	12	22	7.1	--	410	--	19	0	54
21-22	1700	6.5	22	1.2	--	22	--	73	0	14
23-25	3980	7.0	10	1.2	--	11	--	33	0	9.6
26-31	3260	6.5	22	1.2	--	22	--	73	0	14
NOV.										
01-17	947	5.5	23	3.8	--	23	--	90	0	20
18...	641	7.5	12	2.5	--	11	--	42	0	8.2
19...	1340	9.9	25	7.2	--	41	--	50	0	53
20-24	1210	5.5	23	3.8	--	23	--	90	0	20
25-30	238	9.9	25	7.2	--	41	--	50	0	53
DEC.										
01-05	613	8.1	24	6.2	--	41	--	54	0	43
06-10	5370	5.1	24	3.5	--	13	--	70	0	20
11-13	25300	3.9	5.2	1.6	--	8.4	--	16	0	8.8
14-31	4110	5.1	24	3.5	--	13	--	70	0	20
JAN.										
01-03	2990	5.4	22	4.9	21	--	3.4	63	0	28
04-09	3790	5.7	14	3.1	--	13	--	38	0	18
10-17	1320	5.4	22	4.9	21	--	3.4	63	0	28
18-31	558	7.4	27	7.1	--	37	--	62	0	50
FEB.										
01-10	554	7.9	25	7.2	33	--	3.6	55	0	55
11-13	153	9.8	35	12	--	60	--	56	0	94
14-15	194	12	39	14	--	99	--	46	0	120
16-29	145	9.8	35	12	--	60	--	56	0	94
MAR.										
01-26	130	8.8	34	9.3	--	45	--	68	0	67
27...	125	9.9	45	13	--	210	--	70	0	99
28-31	126	8.8	36	10	--	72	--	74	0	78
APR.										
01-23	53	7.5	32	10	40	--	3.5	82	0	54
24-29	32	7.8	34	11	--	93	--	82	0	54
30...	40	9.5	43	15	--	200	--	72	0	90
MAY										
01...	39	9.2	42	12	--	270	--	52	0	97
02-12	30	9.3	35	11	--	94	--	79	0	74
13-18	46	9.2	42	12	--	270	--	52	0	97
19-22	24	9.3	35	11	--	94	--	79	0	74
23-31	23	6.2	30	8.1	--	46	--	97	0	43
JUNE										
01-03	20	8.1	23	7.4	--	66	--	44	0	49
04-06	15	5.8	82	22	--	860	--	71	0	130
07-09	7.3	4.8	44	11	--	450	--	89	0	65
10-14	10	7.5	33	9.6	--	220	--	93	0	47
15-30	162	8.1	23	7.4	--	66	--	44	0	49
JULY										
01-24	7.6	12	32	8.8	51	--	4.5	72	0	64
25-31	2.5	3.0	57	15	--	170	--	85	0	100
AUG.										
01-21	.46	4.8	76	20	--	320	--	82	0	130
22-28	.05	7.5	98	25	--	480	--	85	0	140
29-31	.00	--	--	--	--	--	--	--	--	--
SEPT.										
01...	.00	--	--	--	--	--	--	--	--	--
02-06	.02	7.8	88	23	--	630	--	83	0	120
07...	.00	--	--	--	--	--	--	--	--	--
08-11	7.5	1.6	130	32	--	1100	--	1080	0	200
12...	12	7.8	88	23	--	630	--	83	0	120
13-16	13	6.8	30	8.7	--	180	--	69	0	58
17-28	20	9.8	21	6.4	--	7.4	--	50	0	39
29-30	19	7.8	88	23	--	630	--	83	0	120
WTD. AVG.	--	5.4	18	3.3	--	--	--	53	0	21
TIME WTD.										
AVG.	845	7.8	35	9.3	--	--	--	79	0	61
TOT. LOAD (TONS)	--	4530	15200	2790	--	--	--	44300	0	17300

08018500 SABINE RIVER NEAR MINEOLA, TEX.--Continued

EXTREMES, October 1967 to September 1972.--Dissolved solids: Maximum, 5,410 mg/l Nov. 8, 1968; minimum, 47 mg/l Dec. 11-13, 1971.
 Hardness: Maximum, 450 mg/l Sept. 8-11, 1972; minimum, 20 mg/l Dec. 11-13, 1971.
 Specific conductance: Maximum daily, 11,400 micromhos June 3, 1971; minimum daily, 70 micromhos Dec. 12, 1971.
 Water temperatures: Maximum, 29.0°C on several days during summer months; minimum, 2.0°C Jan. 7, 10, 1968, Jan. 9, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-19	87	.2	1.0	237	56	18	3.4	435	6.6
20...	640	.1	1.0	1150	84	68	1.9	2190	7.9
21-22	22	.2	.3	125	60	0	1.2	216	7.6
23-25	11	.1	.2	67	30	3	.9	110	6.7
26-31	22	.2	.3	125	60	0	1.2	216	7.6
NOV.									
01-17	18	.2	.7	141	73	0	1.2	245	7.6
18...	12	--	.9	78	40	.6	.8	148	6.8
19...	60	--	.2	222	92	51	1.9	406	6.5
20-24	18	.2	.7	141	73	0	1.2	245	7.6
25-30	60	--	.2	222	92	51	1.9	406	6.5
DEC.									
01-05	58	.2	.6	210	85	41	1.9	383	6.3
06-10	17	--	.2	118	74	17	.7	216	6.5
11-13	11	--	.03	47	20	6	.8	85	6.2
14-31	17	--	.2	118	74	17	.7	216	6.5
JAN.									
01-03	28	.3	.4	146	75	23	1.1	265	6.5
04-09	18	--	.4	93	48	17	.8	173	6.2
10-17	28	.3	.4	146	75	23	1.1	265	6.5
18-31	51	--	.4	211	97	46	1.6	392	6.7
FEB.									
01-10	45	.1	.6	206	92	47	1.5	363	7.5
11-13	87	--	.6	328	140	91	2.2	580	7.5
14-15	140	--	.3	455	160	120	3.5	801	7.2
16-29	87	--	.6	328	140	91	2.2	580	7.5
MAR.									
01-26	66	.2	.4	265	120	67	1.8	479	7.6
27...	320	--	.3	728	170	110	6.9	1350	7.3
28-31	100	--	.5	345	130	70	2.7	629	7.5
APR.									
01-23	58	.2	1.0	250	120	54	1.6	440	6.6
24-29	150	--	.7	389	130	63	3.5	734	6.5
30...	320	--	.5	716	170	110	6.7	1320	6.5
MAY									
01...	420	.2	.6	886	160	110	9.5	1650	7.3
02-12	140	.2	.4	402	130	70	3.5	726	7.3
13-18	420	.2	.6	886	160	110	9.5	1650	7.3
19-22	140	.2	.4	402	130	70	3.5	726	7.3
23-31	58	.2	.3	241	110	28	1.9	425	7.2
JUNE									
01-03	100	.2	.8	279	88	52	3.1	517	7.3
04-06	1400	.2	1.0	2540	290	240	22	4550	6.6
07-09	700	.2	.9	1320	160	83	16	2360	7.0
10-14	340	.2	.5	712	120	4	8.8	1350	7.7
15-30	100	.2	.8	279	88	52	3.1	517	7.3
JULY									
01-24	76	.3	.3	285	120	57	2.1	501	7.5
25-31	280	.2	.3	676	200	130	5.2	1270	7.3
AUG.									
01-21	540	.2	.2	1120	270	200	8.3	2090	7.0
22-28	840	--	.5	1630	350	280	--	3040	6.8
29-31	--	--	--	--	--	--	--	--	--
SEP.									
01...	--	--	--	--	--	--	--	--	--
02-06	1100	.2	.4	1980	310	250	--	3610	7.3
07...	--	--	--	--	--	--	--	--	--
08-11	1800	--	.5	3290	450	360	--	6060	7.6
12...	1100	.2	.4	1980	310	250	16	3610	7.3
13-16	280	--	.6	597	110	54	7.5	1140	7.5
17-28	110	--	1.0	290	79	38	--	535	7.2
29-30	1100	.2	.4	1980	310	250	16	3610	7.3
WTD. AVG.	24	--	.2	117	59	16	1.0	212	6.6
TIME WTD.									
AVG.	186	--	.5	452	126	70	3.3	827	7.1
TOT. LOAD (TONS)	19700	--	221	98000	--	--	--	--	--

SABINE RIVER BASIN

08018500 SABINE RIVER NEAR MINEOLA, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	322	220	409	255	373	403	378	1690	359	455	1770	---
2	332	224	322	284	334	468	337	849	355	462	1810	3280
3	345	226	282	227	365	469	369	618	414	471	1880	3330
4	368	225	587	174	404	291	405	---	3710	476	1920	3540
5	412	227	308	172	272	353	446	---	5530	471	1990	3750
6	421	228	283	167	367	419	485	---	4390	467	2060	3860
7	501	238	281	158	367	478	412	---	2940	482	2120	---
8	877	247	214	170	451	498	420	790	2250	539	2160	3960
9	442	232	160	196	334	508	396	714	1900	575	2180	5810
10	447	244	152	225	378	494	411	692	1600	822	2180	6160
11	427	248	97	246	477	494	420	717	1510	477	2210	6160
12	413	238	70	274	481	495	407	804	1250	452	2230	3000
13	415	246	85	281	555	497	420	1890	1240	442	2330	1500
14	418	258	139	288	916	495	436	1900	1130	445	2400	838
15	434	262	171	294	689	540	463	1840	465	461	2380	1590
16	454	271	205	264	572	571	463	1740	679	482	2290	811
17	392	276	223	265	606	580	470	1450	503	501	2230	507
18	417	148	220	313	643	578	483	1130	482	521	1880	438
19	425	395	214	333	666	547	491	898	554	525	1960	573
20	2190	277	223	353	509	504	493	713	534	440	2020	950
21	309	253	212	386	508	433	483	630	545	479	2160	723
22	225	228	212	382	508	412	481	572	517	500	2400	546
23	107	230	216	379	484	436	528	504	474	526	2600	491
24	95	299	220	368	549	450	593	476	777	589	2820	492
25	126	390	223	383	589	552	708	503	637	665	3020	413
26	166	425	223	384	672	553	754	425	782	843	3150	379
27	189	365	220	355	671	1350	954	392	428	1090	3230	613
28	201	381	223	373	790	640	810	391	430	1310	3230	697
29	210	443	232	638	578	683	585	427	455	1640	---	3580
30	216	448	243	450	---	635	1320	346	452	1630	---	4270
31	218	---	248	374	---	568	---	358	---	1720	---	---
MONTH	404	280	230	304	521	529	527	869	1240	676	2310	2220

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.5	20.0	11.0	14.0	7.0	14.0	17.0	22.0	23.0	27.0	26.0	---
2	24.0	21.0	11.0	10.0	12.0	13.0	14.0	22.0	23.0	28.0	26.0	25.0
3	24.5	20.0	10.0	11.5	6.0	13.0	17.0	19.0	23.0	28.0	26.0	25.0
4	23.0	18.0	9.5	3.5	5.0	14.0	16.0	---	24.0	26.0	26.0	25.0
5	23.0	17.0	9.0	6.0	6.0	12.0	16.0	---	23.0	25.0	26.0	25.0
6	21.0	18.0	10.0	6.0	7.0	12.0	18.0	---	26.0	24.0	26.0	24.0
7	19.5	16.5	9.0	6.5	8.0	22.0	19.0	---	24.0	22.0	26.0	---
8	20.5	15.5	10.0	6.5	7.0	15.0	18.0	20.0	25.0	26.0	27.0	26.0
9	20.0	15.0	14.0	10.5	8.0	14.0	17.5	19.0	25.0	25.0	27.0	26.0
10	18.5	14.0	14.5	10.0	10.0	13.0	19.0	20.0	26.0	24.0	26.0	26.0
11	18.0	14.0	14.5	---	9.0	17.0	20.0	20.0	24.0	25.0	26.0	25.0
12	17.0	15.0	13.5	---	8.0	17.0	21.0	21.0	25.0	25.0	25.0	26.0
13	19.5	15.0	13.5	---	8.0	18.0	22.0	21.0	25.0	26.0	25.0	26.0
14	16.5	15.5	14.5	---	9.0	17.0	23.0	20.0	24.0	26.0	25.0	25.0
15	20.5	---	12.0	---	10.0	19.0	20.0	21.0	23.0	27.0	25.0	25.0
16	21.5	15.5	13.0	---	10.0	17.0	21.0	21.0	24.0	27.0	25.0	25.0
17	21.0	18.0	13.5	---	10.0	16.0	20.0	21.0	24.0	27.0	25.0	25.0
18	23.0	19.0	11.0	10.0	11.0	17.0	20.0	22.0	25.0	26.0	25.0	27.0
19	23.0	16.5	11.5	11.0	10.0	16.0	22.0	22.0	25.0	25.0	25.0	25.0
20	22.0	14.0	13.5	13.0	12.0	17.0	23.0	22.0	27.0	25.0	25.0	25.0
21	20.0	14.0	12.0	15.0	13.0	17.0	23.0	22.0	27.0	26.0	26.0	25.0
22	19.5	13.5	13.0	14.0	14.0	16.5	23.0	23.0	25.0	26.0	27.0	25.0
23	20.0	11.5	11.5	14.0	14.0	17.0	19.0	24.0	26.0	25.0	26.0	25.0
24	18.5	10.5	13.5	14.0	15.0	19.0	20.0	24.0	23.0	26.0	26.0	25.0
25	18.5	10.5	14.5	12.0	16.0	17.5	19.0	23.0	27.0	27.0	25.0	24.0
26	19.5	11.0	15.0	15.0	15.0	17.0	19.0	24.0	28.0	27.0	26.0	24.0
27	18.0	10.5	15.5	11.0	15.0	19.5	19.0	24.0	28.0	27.0	26.0	24.0
28	19.5	11.5	15.5	---	14.0	18.0	18.0	24.0	28.0	27.0	26.0	23.0
29	20.0	11.5	15.5	---	16.0	16.0	20.0	25.0	27.0	27.0	---	24.0
30	20.0	13.0	15.5	---	---	16.0	20.0	22.0	27.0	27.0	---	21.0
31	20.0	---	10.0	---	---	14.5	---	23.0	---	27.0	---	---
MONTH	20.5	15.0	12.5	---	10.5	16.0	19.5	22.0	25.0	26.0	26.0	25.0

SABINE RIVER BASIN

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08018950 DRY CREEK NEAR QUITMAN, TEX.

LOCATION.--Lat 32°47'52", long 95°27'50", Wood County, at gaging station on State Highway 154 and 182, 0.8 mile west of Quitman and 2.5 miles upstream from mouth.

DRAINAGE AREA.--63.6 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

WATER QUALITY DATA. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NESIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 28...	0910	1.2	12	24	8.8	89	51	0	58	130
NOV. 30...	1640	2.0	17	50	16	160	37	0	85	290
DEC. 10...	1640	1500	5.0	14	5.1	33	22	0	29	57
JAN. 04...	1645	740	5.0	13	4.0	32	16	0	26	55
FEB. 09...	1020	17	16	34	14	110	9	0	80	200
MAR. 15...	1045	9.9	17	39	15	130	6	0	94	240
APR. 27...	0920	3.4	14	35	11	120	29	0	76	200
JUNE 06...	1640	.93	9.0	22	9.5	110	56	0	53	160
JULY 14...	1610	1.3	10	21	8.6	85	61	0	49	120
AUG. 29...	1600	.53	12	14	8.0	70	76	0	54	69

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 28...	.1	.5	350	96	30	3.9	667	6.5	17.0
NOV. 30...	.1	.1	632	190	160	4.9	1180	6.6	8.5
DEC. 10...	.0	.03	154	56	38	1.9	296	6.4	12.5
JAN. 04...	.1	.2	144	49	36	2.0	271	6.5	6.5
FEB. 09...	.1	.3	464	140	140	4.0	869	6.0	7.0
MAR. 15...	.3	.2	540	160	160	4.5	981	6.5	17.5
APR. 27...	.2	1.3	470	130	110	4.5	882	6.5	17.0
JUNE 06...	.3	1.2	388	94	48	4.7	721	7.4	25.0
JULY 14...	.2	.4	326	88	38	3.9	579	7.4	--
AUG. 29...	.2	1.1	269	68	6	3.7	467	6.7	26.0

SABINE RIVER BASIN

08019000 LAKE FORK CREEK NEAR QUITMAN, TEX.

LOCATION.--Lat 32°45'45", long 95°27'48", Wood County, at gaging station on State Highway 37, 0.3 mile downstream from Dry Creek, and 2.4 miles south of Quitman.

DRAINAGE AREA.--585 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1961 to June 1965, November 1967 to September 1972.
Water temperatures: December 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-23	477	9.4	11	4.0	14	--	4.6	34	0	22
24-25	2100	8.8	9.0	.9	--	9.3	--	26	0	12
26-31	405	9.4	11	4.0	14	--	4.6	34	0	22
NOV.										
01-17	16	14	18	7.8	--	32	--	43	0	48
18-20	383	9.1	13	5.3	--	32	--	25	0	30
21-22	188	14	18	7.8	--	32	--	43	0	48
23-30	60	17	32	14	--	63	--	32	0	100
DEC.										
01-03	63	16	31	14	--	62	--	28	0	97
04-07	684	10	18	7.5	--	32	--	22	0	48
08-10	11800	8.3	11	4.4	--	19	--	20	0	28
11-14	12900	4.3	3.5	1.6	--	5.2	--	14	0	8.0
15-26	1120	8.3	11	4.4	--	19	--	20	0	28
27-29	305	9.4	17	7.0	--	41	--	21	0	43
30-31	316	16	31	14	--	62	--	28	0	97
JAN.										
01-...	963	11	22	9.4	43	--	3.7	24	0	63
02-09	2500	7.2	10	4.6	--	20	--	22	0	27
10-12	466	11	22	9.4	43	--	3.7	24	0	63
13-31	218	16	33	15	--	72	--	29	0	110
FEB.										
01-06	282	13	28	12	58	--	4.1	28	0	91
07-29	147	13	36	17	--	81	--	32	0	130
MAR.										
01-29	74	13	44	19	--	100	--	41	0	140
30-31	269	12	29	13	--	53	--	40	0	91
APR.										
01-02	97	10	28	12	51	--	5.4	52	0	87
03-28	25	15	39	17	--	93	--	62	0	110
29-30	31	16	63	24	--	210	--	55	0	110
MAY										
01-17	20	15	42	18	--	110	--	52	0	100
18-31	5.4	.9	35	15	--	86	--	68	0	84
JUNE										
01-14	6.6	12	32	18	--	93	--	94	0	68
15-16	906	9.1	15	6.5	--	30	--	33	0	30
17-...	1510	--	8.3	1.3	--	--	--	20	0	14
18-30	233	9.1	15	6.5	--	30	--	33	0	30
JULY										
01-31	4.2	10	24	11	--	54	--	76	0	44
AUG.										
01-28	.14	4.3	18	7.7	--	76	--	93	0	44
29-31	.00	--	--	--	--	--	--	--	--	--
SEP.										
01-15	.00	--	--	--	--	--	--	--	--	--
16-28	1.5	5.4	19	7.4	--	69	--	78	0	39
29-30	.64	9.1	42	14	--	200	--	60	0	69
WTD. AVG.	456	7.7	11	4.6	--	20	--	22	0	29

SABINE RIVER BASIN

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08019000 LAKE FORK CREEK NEAR QUITMAN, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 833 mg/l Apr. 29-30; minimum, 35 mg/l Dec. 11-14.

Hardness: Maximum, 260 mg/l Apr. 29-30; minimum, 15 mg/l Dec. 11-14.

Specific conductance: Maximum daily, 2,000 micromhos Apr. 29; minimum daily, 37 micromhos Dec. 11.

Water temperatures: Maximum, 29.0°C July 29; minimum, 6.0°C on many days during January and February.

EXTREMES, November 1967 to September 1972.--Dissolved solids: Maximum, 929 mg/l Aug. 18-21, 1969; minimum, 35 mg/l Dec. 11-14, 1971.

Hardness: Maximum, 260 mg/l Apr. 29-30, 1972; minimum, 15 mg/l Dec. 11-14, 1971.

Specific conductance: Maximum daily, 2,000 micromhos Apr. 29, 1972; minimum daily, 37 micromhos Dec. 11, 1971.

Water temperatures: Maximum, 29.0°C on several days during summer months in 1969, July 29, 1972; minimum, 2.0°C Jan. 10, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-23	20	.2	.2	103	44	16	.9	170	6.5
24-25	8.4	--	.2	62	26	5	.8	93	6.8
26-31	20	.2	.2	103	44	16	.9	170	6.5
NOV.									
01-17	43	.2	.2	185	77	42	1.6	330	6.5
18-20	50	--	.3	153	54	34	1.9	278	6.2
21-22	43	.2	.2	185	77	42	1.6	330	6.5
23-30	98	--	.2	346	140	110	2.3	611	6.5
DEC.									
01-03	100	.2	.2	337	140	110	2.3	619	6.5
04-07	54	--	.2	181	76	58	1.6	331	6.4
08-10	29	--	.1	110	46	29	1.2	202	6.1
11-14	4.6	--	.1	35	15	4	.6	57	6.0
15-26	29	--	.1	110	46	29	1.2	202	6.1
27-29	70	--	.2	198	71	54	2.1	363	6.3
30-31	100	.2	.2	337	140	110	2.3	619	6.5
JAN.									
01...	77	.2	.03	241	94	74	1.9	436	6.8
02-09	29	.2	.05	109	44	26	1.3	202	6.5
10-12	77	.2	.03	241	94	74	1.9	436	6.8
13-31	120	.2	.04	374	140	120	2.6	662	6.5
FEB.									
01-06	90	.1	.4	312	120	96	2.3	547	6.9
07-29	120	--	.5	418	160	130	2.8	729	7.1
MAR.									
01-29	160	.2	.2	496	190	150	3.2	882	7.0
30-31	78	--	.9	300	130	93	2.1	527	6.9
APR.									
01-02	84	.2	.7	307	120	77	2.0	535	6.4
03-28	140	--	.2	450	170	120	3.1	804	6.5
29-30	380	--	.2	833	260	210	5.6	1570	6.6
MAY									
01-17	180	.2	.4	494	180	140	3.4	922	7.3
18-31	140	.2	.3	390	150	92	3.1	741	7.7
JUNE									
01-14	140	.3	.6	417	150	75	3.3	761	7.9
15-16	48	.2	.7	158	64	37	1.6	294	7.2
17...	17	--	--	--	26	10	--	130	6.4
18-30	48	.2	.7	158	64	37	1.6	294	7.2
JULY									
01-31	80	.2	.3	262	100	42	2.3	487	7.9
AUG.									
01-28	82	.3	1.1	283	77	0	3.8	501	7.0
29-31	--	--	--	--	--	--	--	--	--
SEP.									
01-15	--	--	--	--	--	--	--	--	--
16-28	86	.2	.7	267	78	14	3.4	502	6.8
29-30	330	--	.2	690	160	110	6.7	1320	6.8
WTD. AVG.	30	--	.1	116	47	29	1.2	205	6.3

SABINE RIVER BASIN

08019000 LAKE FORK CREEK NEAR QUITMAN, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	149	232	701	443	489	826	506	810	688	402	547	---
2	145	251	666	221	495	839	563	828	681	414	557	---
3	---	264	656	219	535	1090	757	850	672	422	557	---
4	167	275	212	192	571	900	825	890	688	432	564	---
5	164	297	446	167	582	889	923	930	843	434	545	---
6	168	297	518	163	617	875	850	908	825	441	540	---
7	133	312	305	178	668	872	778	840	865	450	540	---
8	133	321	148	195	674	896	803	766	868	452	541	---
9	159	335	148	270	682	1100	832	926	843	465	541	---
10	168	348	105	387	707	872	784	1160	808	473	537	---
11	168	359	37	434	733	669	759	890	770	479	528	---
12	176	370	47	471	742	733	777	782	748	469	508	---
13	176	388	58	510	971	776	799	1000	738	473	489	---
14	182	390	83	542	808	785	806	1260	633	477	477	---
15	191	395	156	559	846	799	806	1090	310	476	468	---
16	---	394	196	571	722	804	797	911	244	504	469	435
17	200	401	195	606	631	825	797	810	130	576	468	707
18	216	258	193	643	619	822	803	774	218	554	471	556
19	245	311	192	674	647	846	761	761	239	538	472	525
20	177	266	207	696	649	846	804	769	334	523	474	510
21	240	308	231	703	669	855	797	766	352	510	478	506
22	145	307	232	717	705	878	781	758	267	511	476	494
23	135	448	237	731	720	---	797	756	264	512	477	486
24	86	596	248	748	734	918	797	751	269	518	477	433
25	98	599	249	770	748	1180	786	739	229	521	475	451
26	118	540	287	775	---	1000	814	739	237	517	475	416
27	100	676	315	757	776	889	820	713	312	510	474	442
28	169	678	336	759	789	---	773	704	358	507	476	596
29	170	679	336	630	803	903	2000	693	376	502	---	1210
30	189	678	508	631	---	633	1140	679	393	501	---	1440
31	217	---	603	528	---	422	---	765	---	515	---	---
MONTH	165	399	286	513	690	853	836	839	507	486	504	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	20.0	9.0	10.0	6.0	10.0	17.0	22.0	26.0	27.0	28.0	---
2	24.0	20.0	10.0	10.0	6.0	12.0	18.0	22.0	---	27.0	28.0	---
3	---	20.0	10.0	10.0	6.0	12.0	17.0	23.0	25.0	27.0	28.0	---
4	22.0	20.0	7.0	8.0	6.0	12.0	17.0	23.0	25.0	27.0	28.0	---
5	24.0	20.0	---	7.0	6.0	12.0	---	23.0	25.0	27.0	27.0	---
6	24.0	20.0	10.0	7.0	6.0	12.0	18.0	23.0	25.0	27.0	27.0	---
7	22.0	20.0	10.0	---	7.0	13.0	---	23.0	25.0	27.0	28.0	---
8	22.0	20.0	10.0	7.0	7.0	13.0	17.0	23.0	25.0	27.0	28.0	---
9	22.0	20.0	10.0	7.0	7.0	18.0	17.0	23.0	25.0	27.0	28.0	---
10	22.0	19.0	10.0	7.0	8.0	14.0	18.0	24.0	---	27.0	28.0	---
11	22.0	---	10.0	7.0	8.0	14.0	18.0	24.0	25.0	27.0	28.0	---
12	22.0	19.0	10.0	7.0	7.0	14.0	19.0	24.0	25.0	27.0	27.0	---
13	22.0	---	10.0	7.0	8.0	14.0	19.0	24.0	25.0	27.0	27.0	---
14	22.0	19.0	10.0	7.0	8.0	14.0	20.0	24.0	25.0	27.0	27.0	---
15	22.0	19.0	10.0	6.0	8.0	14.0	20.0	24.0	25.0	27.0	27.0	---
16	---	19.0	10.0	6.0	8.0	14.0	20.0	25.0	25.0	27.0	27.0	24.0
17	22.0	19.0	10.0	6.0	8.0	15.0	20.0	25.0	25.0	27.0	27.0	24.0
18	22.0	19.0	10.0	6.0	8.0	15.0	20.0	25.0	25.0	27.0	27.0	24.0
19	22.0	18.0	10.0	---	8.0	15.0	20.0	25.0	25.0	27.0	27.0	24.0
20	22.0	15.0	10.0	6.0	9.0	15.0	20.0	25.0	25.0	---	27.0	24.0
21	21.0	15.0	10.0	6.0	9.0	15.0	21.0	25.0	25.0	27.0	27.0	24.0
22	21.0	12.0	---	6.0	9.0	15.0	21.0	25.0	25.0	27.0	28.0	24.0
23	21.0	12.0	10.0	6.0	9.0	---	21.0	25.0	25.0	27.0	28.0	24.0
24	20.0	12.0	10.0	6.0	9.0	16.0	21.0	25.0	25.0	27.0	28.0	24.0
25	20.0	12.0	10.0	6.0	9.0	16.0	22.0	26.0	27.0	27.0	27.0	24.0
26	20.0	12.0	10.0	6.0	---	16.0	21.0	26.0	27.0	27.0	27.0	23.0
27	20.0	11.0	10.0	6.0	---	16.0	21.0	26.0	27.0	28.0	27.0	23.0
28	20.0	11.0	10.0	6.0	---	---	22.0	26.0	27.0	28.0	26.0	23.0
29	20.0	10.0	10.0	6.0	10.0	17.0	22.0	26.0	27.0	29.0	---	23.0
30	20.0	10.0	10.0	6.0	---	16.0	22.0	26.0	27.0	27.0	---	23.0
31	20.0	---	10.0	6.0	---	17.0	---	26.0	---	28.0	---	---
MONTH	21.5	16.5	10.0	7.0	7.5	14.5	19.5	24.5	25.5	27.0	27.5	---

SABINE RIVER BASIN

173

08019500 BIG SANDY CREEK NEAR BIG SANDY, TEX.

LOCATION.--Lat 32°36'12", long 95°05'32", Upshur County, at gaging station on State Highway 155, 0.5 mile upstream from St. Louis Southwestern Railway Lines bridge, 1.6 miles northeast of Big Sandy, and 6.5 miles upstream from mouth.

DRAINAGE AREA.--231 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
07...	1025	24	15	5.0	1.6	18	10	0	5.4	31
18...	1545	19	14	4.0	1.7	11	13	0	4.8	18
NOV.										
29...	1335	48	17	8.0	1.5	18	10	0	12	31
JAN.										
11...	1350	390	12	8.5	3.4	16	11	0	28	22
FEB.										
23...	1640	98	12	10	4.1	22	10	0	30	35
MAR.										
20...	1515	98	15	12	2.9	30	17	0	36	38
MAY										
01...	1630	59	16	10	1.7	25	14	0	13	42
JUNE										
05...	1340	17	14	6.0	1.7	15	16	0	6.0	24
JULY										
14...	1210	24	14	6.5	2.4	13	19	0	10	20
AUG.										
14...	1415	12	13	5.2	1.5	12	15	0	4.4	19

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
07...	.0	.2	82	19	11	1.8	119	6.2	19.5
18...	.0	.2	60	17	6	1.2	91	6.2	21.0
NOV.									
29...	.1	.05	93	26	18	1.5	151	6.1	10.0
JAN.									
11...	.1	.1	95	35	26	1.2	162	6.6	7.5
FEB.									
23...	.0	.2	119	42	34	1.5	215	6.4	14.0
MAR.									
20...	.2	.2	143	42	28	2.0	234	7.0	17.5
MAY									
01...	.1	.3	116	32	21	1.9	197	5.9	20.5
JUNE									
05...	.0	.3	76	22	9	1.4	128	7.1	--
JULY									
14...	.0	.3	76	26	10	1.1	103	7.9	--
AUG.									
14...	.0	.4	64	19	7	1.2	132	6.6	--

SABINE RIVER BASIN

08020000 SABINE RIVER NEAR GLADEWATER, TEX.

LOCATION.--Lat 32°31'37", long 94°57'36", Gregg County, at gaging station at bridge on U.S. Highway 271, 0.4 mile downstream from Glade Creek, and 1.2 miles southwest of Gladewater.

DRAINAGE AREA.--2,791 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1967 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 19...	1515	72	13	12	4.6	51	34	0	19
DEC. 04...	1705	22	14	17	5.5	34	29	0	40
JAN. 30...	1735	72	13	16	5.1	28	30	0	36
MAR. 28...	1905	527	13	18	6.1	35	35	0	39
JUNE 07...	1045	63	10	18	6.6	58	48	0	35
AUG. 15...	1125	24	9.6	12	3.4	33	35	0	20
17...	1450	38	11	14	4.1	29	40	0	21

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 19...	78	.3	.010	.01	.3	.15	196	49	21
DEC. 04...	52	.2	.008	.03	.2	.13	178	65	41
JAN. 30...	41	.2	.009	.15	.4	.080	156	61	36
MAR. 28...	54	.3	.007	.04	.3	.10	184	70	41
JUNE 07...	85	.7	.000	.03	.1	.080	238	72	33
AUG. 15...	46	.2	.006	.10	.2	.14	142	44	15
17...	42	.2	--	--	.1	--	142	52	19

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUF ACTIVE SUB- STANCE (MG/L)
OCT. 19...	3.2	343	6.7	23.5	6.6	77	1.1	--
DEC. 04...	1.8	308	6.3	8.0	10.4	87	2.4	--
JAN. 30...	1.6	273	6.5	7.0	10.3	84	1.8	--
MAR. 28...	1.8	322	6.6	20.0	8.6	93	2.4	--
JUNE 07...	3.0	436	6.7	26.5	6.2	76	1.9	.04
AUG. 15...	2.2	252	6.3	27.0	4.5	56	5.8	--
17...	1.7	267	6.8	--	--	--	--	--

SABINE RIVER BASIN

175

08020200 PRAIRIE CREEK NEAR GLADEWATER, TEX.

LOCATION.--Lat 32°28'45", long 94°57'15", Gregg County, at gaging station on State Highway 135, 1.2 miles upstream from Little Caney Creek, 3.5 miles upstream from mouth and 3.9 miles south of Gladewater.

DRAINAGE AREA.--48.9 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
04...	1505	2.4	18	7.0	2.3	10	29	0	6.6	12
20...	1520	1.1	20	5.5	2.7	14	23	0	5.6	20
DEC.										
04...	1355	19	21	9.0	2.6	22	10	0	17	39
FEB.										
17...	1005	19	22	9.0	3.3	23	14	0	18	39
MAR.										
*24...	0940	22	19	13	3.8	45	22	0	16	77
MAY										
05...	1625	12	20	9.5	2.0	20	17	0	12	34
JUNE										
05...	1815	.47	21	8.0	2.4	13	33	0	6.6	15
JULY										
10...	1540	40	8.8	4.8	1.0	7.2	10	0	8.8	8.4
AUG.										
15...	0855	.96	18	10	3.7	10	50	0	3.4	11

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
04...	.0	.5	72	27	3	.8	108	6.4	23.0
20...	.1	.3	80	25	6	1.2	118	6.4	23.5
DEC.									
04...	.1	.1	116	33	25	1.7	191	6.1	7.0
FEB.									
17...	.0	.2	122	36	25	1.7	197	6.5	9.5
MAR.									
24...	.2	.6	188	48	30	2.8	330	6.5	16.5
MAY									
05...	.1	.3	107	32	18	1.5	176	6.0	19.5
JUNE									
05...	.1	.8	86	30	3	1.0	124	7.1	--
JULY									
10...	.0	.7	47	16	8	.8	75	6.3	--
AUG.									
15...	.1	.7	84	40	0	.7	127	6.8	--

SABINE RIVER BASIN

177

08020700 RABBIT CREEK AT KILGORE, TEX.

LOCATION.--Lat 32°23'17", long 94°54'11", Gregg County, at gaging station on State Highway 31, at Kilgore, 0.4 mile upstream from Big Caney Creek, 4.4 miles upstream from Peavine Creek, and 14 miles upstream from mouth.

DRAINAGE AREA.--75.8 sq mi.

PERIOD OF RECORD.--Chemical analyses: March 1965 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 20...	1240	3.9	16	16	7.3	130	40	0	15	220
DEC. 03...	1355	81	12	8.5	4.1	64	13	0	12	110
JAN. 14...	0820	21	25	24	11	160	6	0	23	300
FEB. 14...	1305	29	24	22	10	150	6	0	22	280
MAR. 22...	1530	14	26	24	12	160	9	0	20	300
MAY 05...	1420	8.5	23	22	9.0	140	18	0	18	260
JUNE 08...	1630	.72	12	43	20	380	79	0	21	650
JULY 10...	1720	14	17	27	12	280	82	0	22	450
AUG. 17...	1240	6.7	10	18	7.5	130	14	0	15	230

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 20...	.1	.3	430	70	37	6.8	848	6.7	23.0
DEC. 03...	.0	.2	216	38	27	4.5	412	6.0	7.0
JAN. 14...	.1	.1	538	100	98	6.7	1030	6.2	10.0
FEB. 14...	.1	.3	513	96	91	6.7	976	5.8	9.5
MAR. 22...	.2	.8	557	110	100	6.8	1080	6.2	18.0
MAY 05...	.2	.5	478	92	77	6.3	905	6.4	20.0
JUNE 08...	.3	.2	1160	190	130	12	2190	7.6	--
JULY 10...	.3	.5	852	120	49	11	1550	7.7	--
AUG. 17...	.2	.9	427	76	65	6.5	823	6.4	--

SABINE RIVER BASIN

08022000 SABINE RIVER NEAR TATUM, TEX.

LOCATION.--Lat 32°22'11", long 94°27'28", Panola County, at gaging station at bridge on State Highway 43, 5.1 miles northeast of Tatum, 5.2 miles upstream from Potters Creek, and 5.6 miles downstream from Cherokee Bayou.

DRAINAGE AREA.--3,493 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1952 to September 1972.

Pesticide analyses: March 1968 to September 1972.

Chemical and biochemical analyses: January 1968 to September 1972.

Water temperatures: February 1952 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
01-06	417	11	12	3.4	48	--	4.5	40	0	30
07-11	218	--	20	5.3	--	130	--	35	0	40
08-27	393	11	12	3.4	48	--	4.5	40	0	30
28-31	2850	8.5	11	1.8	--	14	--	39	0	13
NOV.										
01-02	3860	9.9	7.5	2.3	--	11	--	28	0	12
03-12	3190	8.7	16	3.4	--	21	--	62	0	18
13-18	519	11	18	4.1	--	33	--	55	0	25
19-20	1120	9.1	20	4.7	--	88	--	63	0	22
21-25	2110	8.7	16	3.4	--	21	--	62	0	18
26-30	1330	11	18	4.1	--	33	--	55	0	25
DEC.										
01-05	728	12	16	4.7	--	42	--	26	0	32
06-16	3740	7.0	11	2.7	--	16	--	36	0	16
17-27	18100	5.1	6.2	1.7	--	7.8	--	21	0	9.2
28-31	12000	7.0	11	2.7	--	16	--	36	0	16
JAN.										
01-14	9230	8.5	13	3.5	17	--	3.3	38	0	19
15-19	8320	11	14	4.3	--	28	--	34	0	26
20-31	2710	13	16	5.2	--	35	--	35	0	31
FEB.										
01-15	2310	14	17	6.2	44	--	3.2	28	0	46
16-29	882	14	22	8.0	--	55	--	30	0	61
MAR.										
01-31	1000	14	17	6.1	--	49	--	26	0	43
APR.										
01-30	416	13	20	7.4	60	--	3.4	38	0	45
MAY										
01-03	596	11	19	6.5	--	67	--	41	0	43
04-09	567	12	14	5.1	--	44	--	30	0	27
10-31	211	11	19	6.5	--	67	--	41	0	43
JUNE										
01-18	193	8.9	23	6.9	--	100	--	52	0	46
19-30	1410	10	12	3.9	--	43	--	23	0	26
JULY										
01-10	248	11	16	5.0	50	--	4.2	34	0	35
11-31	113	10	18	5.1	--	75	--	58	0	36
AUG.										
01-02	60	11	16	5.4	--	83	--	68	0	47
03-31	50	10	20	6.3	--	110	--	75	0	58
SEP.										
01-25	49	8.1	20	6.2	--	120	--	78	0	55
26-30	414	7.5	12	3.8	--	59	--	32	0	28
WTD. AVG.	--	8.6	12	3.5	--	--	--	33	0	21
TOT. LOAD	1940	11	17	5.3	--	--	--	44	0	38
(TONS)	--	16500	23000	6640	--	--	--	63200	0	40900

SABINE RIVER BASIN

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08022000 SABINE RIVER NEAR TATUM, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 411 mg/l Oct. 7; minimum, 49 mg/l Dec. 17-27.
 Hardness: Maximum, 88 mg/l Feb. 16-29; minimum, 22 mg/l Dec. 17-27.
 Specific conductance: Maximum daily, 996 micromhos Sept. 23; minimum daily, 82 micromhos Dec. 24.
 Water temperatures: Maximum, 35.0°C Aug. 7, 11; minimum, 6.0°C Feb. 2.

EXTREMES, February 1952 to September 1972.--Dissolved solids: Maximum, 1,610 mg/l Jan. 13, 1966; minimum, 49 mg/l Dec. 17-27, 1971.
 Hardness: Maximum, 164 mg/l Sept. 26-27, 1967; minimum, 15 mg/l Nov. 23, 1961.
 Specific conductance: Maximum daily, 3,040 micromhos Jan. 13, 1966; minimum daily, 82 micromhos Dec. 24, 1971.
 Water temperatures (1952-62, 1964-72): Maximum, 38.0°C July 8, 1969; minimum, 2.0°C Jan. 12, 13, 1962.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-06	60	.4	1.2	195	44	11	3.1	342	6.5
07...	200	.3	1.0	411	72	44	6.6	794	6.8
08-27	60	.4	1.2	195	44	11	3.1	342	6.5
28-31	13	.1	.4	82	35	3	1.0	138	6.8
NOV.									
01-02	10	.2	.4	69	28	5	.9	118	6.3
03-12	19	--	.7	119	54	3	1.2	204	6.1
13-18	42	--	.6	163	62	17	1.8	298	6.4
19-20	130	--	1.0	308	70	19	4.6	595	6.5
21-25	19	--	.7	119	54	3	1.2	204	6.1
26-30	42	--	.6	163	62	17	1.8	298	6.4
DEC.									
01-05	66	.3	.4	188	59	38	2.4	349	6.7
06-16	19	--	.2	91	39	9	1.1	160	6.3
17-27	8.8	--	.06	49	22	5	.7	88	6.1
28-31	19	--	.2	91	39	9	1.1	160	6.3
JAN.									
01-14	24	.2	.1	107	47	16	1.1	195	6.4
15-19	41	.2	.2	142	53	25	1.7	256	6.7
20-31	53	.3	.3	172	61	33	1.9	316	6.7
FEB.									
01-15	66	.2	.4	212	68	45	2.3	374	6.5
16-29	84	--	.5	261	88	63	2.6	470	6.6
MAR.									
01-31	74	.4	.5	219	68	46	2.6	396	7.2
APR.									
01-30	93	.3	.7	264	80	49	2.9	486	6.4
MAY									
01-03	98	.5	.6	268	74	40	3.4	508	7.3
04-09	67	.5	.7	188	56	31	2.6	344	7.0
10-31	98	.5	.6	268	74	40	3.4	508	7.3
JUNE									
01-18	150	.6	.9	366	86	44	4.7	688	7.4
19-30	64	.3	.8	174	46	27	2.8	305	7.1
JULY									
01-10	77	.3	.6	218	60	33	2.8	401	6.3
11-31	100	.3	.5	276	66	18	4.0	523	7.4
AUG.									
01-02	95	.3	.6	293	62	6	4.6	511	7.2
03-31	130	--	.9	372	76	14	5.3	674	7.2
SEP.									
01-25	140	.4	1.0	389	76	12	5.7	720	7.0
26-30	80	--	1.6	213	46	19	3.8	393	6.5
WTD. AVG.	32	--	.2	119	44	17	1.4	215	6.4
TIME WTD.									
AVG.	79	--	.6	233	64	27	3.1	427	6.8
TOT. LOAD (TONS)	61600	--	529	229000	--	--	--	--	--

SABINE RIVER BASIN

08022000 SABINE RIVER NEAR TATUM, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 19...	1630	150	13	13	4.3	58	50	0	38	66	.5	.41
DEC. 04...	1555	878	12	18	5.4	45	38	0	40	64	.2	.49
JAN. 30...	1500	2810	5.4	16	5.1	41	31	0	34	62	.2	.08
MAR. 28...	1735	900	13	16	6.6	46	30	0	37	72	.3	.21
JUNE 07...	0910	95	8.2	22	7.1	88	61	0	55	120	.6	.28
AUG. 15...	1300	60	10	21	7.2	100	76	0	46	130	.4	.46

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 19...	.060	.06	.4	.23	220	23	--	50	9	3.6	380	6.4
DEC. 04...	.017	.08	.2	--	205	72	11	67	36	2.4	360	7.2
JAN. 30...	.010	.20	.4	.18	181	--	--	61	36	2.3	328	6.6
MAR. 28...	.016	.10	.4	.30	208	42	10	67	42	2.4	376	6.6
JUNE 07...	.000	.00	.1	.20	329	22	18	84	34	4.2	606	6.7
AUG. 15...	.024	.61	.1	.24	357	8	8	82	20	4.8	633	6.8

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 19...	24.0	20	20	6.2	73	15	2.9	0	.07	40	0	1
DEC. 04...	9.0	45	30	9.6	83	57	3.3	0	.05	--	--	--
JAN. 30...	10.0	--	--	9.5	82	26	3.7	0	.18	100	0	0
MAR. 28...	20.0	35	20	8.2	89	21	3.8	2	.00	50	0	0
JUNE 07...	27.5	10	4	7.4	92	33	6.0	0	.12	0	0	0
AUG. 15...	30.5	5	6	8.3	110	44	5.6	2	.12	20	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 19...	0	0	5	220	0	0	100	2.1	7	240	30
DEC. 04...	--	--	--	--	--	--	--	--	--	--	--
JAN. 30...	0	0	2	480	0	0	180	.6	0	300	40
MAR. 28...	0	0	5	540	0	20	160	.3	6	290	80
JUNE 07...	0	0	2	130	0	10	340	.3	0	420	70
AUG. 15...	0	0	4	510	0	20	680	.2	3	500	50

SABINE RIVER BASIN

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08022000 SABINE RIVER NEAR TATUM, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
OCT. 19...	1630	150	.00	<.2	.00	1.6	.00	1.2	.00	1.7
JAN. 30...	1500	2810	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAR. 28...	1735	900	.00	--	.00	--	.00	--	.00	--
29...	1240	--	--	<.2	--	<.2	--	<.2	--	<.2
JUNE 07...	0910	95	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 15...	1300	60	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
OCT. 19...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JAN. 30...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAR. 28...	.00	--	.00	--	.00	--	.00	--	.00	--
29...	--	<.2	--	<.2	--	<.2	--	<.2	--	<.2
JUNE 07...	.00	<.2	.00	<.2	.00	--	.00	<.2	.00	<.2
AUG. 15...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)
OCT. 19...	.0	3.5	.01	.00	.00	.00	.00	.00	.00	--
JAN. 30...	.0	1.0	.01	.00	.00	.00	.00	.01	.00	--
MAR. 28...	.0	--	.00	.00	.00	.00	.00	.01	.00	--
29...	--	<1.0	--	--	--	--	--	--	--	--
JUNE 07...	.0	<1.0	.02	.00	.00	.00	.00	.04	.00	--
AUG. 15...	.0	<1.0	.03	.00	.00	.00	.00	.04	.00	11

SABINE RIVER BASIN

08022000 SABINE RIVER NEAR TATUM, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	387	116	363	184	293	398	315	464	554	332	477	697
2	370	117	363	197	281	368	494	474	674	220	548	691
3	266	221	448	204	376	367	496	416	556	398	621	722
4	290	223	133	209	377	338	468	345	656	397	645	721
5	293	155	339	193	390	354	553	370	656	429	621	735
6	---	206	182	192	422	445	542	316	590	481	618	721
7	794	245	128	211	419	432	602	316	788	394	636	---
8	385	230	342	204	348	435	547	355	711	486	620	593
9	312	259	299	184	419	396	415	362	787	429	643	---
10	304	170	273	201	358	445	---	411	809	430	---	442
11	369	147	134	194	359	371	---	420	780	511	630	492
12	383	---	299	198	351	465	385	423	561	509	620	656
13	368	337	459	180	418	397	471	412	774	564	820	735
14	267	288	86	179	376	331	492	---	762	611	689	616
15	352	338	93	322	420	354	511	659	742	613	761	686
16	277	163	362	234	520	394	436	668	769	570	815	696
17	277	362	154	199	373	394	515	583	330	544	749	713
18	353	364	176	251	523	385	513	526	556	557	814	733
19	310	593	285	278	420	430	500	438	397	484	823	760
20	453	599	128	337	490	316	504	526	303	495	699	766
21	475	285	175	346	487	436	496	455	622	523	676	827
22	448	167	108	345	531	420	499	486	330	489	673	769
23	234	161	109	335	421	429	496	437	248	539	621	996
24	---	165	82	335	390	428	487	548	231	491	662	774
25	363	---	127	197	487	372	485	549	220	482	663	785
26	331	259	137	382	489	376	487	549	392	462	674	399
27	349	---	93	315	490	428	453	583	394	---	669	745
28	118	261	212	236	452	381	451	551	220	519	607	---
29	146	284	239	280	491	375	570	554	294	---	576	290
30	153	300	212	334	---	391	429	553	295	496	581	338
31	136	---	205	321	---	386	---	518	---	470	634	---
MONTH	330	260	218	251	420	395	486	476	533	480	663	670

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	23.0	12.0	10.0	8.0	11.0	21.0	---	32.0	33.0	33.0	31.0
2	25.0	26.0	11.0	9.0	6.0	12.0	18.0	22.0	29.0	30.0	33.0	30.0
3	26.0	22.0	12.0	8.0	---	14.0	22.0	---	30.0	33.0	33.0	33.0
4	27.0	21.0	13.0	9.0	---	15.0	19.0	26.0	30.0	30.0	32.0	32.0
5	27.0	20.0	---	8.0	7.0	14.0	18.0	22.0	31.0	31.0	34.0	32.0
6	---	20.0	---	8.0	7.0	15.0	19.0	23.0	30.0	33.0	34.0	33.0
7	25.0	20.0	---	7.0	7.0	15.0	20.0	23.0	30.0	34.0	35.0	---
8	26.0	15.0	---	7.0	8.0	15.0	18.0	25.0	31.0	34.0	34.0	33.0
9	26.0	16.0	13.0	---	8.0	16.0	23.0	22.0	32.0	33.0	33.0	---
10	28.0	18.0	11.0	10.0	8.0	16.0	---	24.0	33.0	31.0	---	33.0
11	27.0	---	12.0	10.0	8.0	16.0	---	25.0	31.0	32.0	35.0	33.0
12	25.0	---	10.0	---	8.0	17.0	23.0	22.0	33.0	32.0	34.0	34.0
13	24.0	19.0	11.0	---	11.0	17.0	24.0	24.0	33.0	32.0	32.0	33.0
14	24.0	19.0	13.0	---	10.0	16.0	22.0	---	31.0	31.0	34.0	33.0
15	25.0	21.0	12.0	---	10.0	18.0	23.0	27.0	33.0	33.0	33.0	32.0
16	24.0	15.0	10.0	---	---	17.0	22.0	26.0	33.0	31.0	32.0	32.0
17	26.0	14.0	11.0	9.0	11.5	17.0	24.0	27.0	33.0	28.0	33.0	34.0
18	25.0	14.0	11.0	---	---	19.0	24.0	28.0	33.0	31.0	34.0	32.0
19	24.0	13.0	10.0	---	---	19.0	24.0	29.0	32.0	32.0	34.0	34.0
20	24.0	13.0	11.0	---	12.0	19.0	22.0	30.0	34.0	31.0	32.0	31.0
21	25.0	12.0	12.0	---	13.0	19.0	22.0	29.0	29.0	32.0	33.0	31.0
22	25.0	12.0	13.0	---	15.0	17.5	23.0	30.0	31.0	32.0	31.0	32.0
23	24.0	11.0	13.0	---	14.0	20.0	23.0	29.0	32.0	33.0	32.0	31.0
24	---	12.0	12.0	---	15.0	21.0	25.0	30.0	32.0	33.0	32.0	30.0
25	27.0	---	12.0	---	16.0	20.0	23.0	30.0	34.0	33.0	32.0	31.0
26	28.0	11.0	11.0	---	16.0	18.0	22.0	29.0	33.0	31.0	31.0	29.0
27	25.0	---	10.0	---	16.0	19.0	23.0	29.0	32.0	---	33.0	29.0
28	26.0	11.0	10.0	---	17.0	20.0	21.0	29.0	31.0	33.0	31.0	---
29	25.0	12.0	11.0	---	16.0	21.0	24.0	28.0	32.0	---	32.0	30.0
30	26.0	13.0	12.0	---	---	19.0	24.0	30.0	30.0	33.0	33.0	29.0
31	27.0	---	10.0	---	---	20.0	---	30.0	---	32.0	33.0	---
MONTH	25.5	16.5	11.5	---	11.0	17.0	22.0	26.5	31.5	32.0	33.0	31.5

SABINE RIVER BASIN

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08025360 SABINE RIVER AT TOLEDO BEND DAM NEAR BURKEVILLE, TEX.

LOCATION.--Lat 31°10'25", long 93°33'57", Newton County, immediately below Toledo Bend Dam, and 15 miles northeast of Burkeville.

DRAINAGE AREA.--7,178 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1967 to September 1971.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 10...	1530	130	5.7	12	3.9	20	54	0	7.0
DEC. 07...	1615	130	4.8	12	3.8	21	52	0	10
FEB. 10...	2330	11200	2.6	13	4.0	24	53	0	11
APR. 13...	2130	130	1.6	12	4.0	26	51	0	10
JUNE 22...	1030	2150	1.7	12	3.9	25	47	0	11
AUG. 22...	1100	6900	1.3	12	4.3	26	52	0	11

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT. 10...	27	.1	--	.000	.22	.00	.040	103	46
DEC. 07...	27	.1	--	.000	.00	.00	.035	105	46
FEB. 10...	32	.1	.18	.000	.00	.3	.010	114	49
APR. 13...	35	.3	--	--	--	.2	--	115	46
JUNE 22...	35	.2	--	.000	.00	.06	.046	112	46
AUG. 22...	36	.2	--	.000	.13	.02	.025	117	48

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT. 10...	2	1.3	203	6.5	15.5	2.0	20	1.5	--
DEC. 07...	3	1.3	203	6.8	14.0	7.4	71	.6	--
FEB. 10...	5	1.5	218	7.5	10.5	--	--	1.3	.00
APR. 13...	5	1.7	225	8.0	20.0	9.2	100	--	--
JUNE 22...	8	1.6	225	6.5	28.0	7.7	97	1.6	--
AUG. 22...	5	1.6	234	7.0	26.0	6.4	78	1.6	--

SABINE RIVER BASIN

08026000 SABINE RIVER BELOW TOLEDO BEND, NEAR BURKEVILLE, TEX.

LOCATION.--Lat 31°03'50", long 93°31'10", Newton County, at gaging station on downstream side of bridge on State Highway 63, 10 miles northeast of Burkeville, and 17 miles downstream from Toledo Bend Dam.

DRAINAGE AREA.--7,482 sq mi.

PERIOD OF RECORD.--Chemical analyses: May 1968 to September 1972.

Chemical and biochemical analyses: May 1968 to September 1972.

Water temperatures: May 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.											
01...	--	1430	5.3	12	2.2	23	47	0	11	27	.1
12...	--	180	--	--	--	--	--	--	7.2	22	--
23...	--	191	--	--	--	--	--	--	11	28	--
31...	--	253	--	--	--	--	--	--	9.2	25	--
NOV.											
01...	--	224	--	--	--	--	--	--	9.2	28	--
08...	--	210	5.9	12	1.7	19	48	0	7.6	22	.0
19...	--	438	--	--	--	--	--	--	6.8	12	--
25...	--	371	--	--	--	--	--	--	8.8	21	--
DEC.											
05...	--	901	6.5	2.5	.4	3.3	7	0	2.8	4.5	.0
14...	--	8410	--	--	--	--	--	--	8.8	28	--
21...	--	15300	--	--	--	--	--	--	8.4	28	--
29...	--	8390	--	--	--	--	--	--	9.0	28	--
JAN.											
01...	--	14700	2.5	12	5.4	18	49	0	9.2	28	.1
08...	--	15200	--	--	--	--	--	--	8.8	28	--
15...	--	14800	--	--	--	--	--	--	8.8	29	--
24...	--	14800	--	--	--	--	--	--	8.4	30	--
FEB.											
01...	--	6000	.0	14	3.2	22	51	0	10	30	.1
11...	--	7880	--	--	--	--	--	--	10	31	--
19...	--	504	--	--	--	--	--	--	8.8	19	--
28...	--	292	--	--	--	--	--	--	9.6	22	--
MAR.											
03...	--	1670	--	--	--	--	--	--	9.2	32	--
11...	--	402	--	--	--	--	--	--	8.4	20	--
21...	--	2400	--	--	--	--	--	--	4.0	3.5	--
28...	--	522	13	6.5	1.9	9.9	23	0	8.0	13	.0
APR.											
01...	1715	585	--	--	--	--	--	--	7.6	8.5	--
16...	1730	250	--	--	--	--	--	--	8.8	20	--
20...	1700	8830	.0	14	3.2	29	50	0	11	40	.1
30...	1645	446	--	--	--	--	--	--	10	22	--
MAY											
03...	1800	1070	12	6.5	2.4	12	24	0	9.6	16	.0
08...	1830	4630	--	--	--	--	--	--	10	38	--
19...	1615	4070	--	--	--	--	--	--	10	36	--
27...	1700	5800	--	--	--	--	--	--	10	40	--
JUNE											
01...	1715	380	--	--	--	--	--	--	9.6	30	--
06...	1730	4390	--	--	--	--	--	--	10	38	--
16...	1620	660	8.1	4.0	1.0	6.3	13	0	4.0	9.0	.0
27...	1730	5790	--	--	--	--	--	--	10	39	--
JULY											
01...	1715	720	.0	13	3.3	24	49	0	10	34	.1
07...	1815	601	--	--	--	--	--	--	7.6	19	--
17...	1745	1050	--	--	--	--	--	--	8.4	23	--
31...	1730	3000	--	--	--	--	--	--	10	36	--
AUG.											
01...	1715	4000	--	--	--	--	--	--	12	36	--
11...	1800	6540	--	--	--	--	--	--	11	36	--
20...	1800	500	--	--	--	--	--	--	8.8	32	--
29...	1615	6630	1.9	12	3.9	25	50	0	9.2	35	.1
SEP.											
03...	1700	204	--	--	--	--	--	--	6.8	34	--
09...	1630	6890	--	--	--	--	--	--	10	30	--
23...	1615	1110	--	--	--	--	--	--	9.6	28	--
29...	1630	7420	12	9.5	2.7	15	37	0	8.0	20	.0

SABINE RIVER BASIN

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08026000 SABINE RIVER BELOW TOLEDO BEND, NEAR BURKEVILLE, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 242 micromhos July 28, Aug. 6; minimum daily, 43 micromhos Dec. 6, Mar. 21.

Water temperatures: Maximum, 30.0°C July 1, 2, 3, Aug. 20; minimum, 12.0°C on several days during winter months.

EXTREMES, October 1969 to September 1972.--Specific conductance: Maximum daily, 242 micromhos July 28, Aug. 6, 1972; minimum daily, 35 micromhos Dec. 30, 1969.

Water temperatures: Maximum, 31.0°C July 19, Aug. 9, Sept. 7, 1970; minimum, 5.0°C Jan. 8, 10, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
OCT.									
01...	.2	104	39	5	1.6	200	6.4	26.0	40
12...	--	--	--	--	--	186	--	24.0	30
23...	--	--	--	--	--	206	--	25.0	40
31...	--	--	--	--	--	195	--	26.0	40
NOV.									
01...	--	--	--	--	--	195	27.0	--	50
08...	.2	--	37	0	1.4	185	7.1	--	70
19...	--	--	--	--	--	109	--	--	120
25...	--	--	--	--	--	170	--	--	40
DEC.									
05...	.00	23	8	2	.5	44	6.0	13.0	140
14...	--	--	--	--	--	201	--	14.0	25
21...	--	--	--	--	--	203	--	15.0	30
29...	--	--	--	--	--	204	--	17.0	30
JAN.									
01...	.3	100	52	12	1.1	206	7.2	16.0	30
08...	--	--	--	--	--	203	--	15.0	40
15...	--	--	--	--	--	209	--	15.0	30
24...	--	--	--	--	--	216	--	14.0	30
FEB.									
01...	.2	105	48	6	1.4	218	7.2	13.0	30
11...	--	--	--	--	--	223	--	14.0	20
19...	--	--	--	--	--	154	--	14.0	40
28...	--	--	--	--	--	170	--	18.0	30
MAR.									
03...	--	--	--	--	--	215	--	15.0	30
11...	--	--	--	--	--	156	--	17.0	40
21...	--	--	--	--	--	43	--	20.0	130
28...	.00	63	24	5	.9	113	6.5	21.0	70
APR.									
01...	--	--	--	--	--	93	--	18.0	80
16...	--	--	--	--	--	155	--	25.0	40
20...	.3	124	48	7	1.8	239	7.1	20.0	20
30...	--	--	--	--	--	149	--	22.0	70
MAY									
03...	.1	71	26	6	1.0	123	7.2	23.0	70
08...	--	--	--	--	--	233	--	21.0	20
19...	--	--	--	--	--	218	--	25.0	20
27...	--	--	--	--	--	237	--	25.0	20
JUNE									
01...	--	--	--	--	--	203	--	26.0	20
06...	--	--	--	--	--	238	--	25.0	20
16...	.06	39	14	3	.7	72	6.2	26.0	70
27...	--	--	--	--	--	239	--	25.0	30
JULY									
01...	.06	109	46	6	1.5	224	7.4	30.0	20
07...	--	--	--	--	--	139	--	27.0	50
17...	--	--	--	--	--	158	--	25.0	60
31...	--	--	--	--	--	223	--	25.0	40
AUG.									
01...	--	--	--	--	--	234	7.5	25.0	40
11...	--	--	--	--	--	238	--	26.0	20
20...	--	--	--	--	--	212	--	30.0	20
29...	.00	112	46	5	1.6	235	7.5	25.5	20
SEP.									
03...	--	--	--	--	--	233	--	27.0	30
09...	--	--	--	--	--	218	--	25.0	20
23...	--	--	--	--	--	199	--	25.0	20
29...	.00	85	35	5	1.2	165	6.3	25.0	70

SABINE RIVER BASIN

08026000 SABINE RIVER BELOW TOLEDO BEND, NEAR BURKEVILLE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTERRER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 21...	1315	195	9.6	12	3.6	17	51	0	8.0	23	.1	.26
DEC. 07...	1445	2000	8.3	3.2	1.0	5.2	10	0	6.4	6.2	.0	.29
FEB. 11...	0025	10000	2.7	13	4.0	23	52	0	11	31	.1	--
APR. 14...	1330	260	13	9.0	3.0	20	41	0	9.6	24	.2	.24
JUNE 22...	1200	2200	2.7	12	3.8	25	50	0	11	34	.2	.45
AUG. 23...	1145	7030	1.3	12	4.2	26	50	0	12	35	.2	.43

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 21...	.008	.20	.1	.060	99	10	0	45	3	1.1	185	6.8
DEC. 07...	.000	.13	.1	.10	36	157	23	12	4	.7	58	6.4
FEB. 11...	.000	.00	.3	.040	112	14	2	49	6	1.4	214	7.3
APR. 14...	.000	.09	.08	--	99	48	8	35	1	1.5	167	7.4
JUNE 22...	.000	.00	.02	.020	114	7	7	46	5	1.6	224	6.9
AUG. 23...	.000	.15	.00	.025	116	14	6	48	7	1.6	229	7.0

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 21...	21.0	20	6	8.2	91	15	1.6	6	.00	0	0	0
DEC. 07...	12.5	80	60	9.1	85	45	3.2	5	.00	--	--	--
FEB. 11...	11.0	5	4	--	--	19	1.2	0	--	20	0	0
APR. 14...	25.0	15	15	9.2	110	20	--	3	.00	20	0	0
JUNE 22...	26.0	10	1	7.2	88	18	1.8	0	.00	--	--	--
AUG. 23...	28.5	0	4	7.1	91	22	1.0	0	.00	10	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 21...	0	0	1	650	0	0	1300	<.5	0	180	10
DEC. 07...	--	--	--	--	--	--	--	--	--	--	--
FEB. 11...	0	0	3	10	0	0	0	<.2	0	190	0
APR. 14...	0	0	9	190	0	10	140	.2	0	140	30
JUNE 22...	--	--	--	--	--	--	--	--	--	--	--
AUG. 23...	0	--	--	--	--	10	70	.2	0	230	40

08026000 SABINE RIVER BELOW TOLEDO BEND, NEAR BURKEVILLE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
OCT. 21...	1315	195	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 11...	0025	10000	.00	--	.00	--	.00	--	.00	--
APR. 14...	1330	260	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 23...	1145	--	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
OCT. 21...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 11...	.00	--	.00	--	.00	--	.00	--	.00	--
APR. 14...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 23...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT. 21...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
FEB. 11...	.0	--	.01	.00	.00	.00	.00	.00	.00
APR. 14...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
AUG. 23...	.0	<1.0	.01	.00	.00	.00	.00	.00	.00

COLOR, IN PLATINUM-COBALT UNITS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	50	30	30	30	50	80	50	20	20	40	20
2	40	60	20	40	30	120	70	40	20	40	20	20
3	40	50	30	40	40	30	60	70	20	40	20	30
4	30	50	---	60	30	100	40	70	20	120	20	20
5	50	---	140	60	40	100	40	20	30	120	20	20
6	50	50	140	40	30	70	40	20	20	120	20	20
7	---	60	140	40	40	60	---	20	20	50	10	20
8	40	70	140	40	20	60	40	20	20	50	20	20
9	50	70	---	40	20	60	40	20	20	40	10	20
10	40	30	140	40	20	120	40	20	20	70	20	20
11	---	30	90	30	20	40	40	20	20	60	20	10
12	30	40	80	30	20	---	40	20	20	50	30	20
13	30	50	---	20	20	70	40	30	20	60	30	10
14	40	30	25	30	20	50	40	20	20	50	20	20
15	40	70	30	30	30	70	40	20	30	50	20	20
16	60	100	40	30	30	70	40	20	70	50	10	10
17	60	30	30	30	40	150	40	20	70	60	10	10
18	70	60	60	20	30	50	30	20	70	30	10	20
19	60	120	40	30	40	50	20	20	20	30	20	20
20	60	80	30	30	40	50	20	20	30	30	20	20
21	60	70	30	30	40	130	20	30	30	20	20	20
22	60	30	20	20	30	130	30	30	20	30	10	30
23	40	20	30	20	40	130	30	30	20	20	10	20
24	40	30	30	30	40	140	30	20	30	20	10	30
25	40	40	30	30	40	100	30	30	30	20	20	20
26	40	40	30	30	40	100	100	20	30	20	10	20
27	30	20	30	40	30	100	100	20	30	20	10	20
28	30	20	30	40	30	70	100	20	20	20	10	20
29	20	20	30	30	---	80	70	20	30	40	20	70
30	30	30	30	40	---	140	70	20	30	70	20	70
31	40	---	30	40	---	120	---	20	---	40	20	---
MONTH	43	48	55	34	31	85	47	26	28	47	17	23

SABINE RIVER BASIN

08026000 SABINE RIVER BELOW TOLEDO BEND, NEAR BURKEVILLE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200	195	205	206	218	159	93	185	203	224	234	236
2	191	197	203	205	218	97	125	186	202	168	237	233
3	191	192	203	205	218	215	125	123	206	167	239	233
4	192	193	---	176	218	113	126	123	205	68	239	233
5	179	---	44	181	218	112	127	232	204	69	238	233
6	181	190	43	188	220	111	166	233	238	82	242	233
7	---	192	59	195	221	130	---	234	238	139	241	233
8	183	185	78	203	228	108	136	233	238	140	237	233
9	183	185	---	203	224	139	166	241	235	139	238	218
10	186	175	44	205	224	102	136	237	231	117	237	217
11	---	183	96	204	223	156	167	237	231	117	238	233
12	186	183	97	205	223	---	166	235	229	118	178	235
13	184	107	---	207	223	126	176	235	199	121	178	234
14	184	185	201	209	223	141	180	234	238	145	237	235
15	184	152	196	209	187	126	155	234	165	158	232	235
16	165	110	196	209	188	125	155	230	72	160	231	234
17	165	181	196	210	188	123	156	232	102	158	234	233
18	165	105	196	212	188	141	234	233	102	239	234	230
19	172	109	200	213	154	141	234	218	231	240	234	233
20	180	150	202	207	154	141	239	188	205	240	212	234
21	183	152	203	213	168	43	218	186	226	240	234	199
22	181	205	205	210	166	60	219	238	226	237	235	231
23	206	205	205	214	167	69	219	229	236	236	237	199
24	205	160	207	216	167	68	235	229	199	236	236	238
25	205	170	207	217	168	82	223	229	197	227	233	238
26	205	168	207	218	162	93	125	232	220	238	235	228
27	205	203	207	219	170	93	122	237	239	236	235	228
28	205	203	206	207	170	113	122	219	232	242	233	229
29	205	203	204	206	---	109	148	217	240	165	235	165
30	193	203	205	206	---	78	149	218	225	88	234	165
31	195	---	207	206	---	70	---	227	---	223	232	---
MONTH	188	174	169	206	196	113	167	218	207	173	231	225

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	27.0	16.0	16.0	13.0	21.0	18.0	22.0	26.0	30.0	25.0	25.0
2	29.0	25.0	15.0	15.0	14.0	15.0	19.0	22.0	27.0	28.0	25.0	25.0
3	29.0	21.0	14.0	15.0	13.0	15.0	20.0	23.0	27.0	26.0	26.0	27.0
4	26.0	20.0	---	14.0	13.0	15.0	19.0	---	27.0	25.0	26.0	26.0
5	26.0	20.0	13.0	12.0	12.0	15.0	20.0	24.0	27.0	26.0	26.0	25.0
6	25.0	20.0	12.0	12.0	13.0	16.0	21.0	24.0	25.0	27.0	26.0	25.0
7	---	20.0	17.0	15.0	13.0	18.0	---	24.0	25.5	27.0	27.0	25.0
8	25.0	19.0	17.0	15.0	13.0	16.0	21.0	21.0	27.0	26.0	27.0	25.0
9	25.0	17.0	---	14.0	14.0	17.0	21.0	21.0	27.0	26.0	27.0	25.0
10	25.0	17.0	16.0	15.0	14.0	17.0	21.0	21.0	26.0	26.0	27.0	26.0
11	---	18.0	15.0	15.0	14.0	17.0	21.0	22.0	27.0	26.0	26.0	25.5
12	24.0	18.0	15.0	15.0	14.0	18.0	23.0	22.0	28.0	25.0	27.0	25.0
13	24.0	18.0	---	15.0	13.0	20.0	24.0	22.0	28.0	25.0	28.0	25.0
14	24.0	18.0	14.0	15.0	16.0	21.0	25.0	22.0	22.0	27.0	27.0	25.5
15	24.0	18.0	14.0	15.0	13.0	18.0	25.0	22.0	25.0	27.0	26.0	26.0
16	25.0	18.0	14.0	12.0	13.0	18.0	25.0	22.0	26.0	27.0	25.0	27.0
17	25.0	18.0	13.0	13.0	14.0	19.0	26.0	24.0	27.0	25.0	27.0	27.0
18	25.0	19.0	15.0	14.0	14.0	20.0	25.0	25.0	27.0	25.0	27.0	26.0
19	26.0	19.0	15.0	14.0	14.0	21.0	21.0	25.0	27.0	26.0	27.0	25.0
20	25.0	18.0	15.0	14.0	14.0	21.0	20.0	26.0	27.0	25.0	30.0	25.0
21	25.0	17.0	15.0	14.0	14.0	20.0	22.0	27.0	27.0	25.0	28.0	25.0
22	24.0	17.0	15.0	15.0	14.0	19.0	23.0	26.0	25.0	27.0	27.0	25.0
23	25.0	17.0	15.0	15.0	14.0	20.0	23.0	25.0	26.0	30.0	27.0	25.0
24	25.0	17.0	15.0	14.0	15.0	19.0	22.0	25.0	27.0	29.0	27.0	25.5
25	26.0	15.0	15.0	14.0	15.0	19.0	24.0	26.0	29.0	28.0	27.0	26.0
26	26.0	17.0	15.0	15.0	15.0	19.0	23.0	25.0	26.0	27.0	27.0	25.0
27	26.0	15.0	17.0	15.0	17.0	19.0	23.0	25.0	25.0	25.0	27.0	25.0
28	24.0	15.0	17.0	15.0	18.0	21.0	23.0	25.0	26.0	26.0	26.0	25.0
29	24.0	15.0	17.0	14.0	19.0	21.0	24.0	25.0	26.0	26.0	25.5	25.0
30	25.0	15.0	16.0	13.0	---	16.0	22.0	27.0	28.0	26.0	25.0	26.0
31	26.0	---	15.0	12.0	---	17.0	---	26.0	---	25.0	25.0	---
MONTH	25.5	18.5	15.0	14.0	14.0	18.5	22.0	24.0	26.5	26.5	26.5	25.5

SABINE RIVER BASIN

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08028500 SABINE RIVER NEAR BON WEIR, TEX.

LOCATION.--Lat 30°44'49", long 93°36'30", Newton County, on downstream side of bridge on U.S. Highway 190, 0.7 mile upstream from Quicksand Creek, 0.8 mile downstream from Gulf, Colorado and Santa Fe Railway Co. bridge, and 2.0 miles east of Bon Weir.

DRAINAGE AREA.--8,229 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1970 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
OCT.				
17.....	425	36	24	261
18.....	547	28	20	213
21.....	426	30	24	262
23.....	396	26	20	213
NOV.				
29.....	477	26	23	234
30.....	467	36	26	264
DEC.				
07.....	11100	4.0	3.5	44
16.....	11000	8.8	24	184
25.....	14800	8.8	27	200
30.....	9040	13	26	193
JAN.				
01.....	13700	9.4	27	200
08.....	21800	8.4	20	157
15.....	16500	8.4	26	198
24.....	17500	7.6	26	195
FEB.				
01.....	9100	7.6	8.0	74
08.....	12900	13	29	206
15.....	7270	10	28	203
22.....	1440	18	20	186
MAR.				
04.....	4260	8.4	10	97
12.....	1440	18	16	164
24.....	3910	8.4	6.5	72
30.....	2650	12	10	107
APR.				
01.....	2190	12	11	100
13.....	712	22	22	194
21.....	8600	11	37	233
30.....	1110	20	22	192
MAY				
01.....	809	21	20	177
09.....	5590	10	9.5	96
18.....	9190	10	37	235
25.....	5840	12	36	230
JUNE				
01.....	2610	12	36	231
08.....	6440	22	32	257
16.....	3010	19	22	184
24.....	3870	9.6	32	206
JULY				
01.....	3190	8.8	37	227
06.....	1800	6.8	16	127
22.....	6210	12	37	229
31.....	3410	8.4	14	107
AUG.				
01.....	5580	1.2	12	106
14.....	1050	9.6	34	237
22.....	3700	6.8	32	234
31.....	7000	12	33	234
SEP.				
06.....	6400	11	34	233
15.....	7200	6.0	34	234
24.....	1790	12	33	229
29.....	7630	12	32	226

SABINE RIVER BASIN

08028500 SABINE RIVER NEAR BON WEIR, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	191	200	74	158	100	177	231	227	106	233
2	---	---	149	151	125	164	120	177	234	223	174	235
3	---	---	74	191	200	132	120	218	240	210	203	234
4	---	---	158	191	204	97	133	185	237	209	203	233
5	---	---	157	173	206	---	144	185	271	154	220	233
6	---	---	61	154	208	130	155	---	273	127	220	233
7	---	---	44	160	208	132	156	197	238	127	231	233
8	---	---	38	157	206	180	162	184	257	132	231	234
9	---	---	47	167	208	160	170	96	237	129	236	234
10	---	---	52	198	215	147	179	230	235	144	236	235
11	---	---	62	171	215	146	179	228	240	145	236	236
12	---	---	81	174	196	164	188	228	238	200	---	234
13	---	---	84	185	207	163	194	214	238	264	226	235
14	---	---	177	193	201	157	201	211	233	266	237	235
15	---	---	179	198	203	160	205	192	243	213	217	234
16	---	---	184	171	210	156	218	191	184	207	233	---
17	261	---	179	204	210	182	185	232	184	204	233	255
18	213	---	179	204	200	137	190	235	186	232	233	251
19	212	---	188	204	206	125	190	231	184	227	234	235
20	262	---	186	201	195	138	188	231	222	229	234	236
21	262	---	186	178	191	161	233	225	217	229	233	234
22	262	---	184	183	186	63	236	235	200	229	234	256
23	213	---	184	185	182	92	247	238	200	229	230	254
24	---	---	184	195	181	72	219	230	206	235	225	229
25	---	---	200	201	130	79	235	230	213	237	226	229
26	---	---	196	163	130	71	235	232	---	236	221	230
27	---	---	195	196	128	84	238	230	183	234	220	230
28	---	---	193	198	130	84	238	232	232	235	211	225
29	---	234	193	203	131	106	219	231	228	240	233	226
30	---	264	193	203	---	107	192	245	229	240	234	224
31	---	---	200	160	---	119	---	248	---	107	234	---
MONTH	---	---	148	184	182	129	189	214	224	204	221	235

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	12.0	14.0	13.0	18.0	16.0	22.0	24.0	27.0	25.0	26.0
2	---	---	10.0	14.0	10.0	18.0	17.0	23.0	25.0	---	26.0	27.0
3	---	---	9.0	14.0	11.0	15.0	17.0	20.0	24.0	27.0	26.0	27.0
4	---	---	12.0	14.0	10.0	15.0	19.0	20.0	26.0	27.0	26.0	27.0
5	---	---	13.0	13.0	10.0	---	18.0	22.0	26.0	25.0	26.0	27.0
6	---	---	13.0	13.0	10.0	16.0	18.0	---	27.0	25.0	---	27.0
7	---	---	12.0	13.0	11.0	17.0	18.0	21.0	26.0	25.0	27.0	27.0
8	---	---	13.0	14.0	10.0	17.0	21.0	21.0	25.0	26.0	27.0	27.0
9	---	---	16.0	15.0	10.0	15.0	21.0	20.0	27.0	26.0	27.0	27.0
10	---	---	15.0	15.0	11.0	16.0	21.0	20.0	25.0	26.0	27.0	27.0
11	---	---	14.0	14.0	11.0	17.0	23.0	21.0	27.0	27.0	26.0	27.0
12	---	---	16.0	14.0	12.0	17.0	22.0	22.0	26.0	26.0	---	27.0
13	---	---	11.0	15.0	12.0	18.0	23.0	22.0	26.0	---	26.0	27.0
14	---	---	11.0	13.0	11.0	19.0	24.0	22.0	24.0	27.0	27.0	26.0
15	---	---	16.0	12.0	12.0	15.0	25.0	25.0	26.0	27.0	26.0	26.0
16	---	---	17.0	10.5	14.0	19.0	25.0	23.0	26.0	27.0	26.0	---
17	28.0	---	15.0	12.0	13.0	17.0	25.0	24.0	27.0	27.0	26.0	26.0
18	27.0	---	14.0	14.0	13.0	18.0	25.0	24.0	26.0	26.0	26.0	26.0
19	27.0	---	14.0	12.0	12.0	18.0	25.0	24.0	25.0	26.0	27.0	27.0
20	28.0	---	15.0	13.0	13.0	18.0	24.0	24.0	25.0	26.0	27.0	27.0
21	28.0	---	16.0	---	13.0	18.0	20.0	25.0	27.0	26.0	27.0	26.0
22	27.0	---	15.0	15.0	14.0	17.0	18.0	25.0	26.0	26.0	28.0	26.0
23	25.0	---	15.0	14.0	15.0	17.0	19.0	25.0	26.0	26.0	26.0	---
24	---	---	15.0	14.5	16.0	18.0	19.0	25.0	26.0	26.0	24.0	26.0
25	---	---	15.0	14.0	16.0	18.0	21.0	25.0	26.0	27.0	26.0	26.0
26	---	---	15.0	14.0	16.0	18.0	19.0	25.0	---	27.0	27.0	25.0
27	---	---	15.0	14.0	16.0	18.0	21.0	25.0	28.0	27.0	---	25.0
28	---	---	16.0	14.0	17.0	19.0	21.0	25.0	27.0	28.0	27.0	26.0
29	---	16.0	17.0	14.0	18.0	19.0	21.0	25.0	27.0	26.0	27.0	26.0
30	---	15.0	17.0	11.0	---	16.0	22.0	24.0	27.0	27.0	27.0	---
31	---	---	15.0	11.0	---	15.0	---	25.0	---	26.0	27.0	---
MONTH	---	---	14.0	13.5	13.0	17.0	21.0	23.0	26.0	26.5	26.5	26.5

SABINE RIVER BASIN

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08028500 SABINE RIVER NEAR BON WEIR, TEX.--Continued

COLOR, IN PLATINUM-COBALT UNITS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	70	40	220	70	140	80	20	30	120	20
2	---	---	80	100	160	100	120	80	30	30	40	20
3	---	---	100	40	30	140	100	30	40	30	30	20
4	---	---	60	50	40	120	100	70	20	20	20	30
5	---	---	50	50	40	---	90	70	50	120	30	20
6	---	---	140	70	40	80	70	---	60	70	20	20
7	---	---	140	60	30	100	70	70	30	70	20	20
8	---	---	140	60	30	120	65	70	40	100	20	20
9	---	---	140	60	30	120	60	120	30	80	20	30
10	---	---	140	40	30	120	60	40	20	70	20	10
11	---	---	140	60	30	100	70	30	30	80	20	10
12	---	---	80	50	40	70	60	30	20	80	---	20
13	---	---	80	60	50	80	70	40	20	70	20	10
14	---	---	40	40	40	80	70	40	20	100	20	20
15	---	---	40	40	40	120	60	60	30	80	40	20
16	---	---	40	60	40	120	60	70	70	70	20	---
17	70	---	40	40	40	70	50	40	70	70	20	50
18	70	---	40	40	40	100	50	30	70	40	20	50
19	100	---	40	140	50	70	50	30	70	40	20	20
20	80	---	40	70	40	70	60	30	120	40	10	20
21	70	---	40	70	50	160	30	30	50	40	10	20
22	70	---	40	70	60	65	30	40	40	40	10	20
23	80	---	40	40	60	90	40	40	30	30	10	20
24	---	---	40	30	60	70	50	20	30	40	20	20
25	---	---	30	40	50	80	40	20	20	40	20	20
26	---	---	40	70	40	70	40	20	---	30	20	20
27	---	---	40	50	50	85	40	20	30	30	20	20
28	---	---	40	40	50	85	60	20	20	30	60	30
29	---	70	40	40	60	110	50	20	20	40	20	20
30	---	80	40	40	---	110	70	30	20	20	20	20
31	---	---	40	120	---	120	---	30	---	140	20	---
MONTH	---	---	65	55	55	95	65	44	38	55	25	22

SABINE RIVER BASIN

08030500 SABINE RIVER NEAR RULIFF, TEX.

LOCATION.--Lat 30°18'13", long 93°44'37", Newton County, at gaging station at bridge on State Highway 12, 2.4 miles north of Ruliff, 4.2 miles upstream from the Kansas City Southern Railway Co. bridge, and 4.5 miles downstream from Cypress Creek.

DRAINAGE AREA.--9,329 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1945 to September 1946, October 1947 to September 1972.

Chemical and biochemical analyses: October 1967 to September 1972.

Pesticide analyses: January 1968 to September 1972.

Water temperatures: October 1947 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
01...	1930	16	10	1.7	--	33	--	45	0	34
09...	1080	--	--	--	--	--	--	--	--	16
21...	988	--	--	--	--	--	--	--	--	20
31...	1390	--	--	--	--	--	--	--	--	26
NOV.										
01...	1760	--	--	--	--	--	--	--	--	12
07...	410	10	10	3.7	--	28	--	48	0	26
17...	395	--	--	--	--	--	--	--	--	29
30...	1070	--	--	--	--	--	--	--	--	20
DEC.										
01...	953	11	7.5	1.5	--	22	--	32	0	19
11...	19000	--	--	--	--	--	--	--	--	2.0
21...	17800	--	--	--	--	--	--	--	--	6.8
27...	17400	--	--	--	--	--	--	--	--	8.0
JAN.										
02...	14900	5.5	11	4.8	--	15	--	44	0	6.4
09...	27100	--	--	--	--	--	--	--	--	6.0
14...	22400	--	--	--	--	--	--	--	--	6.8
25...	23300	--	--	--	--	--	--	--	--	7.6
FEB.										
01...	13500	.6	12	2.0	--	14	--	33	0	9.2
08...	15700	--	--	--	--	--	--	--	--	10
15...	14800	--	--	--	--	--	--	--	--	9.6
22...	3790	--	--	--	--	--	--	--	--	10
MAR.										
05...	5920	--	--	--	--	--	--	--	--	8.8
12...	2550	--	--	--	--	--	--	--	--	15
24...	8610	--	--	--	--	--	--	--	--	6.0
30...	5050	10	4.0	1.9	--	4.9	--	13	0	6.8
APR.										
01...	4180	--	--	--	--	--	--	--	--	9.2
16...	1160	--	--	--	--	--	--	--	--	15
24...	5000	2.2	11	3.1	--	24	--	40	0	12
28...	3320	--	--	--	--	--	--	--	--	13
MAY										
01...	2110	10	10	2.7	--	22	--	40	0	16
10...	4170	--	--	--	--	--	--	--	--	16
21...	8640	--	--	--	--	--	--	--	--	11
31...	3690	--	--	--	--	--	--	--	--	12
JUNE										
01...	2380	6.1	11	4.0	--	23	--	45	0	8.8
08...	3290	--	--	--	--	--	--	--	--	16
19...	2660	--	--	--	--	--	--	--	--	10
26...	3290	--	--	--	--	--	--	--	--	9.6
JULY										
01...	4690	.0	12	3.4	--	25	--	46	0	10
10...	1890	--	--	--	--	--	--	--	--	5.6
21...	4380	--	--	--	--	--	--	--	--	13
26...	3690	--	--	--	--	--	--	--	--	12
AUG.										
04...	5840	--	--	--	--	--	--	--	--	7.6
09...	4950	--	--	--	--	--	--	--	--	10
21...	7480	--	--	--	--	--	--	--	--	3.6
30...	2740	6.0	11	3.1	--	20	--	42	0	9.6
SEP.										
03...	7080	--	--	--	--	--	--	--	--	6.8
14...	5210	--	--	--	--	--	--	--	--	11
20...	2510	--	--	--	--	--	--	--	--	6.4
29...	6740	3.4	12	3.7	--	21	--	44	0	8.8

08030500 SABINE RIVER NEAR RULIFF, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 270 micromhos Nov. 17; minimum daily, 39 micromhos Dec. 9.
Water temperatures: Maximum, 31.0°C June 29, Sept. 1.

EXTREMES, October 1945 to September 1946, October 1947 to September 1972.--Dissolved solids (1945-46, 1947-69):
Maximum, 411 mg/l Dec. 26-27, 1948; minimum, 25 mg/l Sept. 18-20, 1963.
Hardness (1945-46, 1947-69): Maximum, 71 mg/l Sept. 1-23, 1965; minimum, 8 mg/l May 20-24, 1953, Sept. 21-22, 1963, Jan. 11-16, 1968.
Specific conductance (1945-46, 1947-70, 1971-72): Maximum daily, 779 micromhos Aug. 31, 1966; minimum daily, 28 micromhos Sept. 19, 1963.
Water temperatures (1947-70, 1971-72): Maximum, 36.0°C Aug. 14, 1962; minimum, 1.0°C Jan. 28, 1948.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Radiochemical analyses available from U. S. Geological Survey, Denver, Colo.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.									
01...	22	.1	.2	140	32	0	2.5	238	7.0
09...	24	--	--	--	--	--	--	201	--
21...	14	--	--	--	--	--	--	152	--
31...	20	--	--	--	--	--	--	218	--
NOV.									
01...	26	--	--	--	--	--	--	207	--
07...	24	.0	.2	--	40	1	1.9	230	7.3
17...	24	--	--	--	--	--	--	270	--
30...	20	--	--	--	--	--	--	175	--
DEC.									
01...	18	.0	.2	96	25	0	1.9	169	6.8
11...	3.5	--	--	--	--	--	--	42	--
21...	22	--	--	--	--	--	--	162	--
27...	25	--	--	--	--	--	--	188	--
JAN.									
02...	26	.0	.01	91	47	11	1.0	190	6.8
09...	18	--	--	--	--	--	--	139	--
14...	20	--	--	--	--	--	--	157	--
25...	20	--	--	--	--	--	--	153	--
FEB.									
01...	22	.0	.5	--	38	11	1.0	160	6.9
08...	26	--	--	--	--	--	--	190	--
15...	25	--	--	--	--	--	--	181	--
22...	21	--	--	--	--	--	--	169	--
MAR.									
05...	10	--	--	--	--	--	--	100	--
12...	14	--	--	--	--	--	--	135	--
24...	8.5	--	--	--	--	--	--	69	--
30...	7.5	.0	.00	41	18	7	.5	73	6.0
APR.									
01...	10	--	--	--	--	--	--	90	--
16...	18	--	--	--	--	--	--	162	--
24...	32	.0	.3	106	40	7	1.6	213	6.5
28...	32	--	--	--	--	--	--	211	--
MAY									
01...	24	.0	.07	105	36	3	1.6	192	6.9
10...	15	--	--	--	--	--	--	139	--
21...	36	--	--	--	--	--	--	219	--
31...	34	--	--	--	--	--	--	222	--
JUNE									
01...	34	.0	.00	109	44	7	1.5	218	6.7
08...	28	--	--	--	--	--	--	236	--
19...	22	--	--	--	--	--	--	172	--
26...	31	--	--	--	--	--	--	202	--
JULY									
01...	35	.1	.2	109	44	6	1.6	224	7.0
10...	9.5	--	--	--	--	--	--	88	--
21...	31	--	--	--	--	--	--	209	--
26...	30	--	--	--	--	--	--	208	--
AUG.									
04...	12	--	--	--	--	--	--	101	--
09...	32	--	--	--	--	--	--	221	--
21...	33	--	--	--	--	--	--	225	--
30...	28	.0	.00	99	40	6	1.4	198	6.8
SEP.									
03...	34	--	--	--	--	--	--	235	--
14...	32	--	--	--	--	--	--	225	--
20...	31	--	--	--	--	--	--	222	--
29...	32	.0	.00	103	45	9	1.4	225	6.5

SABINE RIVER BASIN

08030500 SABINE RIVER NEAR RULIFF, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 25...	0935	545	20	8.5	3.4	18	39	0	19	16	.0	.23
DEC. 21...	1030	17800	.0	9.0	2.6	15	35	0	7.2	21	.0	.34
FEB. 08...	1015	15700	3.2	11	3.5	17	42	0	6.8	26	.1	.19
APR. 17...	1115	1110	15	9.0	2.1	20	40	0	16	18	.0	.19
JUNE 06...	0900	880	11	14	4.1	21	60	0	11	26	.1	.09
AUG. 23...	0830	4100	2.2	12	2.9	26	45	0	12	35	.1	.22

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 25...	.001	.16	.07	.050	105	72	--	35	3	1.3	176	6.2
DEC. 21...	.042	.04	.06	.050	72	64	20	33	4	1.1	162	6.3
FEB. 08...	.000	.00	.3	.040	90	29	5	42	8	1.1	189	7.2
APR. 17...	.000	.24	.03	.040	101	36	18	31	0	1.6	166	6.6
JUNE 06...	.002	.03	.08	.065	118	35	7	52	3	1.3	223	6.8
AUG. 23...	.003	.07	.02	.040	112	34	2	42	5	1.7	225	6.8

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 25...	22.0	80	30	7.1	81	25	1.5	1	.00	--	--	--
DEC. 21...	16.0	80	35	7.6	76	23	2.4	15	.00	40	0	0
FEB. 08...	9.5	40	25	10.2	89	21	1.6	2	.00	30	0	0
APR. 17...	24.0	70	25	6.3	74	17	2.2	12	.00	--	--	--
JUNE 06...	28.0	20	15	8.0	101	15	2.2	1	.00	10	0	0
AUG. 23...	29.0	20	15	7.0	90	11	1.5	4	.06	20	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 25...	--	--	--	--	--	--	--	--	--	--	--
DEC. 21...	0	0	10	170	0	0	70	.2	0	120	50
FEB. 08...	0	0	10	80	0	0	0	.2	0	160	10
APR. 17...	--	--	--	--	--	--	--	--	--	--	--
JUNE 06...	0	0	4	150	0	0	0	.4	0	210	60
AUG. 23...	0	0	2	100	0	0	0	2.7	0	220	40

SABINE RIVER BASIN

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08030500 SABINE RIVER NEAR RULIFF, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
DEC. 21...	1030	17800	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 08...	1015	15700	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 06...	0900	880	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 23...	0830	4100	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
DEC. 21...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 08...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 06...	.00	7.9	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 23...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 21...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
FEB. 08...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
JUNE 06...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
AUG. 23...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00

SABINE RIVER BASIN

08030500 SABINE RIVER NEAR RULIFF, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	238	207	169	---	160	124	90	192	218	224	226	231
2	200	201	170	190	116	121	99	167	212	230	141	229
3	202	203	130	190	132	104	97	140	226	221	67	235
4	210	207	91	---	142	106	98	133	220	218	101	228
5	204	210	117	---	172	100	107	164	218	211	170	226
6	---	220	---	---	181	86	112	151	216	182	198	220
7	---	230	---	153	187	90	120	144	215	154	209	219
8	205	237	---	---	190	117	127	147	236	134	222	202
9	201	237	39	139	190	120	135	156	230	127	221	232
10	195	---	148	139	192	118	136	139	234	88	---	233
11	151	---	42	144	198	145	140	171	235	94	232	232
12	169	---	---	151	---	135	145	207	233	104	232	229
13	195	---	45	153	---	126	151	201	233	149	229	225
14	208	---	56	157	---	132	155	197	228	125	227	225
15	---	---	---	---	181	141	157	195	221	175	217	234
16	---	---	148	---	183	112	162	158	226	193	210	231
17	---	270	---	---	177	112	166	156	230	196	207	232
18	---	244	---	---	197	118	174	200	215	190	221	232
19	---	217	---	204	199	114	180	226	172	183	---	229
20	167	154	---	188	189	100	177	231	172	164	---	222
21	152	170	162	168	174	99	160	219	155	209	225	211
22	161	186	167	135	169	85	---	208	217	222	225	233
23	152	---	171	135	169	108	222	191	207	216	217	231
24	153	---	173	---	166	69	213	194	202	219	213	---
25	169	199	174	153	162	58	197	223	191	217	220	226
26	181	198	181	164	160	68	195	226	202	208	211	214
27	193	187	188	169	127	68	217	225	207	224	221	211
28	203	188	186	165	156	65	211	228	207	229	213	193
29	209	154	194	167	132	69	199	226	197	228	203	225
30	212	175	183	168	---	73	197	230	227	227	198	222
31	218	---	183	172	---	80	---	222	---	227	172	---
MONTH	---	---	---	---	169	102	156	189	213	187	202	225

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.0	23.0	13.0	---	11.0	19.0	17.0	23.0	26.0	26.0	27.0	31.0
2	26.0	23.0	12.0	14.0	10.0	17.0	17.0	23.0	27.0	26.0	27.0	28.0
3	26.0	23.0	13.0	14.0	8.0	17.0	18.0	23.0	26.0	26.0	26.0	28.0
4	27.0	21.0	9.0	---	8.0	16.0	19.0	23.0	26.0	26.0	27.0	28.0
5	26.0	20.0	10.0	---	9.0	16.0	19.0	21.0	27.0	29.0	28.0	28.0
6	---	20.0	---	---	11.0	15.0	19.0	22.0	27.0	29.0	28.0	28.0
7	---	18.0	---	14.0	11.0	16.0	21.0	23.0	27.0	28.0	28.0	28.0
8	25.0	17.0	---	---	10.0	17.0	22.0	22.0	29.0	28.0	28.0	28.0
9	23.0	17.0	14.0	13.0	9.0	16.0	21.0	22.0	28.0	26.0	29.0	28.0
10	23.0	---	12.0	14.0	10.0	16.0	22.0	22.0	28.0	26.0	29.0	28.0
11	23.0	---	14.0	14.0	11.0	17.0	22.0	21.0	27.0	27.0	28.0	29.0
12	22.0	---	---	13.0	---	18.0	23.0	22.0	28.0	27.0	27.0	29.0
13	22.0	---	16.0	14.0	---	19.0	24.0	21.0	28.0	28.0	27.0	28.0
14	22.0	---	17.0	13.0	---	19.0	24.0	21.0	28.0	27.0	27.0	29.0
15	---	---	17.0	---	13.0	21.0	25.0	22.0	28.0	27.0	26.0	28.0
16	---	---	16.0	---	13.0	19.0	24.0	22.0	27.0	27.0	27.0	28.0
17	---	19.0	---	---	13.0	18.0	24.0	22.0	24.0	27.0	28.0	28.0
18	---	19.0	---	---	13.0	19.0	24.0	23.0	25.0	28.0	28.0	29.0
19	---	18.0	---	12.0	13.0	18.0	24.0	24.0	27.0	28.0	---	28.0
20	24.0	16.0	---	13.0	13.0	18.0	25.0	24.0	28.0	28.0	---	28.0
21	24.0	16.0	15.0	---	13.0	18.0	25.0	24.0	29.0	28.0	28.0	29.0
22	24.0	16.0	15.0	15.0	16.0	19.0	22.0	23.0	29.0	27.0	28.0	29.0
23	24.0	---	14.0	16.0	16.0	18.0	18.0	24.0	29.0	27.0	28.0	28.0
24	23.0	---	15.0	---	17.0	19.0	20.0	26.0	29.0	27.0	29.0	---
25	22.0	12.0	15.0	17.0	17.0	19.0	22.0	27.0	28.0	28.0	27.0	28.0
26	22.0	14.0	15.0	16.0	17.0	19.0	21.0	27.0	29.0	29.0	27.0	26.0
27	22.0	13.0	16.0	16.0	19.0	20.0	21.0	27.0	29.0	27.0	27.0	26.0
28	22.0	14.0	18.0	16.0	18.0	19.0	21.0	26.0	30.0	28.0	27.0	26.0
29	23.0	13.0	17.0	16.0	19.0	20.0	21.0	27.0	31.0	27.0	27.0	26.0
30	23.0	13.0	17.0	14.0	---	19.0	22.0	27.0	29.0	27.0	28.0	26.0
31	23.0	---	18.0	11.0	---	17.0	---	26.0	---	27.0	29.0	---
MONTH	---	---	---	---	13.0	18.0	21.5	23.5	28.0	27.5	27.5	28.0

SABINE RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE SABINE RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08017400 LAKE TAWAKONI NEAR WILLS POINT, TEX. (Lat 32°48'40", long 95°54'56")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
FEB. 09...	1700	935500	2.8	150	20	25	2.3	12	94	0	12

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FEB. 09...	4.8	.2	.3	106	72	0	.6	190	7.2	9.0

08021500 LAKE CHEROKEE NEAR LONGVIEW, TEX. (Lat 32°22'36", long 94°38'30")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
JAN. 30...	1700	48270	11	220	40	8.5	2.9	20	8	0	14

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JAN. 30...	39	.2	.2	100	33	26	1.5	185	6.1	11.0

08022200 MURVAUL LAKE NEAR GARY, TEX. (Lat 32°02'04", long 94°25'15")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
JAN. 30...	1420	47600	3.6	760	100	13	6.7	30	41	0	24

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JAN. 30...	44	.2	1.1	146	60	26	1.7	286	6.3	10.0

SABINE RIVER BASIN
MISCELLANEOUS ANALYSES OF STREAMS IN THE SABINE RIVER BASIN IN TEXAS
WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972
08022400 SOCAGEE CREEK NEAR CARTHAGE, TEX. (Lat 32°13'54", long 94°05'31")

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
DEC. 22...	1330	3.5	11	10	4.1	29	23	0	20	45
JAN. 25...	1335	6.1	15	18	5.6	58	28	0	20	110
FEB. 29...	1105	4.6	10	20	7.3	66	36	0	18	120
APR. 03...	1820	1.9	9.0	20	8.3	70	44	0	16	130
MAY 03...	1010	154	6.0	7.5	2.3	23	18	0	10	36

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
DEC. 22...	.0	.2	131	42	23	1.9	252	6.3	11.5
JAN. 25...	.0	.00	237	68	45	3.1	448	6.2	13.5
FEB. 29...	.0	.00	263	80	50	3.2	515	6.4	15.0
APR. 03...	.2	.00	276	84	48	5.0	536	6.4	18.5
MAY 03...	.0	.5	96	28	13	1.9	177	6.0	18.0

NECHES RIVER BASIN

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08032000 NECHES RIVER NEAR NECHES, TEX.

LOCATION.--Lat 31°53'32", long 95°25'50", Anderson County, at gaging station on U.S. Highway 79, 1.0 mile downstream from Missouri Pacific Railroad Co. bridge, and 4.4 miles northeast of Neches.

DRAINAGE AREA.--1,145 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1969 to September 1972.

REMARKS.--See Part 1 of this report for remarks and diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DISCHARGE (CFS)	DISSOLVED CHLORIDE (CL) (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)
Oct. 12, 1971.....	1500	26	72	405
Oct. 29.....	1050	34	59	355
Nov. 15.....	1250	30	68	393
Dec. 1.....	1335	65	58	304
Dec. 21.....	0855	144	64	306
Jan. 6, 1972.....	1600	1580	17	112
Apr. 4.....	1700	95	140	546
Apr. 20.....	1345	36	84	381
May 3.....	1800	53	110	454
May 16.....	1430	45	54	274
Aug. 3.....	1435	33	47	261
Aug. 30.....	1310	27	44	262

NECHES RIVER BASIN

08032500 NECHES RIVER NEAR ALTO, TEX.

LOCATION.--Lat 31°34'45", long 95°09'55", Cherokee County, at gaging station at bridge on State Highway 21, 600 ft downstream from Bowles Creek, and 7.5 miles southwest of Alto.

DRAINAGE AREA.--1,945 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1959 to September 1969.

Chemical and biochemical analyses: October 1967 to September 1972.

Water temperatures: October 1959 to September 1969.

EXTREMES, October 1959 to September 1969.--Dissolved solids: Maximum, 568 mg/l Oct. 5-8, 1964; minimum, 41 mg/l Mar. 30, 1945.

Hardness: Maximum, 116 mg/l Oct. 5-8, 1964; minimum, 14 mg/l June 19-20, 1961.

Specific conductance: Maximum daily, 1,420 micromhos Oct. 6, 1964; minimum daily, 56 micromhos June 30, 1961.

Water temperatures: Maximum, 32.0°C July 23, 1963, July 25, 1969, July 25, 1970; minimum, freezing point Jan. 24, 1963.

REMARKS.-- See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT.								
22...	1140	119	13	7.0	3.2	17	28	0
NOV.								
01...	1140	55	13	14	5.8	46	46	0
DEC.								
01...	1625	131	17	10	4.6	32	22	0
06...	1330	550	15	7.5	3.7	21	19	0
JAN.								
06...	1040	2000	11	6.8	3.9	17	15	0
FEB.								
08...	0735	560	17	10	4.7	29	26	0
MAR.								
16...	1600	210	13	12	5.6	38	33	0
APR.								
11...	1750	180	16	12	5.6	48	40	0
18...	1445	135	15	14	6.3	51	43	0
MAY								
25...	1655	74	14	12	5.6	42	42	0
JUNE								
19...	1610	160	12	10	4.4	30	36	0
JULY								
14...	1015	119	12	6.0	3.2	13	21	0
AUG.								
02...	1110	46	14	11	4.0	32	50	0
21...	1700	29	12	10	4.8	30	54	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)
OCT.									
22...	11	24	.1	.006	.24	.2	.085	91	31
NOV.									
01...	18	72	.0	--	--	.1	--	--	59
DEC.									
01...	18	54	.0	--	--	.03	--	147	44
06...	16	34	.0	.000	.15	.2	.15	107	34
JAN.									
06...	15	29	.0	--	--	.3	--	91	33
FEB.									
08...	23	44	.0	.000	.12	.4	.070	143	44
MAR.									
16...	17	64	.2	--	--	.2	--	167	53
APR.									
11...	15	76	.3	--	--	.3	--	194	53
18...	11	88	.1	--	--	.08	--	207	61
MAY									
25...	12	69	.0	--	--	.00	--	176	53
JUNE									
19...	15	44	.3	.000	.00	.3	.14	135	43
JULY									
14...	13	16	.0	--	--	.8	--	77	28
AUG.									
02...	12	40	.1	--	--	.7	--	141	44
21...	11	38	.3	.000	.00	.03	.080	133	45

NECHES RIVER BASIN

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08032500 NECHES RIVER NEAR ALTO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTERRER 1972

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	RIO-CHEMICAL OXYGEN DEMAND (MG/L)
OCT. 22...	8	1.3	155	6.7	20.0	6.1	66	2.1
NOV. 01...	21	--	368	6.7	20.5	--	--	--
DEC. 01...	26	2.1	274	6.5	10.0	--	--	--
06...	18	1.6	186	6.5	8.5	10.0	85	2.3
JAN. 06...	21	1.3	174	6.2	8.0	--	--	--
FEB. 08...	23	1.9	243	6.9	6.5	12.4	100	1.0
MAR. 16...	26	2.3	314	6.0	19.0	--	--	--
APR. 11...	20	2.9	349	6.8	21.5	8.0	90	--
18...	26	2.8	374	6.1	22.0	--	--	--
MAY 25...	19	2.5	331	6.4	29.0	--	--	--
JUNE 19...	14	2.0	250	6.4	28.5	6.4	82	2.2
JULY 14...	11	1.1	118	6.2	--	--	--	--
AUG. 02...	3	2.1	254	6.7	31.0	--	--	--
21...	0	1.9	252	7.5	31.5	8.8	119	2.6

NECHES RIVER BASIN

08033000 NECHES RIVER NEAR DIBOLL, TEX.

LOCATION.--Lat 31°07'59", long 94°48'36", Angelina County, at gaging station at bridge on U.S. Highway 59, 630 ft downstream from Texas and New Orleans Railroad Co. bridge, 3.2 miles downstream from Alabama Creek, and 3.8 miles south of Diboll.

DRAINAGE AREA.--2,724 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1972.

Chemical and biochemical analyses: October 1969 to September 1972.

Water temperatures: October 1969 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
01-31	81	10	11	3.5	43	64	0	13	48
NOV.									
01-30	138	11	12	4.4	43	60	0	14	54
DEC.									
01-31	572	14	10	5.1	30	32	0	22	44
JAN.									
01-31	1040	14	9.5	3.7	26	24	0	23	36
FEB.									
01-29	781	9.5	12	4.4	30	25	0	27	46
MAR.									
01-31	562	9.9	14	5.6	37	40	0	27	54
APR.									
01-30	356	13	14	6.1	43	43	0	23	64
MAY									
01-02	547	13	13	5.2	40	46	0	22	57
03-07	1280	8.5	9.2	2.9	19	28	0	18	24
08-31	196	13	13	5.2	40	46	0	22	57
JUNE									
01-16	64	12	14	5.6	44	62	0	13	62
17-30	277	11	9.5	3.2	27	41	0	17	29
JULY									
01-31	186	12	10	3.7	22	40	0	16	26
AUG.									
01-31	62	12	11	4.8	39	68	0	14	38
SEP.									
01-12	38	7.0	7.5	2.5	25	42	0	13	22
13-30	26	12	14	2.9	52	102	0	17	38
WTD. AVG.	--	12	11	4.5	31	34	0	23	44
TIME WTD.									
AVG.	364	12	12	4.4	36	47	0	19	45
TOT. LOAD (TONS)	--	4270	4050	1620	11300	12300	0	8110	15800

NECHES RIVER BASIN

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08033000 NECHES RIVER NEAR DIBOLL, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 192 mg/l Sept. 13-30; minimum, 97 mg/l May 3-7.

Hardness: Maximum, 60 mg/l Apr. 1-30; minimum, 29 mg/l Sept. 1-12.

Specific conductance: Maximum daily, 459 micromhos Sept. 25; minimum daily, 95 micromhos May 5.

Water temperatures: Maximum, 32.0°C on several days during July and August; minimum, 8.0°C Feb. 3, 4.

EXTREMES, October 1969 to September 1972.--Dissolved solids: Maximum, 292 mg/l May 1-13, 1971; minimum, 97 mg/l May 3-7, 1972.

Hardness: Maximum, 67 mg/l May 1-13, 1971; minimum, 29 mg/l Sept. 1-12, 1970.

Specific conductance: Maximum daily, 614 micromhos May 2, 1971; minimum daily, 95 micromhos May 5, 1972.

Water temperatures: Maximum, 38.0°C Aug. 31, Sept. 6, 1970; minimum, 3.0°C Jan. 21, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	.1	1.8	161	42	0	2.9	320	6.7
NOV.								
01-30	.0	.4	170	48	0	2.7	333	7.3
DEC.								
01-31	.0	.3	142	46	20	1.9	263	6.5
JAN.								
01-31	.0	.3	126	39	19	1.8	228	6.8
FEB.								
01-29	.0	.2	142	48	28	1.9	265	6.7
MAR.								
01-31	.0	.1	168	58	25	2.1	318	6.6
APR.								
01-30	.1	.8	188	60	25	2.4	339	7.4
MAY								
01-02	.0	.2	174	54	16	2.4	311	6.9
03-07	--	.4	97	35	12	1.4	184	6.7
08-31	.0	.2	174	54	16	2.4	311	6.9
JUNE								
01-16	.2	.5	183	58	7	2.5	367	7.1
17-30	--	.7	120	37	3	1.9	227	6.9
JULY								
01-31	.0	.7	113	40	7	1.5	213	6.5
AUG.								
01-31	.0	2.0	161	47	0	2.5	287	7.1
SEP.								
01-12	.0	1.0	102	29	0	2.1	178	7.1
13-30	--	1.3	192	47	0	3.3	342	7.3
WTD. AVG.	.0	.3	144	47	19	2.0	268	6.8
TIME WTD.								
AVG.	.0	.7	153	47	12	2.2	286	6.9
TOT. LOAD (TONS)	4.1	140	51900	--	--	--	--	--

NECHES RIVER BASIN

08033000 NECHES RIVER NEAR DIBOLL, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT. 19...	1430	52	12	12	4.9	53	88	0
DEC. 07...	0900	510	12	9.5	3.6	34	41	0
FEB. 10...	1000	810	17	11	4.5	27	24	0
APR. 12...	0915	350	15	13	5.8	44	42	0
JUNE 20...	1030	420	12	10	3.9	28	46	0
AUG. 22...	1700	50	12	12	4.6	40	80	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)
OCT. 19...	15	56	.2	.004	.22	.05	.26	196	50
DEC. 07...	24	39	.1	.000	.38	.02	.26	143	38
FEB. 10...	27	41	.0	.000	.06	.1	.065	140	46
APR. 12...	19	68	.3	.000	--	.3	--	188	56
JUNE 20...	20	31	.2	.016	.22	.2	.33	129	41
AUG. 22...	16	39	.3	.000	.67	.07	.46	164	49

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 19...	0	3.3	360	7.0	24.0	4.4	52	12
DEC. 07...	5	2.4	227	6.6	9.0	8.4	72	26
FEB. 10...	26	1.7	237	7.5	17.5	8.4	88	1.5
APR. 12...	22	2.6	341	7.4	21.5	6.7	75	--
JUNE 20...	3	1.9	235	6.1	27.5	4.2	52	3.8
AUG. 22...	0	2.5	307	6.9	29.5	4.8	62	4.9

08033000 NECHES RIVER NEAR DIBOLL, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	372	242	298	236	150	302	291	319	355	293	260	244
2	351	243	307	239	165	311	289	268	355	271	265	---
3	351	230	269	324	196	317	288	187	357	272	265	207
4	237	246	247	309	232	320	348	118	357	272	266	213
5	236	278	249	309	247	284	347	95	---	271	272	---
6	213	369	240	217	272	303	351	215	364	268	269	208
7	212	369	241	215	242	324	308	218	365	119	275	---
8	297	397	248	207	241	354	308	252	363	118	273	207
9	297	397	223	192	235	358	324	268	352	196	275	237
10	305	395	204	179	251	358	306	285	362	157	280	254
11	305	391	193	165	252	378	305	299	368	176	256	260
12	290	391	211	165	276	376	366	312	359	174	281	259
13	308	387	238	161	270	343	405	279	364	188	250	284
14	308	386	221	162	276	337	403	336	369	187	358	383
15	302	378	214	182	279	337	392	354	384	190	356	288
16	303	377	222	182	289	334	394	352	390	210	380	284
17	355	349	238	196	288	333	355	343	207	228	343	277
18	356	348	248	217	284	370	367	333	213	206	381	286
19	370	387	272	233	281	373	377	322	247	190	337	282
20	359	386	273	261	286	312	350	320	206	232	303	292
21	321	349	277	263	286	312	340	318	206	201	317	292
22	417	242	276	264	287	373	331	310	212	201	305	309
23	418	256	296	274	305	351	330	308	189	195	314	385
24	338	286	286	279	310	337	328	308	189	195	296	431
25	337	287	293	278	309	245	340	308	209	203	300	459
26	351	353	316	280	301	296	349	343	214	200	270	346
27	377	353	305	282	306	299	295	320	242	244	269	429
28	339	352	300	284	306	263	294	316	240	253	287	353
29	340	297	304	194	304	212	342	317	283	253	228	386
30	321	297	305	190	---	260	319	344	281	208	222	382
31	325	---	309	187	---	260	---	349	---	256	272	---
MONTH	323	335	262	230	266	320	338	291	297	214	291	305

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	27.0	13.0	17.0	9.0	19.0	20.0	23.0	28.0	32.0	32.0	29.0
2	26.0	27.0	13.0	17.0	9.0	18.0	20.0	23.0	29.0	32.0	30.0	---
3	27.0	26.0	13.0	16.0	8.0	15.0	20.0	22.0	29.0	32.0	29.0	29.0
4	27.0	26.0	13.0	12.0	8.0	16.0	20.0	22.0	29.0	32.0	29.0	29.0
5	27.0	25.0	12.0	10.0	9.0	16.0	20.0	22.0	29.0	31.0	29.0	---
6	27.0	24.0	12.0	10.0	10.0	15.0	20.0	23.0	28.0	29.0	29.0	29.0
7	27.0	24.0	12.0	10.0	10.0	16.0	21.0	22.0	28.0	28.0	29.0	---
8	27.0	24.0	11.0	10.0	9.0	16.0	21.0	22.0	28.0	28.0	29.0	29.0
9	27.0	25.0	11.0	12.0	9.0	16.0	21.0	23.0	28.0	28.0	29.0	29.0
10	26.0	25.0	11.0	13.0	9.0	16.0	21.0	23.0	28.0	28.0	29.0	29.0
11	26.0	25.0	11.0	13.0	9.0	---	21.0	23.0	28.0	29.0	27.0	29.0
12	26.0	25.0	12.0	13.0	9.0	---	22.0	23.0	28.0	29.0	27.0	29.0
13	26.0	25.0	13.0	12.0	10.0	18.0	23.0	23.0	28.0	29.0	27.0	29.0
14	26.0	26.0	13.0	12.0	11.0	19.0	23.0	23.0	28.0	29.0	28.0	28.0
15	27.0	26.0	14.5	12.0	13.0	19.0	23.0	23.0	28.0	29.0	28.0	28.0
16	27.0	26.0	15.0	10.0	12.0	19.0	23.0	23.0	28.0	30.0	28.0	28.0
17	27.0	26.0	15.0	9.0	13.0	19.0	23.0	24.0	28.0	30.0	28.0	28.0
18	27.0	26.0	14.0	10.0	13.0	19.0	23.0	24.0	28.0	30.0	28.0	28.0
19	27.0	20.0	14.0	12.0	13.0	19.0	23.0	25.0	28.0	31.0	28.0	28.0
20	27.0	17.0	14.0	14.0	12.0	19.0	23.0	25.0	28.0	31.0	28.0	28.0
21	27.0	16.0	14.0	14.0	12.0	19.0	23.0	26.0	28.0	31.0	28.0	25.0
22	27.0	15.0	14.0	15.0	13.0	20.0	23.0	26.0	28.0	31.0	28.0	28.0
23	27.0	14.0	14.0	15.0	---	19.0	23.0	26.0	28.0	31.0	28.0	28.0
24	27.0	14.0	14.0	17.0	15.0	19.0	23.0	26.0	28.0	31.0	28.0	28.0
25	27.0	14.0	14.0	16.0	15.0	19.0	23.0	27.0	28.0	31.0	28.0	28.0
26	26.0	14.0	14.0	16.0	15.0	19.0	23.0	27.0	28.0	32.0	28.0	28.0
27	26.0	14.0	15.0	16.0	18.0	19.0	23.0	27.0	28.0	32.0	28.0	28.0
28	26.0	14.0	15.0	15.0	18.0	20.0	23.0	28.0	28.0	32.0	28.0	28.0
29	27.0	13.0	15.0	15.0	19.0	20.0	23.0	28.0	30.0	32.0	28.0	29.0
30	26.0	13.0	16.0	10.0	---	20.0	23.0	28.0	31.0	32.0	29.0	29.0
31	26.0	---	16.0	9.0	---	20.0	---	28.0	---	32.0	29.0	---
MONTH	26.5	21.0	13.5	13.0	12.0	18.0	22.0	24.5	28.5	30.5	28.5	28.5

NECHES RIVER BASIN

08033500 NECHES RIVER NEAR ROCKLAND, TEX.

LOCATION.--Lat 31°01'45", long 94°23'46", Tyler County, at gaging station 2,100 ft upstream from Texas and New Orleans Railroad Co. bridge, 2,200 ft downstream from bridge on U.S. Highway 69, 1 mile north of Rockland, and 3.6 miles downstream from Billams Creek.

DRAINAGE AREA.--3,637 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1945 to September 1947, December 1967 to September 1970.
Chemical and biochemical analyses: October 1967 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT.										
15...	1110	86	11	9.0	3.8	--	38	--	52	0
21...	1035	600	8.8	7.0	1.7	--	3.7	--	19	0
NOV.										
19...	0945	164	11	10	4.9	--	31	--	42	0
DEC.										
07...	1200	2480	9.9	6.2	1.5	--	9.1	--	22	0
JAN.										
28...	1300	689	16	12	5.1	--	29	--	29	0
FEB.										
10...	0400	1050	15	12	4.2	--	26	--	24	0
MAR.										
01...	1725	400	12	15	4.5	--	37	--	33	0
APR.										
13...	1600	425	18	14	5.2	--	40	--	45	0
MAY										
04...	1150	4400	6.2	6.8	1.2	--	7.4	--	18	0
JUNE										
06...	1415	90	15	17	5.0	--	48	--	55	0
20...	1210	575	12	12	4.0	52	--	4.5	85	0
JULY										
20...	1630	235	11	8.0	2.7	--	22	--	36	0
AUG.										
22...	1830	100	11	10	4.2	--	37	--	66	0
SEP.										
27...	1115	180	7.9	7.5	.1	--	4.2	--	16	0

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
OCT.										
15...	14	43	.1	--	--	--	.7	--	--	--
21...	6.8	7.0	.0	.54	.016	.18	.2	.12	45	304
NOV.										
19...	14	45	.0	--	--	--	1.3	--	--	--
DEC.										
07...	9.6	9.6	.0	.39	.000	.14	.08	.14	57	216
JAN.										
28...	28	43	.0	--	--	--	.2	--	148	--
FEB.										
10...	29	38	.0	.34	.000	.22	.2	.080	137	42
MAR.										
01...	30	55	.0	--	--	--	.00	--	170	--
APR.										
13...	24	58	.2	.39	.022	.15	.1	--	182	38
MAY										
04...	8.8	9.5	.0	--	--	--	.2	--	50	--
JUNE										
06...	17	74	.0	--	--	--	.2	--	204	--
20...	30	46	.3	.74	.034	1.2	.1	.70	205	66
JULY										
20...	16	22	.0	--	--	--	.7	--	103	--
AUG.										
22...	18	35	.2	.42	.000	.07	.2	.18	148	72
SEP.										
27...	3.6	7.0	.0	--	--	--	.4	--	40	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

NECHES RIVER BASIN

209

08033600 BOWLES CREEK NEAR SELMAN CITY, TEX.

LOCATION.--Lat 32°11'41", long 94°58'36", Rusk County, at State Highway 64, and 1.5 miles west of Selman City.

DRAINAGE AREA.--14.5 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 28...	1335	.49	25	22	8.3	200	0	0	8.8	360
NOV. 30...	1450	1.1	25	26	11	230	0	0	14	440
JAN. 05...	0940	26	15	14	8.0	110	0	0	18	210
FEB. 09...	1226	3.9	20	27	10	300	0	0	18	540
MAR. 15...	1145	3.6	21	28	9.7	320	0	0	14	580
APR. 21...	0730	1.7	26	32	12	430	0	0	8.4	750
MAY 26...	1015	.45	16	22	5.1	250	0	0	14	440
JULY 13...	1350	.24	20	28	9.2	330	0	0	11	580
AUG. 02...	1705	.30	20	18	8.3	300	4	0	11	500
SEP. 07...	1520	.01	15	18	7.3	170	0	0	68	260

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 28...	.0	.05	--	89	89	--	--	1240	4.5	19.5
NOV. 30...	.2	.08	749	110	110	.3	9.7	1490	4.2	11.5
JAN. 05...	.0	.2	380	68	68	--	6.0	765	4.5	3.0
FEB. 09...	.2	.00	916	110	110	.4	12	1820	3.4	--
MAR. 15...	.2	.00	968	110	110	.4	13	1870	3.7	19.0
APR. 21...	.1	.09	1260	130	130	.1	16	2320	3.9	14.0
MAY 26...	.0	.00	739	76	76	.3	12	1340	4.0	24.0
JULY 13...	.0	.07	980	110	110	--	14	1680	4.7	--
AUG. 02...	.0	.4	856	79	76	--	14	1560	7.0	35.0
SEP. 07...	.0	.08	539	75	75	--	8.4	919	4.9	32.0

NECHES RIVER BASIN

08037000 ANGELINA RIVER NEAR LUFKIN, TEX.

LOCATION.--Lat 31°27'26", long 94°43'34", Angelina County, at gaging station at bridge on U.S. Highway 59, 200 feet upstream from Procella Creek, 1.5 miles downstream from Bayou Loco, 1.5 miles upstream from Southern Pacific Lines bridge, and 8 miles north of Lufkin.

DRAINAGE AREA.--1,600 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1954 to September 1972.

Chemical and biochemical analyses: October 1967 to September 1972.

Water temperatures: October 1954 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-31	46	11	6.5	3.1	--	40	--	29	0	22
NOV.										
01-30	78	12	9.5	5.2	--	54	--	24	0	22
DEC.										
01-31	450	14	6.8	4.4	--	16	--	15	0	24
JAN.										
01-31	1180	13	7.5	5.2	--	22	--	18	0	24
FEB.										
01-29	710	8.3	10	5.8	--	24	--	14	0	38
MAR.										
01-31	512	11	10	5.4	--	29	--	21	0	33
APR.										
01-30	270	13	11	5.0	--	31	--	32	0	26
MAY										
01-31	171	4.8	8.0	4.9	--	26	--	30	0	22
JUNE										
01-30	143	12	7.5	3.2	--	23	--	32	0	18
JULY										
01-31	124	14	7.5	3.2	--	15	--	30	0	13
AUG.										
01-31	29	11	8.0	4.9	--	27	--	47	0	18
SEPT.										
01-30	17	8.5	6.5	4.1	--	38	--	63	0	16
WTD. AVG.	--	12	8.5	5.0	--	24	--	21	0	27
TOT. LOAD (TONS)	311	11	8.2	4.5	--	29	--	30	0	23
	--	3540	2610	1550	--	7440	--	6300	0	8320

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	345	193	216	198	168	233	241	283	223	122	231	191
2	401	203	211	189	154	229	239	321	219	130	235	188
3	440	292	199	173	187	222	237	265	224	134	233	187
4	395	435	163	176	234	199	220	205	228	150	230	195
5	452	510	174	167	228	322	215	188	230	114	232	217
6	441	532	174	155	257	344	201	188	232	62	235	200
7	343	535	145	141	240	302	193	205	239	87	243	202
8	389	537	138	128	227	254	215	209	240	94	246	206
9	378	535	146	122	283	237	230	174	244	110	247	208
10	319	537	146	158	293	237	233	169	248	142	251	204
11	254	534	148	295	265	239	235	178	249	144	261	205
12	222	530	142	320	245	240	232	187	249	171	246	209
13	232	515	137	274	234	237	227	203	245	177	231	205
14	239	495	138	220	235	229	228	206	240	147	224	203
15	249	460	152	184	274	319	232	212	233	151	220	205
16	252	389	162	168	320	371	234	213	221	159	221	209
17	248	301	168	172	305	319	235	218	196	183	221	213
18	238	223	167	179	269	272	247	214	189	223	218	209
19	220	172	170	229	253	247	236	213	201	191	218	213
20	206	171	173	310	250	234	234	213	138	173	225	218
21	200	187	177	298	250	237	319	216	185	163	223	218
22	202	200	179	276	246	225	340	216	214	168	221	221
23	191	414	182	249	246	217	349	218	147	223	216	225
24	187	553	186	232	240	221	343	215	130	178	186	231
25	196	515	191	223	239	227	360	225	133	184	190	240
26	196	562	197	220	238	358	371	223	144	187	197	249
27	196	500	199	217	236	360	375	223	178	199	188	254
28	207	359	202	218	223	286	381	224	136	208	184	247
29	213	263	198	218	229	255	232	226	120	216	184	255
30	206	226	196	183	---	255	259	224	118	223	186	220
31	200	---	209	167	---	242	---	226	---	229	193	---
MONTH	273	396	174	208	244	264	263	216	200	163	221	215

08037000 ANGELINA RIVER NEAR LUFKIN, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 201 mg/l Nov. 1-30; minimum, 87 mg/l July 1-31.
 Hardness: Maximum, 49 mg/l Feb. 1-29; minimum, 29 mg/l Oct. 1-31.
 Specific conductance: Maximum daily, 562 micromhos Nov. 26; minimum daily, 62 micromhos July 6.
 Water temperatures: Maximum, 29.0°C June 27; minimum, 4.0°C Feb. 4.

EXTREMES, October 1954 to September 1972.--Dissolved solids: Maximum, 530 mg/l Aug. 3-15, 1964; minimum, 36 mg/l Oct. 16-18, 1957.
 Hardness: Maximum, 112 mg/l Aug. 3-15, 1964; minimum, 11 mg/l Oct. 16-18, 1957, Dec. 10-12, 1962.
 Specific conductance: Maximum daily, 1,090 micromhos Nov. 10, 11, 1963; minimum daily, 38 micromhos Sept. 21, 1958, May 2, 1962.
 Water temperatures: Maximum, 32.0°C on several days during July 1966; minimum, freezing point Jan. 11, 12, 1962.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	48	.1	.1	145	29	5	3.2	272	6.5
NOV.									
01-30	85	.1	.2	201	45	25	3.5	396	6.8
DEC.									
01-31	22	.0	.2	95	35	23	1.2	172	6.2
JAN.									
01-31	34	.0	.1	115	40	25	1.5	207	6.7
FEB.									
01-29	36	.0	.00	129	49	38	1.5	249	6.4
MAR.									
01-31	42	.0	.07	141	47	30	1.8	261	6.3
APR.									
01-30	43	.1	.2	146	48	22	1.9	261	7.0
MAY									
01-31	34	.0	.4	116	40	15	1.8	213	6.6
JUNE									
01-30	26	.1	.3	107	32	6	1.8	202	6.8
JULY									
01-31	18	.3	.3	87	32	7	1.2	162	7.1
AUG.									
01-31	29	.0	.4	123	40	2	1.9	217	6.6
SEP.									
01-30	34	.0	.1	138	33	0	2.9	215	7.2
WTD. AVG.	35	.0	.1	122	42	25	1.6	225	6.6
TIME WTD.									
AVG.	37	.1	.2	128	39	16	2.0	235	6.7
TOT. LOAD (TONS)	10700	7.5	40	37500	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	20.0	10.0	14.0	16.0	18.0	15.0	20.5	23.5	26.0	25.5	24.0
2	24.0	21.0	10.0	13.0	16.0	13.0	17.0	20.0	23.0	27.0	25.0	25.0
3	25.0	18.5	8.5	13.0	5.0	13.0	15.5	20.0	24.0	27.0	25.0	25.5
4	24.0	15.5	8.0	10.0	4.0	14.0	15.0	19.0	23.0	23.0	25.5	25.5
5	25.0	14.5	11.0	6.0	5.5	15.0	14.0	20.0	24.0	24.0	25.0	25.5
6	24.0	16.0	9.0	5.0	10.0	12.0	17.0	20.0	25.0	21.5	27.0	25.0
7	22.0	15.0	9.0	5.0	7.0	14.0	20.0	20.0	25.0	21.0	26.0	25.0
8	21.0	12.0	12.0	6.0	5.0	15.0	18.0	19.0	25.0	22.0	27.0	26.0
9	22.0	15.0	14.0	15.0	6.0	12.0	16.0	20.0	25.5	24.0	27.0	26.0
10	20.0	13.0	12.0	11.0	8.0	13.0	18.0	17.0	25.0	24.0	26.5	25.0
11	18.0	12.5	9.5	9.0	9.0	17.0	20.0	20.0	25.0	24.0	25.0	24.0
12	18.0	12.0	13.0	10.0	7.5	17.0	22.0	20.0	25.0	24.0	26.0	25.0
13	19.0	15.0	12.0	13.0	7.5	16.0	22.0	20.0	26.0	25.0	25.0	25.0
14	19.0	16.0	18.0	11.0	9.0	17.0	23.0	20.0	25.5	23.0	25.0	25.0
15	21.0	18.0	13.0	6.0	15.0	18.0	23.5	21.0	26.0	25.0	24.0	25.0
16	22.0	15.5	13.0	4.5	10.0	16.0	19.0	21.0	25.5	25.5	25.0	25.0
17	22.0	17.5	14.0	5.0	10.0	15.5	20.0	22.0	25.0	25.5	26.0	25.0
18	23.0	18.0	10.0	9.0	10.5	16.0	20.0	22.0	25.0	25.0	25.0	25.0
19	23.5	15.0	12.0	11.0	10.0	15.0	22.0	22.0	25.0	25.0	25.5	25.0
20	24.0	12.0	12.0	11.5	10.0	16.5	22.5	22.5	25.5	25.0	24.0	23.0
21	22.0	12.5	10.0	13.0	12.0	17.0	20.0	22.0	25.0	25.0	24.0	25.0
22	20.5	12.0	12.0	15.0	14.0	15.0	19.0	22.0	23.5	25.5	25.5	24.0
23	19.0	10.0	10.0	17.0	15.0	15.5	19.0	23.0	23.0	25.5	26.0	25.0
24	18.0	10.0	15.0	17.0	15.0	19.0	19.5	23.0	26.0	23.5	26.0	25.0
25	18.0	11.0	14.0	13.0	16.0	16.0	19.0	23.0	27.0	26.0	26.0	24.0
26	18.0	11.0	17.0	12.0	16.0	16.0	18.0	24.0	27.5	27.0	26.0	25.0
27	19.5	10.0	16.0	14.0	13.0	20.0	19.0	24.5	29.0	27.0	26.0	24.5
28	20.0	12.0	18.0	16.0	13.0	19.0	18.0	25.0	27.5	27.0	25.0	24.0
29	20.0	10.0	16.0	10.0	17.0	15.5	19.0	25.0	27.0	27.0	25.0	25.0
30	20.0	10.0	17.0	9.0	---	14.0	20.0	25.0	27.0	27.0	25.0	22.0
31	20.0	---	15.0	5.5	---	13.0	---	24.5	---	26.0	23.0	---
MONTH	21.0	14.0	12.5	10.5	11.0	15.5	19.0	21.5	25.5	25.0	25.5	25.0

NECHES RIVER BASIN

08037000 ANGELINA RIVER NEAR LUFKIN, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
20...	1030	45	14	6.0	3.0	29	34	0	24	27
NOV.										
15...	1600	25	12	6.0	5.0	70	21	0	25	100
DEC.										
07...	1100	515	13	5.5	2.9	19	20	0	22	19
JAN.										
10...	1415	1650	13	15	7.2	30	26	0	60	34
FEB.										
09...	1237	1030	15	10	5.2	35	12	0	36	52
MAR.										
14...	0900	485	12	9.5	5.3	25	24	0	35	30
APR.										
12...	1023	205	15	9.5	5.2	26	34	0	29	31
MAY										
04...	1020	385	15	7.5	4.8	25	24	0	26	31
JUNE										
20...	1430	290	12	5.0	3.4	20	28	0	20	17
JULY										
20...	1145	55	15	7.5	4.7	16	34	0	16	20
AUG.										
22...	1125	26	11	7.5	4.6	29	57	0	13	28
SEP.										
26...	1415	11	8.5	7.8	3.5	36	76	0	18	22

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.									
20...	.1	--	.006	.21	.2	.12	122	27	0
NOV.									
15...	.0	--	.000	.00	.1	.065	231	36	18
DEC.									
07...	.0	--	.000	.00	.2	.14	93	26	9
JAN.									
10...	.1	--	.000	.08	.2	.12	174	67	46
FEB.									
09...	.0	--	.000	.00	.2	.050	161	46	36
MAR.									
14...	.1	--	.000	.00	.1	.11	130	46	26
APR.									
12...	.1	--	.000	.16	.3	.14	136	45	17
MAY									
04...	.2	--	.008	.07	.5	.14	126	38	19
JUNE									
20...	.2	--	.023	.16	.5	.19	97	26	4
JULY									
20...	.1	--	.000	.13	.2	.15	99	38	10
AUG.									
22...	.2	--	.000	.10	.07	.090	123	38	0
SEP.									
26...	.0	.16	.007	.00	.1	.13	133	34	0

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT.									
20...	2.4	203	6.7	23.5	6.5	76	--	1000	70
NOV.									
15...	5.1	436	7.0	19.0	9.2	98	1.0	310	--
DEC.									
07...	1.6	139	6.4	9.0	9.4	81	--	460	--
JAN.									
10...	1.6	291	6.7	15.0	8.2	80	1.8	440	30
FEB.									
09...	2.2	282	7.1	8.5	9.4	80	--	580	--
MAR.									
14...	1.6	227	6.5	18.0	8.8	93	2.6	950	80
APR.									
12...	1.7	230	7.1	22.0	7.1	81	--	1400	--
MAY									
04...	1.8	203	6.8	25.5	7.2	87	1.9	2600	60
JUNE									
20...	1.7	160	6.3	30.0	6.0	79	--	3200	--
JULY									
20...	1.1	168	6.6	28.0	6.7	85	1.6	1700	0
AUG.									
22...	2.0	218	6.9	28.5	6.8	87	--	1400	--
SEP.									
26...	2.7	247	6.2	26.5	7.6	93	1.5	930	5

NECHES RIVER BASIN

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08037080 BAYOU LaNANA NEAR NACOGDOCHES, TEX.

LOCATION.--Lat 31°31'10", long 94°39'21", Nacogdoches County, at bridge on county road, 6 miles south of Nacogdoches, 5 miles upstream from Black Bayou, and 2.6 miles upstream from Southern Pacific Lines bridge.

PERIOD OF RECORD.--Chemical analyses: June 1964 to September 1967.
Chemical and biochemical analyses: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HC03) (MG/L)	CAR-BONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)
OCT. 20...	0930	8.4	5.8	3.2	--	42	--	81	0	30
NOV. 15...	1450	11	9.2	4.0	--	96	--	175	0	58
DEC. 07...	1015	54	21	6.2	13	--	5.8	0	0	78
JAN. 10...	1400	15	13	7.1	--	16	--	32	0	40
FEB. 09...	1100	15	13	7.0	20	--	3.1	35	0	46
MAR. 14...	0835	9.2	12	6.3	--	30	--	49	0	45
APR. 12...	1145	8.9	14	6.2	--	43	--	70	0	60
MAY 04...	0930	15	14	8.0	--	31	--	55	0	50
JUNE 20...	1530	16	13	6.1	46	--	6.6	74	0	59
JULY 20...	1020	15	15	6.3	--	36	--	46	0	70
AUG. 22...	1045	17	12	5.2	--	79	--	144	0	63
SEP. 26...	1330	13	10	7.1	--	69	--	138	0	54

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA+MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)
OCT. 20...	13	.5	--	.080	.38	.8	1.0	108	28	0
NOV. 15...	27	.4	--	.18	.47	1.5	2.7	300	39	0
DEC. 07...	14	53	--	.000	8.3	1.6	12	276	78	78
JAN. 10...	17	.4	--	.026	.40	1.3	.40	131	62	35
FEB. 09...	18	.4	--	.029	3.8	1.3	.56	150	61	33
MAR. 14...	18	.5	--	.20	.00	1.6	.39	153	56	16
APR. 12...	20	.6	--	.26	.25	1.5	.95	195	60	3
MAY 04...	22	.5	--	.32	.08	1.7	1.0	178	68	23
JUNE 20...	18	.9	--	1.1	1.6	1.6	1.6	215	58	0
JULY 20...	17	1.1	--	.17	.68	1.9	.34	193	63	26
AUG. 22...	23	.6	--	.24	.30	1.6	1.8	279	51	0
SEP. 26...	22	.5	.21	.075	.40	.9	3.0	248	54	0

NECHES RIVER BASIN

08037080 BAYOU LANANA NEAR NACOGDOCHES, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT. 20...	3.5	255	--	24.0	4.4	52	--	360	80
NOV. 15...	6.7	512	7.1	19.5	5.6	60	13	370	--
DEC. 07...	.6	524	--	9.5	9.0	79	--	8600	--
JAN. 10...	.9	220	6.7	15.0	8.1	79	2.3	520	60
FEB. 09...	1.1	246	6.8	8.0	10.4	87	--	190	--
MAR. 14...	1.7	266	6.8	18.0	7.2	76	4.9	70	70
APR. 12...	2.4	333	7.6	22.5	6.0	68	--	150	--
MAY 04...	1.6	296	6.6	20.0	5.4	59	13	1800	60
JUNE 20...	2.6	356	6.7	27.0	5.6	69	--	170	--
JULY 20...	2.0	343	6.5	26.0	4.7	57	17	160	10
AUG. 22...	4.8	465	7.0	26.0	3.5	43	--	320	--
SEPT. 26...	4.1	452	6.8	26.0	4.6	56	4.1	0	5

NECHES RIVER BASIN

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08037200 PAPER MILL CREEK NEAR HERTY, TEX.

LOCATION.--Lat 31°23'32", long 94°39'46", Angelina County, at bridge on county road, 2.3 miles northeast of Herty, and 2.0 miles upstream from Mill Creek.

PERIOD OF RECORD.--Chemical analyses: June 1964 to September 1967.
Chemical and biochemical analyses: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
20...	1135	14	29	4.2	--	280	--	128	0	200
NOV.										
16...	1000	14	30	4.7	--	290	--	104	0	220
DEC.										
08...	1600	14	63	4.6	--	310	--	256	0	210
JAN.										
10...	1500	14	66	4.8	--	320	--	240	0	200
FEB.										
09...	1800	15	72	3.8	--	310	--	233	0	230
MAR.										
14...	0935	12	39	3.5	280	--	6.0	142	0	200
APR.										
12...	1450	13	46	3.6	--	300	--	216	0	200
MAY										
04...	1100	15	69	4.8	--	380	--	312	0	180
JUNE										
21...	1030	16	44	5.0	--	310	--	132	0	220
JULY										
20...	1100	14	68	4.8	260	--	6.3	206	0	200
AUG.										
22...	1215	15	47	4.0	--	310	--	230	0	200
SEP.										
26...	1450	14	42	5.6	--	320	--	139	0	190

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.										
20...	260	.3	--	.006	.74	.04	.40	859	90	0
NOV.										
16...	290	.3	--	.008	.42	.05	.40	898	94	10
DEC.										
08...	300	.3	--	.005	.71	.05	.28	1030	176	0
JAN.										
10...	330	.3	--	.015	.64	.09	.40	1050	180	0
FEB.										
09...	310	.3	--	.012	.36	.08	.85	1050	200	4
MAR.										
14...	280	.4	--	.000	1.2	.00	.74	898	110	0
APR.										
12...	280	.3	--	.000	.59	.01	.25	960	130	0
MAY										
04...	410	.3	--	.016	.74	.01	.18	1220	190	0
JUNE										
21...	330	.3	--	.000	.73	.02	.95	992	130	22
JULY										
20...	280	.3	--	.005	1.0	.02	.33	933	190	20
AUG.										
22...	300	.4	--	.007	.66	.00	.54	993	130	0
SEP.										
26...	360	.3	.53	.000	1.1	.00	.85	995	130	14

NECHES RIVER BASIN

08037200 PAPER MILL CREEK NEAR HERTY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED IRON (PP) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT. 20...	13	1440	7.4	37.0	4.8	70	--	560	770
NOV. 16...	13	1500	6.6	33.5	5.5	76	17	800	--
DEC. 08...	10	1710	7.5	32.0	2.1	28	--	850	--
JAN. 10...	10	1740	7.3	35.0	3.2	45	22	550	620
FEB. 09...	9.6	1710	7.3	28.5	4.6	59	--	910	--
MAR. 14...	11	1540	7.2	34.0	3.4	47	15	700	670
APR. 12...	12	1620	7.5	36.5	3.6	51	--	690	--
MAY 04...	12	1920	7.0	35.0	4.2	59	31	400	560
JUNE 21...	12	1660	7.0	38.0	3.3	49	--	190	--
JULY 20...	8.2	1570	7.2	38.5	3.4	50	16	560	660
AUG. 22...	12	1680	7.6	40.0	3.5	53	--	170	--
SEP. 26...	12	1750	6.6	37.0	3.6	52	16	1300	200

NECHES RIVER BASIN

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08037250 ANGELINA RIVER BELOW PAPER MILL CREEK, NEAR HERTY, TEX.

LOCATION.--Lat 31°26'22", long 94°37'11", Angelina County, at end of county road, 7 miles northeast of Herty, and 1.5 miles downstream from Paper Mill Creek.

PERIOD OF RECORD.--Chemical analyses: June 1954 to September 1967.

Chemical and biochemical analyses: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 16...	1050	13	21	5.0	180	60	0	130	210
FER. 09...	1420	16	16	5.0	48	41	0	54	54
APR. 12...	1300	14	20	5.0	88	76	0	69	90
AUG. 22...	1300	13	32	4.6	170	132	0	110	170
SEP. 26...	1530	13	34	3.6	190	126	0	110	210

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
NOV. 16...	.2	--	.030	.84	.1	.38	592	73	24
FER. 09...	.1	--	.000	.29	.2	.16	215	60	27
APR. 12...	.2	--	.000	.42	.2	.28	326	70	8
AUG. 22...	.4	--	.027	.72	.08	.42	564	99	0
SEP. 26...	.3	.46	.024	1.1	.04	.60	627	100	0

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MANE- SE (MN) (UG/L)
NOV. 16...	9.4	1040	6.8	20.5	4.3	47	6.4	810	--
FER. 09...	2.7	376	7.1	8.5	8.4	71	--	700	--
APR. 12...	4.6	576	7.5	24.0	5.4	64	--	1300	--
AUG. 22...	7.3	1000	7.1	30.0	1.4	18	--	220	--
SEP. 26...	8.3	1140	6.7	28.0	1.8	23	4.8	1800	200

NECHES RIVER BASIN

08037330 ANGELINA RIVER NEAR ETOILE, TEX.

LOCATION.--Lat 31°22'24", long 94°28'27", Nacogdoches County, at bridge on State Highway 103, 2.3 miles west of Etoile.

PERIOD OF RECORD.--Chemical analyses: June 1964 to September 1967.

Chemical and biochemical analyses: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
20...	1200	9.2	11	4.8	97	69	0	53	100
NOV.									
16...	1200	8.1	14	5.0	100	66	0	64	110
DEC.									
08...	1415	9.4	15	4.7	110	61	0	81	110
JAN.									
11...	1000	14	12	4.4	42	34	0	45	46
FEB.									
10...	1600	13	9.5	4.0	36	22	0	39	42
MAR.									
14...	1005	4.8	12	4.4	39	20	0	46	49
APR.									
12...	1700	5.4	12	5.3	46	40	0	41	54
MAY									
04...	1300	5.1	12	6.2	44	45	0	34	56
JUNE									
21...	1200	8.4	15	6.0	53	78	0	26	61
JULY									
20...	1140	8.7	14	5.3	54	70	0	30	61
AUG.									
22...	1345	8.1	14	4.8	52	71	0	27	58
SEP.									
27...	0800	6.5	14	5.1	61	70	0	34	68

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.									
20...	.6	--	.004	.48	.1	.085	316	47	0
NOV.									
16...	.4	--	.000	.36	.09	.080	334	56	2
DEC.									
08...	1.0	--	.000	.49	.1	.14	369	57	7
JAN.									
11...	.2	--	.000	.11	.2	.10	182	48	20
FEB.									
10...	.1	--	.000	.26	.2	.10	157	40	22
MAR.									
14...	.1	--	.000	.00	.06	.045	166	48	32
APR.									
12...	.2	--	.000	.25	.07	.18	186	52	19
MAY									
04...	.2	--	.000	.10	.04	.065	181	55	19
JUNE									
21...	.2	--	.000	.17	.1	.28	210	62	0
JULY									
20...	.2	--	.000	.20	.05	.17	209	57	0
AUG.									
22...	.3	--	.000	.36	.04	.14	202	55	0
SEP.									
27...	.0	.10	.003	.16	.00	.060	223	56	0

NECHES RIVER BASIN

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08037330 ANGELINA RIVER NEAR ETOILE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT. 20...	6.1	576	6.9	23.5	4.0	47	--	1600	520
NOV. 16...	5.8	616	6.6	19.0	4.4	47	1.9	1900	--
DEC. 08...	6.3	664	6.8	10.0	7.8	69	--	2700	--
JAN. 11...	2.6	316	6.7	11.0	6.6	59	1.6	1100	60
FEB. 10...	2.5	266	6.8	9.5	--	--	--	900	--
MAR. 14...	2.4	317	6.8	17.5	6.6	69	2.7	630	50
APR. 12...	2.8	342	7.2	21.5	4.4	49	--	1500	--
MAY 04...	2.6	318	6.8	26.0	8.6	105	2.7	1300	60
JUNE 21...	2.9	390	6.3	27.0	2.8	35	--	2000	--
JULY 20...	3.1	401	6.8	28.5	5.8	74	3.4	1600	20
AUG. 22...	3.0	379	6.5	29.5	1.7	22	--	2100	--
SEP. 27...	3.5	409	6.3	25.5	4.4	53	1.1	790	100

NECHES RIVER BASIN

08038100 ATTOYAC BAYOU NEAR ETOILE, TEX.

LOCATION.--Lat 31°23'02", long 94°19'20", Nacogdoches County, at State Highway 103 bridge, 6.5 miles east of Etoile, and 8 miles south of Chireno.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1967.

Chemical and biochemical analyses: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT. 20...	1240	6.0	3.0	20	0	6.2	.020	.46	.4	.13
NOV. 16...	1310	6.2	3.8	39	0	8.6	.000	.23	.2	.090
DEC. 08...	1330	6.2	3.2	18	0	7.4	.000	.00	.2	--
JAN. 11...	1045	8.2	4.4	20	0	12	.000	.13	.3	.12
FEB. 10...	1700	11	6.6	26	0	20	.000	.08	.2	--
MAR. 14...	1030	11	5.7	36	0	18	.000	.00	.09	.060
APR. 12...	1900	12	5.6	46	0	18	.000	.18	.1	.13
MAY 04...	1400	7.0	4.3	24	0	10	.000	.08	.2	.10
JUNE 21...	1345	7.5	4.7	38	0	12	.000	.13	.2	.13
JULY 20...	1200	8.5	4.9	42	0	12	.000	.06	.06	.12
AUG. 22...	1500	6.5	3.8	34	0	8.0	.000	.10	.06	.10
SEP. 27...	0900	--	--	42	0	8.5	.005	.19	.02	.27

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT. 20...	27	11	99	6.3	23.0	4.1	47	--	420	150
NOV. 16...	31	0	119	6.6	17.0	5.6	58	--	910	--
DEC. 08...	29	14	101	6.7	10.0	8.8	78	--	240	--
JAN. 11...	39	22	134	6.7	10.0	9.4	83	1.6	620	40
FEB. 10...	55	33	211	7.2	10.0	--	--	--	900	--
MAR. 14...	51	21	198	6.5	17.5	6.8	71	2.2	1100	140
APR. 12...	53	15	203	7.2	22.0	6.4	73	--	1600	--
MAY 04...	35	16	124	6.9	23.0	4.8	55	2.7	960	90
JUNE 21...	38	7	147	6.2	27.5	3.6	45	--	1100	--
JULY 20...	41	7	155	6.4	29.5	6.8	88	4.1	930	10
AUG. 22...	32	4	119	6.5	30.0	4.0	53	--	610	--
SEP. 27...	37	3	124	5.7	25.0	3.5	42	--	680	150

NECHES RIVER BASIN

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08038490 SAM RAYBURN RESERVOIR NEAR ZAVALLA, TEX.

LOCATION.--Lat 31°13'26", long 94°19'29", Angelina County, at bridge on State Highway 147, approximately 8 miles northeast of Zavalla.

PERIOD OF RECORD.--Chemical and biochemical analyses: November 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-SOLVED CAL- CIUM (CA) (MG/L)	DIS-SOLVED MAG- NE- SIUM (MG)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT. 20...	1500	11	4.6	48	0	32	.002	.69	.00	.10
NOV. 16...	1445	9.5	4.4	40	0	30	.000	.18	.02	.025
DEC. 08...	1100	8.8	4.2	36	0	29	.000	.00	.02	--
JAN. 11...	1130	9.5	4.2	34	0	29	.000	.00	.1	.017
FEB. 10...	1830	9.0	3.6	30	0	29	.000	.00	.2	--
MAR. 14...	1100	8.5	3.7	28	0	29	.000	.00	.1	.020
APR. 13...	1400	9.0	3.8	31	0	35	.000	.17	.07	.024
MAY 04...	1500	9.0	4.8	34	0	38	.000	.11	.08	.030
JUNE 21...	1700	10	4.9	42	0	32	.000	.35	.1	.15
JULY 20...	1230	10	4.8	46	0	32	.000	.30	.06	.19
AUG. 22...	1600	9.2	4.4	39	0	30	.000	.12	.06	.070
SEP. 27...	1000	--	--	46	0	30	.006	.88	.05	.20

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT. 20...	46	7	231	6.9	24.0	4.7	55	--	2600	420
NOV. 16...	42	9	216	6.6	19.5	7.1	76	--	50	--
DEC. 08...	39	10	211	6.8	12.0	8.6	80	--	10	--
JAN. 11...	41	13	203	6.8	12.0	8.6	80	1.2	210	40
FEB. 10...	37	13	205	7.6	10.0	--	--	--	130	--
MAR. 14...	36	13	208	6.6	15.0	7.8	76	1.7	140	20
APR. 13...	38	13	240	7.0	19.5	6.8	73	--	230	--
MAY 04...	42	14	231	6.8	23.0	5.0	57	1.4	1600	190
JUNE 21...	45	11	231	6.3	23.0	1.8	21	--	2200	--
JULY 20...	45	7	233	6.5	28.0	6.5	82	1.7	2300	0
AUG. 22...	41	9	218	6.4	26.5	2.2	27	--	5600	--
SEP. 27...	45	7	228	5.9	24.0	1.4	16	--	1100	200

NECHES RIVER BASIN

08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TEX.

LOCATION.--Lat 31°03'38", long 94°06'21", Jasper County, at Sam Rayburn Dam on the Angelina River, 10 miles north-west of Jasper.

DRAINAGE AREA.--3,449 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1964 to September 1967.

Chemical and biochemical analyses: November 1967 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-SOLVED CAL- CIUM (CA) (MG/L)	DIS-SOLVED MAG- NE- SIUM (MG)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT. 21...	1140	9.5	4.1	40	0	26	.003	.00	.3	.000
NOV. 16...	1630	9.5	4.4	42	0	25	.000	.20	.00	.015
DEC. 08...	0945	9.5	4.1	41	0	25	.000	.00	.00	--
JAN. 11...	1345	10	4.0	48	0	25	.000	.00	.2	.000
FEB. 10...	1945	10	3.8	35	0	25	.012	.00	.2	--
MAR. 14...	1215	8.5	3.6	31	0	25	.000	.00	.2	.015
APR. 13...	1830	9.2	3.4	32	0	25	.000	.01	.2	.008
MAY 04...	1615	8.5	4.1	32	0	27	.000	.00	.2	.005
JUNE 21...	1915	9.0	4.2	33	0	25	.000	.00	.00	.012
JULY 20...	1325	9.0	4.4	33	0	25	.000	.00	.01	.051
AUG. 22...	0945	8.0	4.4	35	0	25	.000	.02	.00	.005
SEP. 27...	1145	--	--	37	0	26	.003	.00	.00	.010

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT. 21...	41	8	198	7.4	23.0	6.6	76	--	0	50
NOV. 16...	42	7	196	7.0	19.5	6.4	69	--	0	--
DEC. 08...	41	7	196	7.2	15.0	9.6	94	--	0	--
JAN. 11...	41	2	191	6.8	15.0	9.0	88	.6	160	50
FEB. 10...	41	12	190	7.6	11.5	--	--	--	60	--
MAR. 14...	36	11	188	7.1	18.0	9.3	98	1.8	100	40
APR. 13...	37	11	188	7.6	18.0	8.4	88	--	60	--
MAY 04...	38	12	183	6.8	25.0	8.8	105	.9	790	10
JUNE 21...	40	13	191	7.6	28.5	8.4	108	--	130	--
JULY 20...	41	14	194	6.5	28.0	7.3	92	1.8	160	0
AUG. 22...	38	9	194	7.2	29.5	7.9	103	--	60	--
SEP. 27...	44	14	198	6.2	27.5	5.2	65	--	100	5

08039400 ANGELINA RIVER BELOW SAM RAYBURN DAM, NEAR JASPER, TEX.

LOCATION.--Lat 31°03'30", long 94°06'20", Jasper County, immediately below Sam Rayburn Dam, 7.6 miles upstream from gaging station at Horger, and 10 miles northwest of Jasper.

DRAINAGE AREA.--3,449 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1963 to January 1972.

Chemical and biochemical analyses: October 1967 to September 1972.

Water temperatures: October 1963 to September 1972.

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 264 micromhos Jan. 9; minimum daily, 186 micromhos June 3.

Water temperatures: Maximum, 30.0°C Sept. 28; minimum, 10.0°C Jan. 6, '7, 17.

EXTREMES, October 1963 to September 1972.--Dissolved solids (October 1963 to September 1971): Maximum, 379 mg/l Nov. 1-30, 1964; minimum, 84 mg/l June 1-30, 1969.

Hardness (October 1963 to September 1971): Maximum, 74 mg/l Nov. 1-30, 1964; minimum, 30 mg/l Feb. 13-28, Mar. 1-15, 1965.

Specific conductance: October 1966 to September 1972.--Maximum daily, 350 micromhos Sept. 21, 1969; minimum daily, 138 micromhos June 24, 1969.

Water temperatures: October 1966 to September 1972.--Maximum, 30.0°C Sept. 28, 1972; minimum, 7.0°C Feb. 11, 22, 1968.

REMARKS.--Discharge records are not available for most of year because of backwater from Dam B. Reservoir.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED SILICA (SIO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (HCO ₃) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.												
21...	1130	5.2	11	4.0	26	50	0	16	31	.1	.06	.007
NOV.												
16...	1700	4.0	10	4.3	27	48	0	18	31	.1	--	.000
DEC.												
08...	0900	4.6	9.5	3.9	26	41	0	21	28	.1	--	.000
JAN.												
11...	1315	4.0	11	4.1	27	44	0	21	32	.2	.16	.000
FEB.												
10...	2045	4.3	10	3.7	29	41	0	22	32	.2	--	.013
MAR.												
14...	1200	8.5	7.5	2.8	21	27	0	19	23	.1	.18	.000
APR.												
13...	1800	2.4	8.5	3.4	21	30	0	20	25	.1	--	.000
MAY												
04...	1600	9.3	7.5	3.6	23	31	0	17	27	.2	.04	.000
JUNE												
21...	1930	3.5	9.0	4.2	21	34	0	20	25	.2	--	.000
JULY												
20...	1315	5.1	10	4.4	28	44	0	20	33	.2	.19	.000
AUG.												
23...	0930	5.5	10	4.2	23	44	0	18	27	.2	--	.000
SEP.												
27...	1115	5.8	12	2.9	29	50	0	21	30	.2	.00	.003

DATE	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.												
21...	.36	.1	.005	123	12	0	44	3	1.7	228	6.8	20.5
NOV.												
16...	.22	.00	.020	119	--	--	43	3	1.8	227	6.7	20.5
DEC.												
08...	.00	.03	.030	113	--	--	40	6	1.8	209	6.9	15.5
JAN.												
11...	.00	.1	.019	122	8	--	44	8	1.8	228	6.8	15.0
FEB.												
10...	.00	.2	.025	122	--	--	40	7	2.0	227	7.6	12.5
MAR.												
14...	.00	.1	.030	96	21	7	30	8	1.7	171	7.2	19.0
APR.												
13...	.02	.2	.020	96	--	--	35	11	1.5	186	7.4	18.0
MAY												
04...	.00	.2	.020	104	34	8	34	8	1.7	178	6.9	22.0
JUNE												
21...	.00	.02	.070	100	--	--	40	12	1.4	189	6.1	26.0
JULY												
20...	.00	.02	.052	123	7	7	43	7	1.9	236	6.5	27.0
AUG.												
23...	.28	.04	.035	112	--	--	42	6	1.5	210	6.5	20.5
SEP.												
27...	.45	.01	.040	126	36	16	42	1	1.9	221	6.1	19.5

NECHES RIVER BASIN

08039400 ANGELINA RIVER BELOW SAM RAYBURN DAM, NEAR JASPER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 21...	50	10	6.8	75	13	--	0	.00	--	20	0	1
NOV. 16...	--	--	7.5	82	--	.7	--	--	--	--	--	--
DEC. 08...	--	--	8.4	83	--	--	--	.00	--	--	--	--
JAN. 11...	16	2	9.8	96	14	.8	0	.00	--	10	0	0
FEB. 10...	--	--	--	--	--	--	--	--	--	--	--	--
MAR. 14...	10	15	11.6	123	20	1.9	4	.00	--	30	0	0
APR. 13...	--	--	7.7	81	--	--	--	--	--	--	--	--
MAY 04...	45	20	7.2	82	--	1.2	0	.00	--	40	0	0
JUNE 21...	--	--	5.8	71	--	--	--	--	--	--	--	--
JULY 20...	15	2	9.0	111	15	2.5	0	.00	--	10	0	0
AUG. 23...	--	--	2.5	27	--	--	--	--	--	--	--	--
SEP. 27...	45	8	1.4	15	--	.6	--	--	15	--	--	--

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 21...	0	0	1	530	0	0	3600	<.5	0	160	10
NOV. 16...	--	--	--	0	--	--	--	--	--	--	--
DEC. 08...	--	--	--	20	--	--	--	--	--	--	--
JAN. 11...	0	0	4	0	0	20	30	.2	2	130	20
FEB. 10...	--	--	--	40	--	--	--	--	--	--	--
MAR. 14...	0	0	3	110	0	10	0	.8	0	100	30
APR. 13...	--	--	--	80	--	--	--	--	--	--	--
MAY 04...	0	0	5	740	0	0	10	.2	0	140	40
JUNE 21...	--	--	--	80	--	--	--	--	--	--	--
JULY 20...	0	0	3	90	0	10	0	.2	0	180	10
AUG. 23...	--	--	--	1200	--	--	--	--	--	--	--
SEP. 27...	--	--	--	3800	--	--	300	--	--	--	--

NECHES RIVER BASIN

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08039400 ANGELINA RIVER BELOW SAM RAYBURN DAM, NEAR JASPER, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	197	211	219	223	210	214	203	203	201	191	194	206
2	216	210	196	218	213	212	198	202	226	207	218	204
3	201	212	205	223	215	188	201	205	186	215	211	204
4	206	228	206	208	188	199	206	202	205	205	211	207
5	208	212	210	194	203	199	204	210	---	208	205	205
6	206	211	214	194	206	223	198	214	199	205	---	207
7	207	224	207	194	201	235	198	214	201	223	204	205
8	211	219	207	208	190	199	---	206	203	210	205	205
9	206	224	206	264	201	218	204	204	203	216	204	203
10	197	---	204	203	203	216	---	213	202	209	204	206
11	199	220	207	201	208	205	204	226	200	200	207	208
12	216	220	208	205	202	203	209	208	201	205	210	205
13	214	223	211	215	203	204	196	241	203	206	212	205
14	203	222	211	193	201	209	203	206	208	205	224	211
15	208	226	207	207	203	207	201	---	206	207	210	211
16	206	226	206	204	203	219	201	---	212	209	212	209
17	205	224	206	192	201	219	210	---	208	207	206	209
18	210	219	208	204	203	204	199	205	205	207	208	221
19	210	224	210	211	210	207	206	199	204	208	210	218
20	212	220	213	202	215	215	201	197	205	209	207	218
21	212	223	217	203	201	205	198	199	205	204	207	214
22	208	197	210	206	198	198	200	201	204	208	205	216
23	209	218	216	206	215	200	198	196	200	---	211	214
24	211	209	210	230	243	200	202	201	204	218	207	210
25	---	217	212	204	210	198	195	199	204	206	221	212
26	209	217	212	209	204	200	195	196	---	205	204	272
27	211	217	209	207	218	200	198	---	---	205	204	216
28	213	217	215	204	208	202	211	203	---	205	211	210
29	212	216	214	211	209	204	200	204	---	210	223	208
30	213	217	222	---	---	217	205	203	---	---	210	214
31	211	---	211	204	---	213	---	203	---	215	206	---
MONTH	208	218	210	208	206	207	202	205	204	208	209	212

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	19.0	15.5	15.5	13.0	13.5	15.5	17.0	20.0	22.0	24.5	21.0
2	21.0	19.0	15.5	14.5	13.5	13.0	---	17.0	21.5	19.0	20.5	20.5
3	25.5	19.0	14.0	15.5	12.0	13.0	16.0	17.0	23.5	19.0	20.0	21.0
4	23.5	20.0	15.0	14.5	11.0	15.0	16.0	17.0	---	18.5	21.0	21.0
5	21.0	19.0	14.0	11.0	11.0	13.0	15.5	17.0	---	18.5	21.0	18.5
6	20.0	20.0	14.0	10.0	12.0	13.5	16.5	18.0	21.0	18.5	---	21.0
7	20.0	20.0	15.0	10.0	11.5	14.5	17.0	18.0	21.0	18.5	19.0	19.5
8	19.5	20.5	15.0	13.5	11.5	15.0	---	17.0	21.0	19.0	21.0	20.0
9	19.5	20.0	15.0	15.0	11.0	14.5	15.5	16.5	---	19.0	21.0	20.0
10	19.5	---	15.0	15.5	11.0	14.5	17.0	16.5	20.5	18.0	21.0	20.5
11	19.5	19.0	15.0	13.5	11.5	15.0	18.0	17.0	21.0	18.0	22.0	19.0
12	18.5	19.0	14.5	14.5	11.5	14.0	17.0	18.0	22.0	18.5	20.0	20.0
13	19.5	20.0	15.5	14.5	10.5	14.5	17.0	19.0	21.0	20.0	21.0	19.5
14	18.0	19.0	15.5	13.5	11.5	15.0	17.0	18.0	20.0	20.5	18.5	19.5
15	20.0	19.5	15.0	13.5	12.0	15.0	18.5	---	19.0	21.0	20.0	20.0
16	20.0	19.5	15.5	---	12.0	14.0	16.0	---	19.0	19.0	21.0	20.0
17	19.5	19.0	15.5	10.0	12.0	14.5	16.5	---	18.0	18.5	20.0	20.5
18	21.0	20.0	15.0	11.0	12.0	14.5	18.0	21.0	21.0	20.0	20.5	18.5
19	21.0	18.0	---	12.0	11.5	15.0	18.0	19.5	21.0	20.5	23.0	19.0
20	21.0	16.5	15.0	12.0	11.5	15.0	18.5	19.5	20.5	21.0	22.0	20.5
21	20.0	18.0	15.0	13.5	11.5	15.0	18.5	19.5	---	20.0	21.0	19.5
22	19.0	16.5	15.0	14.0	13.0	15.0	18.0	18.0	20.5	20.5	20.5	20.5
23	19.0	18.0	15.5	13.5	13.0	14.5	16.5	18.0	21.0	---	20.0	---
24	18.5	16.0	15.5	13.5	13.5	15.0	16.5	19.0	20.0	18.5	20.0	20.5
25	---	16.0	15.5	13.5	13.5	15.5	18.0	19.5	20.0	21.0	20.0	19.0
26	18.5	16.5	---	13.0	13.5	15.0	18.0	21.0	---	21.0	21.0	19.5
27	20.0	16.5	15.0	14.5	12.0	15.5	18.0	---	---	21.0	21.0	19.5
28	21.0	16.5	16.0	12.0	13.0	15.5	18.0	21.0	---	20.0	19.0	20.0
29	20.0	16.5	16.0	14.0	13.5	15.0	18.0	21.0	---	21.0	19.0	23.5
30	19.0	16.0	16.0	---	---	15.0	17.0	18.0	---	---	19.0	20.0
31	19.5	---	15.5	11.0	---	15.5	---	20.0	---	18.5	18.5	---
MONTH	20.0	18.5	15.0	13.0	12.0	14.5	17.0	18.5	---	19.5	20.5	20.5

NECHES RIVER BASIN

08041000 NECHES RIVER AT EVADALE, TEX.

LOCATION.--Lat 30°21'22", long 94°05'36", Jasper County, at gaging station at bridge on U.S. Highway 96 at Evadale, 0.8 mile upstream from Mill Creek, and 16 miles upstream from Village Creek.

DRAINAGE AREA.--7,951 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1972.

Chemical and biochemical analyses: January 1968 to September 1972.

Pesticide analyses: January 1968 to September 1972.

Water temperatures: October 1947 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
01-31	525	12	10	2.7	19	38	0	11	24
NOV.									
01-30	373	11	10	2.9	22	39	0	12	28
DEC.									
01-31	3470	11	7.2	2.2	11	22	0	8.8	16
JAN.									
01-31	3760	11	7.5	2.3	14	21	0	12	20
FEB.									
01-29	2940	8.7	7.5	2.3	16	22	0	15	19
MAR.									
01-31	2900	11	9.5	2.7	16	22	0	16	25
APR.									
01-30	2780	14	9.5	2.7	16	28	0	15	23
MAY									
01-31	4140	8.4	8.5	1.9	13	25	0	12	17
JUNE									
01-30	2920	6.4	10	2.2	20	33	0	17	22
JULY									
01-31	2100	7.2	10	2.9	22	33	0	17	27
AUG.									
01-31	1930	5.6	8.5	3.4	23	33	0	17	28
SEP.									
01-30	1650	6.8	10	3.7	26	35	0	19	34
WTD. AVG. TIME WTD.	--	9.4	8.7	2.5	17	27	0	14	22
AVG.	2460	9.4	9.0	2.7	18	29	0	14	24
TOT. LOAD (TONS)	--	22800	21100	6090	40600	64800	0	34300	53400

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	204	187	173	142	132	162	132	177	165	207	194	195
2	202	192	144	144	155	158	132	175	155	211	196	198
3	198	204	122	147	159	158	150	175	166	203	189	199
4	198	206	74	125	160	152	143	149	169	202	193	197
5	207	212	83	120	144	152	146	145	175	200	194	197
6	202	215	94	110	132	152	154	142	173	201	193	200
7	198	218	71	131	124	158	160	135	175	202	196	198
8	187	219	81	134	124	167	155	132	179	202	194	183
9	190	222	105	136	127	174	174	124	182	203	196	196
10	197	220	121	129	126	181	174	114	182	203	196	201
11	201	216	126	133	131	186	159	114	185	201	197	201
12	205	218	129	124	131	184	166	122	183	199	196	198
13	208	216	125	130	132	184	166	118	186	195	194	196
14	213	211	129	140	129	191	166	112	187	194	197	196
15	213	214	139	146	127	192	163	112	185	193	196	198
16	214	213	141	154	129	180	162	116	185	195	193	196
17	171	214	128	163	132	171	163	120	177	195	193	197
18	147	214	117	164	135	174	163	125	186	199	194	197
19	158	195	124	165	142	169	165	132	185	202	194	195
20	152	194	125	131	152	185	174	129	188	203	196	201
21	152	185	128	98	147	167	177	125	190	203	197	201
22	156	177	126	95	146	158	186	128	193	204	199	197
23	153	177	127	114	148	165	186	131	---	204	169	195
24	158	188	131	128	153	174	181	132	191	203	200	196
25	164	187	131	131	157	169	171	133	192	201	198	197
26	169	171	134	141	162	153	183	136	199	202	197	195
27	175	171	136	146	162	141	186	142	205	199	197	195
28	180	171	137	149	161	135	188	142	207	198	---	195
29	182	166	139	147	162	132	171	149	205	198	196	195
30	190	172	141	152	---	131	171	154	204	---	195	193
31	190	---	143	112	---	131	---	158	---	---	196	---
MONTH	185	199	123	135	142	164	166	135	185	201	195	197

08041000 NECHES RIVER AT EVADALE, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 117 mg/l Sept. 1-30; minimum, 68 mg/l Dec. 1-31.
 Hardness: Maximum, 40 mg/l Sept. 1-30; minimum, 27 mg/l Dec. 1-31.
 Specific conductance: Maximum daily, 222 micromhos Nov. 9; minimum daily, 71 micromhos Dec. 7.
 Water temperatures: Maximum, 30.0°C on several days during June and July; minimum, 9.0°C Jan. 17; Feb. 4, 5, 8, 9.

EXTREMES, October 1947 to September 1972.--Dissolved solids: Maximum, 222 mg/l Oct. 21-31, 1956; minimum, 14 mg/l Sept. 17-21, 1963.
 Hardness: Maximum, 70 mg/l Nov. 1-10, 1947; minimum, 6 mg/l Sept. 17-21, 1963.
 Specific conductance: Maximum daily, 422 micromhos Jan. 25, 1957; minimum daily, 23 micromhos Sept. 19, 1963.
 Water temperatures: Maximum, 34.0°C June 29, 1953; minimum, 3.0°C Jan. 30, 31, 1948, Jan. 31, 1949, Jan. 24, 1963.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	.0	.00	98	36	5	1.4	184	7.1
NOV. 01-30	.1	.09	105	37	5	1.6	197	7.5
DEC. 01-31	.0	.2	68	27	9	.9	123	6.4
JAN. 01-31	.0	.2	78	28	11	1.2	135	6.6
FEB. 01-29	.2	.4	82	28	10	--	142	7.1
MAR. 01-31	.0	.2	92	35	17	1.2	163	6.6
APR. 01-30	.1	.3	96	35	12	1.2	170	7.0
MAY 01-31	.0	.2	74	29	8	1.0	133	7.1
JUNE 01-30	.1	.2	95	34	7	1.5	182	7.4
JULY 01-31	.3	.2	103	37	10	1.6	198	6.3
AUG. 01-31	.1	.05	102	35	8	1.7	195	7.0
SEP. 01-30	.0	.2	117	40	11	1.8	199	6.8
WTD. AVG. TIME WTD. AVG.	.1	.2	88	32	10	1.3	158	6.8
TOT. LOAD (TONS)	.1	.1	92	33	9	1.4	168	6.9
	164	518	213000	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.0	22.0	13.0	18.0	13.0	20.0	---	23.0	27.0	---	29.0	29.0
2	27.0	23.0	12.0	18.0	12.0	17.0	17.0	23.0	27.0	30.0	29.0	29.0
3	---	22.0	11.0	17.0	10.0	16.0	18.0	22.0	27.0	---	28.0	---
4	28.0	19.0	11.0	17.0	9.0	16.0	17.0	23.0	27.0	30.0	28.0	29.0
5	26.0	19.0	10.0	13.0	9.0	16.0	18.0	22.0	27.0	27.0	29.0	29.0
6	26.0	19.0	11.0	11.0	11.0	16.0	20.0	22.0	27.0	26.0	---	28.0
7	25.0	19.0	11.0	10.0	12.0	17.0	21.0	22.0	27.0	27.0	---	---
8	25.0	19.0	12.0	10.0	9.0	17.0	18.0	22.0	28.0	27.0	29.0	29.0
9	25.0	18.0	14.0	12.0	9.0	16.0	20.0	21.0	29.0	27.0	29.0	29.0
10	22.0	17.0	14.0	---	10.0	16.0	21.0	21.0	29.0	26.0	29.0	29.0
11	21.0	17.0	14.0	14.0	10.0	16.0	21.0	22.0	29.0	27.0	29.0	29.0
12	21.0	---	14.0	14.0	10.0	19.0	22.0	22.0	29.0	27.0	29.0	---
13	22.0	17.0	15.0	12.0	11.0	19.0	23.0	22.0	29.0	27.0	---	29.0
14	22.0	18.0	16.0	13.0	11.0	20.0	24.0	22.0	28.0	27.0	29.0	28.0
15	24.0	18.0	16.0	12.0	12.0	20.0	24.0	22.0	27.0	27.0	28.0	28.0
16	---	18.0	17.0	10.0	13.0	20.0	24.0	22.0	27.0	27.0	28.0	28.0
17	27.0	18.0	18.0	9.0	14.0	19.0	23.0	24.0	27.0	27.0	28.0	28.0
18	22.0	21.0	16.0	11.0	14.0	19.0	24.0	24.0	28.0	27.0	28.0	27.0
19	24.0	18.0	15.0	12.0	14.0	19.0	24.0	25.0	---	---	28.0	27.0
20	25.0	16.0	16.0	14.0	14.0	20.0	24.0	25.0	28.0	28.0	29.0	27.0
21	24.0	15.0	16.0	15.0	14.0	19.0	24.0	---	29.0	28.0	29.0	28.0
22	24.0	15.0	16.0	15.0	15.0	19.0	24.0	25.0	---	28.0	29.0	28.0
23	22.0	13.0	16.0	15.0	16.0	19.0	24.0	26.0	---	---	29.0	28.0
24	22.0	13.0	16.0	17.0	16.0	20.0	24.0	26.0	29.0	29.0	29.0	28.0
25	20.0	11.0	16.0	17.0	18.0	20.0	23.0	26.0	---	29.0	28.0	24.0
26	20.0	12.0	16.0	15.0	18.0	19.0	22.0	26.0	29.0	30.0	28.0	26.0
27	21.0	13.0	17.0	16.0	19.0	20.0	22.0	26.0	30.0	30.0	29.0	26.0
28	23.0	13.0	17.0	17.0	19.0	20.0	22.0	26.0	30.0	30.0	---	26.0
29	23.0	13.0	19.0	17.0	20.0	19.0	23.0	27.0	30.0	30.0	29.0	27.0
30	23.0	13.0	10.0	16.0	---	19.0	---	27.0	30.0	---	29.0	26.0
31	23.0	---	20.0	15.0	---	17.0	---	27.0	---	---	29.0	---
MONTH	23.5	17.0	14.5	14.0	13.0	18.5	22.0	24.0	28.0	28.0	28.5	27.5

NECHES RIVER BASIN

08041000 NECHES RIVER AT EVADALE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SIO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 25...	1050	245	20	10	4.1	15	40	0	10	22	.0	.34
DEC. 21...	1230	4400	10	7.0	2.1	13	23	0	11	16	.0	.30
FEB. 08...	1200	4200	12	6.5	2.4	11	15	0	12	17	.0	.17
APR. 17...	1315	2800	11	9.5	2.7	16	26	0	16	22	.1	.33
JUNE 06...	1130	38	7.4	9.0	3.0	17	32	0	16	21	.1	.19
AUG. 23...	1030	1500	5.5	12	2.4	23	38	0	18	28	.1	.19

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 25...	.000	.22	.2	.060	102	84	8	42	9	1.0	183	6.4
DEC. 21...	.097	.00	.07	.070	71	66	35	26	7	1.1	128	6.7
FEB. 08...	.000	.05	.2	.080	69	50	0	26	14	.9	123	6.7
APR. 17...	.000	.08	.2	.090	91	110	32	35	14	1.2	161	6.7
JUNE 06...	.005	.06	.07	.056	90	39	7	35	9	1.2	166	7.0
AUG. 23...	.004	.07	.06	.060	108	69	0	40	9	1.6	198	6.7

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 25...	22.0	220	25	7.5	85	36	2.3	0	.00	--	--	--
DEC. 21...	18.0	220	45	7.8	82	41	2.6	2	.00	160	0	0
FEB. 08...	8.5	140	45	11.2	95	39	2.4	2	.00	--	--	--
APR. 17...	25.5	200	60	6.5	78	36	1.7	8	.00	--	--	--
JUNE 06...	28.0	55	25	8.0	101	21	2.1	1	.01	40	0	0
AUG. 23...	29.0	50	40	7.0	90	11	1.2	8	.03	40	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 25...	--	--	--	--	--	--	--	--	--	--	--
DEC. 21...	0	0	12	310	0	0	50	.2	2	100	80
FEB. 08...	--	--	--	--	--	--	--	--	--	--	--
APR. 17...	--	--	--	--	--	--	--	--	--	--	--
JUNE 06...	0	0	8	280	0	0	0	.4	0	150	50
AUG. 23...	0	0	4	140	0	0	0	2.8	0	160	20

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

NECHES RIVER BASIN

231

08041500 VILLAGE CREEK NEAR KOUNTZE, TEX.

LOCATION.--Lat 30°23'52", long 94°15'48", Hardin County, at gaging station at bridge on Farm Road 418, 1.6 miles upstream from Gulf, Colorado and Santa Fe Railway Co. bridge, and 3.4 miles northeast of Kountze.

DRAINAGE AREA.--860 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1972.

Water temperatures: November 1967 to September 1970.

EXTREMES, November 1967 to September 1970.--Dissolved solids: Maximum, 126 mg/l Oct. 11, 1968; minimum, 28 mg/l Feb. 22-28, 1969.

Hardness: Maximum, 26 mg/l Dec. 26-28, 1967; minimum, 11 mg/l Feb. 22-28, 1969.

Specific conductance: Maximum daily, 265 micromhos Dec. 28, 1967; minimum daily, 34 micromhos May 10, 1969.

Water temperatures: Maximum, 32.0°C June 20, 1969; minimum, 4.0°C Jan. 9, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 23...	1730	295	10	4.5	1.6	9.8	8	0	3.6	20
DEC. 07...	1830	5170	3.8	2.5	1.4	1.2	5	0	1.0	6.5
22...	1550	3000	8.7	4.5	1.4	3.6	8	0	1.2	12
APR. 10...	1215	404	13	5.5	2.3	11	13	0	3.2	24
JUNE 08...	1135	126	14	6.8	.7	17	15	0	2.4	29
JULY 21...	1210	318	9.1	4.0	1.5	13	6	0	2.8	26
AUG. 23...	1405	84	12	5.0	3.0	8.4	12	0	2.0	22
SEP. 29...	1405	200	9.5	4.0	1.2	7.3	8	0	2.4	15

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 23...	.0	.2	54	18	11	1.0	103	5.6	20.5
DEC. 07...	.0	.08	19	12	8	.2	46	5.6	10.5
22...	.0	.03	36	17	10	.4	77	5.8	16.0
APR. 10...	.0	.07	65	23	12	1.0	127	6.1	20.0
JUNE 08...	.0	.4	79	20	8	1.7	124	6.1	25.0
JULY 21...	.0	.1	60	16	11	1.4	120	6.1	--
AUG. 23...	.0	.03	58	25	15	.7	110	6.3	26.5
SEP. 29...	.2	.03	44	15	8	.8	81	5.5	24.5

NECHES RIVER BASIN

08041700 PINE ISLAND BAYOU NEAR SOUR LAKE, TEX.

LOCATION.--Lat 30°06'21", long 94°20'04", Hardin County, at gaging station at bridge on county road and 5.1 miles southeast of Sour Lake,

DRAINAGE AREA.--336 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1968 to September 1972.
Water temperatures: February 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
01-03	13	9.5	33	1.3	100	72	0	15	160
04-31	50	7.0	16	2.9	46	49	0	9.2	72
NOV.									
01-19	7.8	6.5	16	2.0	38	43	0	11	59
20-21	30	5.5	24	3.2	100	60	0	14	160
22-30	90	6.5	16	2.0	38	43	0	11	59
DEC.									
01-31	1130	6.2	8.8	1.7	12	21	0	5.6	22
JAN.									
01-31	486	4.1	12	1.5	17	30	0	6.4	28
FEB.									
01-29	612	3.7	10	2.2	17	26	0	5.2	31
MAR.									
01-18	54	4.9	18	2.5	45	40	0	8.4	77
19...	22	5.2	51	7.0	200	46	0	12	380
20...	37	4.9	18	2.5	45	40	0	8.4	77
21...	453	6.9	26	4.8	83	41	0	17	150
22-31	1050	2.7	7.5	.8	8.9	17	0	4.0	16
APR.									
01-09	179	8.5	14	2.2	29	26	0	13	47
10-22	74	10	20	3.7	46	22	0	28	74
23-30	318	5.0	12	1.5	27	22	0	14	43
MAY									
01-31	928	4.5	8.5	2.1	14	24	0	6.8	22
JUNE									
01-30	54	6.3	20	3.4	42	43	0	16	72
JULY									
01-31	94	6.8	17	2.6	27	54	0	9.2	40
AUG.									
01-05	25	6.9	16	3.7	28	64	0	8.0	38
06-10	12	6.3	26	5.1	72	75	0	11	120
11-14	42	6.9	16	3.7	28	64	0	8.0	38
15-17	34	6.3	26	5.1	72	75	0	11	120
18-31	42	7.2	15	4.5	39	56	0	8.8	59
SEP.									
01-19	11	6.7	16	2.9	34	61	0	11	44
20-21	4.6	4.5	29	5.2	140	92	0	11	210
22-30	232	9.2	11	1.8	20	25	0	16	28
WTD. AVG.	--	5.0	10	1.9	17	26	0	6.8	28
TIME WTD.									
AVG.	339	6.0	15	2.8	32	39	0	9.9	51
TOT. LOAD (TONS)	--	1680	3400	633	5590	8560	0	2280	9440

NECHES RIVER BASIN

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08041700 PINE ISLAND BAYOU NEAR SOUR LAKE, TEX.--Continued

EXTREMES, October 1961 to September 1972.--Dissolved solids: Maximum, 679 mg/l Mar. 19; minimum, 49 mg/l Mar. 22-31.
 Hardness: Maximum, 160 mg/l Mar. 19; minimum, 22 mg/l Mar. 22-31.
 Specific conductance: Maximum, 1,310 micromhos Mar. 19; minimum daily, 63 micromhos May 15.
 Water temperatures: Maximum, 37.0°C Sept. 15; minimum, 9.0°C Jan. 7, Feb. 3.

EXTREMES, February 1968 to September 1972.--Dissolved solids: Maximum, 6,590 mg/l Mar. 23, 1968; minimum, 39 mg/l Feb. 22-28, 1969.
 Hardness: Maximum, 576 mg/l Mar. 23, 1968; minimum, 16 mg/l Feb. 22-28, 1969.
 Specific conductance: Maximum daily, 11,600 micromhos Mar. 23, 1968; minimum daily, 63 micromhos May 15, 1972.
 Water temperatures: Maximum, 37.0°C Sept. 15, 1972; minimum, 5.0°C Jan. 7, 9, 1970, Jan. 8, 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-03	.2	.1	359	88	29	4.7	717	6.8
04-31	--	.1	178	52	12	2.8	371	6.9
NOV.								
01-19	.0	.2	154	48	13	2.4	311	7.0
20-21	.1	.8	344	73	24	5.2	701	7.1
22-30	.0	.2	154	48	13	2.4	311	7.0
DEC.								
01-31	.0	.3	68	29	12	1.0	138	6.2
JAN.								
01-31	.1	.5	86	36	11	1.2	164	6.9
FEB.								
01-29	.0	.4	84	34	13	1.3	174	6.3
MAR.								
01-18	.0	.6	178	55	22	2.6	349	6.7
19...	--	.6	679	160	120	7.4	1310	6.4
20...	.0	.6	178	55	22	2.6	349	6.7
21...	--	.6	310	84	50	3.9	619	6.5
22-31	--	.2	49	22	8	.8	108	6.3
APR.								
01-09	.1	1.6	134	44	23	1.9	232	6.5
10-22	--	4.0	211	65	47	2.5	370	6.6
23-30	--	.7	117	36	18	2.0	221	6.7
MAY								
01-31	.0	.5	72	30	10	1.1	137	6.5
JUNE								
01-30	.2	.4	183	64	29	2.3	372	6.8
JULY								
01-31	.0	.3	131	53	9	1.6	256	6.8
AUG.								
01-05	.1	.2	133	55	3	1.6	265	7.1
06-10	--	.4	278	86	25	3.4	575	7.2
11-14	.1	.2	133	55	3	1.6	265	7.1
15-17	--	.4	278	86	25	3.4	575	7.2
18-31	--	.4	163	56	10	2.3	320	6.9
SEP.								
01-19	.0	.5	147	52	2	2.1	269	6.9
20-21	--	.4	446	94	18	6.1	855	7.2
22-30	--	.7	101	35	14	5.1	184	6.6
WTD. AVG.	--	.4	83	33	12	1.2	165	6.5
TIME WTD.								
AVG.	--	.5	137	47	15	1.9	270	6.7
TOT. LOAD (TONS)	--	147	27900	--	--	--	--	--

NECHES RIVER BASIN

08041700 PINE ISLAND BAYOU NEAR SOUR LAKE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	792	297	259	201	72	358	184	134	219	321	269	234
2	759	306	205	208	67	244	231	154	201	343	265	243
3	600	315	279	272	83	317	230	109	212	382	262	260
4	269	322	307	209	86	267	216	98	223	158	267	273
5	379	329	240	294	85	260	230	95	382	182	281	151
6	411	345	131	202	84	248	275	118	476	287	597	199
7	392	354	91	190	92	269	332	116	479	286	598	225
8	353	---	83	193	104	298	256	111	497	211	599	214
9	---	357	76	156	112	337	---	130	462	226	642	229
10	---	351	169	152	133	387	322	135	489	218	406	240
11	488	354	78	152	147	406	335	162	415	302	288	258
12	582	365	76	149	169	428	455	145	481	248	289	290
13	551	352	74	158	199	436	564	95	420	236	252	297
14	621	351	85	178	151	465	449	75	356	246	238	315
15	648	385	93	198	164	442	296	63	423	269	413	325
16	---	387	134	209	185	377	334	72	276	291	648	336
17	---	404	113	215	178	417	333	89	341	280	697	352
18	356	231	---	218	183	499	378	90	426	248	349	---
19	368	346	---	223	183	1310	350	93	317	348	330	411
20	329	522	118	154	192	331	363	111	458	228	315	801
21	382	879	114	115	198	619	327	100	395	256	329	903
22	253	465	103	97	211	110	329	135	395	261	352	---
23	332	325	95	117	233	77	179	172	367	210	377	---
24	195	254	95	114	254	106	193	197	---	226	647	149
25	197	188	100	117	258	109	251	216	382	240	291	172
26	---	161	107	110	270	96	284	219	474	245	243	158
27	238	149	118	105	---	87	341	206	370	254	293	191
28	289	188	137	107	341	95	183	205	360	255	253	196
29	267	232	162	124	339	104	221	206	254	252	225	---
30	267	236	180	106	---	142	118	203	330	256	270	211
31	285	---	194	85	---	121	---	213	---	261	227	---
MONTH	408	336	138	165	170	315	295	138	375	259	371	294

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.5	23.0	12.0	---	10.0	22.0	19.0	23.0	28.0	35.0	26.0	30.0
2	26.0	24.0	10.5	---	11.0	17.0	18.0	22.0	28.0	27.0	29.0	30.0
3	28.0	20.5	11.0	---	9.0	16.0	19.0	23.0	26.0	31.0	27.0	30.0
4	26.0	18.0	11.0	---	10.0	16.5	20.0	23.0	30.0	23.0	32.0	26.0
5	25.0	18.0	10.0	---	17.0	15.0	20.0	22.0	32.0	26.5	29.0	28.0
6	29.0	17.0	11.0	10.0	16.0	19.0	22.0	23.0	32.0	28.0	32.0	27.0
7	25.0	16.0	12.0	9.0	10.0	17.0	25.0	23.0	32.0	28.0	32.0	31.0
8	---	---	13.0	---	13.0	18.0	24.0	21.0	32.0	26.0	32.0	29.0
9	---	16.0	13.0	13.0	10.0	17.0	---	22.0	29.0	28.0	28.0	28.0
10	---	17.0	---	13.0	10.0	18.0	23.0	22.0	25.0	29.0	29.0	29.0
11	22.0	17.0	16.0	15.0	11.0	18.5	19.0	21.0	31.0	26.0	29.0	27.0
12	20.0	17.0	19.0	17.0	12.0	18.0	25.0	21.0	31.5	29.0	27.0	29.0
13	21.0	20.0	18.0	17.0	12.0	17.0	26.0	20.0	29.5	26.0	27.0	28.0
14	24.0	20.5	18.0	16.0	13.0	19.0	28.0	23.0	28.0	---	27.0	28.0
15	23.0	19.0	18.0	13.0	14.0	22.0	25.0	23.0	30.0	28.0	27.0	37.0
16	---	20.0	14.0	---	14.0	22.0	25.0	23.0	29.0	29.0	28.0	29.5
17	---	21.5	14.0	12.0	19.0	22.0	28.0	23.0	29.0	27.0	26.0	29.0
18	25.5	20.0	---	11.0	17.0	18.0	26.0	23.0	31.0	29.0	27.0	---
19	25.0	17.0	---	12.0	15.0	22.0	28.0	23.5	29.0	28.0	29.0	29.0
20	23.0	16.0	15.0	16.0	15.0	20.0	28.0	21.0	28.0	27.0	25.0	29.0
21	21.0	15.0	16.0	18.0	17.0	19.0	24.0	21.0	30.0	26.0	29.0	29.0
22	22.0	12.0	16.0	14.0	17.0	19.0	24.5	25.0	31.0	26.5	30.0	---
23	22.0	11.0	17.0	21.0	19.0	18.0	24.0	25.0	31.0	27.0	29.0	---
24	21.0	12.0	18.0	20.0	20.0	19.5	23.0	26.0	---	29.0	26.0	25.0
25	20.0	15.0	17.0	19.0	20.5	20.0	23.0	28.0	32.5	30.0	26.0	23.0
26	---	16.0	---	19.0	22.0	20.0	22.0	24.0	33.0	31.0	27.0	24.0
27	24.0	19.0	---	19.0	---	20.0	21.0	28.0	30.0	29.0	29.0	22.0
28	23.0	17.0	---	19.0	17.0	21.5	22.0	25.0	29.0	29.0	30.0	23.0
29	22.0	15.0	---	19.0	20.0	21.0	21.0	29.0	29.0	30.0	28.0	---
30	25.0	12.0	---	10.0	---	19.0	23.0	28.0	25.0	30.0	28.0	24.0
31	23.0	---	---	10.0	---	18.0	---	27.0	---	30.0	28.0	---
MONTH	23.5	17.5	---	---	14.5	19.0	23.5	23.5	29.5	28.5	28.5	28.0

08042540 EAST BAY BAYOU NEAR STOWELL, TEX.

LOCATION.--Lat 29°42'15", long 94°25'35", Chambers County, at bridge on Farm Road 1941, and about 6.6 miles southwest of Stowell.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.
Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
26...	1040	.68	28	64	17	91	178	0	47	160	.3	.39
NOV.												
03...	1015	.20	7.4	65	15	150	188	0	110	200	.3	.21
DEC.												
06...	0850	165	6.9	13	1.8	15	23	0	20	22	.0	.20
JAN.												
04...	1045	96	7.9	14	2.2	16	37	0	16	22	.1	.52
MAR.												
20...	1050	1.3	.0	55	6.6	50	172	0	54	53	.3	.11
APR.												
17...	1040	5.1	4.4	54	9.1	24	123	0	60	45	.3	.47
MAY												
03...	1130	12	8.0	37	9.2	52	74	0	49	92	.2	.65
JULY												
19...	1050	11	7.0	47	7.2	53	145	0	23	84	.2	.33
AUG.												
09...	1345	7.0	10	40	5.2	29	138	0	17	38	.3	.16
31...	1130	10	19	45	4.1	32	144	0	12	48	.3	.40

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.												
26...	.000	.08	.1	.020	500	22	230	82	2.6	935	7.9	21.5
NOV.												
03...	.027	.07	.00	.12	635	78	220	70	4.3	1200	7.9	18.5
DEC.												
06...	.015	.00	.7	.16	93	--	40	21	1.0	181	6.3	11.5
JAN.												
04...	.000	.18	.2	.16	97	280	44	14	1.0	181	6.9	13.0
MAR.												
20...	.006	.00	.02	.050	304	58	160	23	1.7	569	7.7	22.0
APR.												
17...	.026	.74	.08	.39	258	118	170	71	.8	501	7.6	24.0
MAY												
03...	.027	.37	.4	.22	286	242	130	69	2.0	529	7.0	23.0
JULY												
19...	.000	.16	.00	.030	293	7	150	28	1.9	537	7.2	28.5
AUG.												
09...	.000	.04	.02	.040	208	--	120	8	1.1	375	7.8	32.5
31...	.022	.05	.04	.060	232	--	130	11	1.2	423	7.1	28.5

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT.												
26...	45	40	9.8	111	34	1.5	27000	8400	620	1	.00	--
NOV.												
03...	20	30	9.8	104	22	4.8	11000	390	310	20	.00	--
DEC.												
06...	160	60	8.3	75	25	2.8	290000	11000	9600	16	.00	12
JAN.												
04...	240	160	7.6	72	43	3.2	1300000	4400	6500	3	.00	60
MAR.												
20...	30	30	9.2	105	14	1.9	50000	380	350	0	.00	--
APR.												
17...	50	60	11.2	132	43	7.2	83000	1200	320	7	.00	--
MAY												
03...	80	95	7.6	87	58	6.6	7700	1500	34	0	.00	30
JULY												
19...	40	20	8.1	104	18	1.5	1400	250	100	0	.02	--
AUG.												
09...	45	25	13.9	188	4	1.4	14	1	31	1	.09	--
31...	70	45	9.2	118	22	4.0	120	110	230	0	.00	10

EAST BAY BAYOU BASIN

08042540 EAST BAY BAYOU NEAR STOWELL, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 26...	--	--	--	--	--	--	--	--	--	--	--
NOV. 03...	--	--	--	--	--	--	--	--	--	--	--
DEC. 06...	0	0	0	0	6	310	0	50	.2	0	30
JAN. 04...	0	0	0	0	27	340	0	0	.5	3	80
MAR. 20...	--	--	--	--	--	--	--	--	--	--	--
APR. 17...	--	--	--	--	--	--	--	--	--	--	--
MAY 03...	0	0	0	1	5	100	0	100	.3	6	60
JULY 19...	--	--	--	--	--	--	--	--	--	--	--
AUG. 09...	--	--	--	--	--	--	--	--	--	--	--
31...	0	0	0	0	4	920	0	40	<.2	0	70

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
DEC. 06...	0850	165	.00	--	.00	--	.00	--	.00	--
JAN. 04...	1045	96	.00	--	.00	--	.00	--	.00	--
MAY 03...	1030	12	.00	--	.00	--	.00	--	.00	--
JULY 19...	1050	11	--	<.2	--	<.2	--	<.2	--	<.2
AUG. 31...	1130	10	.00	--	.00	--	.00	--	.00	--

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
DEC. 06...	.01	--	.00	--	.00	--	.00	--	.00	--
JAN. 04...	.02	--	.00	--	.00	--	.00	--	.00	--
MAY 03...	.04	--	.00	--	.00	--	.00	--	.00	--
JULY 19...	--	1.5	--	<.2	--	<.2	--	<.2	--	<.2
AUG. 31...	.02	--	.00	--	.00	--	.00	--	.00	--

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 06...	.0	--	.00	.00	.00	.00	.00	.00	.00
JAN. 04...	.0	--	.01	.00	.00	.00	.00	.00	.00
MAY 03...	.0	--	.00	.00	.00	.00	.00	.00	.00
JULY 19...	--	<1.0	--	--	--	--	--	--	--
AUG. 31...	.0	--	.00	.00	.00	.00	.00	.00	.00

08042550 WEST FORK DOUBLE BAYOU NEAR ANAHUAC, TEX.

LOCATION.--Lat 29°45'39", long 94°38'00", Chambers County, at bridge on Farm Road 562 (Smith Point Road), and 3 miles southeast of Anahuac.

DRAINAGE AREA:--4.43 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.
Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
26...	0820	9.6	21	43	9.8	100	130	0	29	160	.3	.48
NOV.												
03...	1130	1.6	5.7	44	11	99	144	0	30	160	.3	.21
DEC.												
06...	1100	279	7.0	14	3.7	22	15	0	32	36	.0	.24
JAN.												
04...	1240	43	10	30	6.8	45	46	0	48	80	.1	.54
MAR.												
20...	1230	5.2	3.6	31	9.4	49	75	0	39	85	.2	.26
APR.												
17...	1225	20	5.9	45	9.6	87	40	0	87	160	.4	.66
MAY												
03...	1135	9.5	6.7	47	13	70	60	0	65	150	.2	.43
JULY												
19...	1215	27	6.7	42	12	110	120	0	23	190	.3	.33
AUG.												
09...	1300	7.0	8.1	44	7.3	84	131	0	30	130	.4	.24
31...	1050	6.0	22	52	14	120	128	0	30	230	.0	.50

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.												
26...	.000	.13	.1	.050	437	114	150	38	3.6	840	7.5	19.5
NOV.												
03...	.041	.06	.00	.10	417	17	150	36	3.5	837	7.7	18.0
DEC.												
06...	.015	.07	.6	.22	125	--	50	38	1.4	243	6.0	11.0
JAN.												
04...	.000	.19	.3	.21	244	256	100	65	1.9	472	7.3	11.0
MAR.												
20...	.028	.03	.2	.17	255	360	120	55	2.0	494	7.0	22.5
APR.												
17...	.090	1.4	.4	.92	415	146	150	120	3.1	785	7.0	26.0
MAY												
03...	.009	.41	.4	.22	380	284	170	120	2.3	742	6.9	24.0
JULY												
19...	.000	.16	.07	.040	441	31	150	56	3.8	815	7.0	28.0
AUG.												
09...	.000	.04	.04	.060	368	--	140	32	3.1	671	6.8	30.5
31...	.015	.09	.00	.13	533	--	190	81	4.0	995	6.9	26.5

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT.												
26...	70	55	7.6	82	30	2.4	52000	7800	1200	2	.00	--
NOV.												
03...	40	75	10.4	109	27	2.3	220000	900	1400	16	.00	--
DEC.												
06...	120	60	8.7	78	26	3.5	300000	6200	15000	15	.00	10
JAN.												
04...	110	120	8.3	75	54	4.2	1200000	5100	4300	1	.00	60
MAR.												
20...	140	160	8.6	98	36	2.7	160000	1500	800	1	.00	--
APR.												
17...	80	60	10.3	126	58	13	29000	850	1400	5	.00	--
MAY												
03...	70	130	7.8	92	50	3.9	8300	2100	1400	0	.00	20
JULY												
19...	50	25	6.2	78	26	1.2	5500	290	1000	0	.02	10
AUG.												
09...	55	100	9.4	124	13	2.6	1500	870	1200	6	.03	10
31...	70	35	7.7	94	29	4.0	6000	2800	1800	0	.02	10

DOUBLE BAYOU BASIN

08042550 WEST FORK DOUBLE BAYOU NEAR ANAHUAC, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 26...	--	--	--	--	--	--	--	--	--	--	--
NOV. 03...	--	--	--	--	--	--	--	--	--	--	--
DEC. 06...	0	0	0	0	7	240	0	50	.3	0	40
JAN. 04...	0	0	0	0	13	590	0	70	.2	0	100
MAR. 20...	--	--	--	--	--	--	--	--	--	--	--
APR. 17...	--	--	--	--	--	--	--	--	--	--	--
MAY 03...	0	0	0	2	4	100	0	70	.4	8	70
JULY 19...	0	0	0	0	1	190	0	20	.7	2	60
AUG. 09...	--	--	--	--	--	--	--	--	--	--	--
31...	0	1	0	3	2	370	0	800	<.2	3	80

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
DEC. 06...	1100	279	.00	.00	.00	.00	.01	.00	.00	.00
JAN. 04...	1240	43	.00	.00	.00	.00	.01	.00	.00	.00
MAY 03...	1135	9.5	.00	.00	.00	.00	.03	.00	.00	.00
JULY 19...	1215	27	.00	.00	.00	.00	.02	.00	.00	.00
AUG. 31...	1045	6.0	.00	.00	.00	.00	.01	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 06...	.00	.0	.00	.00	.00	.00	.00	.00	.00
JAN. 04...	.00	.0	.00	.00	.00	.00	.00	.00	.00
MAY 03...	.00	.0	.00	.00	.00	.00	.00	.02	.00
JULY 19...	.00	.0	.00	.00	.00	.00	.00	.00	.03
AUG. 31...	.00	.0	.00	.00	.00	.00	.21	.00	.01

TRINITY RIVER BASIN

239

08044000 BIG SANDY CREEK NEAR BRIDGEPORT, TEX.

LOCATION.--Lat 33°13'54", long 97°41'40", Wise County, at gaging station at bridge on U.S. Highway 380, 1.9 miles upstream from Greathouse Branch, 4.0 miles east of Bridgeport, and 4.4 miles upstream from mouth.

DRAINAGE AREA.--333 sq mi.

PERIOD OF RECORD.--Specific conductance: May 1968 to September 1972.

Water temperatures: May 1968 to September 1972.

Sediment records: May 1968 to September 1972.

EXTREMES, October 1971 to September 1972.--Water temperatures: Minimum, 1.0°C Jan. 5, 6, Feb. 3.

Sediment concentrations: Maximum daily, 1,770 mg/l May 12; minimum daily, no flow on many days during July, August and September.

Sediment loads: Maximum daily 7,820 tons Oct. 20; minimum daily, 0 tons on many days during July, August and September.

EXTREMES, May 1968 to September 1972.--Water temperatures: Maximum, 31.0°C June 13, 1968; minimum, 0.5°C Jan. 5, 6, 8, Feb. 8, 1971.

Sediment concentrations: Maximum daily, 3,480 mg/l July 29, 1971; minimum daily, no flow on many days.

Sediment loads: Maximum daily, 14000 tons May 7, 1969; minimum daily, 0 tons on many days.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	345	752	941	807	972	887	907	535	687	286	---	---
2	367	823	921	878	981	847	900	608	682	320	---	---
3	361	801	306	857	986	810	851	662	673	345	---	---
4	184	783	318	874	760	858	717	669	699	380	---	---
5	200	794	347	748	769	895	738	721	694	371	---	---
6	279	748	293	814	772	797	800	780	662	395	---	---
7	326	766	318	838	855	768	751	792	689	421	---	---
8	368	770	423	852	786	807	749	389	806	434	---	---
9	453	809	425	870	900	782	727	406	696	456	---	---
10	536	768	430	874	831	795	789	500	773	489	---	---
11	606	754	172	806	824	807	717	579	696	---	---	---
12	669	771	267	893	824	837	704	279	776	---	---	---
13	698	856	364	---	798	861	779	183	747	---	---	---
14	743	946	522	831	819	884	777	205	836	---	---	---
15	720	849	593	908	741	958	733	320	753	---	---	---
16	738	941	446	916	900	854	816	449	730	---	---	---
17	772	867	652	990	760	940	850	530	671	---	---	---
18	686	689	742	954	755	782	839	463	802	---	---	---
19	788	650	837	945	892	840	864	554	756	---	---	---
20	175	846	875	1050	907	788	774	592	794	---	---	---
21	232	874	913	1030	928	923	850	620	833	---	---	---
22	300	856	913	963	912	872	496	704	773	---	---	---
23	400	626	995	920	801	850	547	687	387	---	---	---
24	464	572	972	818	899	907	602	704	400	---	---	---
25	546	702	986	941	861	847	697	709	460	---	---	---
26	635	821	829	954	827	945	748	697	634	---	---	---
27	655	912	878	945	907	915	448	692	599	---	---	---
28	701	912	814	990	861	934	410	736	554	---	---	---
29	744	896	839	995	923	880	576	687	605	---	---	---
30	723	941	867	972	---	919	630	711	254	---	---	---
31	836	---	867	963	---	924	---	685	---	---	---	---
MONTH	524	804	647	907	853	862	726	576	671	---	---	---

TRINITY RIVER BASIN

08044000 BIG SANDY CREEK NEAR BRIDGEPORT, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	18.5	8.0	10.0	5.0	17.0	13.5	21.0	21.5	27.0	---	---
2	23.5	17.0	7.0	8.5	5.0	9.5	14.5	20.0	22.0	28.5	---	---
3	23.0	15.0	4.0	8.0	1.0	9.5	17.0	20.0	24.0	26.0	---	---
4	20.5	13.5	5.0	3.0	3.5	11.5	14.0	20.5	24.5	25.0	---	---
5	21.5	14.0	6.0	1.0	4.5	10.5	15.5	21.0	24.0	25.5	---	---
6	20.5	14.5	6.5	1.0	7.0	11.0	19.5	20.5	24.0	23.0	---	---
7	20.0	11.0	7.0	2.0	4.0	14.5	21.5	20.5	24.0	23.5	---	---
8	20.0	11.0	9.0	4.5	5.0	13.5	18.5	20.0	24.0	25.5	---	---
9	19.0	11.0	8.0	7.0	5.0	12.0	16.5	19.0	24.0	24.5	---	---
10	16.0	11.0	8.5	7.0	7.0	13.5	18.5	19.5	23.5	28.0	---	---
11	16.0	11.0	8.0	6.5	6.0	16.0	20.5	19.5	24.5	---	---	---
12	18.0	13.0	9.0	7.0	4.5	17.0	22.0	22.0	24.0	---	---	---
13	19.5	14.0	7.0	6.0	4.5	18.5	24.0	21.5	24.5	---	---	---
14	19.5	16.5	11.5	5.0	8.5	18.0	23.5	23.0	24.0	---	---	---
15	20.0	18.0	10.5	1.5	8.5	19.0	23.5	21.5	25.0	---	---	---
16	22.0	18.0	10.0	2.0	9.5	15.0	20.0	22.5	24.5	---	---	---
17	23.0	18.0	10.0	3.5	8.5	15.0	20.0	23.0	24.5	---	---	---
18	23.0	15.5	8.0	8.0	9.0	16.0	20.5	24.0	25.0	---	---	---
19	20.5	11.0	9.0	9.5	9.0	15.0	22.0	23.5	25.0	---	---	---
20	19.0	10.5	10.5	11.5	10.0	17.0	23.5	23.0	25.5	---	---	---
21	18.5	11.0	9.5	11.0	13.5	16.5	20.0	23.5	25.5	---	---	---
22	18.0	11.0	9.0	9.0	14.5	16.0	19.0	23.5	26.0	---	---	---
23	18.5	8.5	9.0	7.0	13.0	18.0	19.5	23.5	26.5	---	---	---
24	17.0	8.5	10.5	8.0	14.5	19.0	19.5	24.0	27.0	---	---	---
25	16.5	8.5	12.0	7.0	14.0	15.5	18.5	24.5	28.5	---	---	---
26	18.5	10.0	13.5	7.0	13.0	17.0	17.0	24.5	29.0	---	---	---
27	16.5	9.0	15.5	6.0	11.0	19.5	16.0	25.0	29.0	---	---	---
28	18.5	11.0	13.5	3.5	13.0	18.5	18.0	25.0	30.0	---	---	---
29	19.5	9.0	12.0	4.0	15.0	14.5	18.0	25.0	26.5	---	---	---
30	20.5	8.5	11.5	3.5	---	13.5	19.5	23.0	27.0	---	---	---
31	18.0	---	10.0	3.5	---	11.5	---	22.0	---	---	---	---
MONTH	19.5	12.5	9.5	6.0	8.5	15.0	19.0	22.0	25.0	---	---	---

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1.9	67	.34	11	28	.83	11	6	.18
2	1.8	48	.23	11	16	.48	75	480	287
3	174	1040	861	9.4	28	.71	365	764	774
4	642	924	1400	8.7	41	.96	200	292	162
5	754	387	813	9.0	25	.61	165	384	216
6	243	301	220	9.0	52	1.3	319	543	474
7	118	242	79	8.2	25	.55	187	180	93
8	51	190	26	7.7	63	1.3	154	212	126
9	33	143	13	8.2	33	.73	278	359	273
10	20	100	5.4	8.2	35	.77	942	477	1240
11	15	62	2.5	8.2	20	.44	1300	319	1140
12	12	53	1.7	8.2	70	1.5	471	190	244
13	11	52	1.5	8.2	18	.40	165	175	78
14	9.7	40	1.0	8.2	74	1.6	111	120	36
15	9.0	26	.63	8.0	21	.45	169	270	141
16	8.0	26	.56	9.7	20	.52	166	285	135
17	7.4	23	.46	26	274	55	89	105	25
18	8.2	28	.62	81	546	149	52	80	11
19	28	219	80	14	173	7.8	44	34	4.0
20	1570	1670	7820	10	57	1.5	40	56	6.0
21	530	671	986	9.0	46	1.1	39	27	2.5
22	136	392	167	11	32	.95	24	71	5.6
23	57	236	38	97	339	100	27	48	3.5
24	33	140	12	34	264	25	27	51	3.7
25	22	95	5.6	17	95	4.4	25	54	3.6
26	17	137	6.3	14	52	2.0	25	130	8.8
27	28	68	5.1	12	44	1.4	25	160	11
28	29	60	4.7	11	29	.86	22	125	7.4
29	20	41	2.2	10	22	.59	21	147	8.3
30	15	42	1.7	10	7	.19	21	132	7.5
31	13	27	.95	--	--	--	19	105	5.4
TOTAL	4617.0	--	12556.49	496.9	--	362.94	5578	--	5532.48

08044000 BIG SANDY CREEK NEAR BRIDGEPORT, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	18	125	6.1	12	43	1.4	15	30	1.2
2	17	113	5.2	13	47	1.6	15	23	.93
3	17	143	6.6	12	12	.39	14	25	.95
4	16	90	3.9	10	43	1.2	15	28	1.1
5	13	145	5.1	10	72	1.9	14	27	1.0
6	14	167	6.3	12	53	1.7	14	69	2.6
7	16	150	6.5	12	39	1.3	15	42	1.7
8	16	148	6.4	11	20	.59	15	64	2.6
9	17	140	6.4	10	42	1.1	14	43	1.6
10	14	137	5.2	11	10	.30	13	40	1.4
11	14	152	5.7	12	16	.52	15	55	2.2
12	13	138	4.8	20	21	1.1	15	39	1.6
13	13	138	4.8	20	11	.59	15	51	2.1
14	12	172	5.6	21	31	1.8	14	48	1.8
15	10	140	3.8	18	23	1.1	13	24	.84
16	9.7	78	2.0	16	42	1.8	12	46	1.5
17	12	68	2.2	16	45	1.9	11	31	.92
18	14	56	2.1	13	57	2.0	11	43	1.3
19	14	82	3.1	12	21	.68	10	31	.84
20	13	36	1.3	11	53	1.6	9.7	43	1.1
21	13	83	2.9	12	18	.58	11	57	1.7
22	13	65	2.3	13	31	1.1	10	30	.81
23	24	130	8.4	13	59	2.1	9.4	31	.79
24	14	99	3.7	15	62	2.5	22	98	5.8
25	12	52	1.7	15	43	1.7	17	94	4.3
26	10	51	1.4	15	36	1.5	12	36	1.2
27	11	37	1.1	13	14	.49	10	34	.92
28	12	39	1.3	15	55	2.2	9.4	42	1.1
29	12	31	1.0	14	33	1.2	8.4	25	.57
30	12	43	1.4	--	--	--	8.0	25	.54
31	11	38	1.1	--	--	--	8.2	28	.62
TOTAL	426.7	--	119.4	397	--	37.94	395.1	--	47.63
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	8.2	25	.55	49	503	68	7.4	50	1.0
2	8.4	21	.48	19	190	9.7	7.2	75	1.5
3	8.7	33	.78	11	120	3.6	6.7	49	.89
4	8.2	71	1.6	8.2	96	2.1	5.7	38	.58
5	7.7	13	.27	7.0	69	1.3	5.1	43	.59
6	8.2	61	1.4	6.4	69	1.2	4.4	71	.84
7	8.2	55	1.2	32	373	61	4.0	56	.60
8	7.2	45	.87	130	1570	591	3.1	58	.49
9	6.2	49	.82	34	488	47	2.6	76	.53
10	6.0	47	.76	15	275	11	2.2	39	.23
11	6.4	59	1.0	11	202	6.0	1.9	71	.36
12	6.2	57	.95	198	1770	1410	1.8	52	.25
13	5.7	51	.78	1720	858	3500	2.1	44	.25
14	9.4	67	1.7	1550	447	1930	2.2	68	.40
15	17	84	3.9	418	365	414	3.3	73	.65
16	15	70	2.8	146	315	124	2.8	75	.57
17	6.4	45	.78	110	275	82	2.1	54	.31
18	4.9	38	.50	78	243	51	1.6	55	.24
19	4.4	30	.36	54	215	31	1.5	71	.29
20	4.6	71	.88	38	183	19	1.4	48	.18
21	59	995	236	29	154	12	1.1	56	.17
22	40	773	91	25	125	8.4	26	284	27
23	13	470	16	21	96	5.4	27	560	44
24	8.2	50	1.1	19	85	4.4	11	273	8.7
25	6.4	130	2.2	16	50	2.2	4.0	165	1.8
26	5.5	43	.64	14	88	3.3	1.9	43	.22
27	158	1730	1140	12	57	1.8	.76	89	.18
28	106	590	217	10	78	2.1	.20	147	.08
29	26	320	22	9.4	103	2.6	38	215	28
30	26	441	46	9.0	95	2.3	89	1110	298
31	--	--	--	8.2	56	1.2	--	--	--
TOTAL	605.1	--	1794.32	4807.2	--	8408.6	268.06	--	418.90

08044000 BIG SANDY CREEK NEAR BRIDGEPORT, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	17	515	24	0	0	0	0	0	0
2	5.1	288	4.2	0	0	0	0	0	0
3	2.9	160	1.3	0	0	0	0	0	0
4	3.8	140	1.4	0	0	0	0	0	0
5	4.6	137	1.7	0	0	0	0	0	0
6	3.6	89	.87	0	0	0	0	0	0
7	2.2	116	.69	0	0	0	0	0	0
8	1.4	98	.37	0	0	0	0	0	0
9	1.0	100	.27	0	0	0	0	0	0
10	.76	28	.06	0	0	0	0	0	0
11	.37	25	.02	0	0	0	0	0	0
12	.12	22	.01	0	0	0	0	0	0
13	.02	20	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	--	--	--
TOTAL	42.87	--	34.89	0	--	0	0	--	0

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

17633.93

29313.53

08048000 WEST FORK TRINITY RIVER AT FORT WORTH, TEX.

LOCATION.--Lat 32°45'39", long 97°19'56", Tarrant County, at gaging station, 125 ft upstream from Texas Electric Service Co.'s concrete dam, 980 ft downstream from centerline of Paddock Viaduct at Fort Worth.

DRAINAGE AREA.--2,615 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1970.

Chemical and biochemical analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.									
18...	1100	40	4.8	51	5.0	28	176	0	28
DEC.									
03...	1005	149	5.2	44	3.0	11	128	0	23
JAN.									
31...	1955	35	11	65	7.2	28	210	0	38
MAR.									
27...	1135	27	4.8	86	8.1	43	268	0	54
MAY									
10...	1715	30	2.2	58	2.7	21	172	0	32
JUNE									
05...	1445	12	.0	58	6.7	38	188	0	40
23...	1535	12	2.6	58	3.2	42	176	0	40
JULY									
12...	0907	7.0	1.1	44	5.4	51	160	0	42
26...	1720	4.0	.2	48	5.4	33	160	0	29
AUG.									
17...	1040	9.0	5.8	53	7.7	37	176	0	38
30...	1000	7.9	4.6	44	5.4	20	148	0	21
SEP.									
21...	1745	45	4.0	55	4.6	33	186	0	30

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT.									
18...	24	.3	--	.020	.06	.1	.18	229	150
DEC.									
03...	11	.2	--	.080	.18	.5	.34	163	120
JAN.									
31...	28	.3	--	.020	.10	.4	.10	282	190
MAR.									
27...	45	.3	--	.007	.09	.1	.25	374	250
MAY									
10...	18	.3	--	.12	.09	.1	.22	220	160
JUNE									
05...	41	.3	--	.000	.10	.06	.15	276	170
23...	44	.3	--	.050	.10	.2	.14	278	160
JULY									
12...	48	.4	--	.006	.05	.05	.10	271	130
26...	37	.3	--	.003	.03	.00	.43	232	140
AUG.									
17...	43	.3	--	.003	.06	.01	.080	272	160
30...	22	.3	--	.006	.09	.08	.24	191	130
SEP.									
21...	31	.3	.51	.004	.12	.05	.28	249	160

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENF BLUE ACTIVE SUB- STANCE (MG/L)
OCT.									
18...	4	1.0	388	6.9	22.0	6.2	70	2.7	--
DEC.									
03...	17	.6	277	7.5	6.0	11.2	90	4.0	--
JAN.									
31...	20	.9	476	7.6	6.5	11.2	90	4.9	--
MAR.									
27...	28	1.2	634	7.6	21.0	7.2	80	7.8	--
MAY									
10...	15	.6	385	7.5	23.0	9.6	115	6.7	--
JUNE									
05...	18	1.3	495	7.6	29.0	12.0	154	6.2	.16
23...	14	1.5	488	8.3	31.5	14.2	191	11	--
JULY									
12...	1	1.9	475	7.2	27.5	7.5	94	7.9	--
26...	11	1.2	428	7.6	31.5	12.2	164	8.3	--
AUG.									
17...	20	1.3	465	7.4	29.0	7.6	97	5.6	--
30...	11	.8	335	7.8	--	6.1	78	5.6	--
SEP.									
21...	0	1.1	440	7.8	26.5	5.1	63	5.5	--

TRINITY RIVER BASIN

08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TEX.

LOCATION.--Lat 32°45'46", long 96°59'42", Dallas County, at gaging station at bridge on Belt Line Road, 1.3 miles northeast of Grand Prairie, 3.7 miles upstream from Bear Creek, and 6.5 miles upstream from Mountain Creek.

DRAINAGE AREA.--3,065 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1972.

Chemical and biochemical analyses: January 1968 to September 1972.

Water temperatures: October 1966 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-02	116	12	56	7.0	110	--	12	200	0	100
03-05	1030	9.0	52	4.4	--	46	--	168	0	53
06-17	161	12	56	7.0	110	--	12	200	0	100
18-19	1540	9.0	52	4.4	--	46	--	168	0	53
20...	9100	7.0	45	1.9	--	11	--	138	0	16
21-22	1730	9.0	52	4.4	--	46	--	168	0	53
23-31	246	12	56	7.0	110	--	12	200	0	100
NOV.										
01-17	135	14	60	8.2	--	150	--	224	0	120
18-19	880	7.7	56	4.7	--	49	--	177	0	55
20-30	238	11	58	6.6	--	95	--	192	0	89
DEC.										
01...	214	13	60	7.8	--	120	--	204	0	110
02-08	1650	8.5	54	5.8	--	36	--	164	0	48
09-11	9030	8.8	50	3.2	--	18	--	147	0	32
12-31	1740	8.5	54	5.8	--	36	--	164	0	48
JAN.										
01-08	1180	9.1	57	6.4	55	--	5.8	184	0	60
09-26	399	10	69	7.6	--	87	--	226	0	91
27-31	292	9.1	57	6.4	55	--	5.8	184	0	60
FEB.										
01-29	193	11	74	8.0	--	150	--	240	0	160
MAR.										
01-31	166	11	68	9.0	--	140	--	236	0	130
APR.										
01-17	147	13	66	8.7	150	--	12	226	0	120
18-27	388	9.0	59	7.0	--	82	--	190	0	82
28-30	1250	6.7	44	4.7	--	42	--	160	0	47
MAY										
01-31	240	10	63	7.2	--	98	--	200	0	92
JUNE										
01-13	116	15	52	8.1	--	160	--	206	0	120
14-22	221	11	52	6.6	--	120	--	186	0	95
23-30	123	15	52	8.1	--	160	--	206	0	120
JULY										
01-31	121	15	50	8.0	160	--	16	204	0	130
AUG.										
01-31	134	15	49	7.8	--	140	--	190	0	110
SEP.										
01-05	176	16	44	7.4	--	150	--	188	0	110
06-08	157	12	43	5.8	--	93	--	150	0	73
09-23	147	16	44	7.4	--	150	--	188	0	110
24-30	225	12	43	5.8	--	93	--	150	0	73
WTD. AVG.	--	9.7	55	5.7	--	59	--	177	0	66
TIME WTD.										
AVG.	457	12	58	7.4	--	114	--	202	0	104
TOT. LOAD										
(TONS)	--	4380	24800	2590	--	26600	--	79900	0	29900

TRINITY RIVER BASIN

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08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 666 mg/l July 1-31; minimum, 162 mg/l Oct. 20.

Hardness: Maximum, 220 mg/l Feb. 1-29; minimum, 120 mg/l Oct. 20.

Specific conductance: Maximum daily, 1,330 micromhos July 24; minimum daily, 257 micromhos Oct. 20.

Water temperatures: Maximum, 33.5°C June 26; minimum, 8.0°C Dec. 2, 3, Jan. 5, 16.

EXTREMES, October 1966 to September 1968, October 1969 to September 1972.--Dissolved solids: Maximum, 795 mg/l Jan. 12-15, 21-31, 1967; minimum, 162 mg/l Oct. 20, 1971.

Hardness: Maximum, 220 mg/l Feb. 1-29, 1972; minimum, 93 mg/l Oct. 11-13, 30-31, 1969.

Specific conductance: Maximum daily, 1,540 micromhos Dec. 26, 1970; minimum daily, 248 micromhos Mar. 20, 1968.

Water temperatures: Maximum, 34.0°C Aug. 9, 1970; minimum, 4.0°C Feb. 2, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-02	78	.9	8.8	513	170	4	3.6	849	7.6
03-05	29	.4	3.4	292	150	10	1.6	481	7.9
06-17	78	.9	8.8	513	170	4	3.6	849	7.6
18-19	29	.4	3.4	292	150	10	1.6	481	7.9
20...	5.4	.2	1.7	162	120	7	.4	257	7.5
21-22	29	.4	3.4	292	150	10	1.6	481	7.9
23-31	78	.9	8.8	513	170	4	3.6	849	7.6
NOV.									
01-17	110	.9	11	618	180	0	4.7	1040	7.4
18-19	38	--	2.7	309	160	14	1.7	529	7.0
20-30	70	--	8.6	462	170	14	3.2	773	7.3
DEC.									
01...	78	.9	14	556	180	14	3.9	906	7.3
02-08	31	--	2.5	275	160	24	1.2	482	7.2
09-11	11	--	2.4	206	140	17	.7	349	6.8
12-31	31	--	2.5	275	160	24	1.2	482	7.2
JAN.									
01-08	46	.6	4.7	351	170	18	1.8	610	7.5
09-26	64	--	6.5	469	200	18	2.6	788	7.4
27-31	46	.6	4.7	351	170	18	1.8	610	7.5
FEB.									
01-29	94	.7	11	665	220	21	4.4	1040	7.9
MAR.									
01-31	100	.7	12	630	210	13	4.3	1080	7.8
APR.									
01-17	110	1.2	14	657	200	16	4.5	1120	7.3
18-27	62	--	7.4	427	180	20	2.7	726	7.2
28-30	24	--	1.7	255	130	2	1.6	452	7.0
MAY									
01-31	76	.7	8.5	483	190	22	3.1	819	7.5
JUNE									
01-13	130	1.0	12	646	160	0	5.6	1090	7.4
14-22	90	--	8.1	497	160	4	4.0	838	7.4
23-30	130	1.0	12	646	160	0	5.6	1090	7.4
JULY									
01-31	130	.8	12	666	160	0	5.6	1100	7.9
AUG.									
01-31	110	1.0	11	582	150	0	5.1	982	7.2
SEP.									
01-05	110	1.0	11	579	140	0	5.5	962	7.8
06-08	76	--	7.5	410	130	8	3.5	697	7.6
09-23	110	1.0	11	579	140	0	5.5	962	7.8
24-30	76	--	7.5	410	130	8	3.5	697	7.6
WTD. AVG.	48	--	5.2	360	161	16	2.1	610	7.3
TIME WTD.									
AVG.	88	--	9.3	531	175	11	3.9	889	7.5
TOT. LOAD (TONS)	21700	--	2330	163000	--	--	--	--	--

TRINITY RIVER BASIN

08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 18...	1230	456	12	50	8.0	120	252	0	100
DEC. 03...	0900	4300	6.2	42	3.7	22	136	0	32
JAN. 31...	1655	210	7.5	70	11	110	304	0	120
MAR. 27...	1300	215	10	70	12	130	328	0	120
MAY 10...	1600	205	8.8	60	3.5	86	228	0	85
JUNE 05...	1545	112	13	56	9.8	170	358	0	110
23...	--	140	14	47	14	150	322	0	110
JULY 12...	1045	155	13	42	12	150	280	0	110
26...	1615	115	13	47	12	180	292	0	170
AUG. 14...	1600	255	15	52	12	140	328	0	75
30...	1115	115	11	42	12	110	240	0	93

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 18...	93	.8	.14	8.1	.3	3.0	526	160	0
DEC. 03...	16	.2	.037	.92	.6	2.0	193	120	9
JAN. 31...	84	.6	.15	9.3	.8	5.0	574	220	4
MAR. 27...	100	.7	.050	9.2	.2	4.2	621	220	0
MAY 10...	64	.7	.35	6.2	.8	3.7	433	160	0
JUNE 05...	120	.9	.56	12	.5	7.1	677	180	0
23...	110	.7	.42	11	.6	10	627	180	0
JULY 12...	110	.9	.95	8.2	2.2	5.2	601	160	0
26...	110	1.0	.84	11	2.5	7.2	703	170	0
AUG. 14...	130	1.0	.072	12	.09	9.3	605	180	0
30...	79	.7	.71	7.1	2.5	6.0	488	160	0

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT. 18...	4.2	896	7.1	24.0	3.4	40	7.3	--
DEC. 03...	.9	321	7.3	6.5	9.4	76	9.0	--
JAN. 31...	3.3	981	7.3	9.5	4.9	43	10	--
MAR. 27...	3.8	1050	7.3	22.5	3.8	43	15	--
MAY 10...	2.9	729	7.1	23.0	4.7	56	11	--
JUNE 05...	5.4	1140	7.5	28.5	3.7	47	19	.26
23...	5.0	1070	7.3	30.0	2.2	29	11	--
JULY 12...	5.3	1020	7.2	28.2	1.5	19	> 8.4	--
26...	5.9	1170	7.3	31.5	1.9	26	> 7.9	--
AUG. 14...	4.6	986	7.2	31.0	.6	8	13	--
30...	3.8	824	7.6	--	1.9	24	12	--

TRINITY RIVER BASIN

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08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	858	925	906	385	958	1050	1070	593	1060	1080	1170	914
2	979	952	447	397	991	1020	1070	598	1040	1040	1130	941
3	535	952	487	334	996	1050	1090	647	1020	1070	1070	983
4	394	996	555	390	1010	1080	1090	733	1070	1130	1130	1050
5	508	975	522	479	1030	1070	1090	799	1110	1030	1140	911
6	641	1030	377	509	1060	1140	1150	814	1110	1030	1130	603
7	737	1040	500	640	1000	1100	1060	649	1090	1010	1090	697
8	757	1040	423	675	996	1100	1140	549	1140	1020	1060	779
9	858	1080	350	738	987	1090	1180	570	1110	1070	1020	875
10	983	996	296	800	1030	1030	1160	663	1100	1090	1090	886
11	839	1020	401	818	1030	1110	1220	859	1150	1060	1100	937
12	820	1060	502	807	1030	1100	1140	767	1130	1040	1080	1000
13	863	1100	497	857	1030	1150	1170	831	1150	1000	1000	893
14	857	1040	525	853	1000	1070	1130	668	895	1140	996	1070
15	907	1060	491	847	970	1090	1160	795	923	1060	771	1020
16	991	1070	463	819	1030	1090	1160	823	827	1060	808	1020
17	1040	1270	467	812	991	1120	1040	826	784	1120	859	1050
18	526	474	483	801	996	1140	866	711	795	1010	906	1050
19	436	586	498	819	1030	1150	666	676	864	919	935	996
20	257	649	520	846	1080	1170	636	732	898	1070	979	1000
21	415	776	541	849	1070	1200	665	868	581	1050	1060	803
22	584	854	508	853	1170	1120	763	831	983	1170	1040	852
23	673	589	502	769	1130	1070	692	939	1050	1210	943	945
24	704	542	505	621	1080	1010	783	991	1000	1330	1010	615
25	794	612	490	621	1090	1110	684	1060	1090	1180	996	745
26	852	756	468	653	1100	1070	839	971	1030	1140	959	710
27	868	857	467	681	1080	922	668	1050	987	1160	879	863
28	878	860	442	721	1090	1050	471	1130	1110	1290	753	565
29	905	1040	441	821	1090	1060	460	1090	1310	1130	768	702
30	877	932	469	905	---	1060	424	1090	1080	1160	814	705
31	894	---	447	956	---	1060	---	1080	---	1240	932	---
MONTH	749	904	484	712	1040	1090	925	819	1020	1100	988	873

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	22.0	14.0	13.0	11.0	16.5	19.0	23.0	28.0	31.0	30.0	28.0
2	28.0	22.0	8.0	13.0	9.0	16.0	19.0	24.0	28.0	31.0	31.0	28.0
3	22.0	20.0	8.0	13.0	9.0	16.5	21.0	26.0	29.0	31.0	30.0	28.0
4	22.0	19.0	9.0	8.5	10.0	16.0	21.0	25.0	30.0	27.0	30.0	27.0
5	24.0	19.5	10.0	8.0	10.0	17.0	22.0	25.0	30.0	28.0	30.0	28.0
6	24.0	17.0	9.0	9.0	12.0	19.0	24.0	24.0	30.0	29.0	31.5	28.0
7	24.0	16.0	11.0	10.0	11.0	20.0	24.5	21.0	30.0	27.0	31.0	30.0
8	22.0	16.0	12.0	11.0	12.0	18.0	24.0	22.0	30.0	29.0	32.0	31.0
9	23.0	16.0	12.0	13.0	12.0	19.0	24.0	23.0	30.0	30.0	30.0	30.0
10	22.0	17.0	10.0	12.0	13.0	20.0	23.0	23.0	28.0	30.0	29.5	31.0
11	22.0	17.0	11.0	12.0	11.0	21.0	25.0	24.0	30.0	30.0	31.0	31.0
12	22.0	18.0	12.0	14.0	11.5	20.0	26.5	25.0	29.5	31.0	28.0	31.0
13	23.0	20.0	12.0	12.0	13.0	22.0	26.0	24.0	29.0	31.0	30.0	31.5
14	23.0	20.0	13.0	10.0	15.0	22.5	27.0	23.0	30.0	31.0	30.0	31.0
15	23.0	20.0	13.0	9.0	14.0	20.0	26.0	27.0	19.0	31.0	30.0	30.0
16	25.0	21.0	13.0	8.0	15.0	21.0	26.0	26.0	29.0	31.0	31.0	29.0
17	24.0	21.0	12.0	9.0	16.0	22.0	25.0	27.5	30.0	31.0	30.5	29.0
18	22.0	17.5	12.0	13.0	15.0	21.0	25.0	28.0	28.0	31.0	30.5	30.0
19	23.0	17.0	12.0	15.0	14.0	21.0	26.0	27.0	31.0	31.0	31.0	30.0
20	21.0	17.0	13.0	16.0	18.5	21.0	26.0	28.0	33.0	32.0	29.0	30.0
21	21.0	17.0	13.0	14.0	18.0	22.0	25.0	28.0	29.0	31.0	29.0	27.0
22	22.0	13.0	12.0	15.0	18.0	22.0	24.0	28.0	31.0	31.0	29.0	25.0
23	21.0	12.0	13.0	15.0	18.0	22.5	25.0	29.0	31.0	32.0	29.5	25.0
24	21.0	12.0	13.0	13.0	18.0	23.5	24.0	29.0	---	33.0	30.0	25.0
25	21.0	---	13.0	13.0	21.5	21.0	24.0	29.5	33.0	32.0	29.0	27.0
26	22.0	15.0	14.0	11.0	16.5	23.0	22.0	30.0	33.5	32.0	29.5	29.0
27	21.0	15.0	16.0	10.0	17.0	24.0	20.0	29.0	33.0	32.0	31.0	28.0
28	23.0	15.0	15.0	10.0	19.0	23.0	20.0	29.0	33.0	32.0	30.0	28.0
29	23.0	15.0	14.0	10.0	20.0	21.0	19.0	27.0	32.0	32.0	30.0	26.0
30	23.0	13.0	14.0	9.0	---	18.0	19.0	28.0	31.0	31.0	30.0	25.0
31	23.5	---	13.0	10.0	---	20.0	---	27.0	---	31.0	29.0	---
MONTH	23.0	17.0	12.0	11.5	14.5	20.5	23.5	26.0	30.0	30.5	30.0	28.5

TRINITY RIVER BASIN

08050300 ELM FORK TRINITY RIVER NEAR MUENSTER, TEX.

LOCATION.--Lat 33°36'36", long 97°22'57", Cooke County, at gaging station at bridge on Farm Road 373, 2.5 miles south of Muenster, 2.5 miles downstream from Long Branch, and 6.5 miles upstream from Brushy Elm Creek.

DRAINAGE AREA.--46 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1972.

Water temperatures: October 1956 to September 1958. October 1965 to September 1967.

Sediment records: October 1956 to September 1967.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 14...	1300	6.2	11	110	6.7	76	252	0	24	170
NOV. 19...	1005	12	9.0	96	7.4	46	248	0	24	100
DEC. 23...	1210	52	11	88	2.6	27	244	0	23	43
JAN. 24...	1100	7.7	7.6	84	6.2	40	200	0	32	88
MAR. 01...	1450	4.4	7.0	110	7.4	53	296	0	38	100
APR. 05...	1445	2.4	8.2	88	7.9	56	196	0	40	120
MAY 12...	1420	2.3	9.2	52	11	63	100	0	33	140
JUNE 16...	1130	.26	13	190	16	240	218	0	41	590

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 14...	.2	.2	531	310	110	1.9	945	8.0	19.0
NOV. 19...	.4	.00	405	270	67	1.2	705	8.0	12.0
DEC. 23...	.4	1.0	319	230	30	.8	536	8.1	11.0
JAN. 24...	.2	.1	356	240	71	1.1	663	7.5	13.0
MAR. 01...	.3	.1	464	310	68	1.3	796	7.9	16.0
APR. 05...	.2	.04	418	250	92	1.5	772	7.9	20.0
MAY 12...	.2	.1	356	180	93	2.1	632	8.0	22.0
JUNE 16...	.2	.04	1190	530	350	4.6	2110	7.7	28.5

TRINITY RIVER BASIN

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08050500 ELM FORK TRINITY RIVER NEAR SANGER, TEX.

LOCATION.--Lat 33°23'11", long 97°05'05", Denton County, at bridge on Farm Road 455, 4.1 miles downstream from Spring Creek, 5.0 miles upstream from Isle du Bois Creek, and 5.4 miles northeast of Sanger.

DRAINAGE AREA.--381 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1969 to September 1972.
Sediment records: January 1966 to September 1971.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

			DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	
DATE	TIME	DIS- CHARGE (CFS)								
OCT.										
08...	0915	178	14	48	4.0	28	160	0	16	
18...	0945	20	9.5	72	4.5	51	248	0	29	
NOV.										
16...	1440	23	11	94	7.2	71	320	0	37	
DEC.										
05...	1620	1800	8.9	40	2.0	16	126	0	14	
JAN.										
12...	1705	62	6.8	120	8.0	63	350	0	50	
31...	1830	38	4.3	110	7.4	74	346	0	54	
MAR.										
27...	1000	17	6.5	96	9.8	92	336	0	60	
MAY										
04...	1400	24	11	69	5.8	67	224	0	51	
JUNE										
05...	1330	9.5	2.7	92	8.6	78	336	0	43	
JULY										
11...	1605	2.9	8.5	90	3.8	120	436	4	48	
AUG.										
16...	1110	2.3	12	78	8.6	160	530	0	45	
17...	0920	2.3	12	78	11	150	528	0	45	
SEP.										
19...	1610	1.6	14	44	5.3	140	368	0	40	
		DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
DATE										
OCT.										
08...	33	.1	--	--	.9	--	226	140	5	
18...	51	.3	.010	.09	1.0	.30	344	200	0	
NOV.										
16...	79	.2	--	--	1.5	--	463	260	2	
DEC.										
05...	14	.2	.021	.07	1.1	.50	162	110	5	
JAN.										
12...	80	.2	--	--	7.1	--	502	320	33	
31...	83	.2	.054	.21	1.6	.36	508	300	16	
MAR.										
27...	98	.3	.081	.21	1.0	.60	533	280	4	
MAY										
04...	70	.2	--	--	1.5	--	391	200	12	
JUNE										
05...	80	.3	.008	.05	.2	.48	471	260	0	
JULY										
11...	60	.3	--	--	.5	--	551	240	0	
AUG.										
16...	59	.4	--	--	.4	--	621	230	0	
17...	59	.4	.008	.18	.05	1.0	615	240	0	
SEP.										
19...	58	.3	--	--	1.3	--	485	130	0	

TRINITY RIVER BASIN

08050500 ELM FORK TRINITY RIVER NEAR SANGER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUR- STANCE (MG/L)
OCT.								
08...	1.0	397	7.6	20.0	--	--	--	--
18...	1.6	567	7.4	21.0	7.0	78	1.1	--
NOV.								
16...	1.9	763	8.1	--	--	--	--	--
DEC.								
05...	.7	269	7.5	5.5	11.1	88	5.5	--
JAN.								
12...	1.5	848	7.8	8.0	--	--	--	--
31...	1.9	847	7.9	5.0	12.9	101	2.3	--
MAR.								
27...	2.4	902	7.5	18.0	8.2	86	5.7	--
MAY								
04...	2.1	581	7.3	21.0	--	--	--	--
JUNE								
05...	2.1	814	7.9	23.7	11.3	133	5.8	.10
JULY								
11...	3.4	854	8.4	--	--	--	--	--
AUG.								
16...	4.4	958	8.2	--	--	--	--	--
17...	4.2	933	8.0	26.0	5.5	67	1.7	--
SEP.								
19...	5.2	779	8.0	28.0	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM
MAR.							
30...	1230	15	14.5	16	.67	--	--
MAY							
04...	1400	24	21.0	142	9.4	1	2
JULY							
11...	1605	2.9	28.0	140	1.1	--	--
SEP.							
19...	1610	1.6	28.0	21	.09	--	--

DATE	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
MAR.						
30...	--	--	--	--	--	--
MAY						
04...	3	4	6	10	21	54
JULY						
11...	--	--	--	--	--	--
SEP.						
19...	--	--	--	--	--	--

TRINITY RIVER BASIN

251

08051500 CLEAR CREEK NEAR SANGER, TEX.

LOCATION.--Lat 33°20'09", long 97°10'44", Denton County, at gaging station at bridge on county road (formerly U.S. Highway 77), 1,000 feet downstream from Interstate Highway 35 and U.S. Highway 77, 1,350 feet downstream from Duck Creek, 1.1 miles upstream from Gulf, Colorado and Santa Fe Railway Co. bridge, and 1.8 miles south of Sanger.

DRAINAGE AREA.--295 sq mi.

PERIOD OF RECORD.--Specific conductance: May 1968 to September 1972.

Water temperatures: May 1968 to September 1972.

Sediment records: May 1968 to September 1972.

EXTREMES, October 1971 to September 1972.--Sediment concentrations: Maximum daily, 7,370 mg/l May 12; minimum daily, no flow on many days during July, August and September.

Sediment loads: Maximum, 60,000 tons Dec. 10; minimum daily, 0 tons on many days during July, August and September.

EXTREMES, May 1968 to September 1972.-- Water temperatures (May 1968 to September 1970): Maximum, 39.0°C June 28, 1969 minimum, freezing point Jan. 9, 1970.

Sediment concentrations: Maximum daily, 7,370 mg/l May 12, 1972; minimum daily, no flow on many days during July, August and September, 1972.

Sediment loads: Maximum daily, 79,000 tons May 7, 1969; minimum daily, 0 tons on many days.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	936	---	646	---	---	---	949	439	---	---	---	---
2	---	---	464	---	---	---	976	539	1110	---	---	---
3	317	712	---	---	---	---	990	595	---	---	---	---
4	---	745	354	---	---	---	963	650	1230	---	---	---
5	318	---	315	---	---	---	958	---	1130	---	---	---
6	241	---	334	---	---	---	1090	750	1210	---	---	---
7	315	---	344	---	---	---	---	844	1210	---	---	---
8	359	---	264	---	---	---	1050	---	1350	---	---	---
9	424	911	264	---	---	---	1010	657	1390	---	---	---
10	469	830	249	---	---	918	---	753	1380	---	---	---
11	---	797	---	---	---	962	1080	848	1370	---	---	---
12	---	---	367	---	---	910	---	354	1440	---	---	---
13	743	---	208	---	---	897	1000	---	1420	---	---	---
14	---	928	---	---	---	926	---	374	1360	---	---	---
15	---	---	219	---	---	931	958	395	1370	---	---	---
16	---	932	239	---	---	967	766	430	1320	---	---	---
17	---	---	849	---	---	944	1010	473	1200	---	---	---
18	911	359	---	---	---	948	837	---	1160	---	---	---
19	465	306	394	---	---	1000	1110	---	---	---	---	---
20	242	---	---	---	---	1030	397	---	---	---	---	---
21	273	527	---	---	---	1020	363	662	596	---	---	---
22	---	501	422	---	---	985	---	---	1150	---	---	---
23	289	---	458	---	---	980	---	828	1590	---	---	---
24	507	---	462	---	---	995	689	835	1190	---	---	---
25	---	493	---	---	---	824	---	---	1060	---	---	---
26	---	---	---	---	---	885	622	938	1030	---	---	---
27	---	---	514	---	---	971	302	1010	1020	---	---	---
28	482	---	---	---	---	985	456	---	1170	---	---	---
29	---	620	---	---	---	989	---	---	1170	---	---	---
30	---	---	---	---	---	945	---	1060	---	---	---	---
31	---	---	---	---	---	916	---	1080	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	1230	---	---	---

08051500 CLEAR CREEK NEAR SANGER, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	---	10.0	---	---	---	16.0	24.0	---	---	---	---
2	---	---	---	---	---	---	16.0	25.5	31.5	---	---	---
3	21.5	18.0	---	---	---	---	---	26.0	---	---	---	---
4	---	---	6.0	---	---	---	18.0	26.0	---	---	---	---
5	28.0	---	4.0	---	---	---	21.5	---	27.0	---	---	---
6	24.0	---	6.0	---	---	---	21.0	25.0	26.0	---	---	---
7	27.0	---	7.0	---	---	---	---	19.5	29.0	---	---	---
8	26.0	---	10.0	---	---	---	22.0	---	30.0	---	---	---
9	20.0	16.0	10.0	---	---	---	20.5	24.0	29.0	---	---	---
10	27.0	12.5	10.0	---	---	20.5	---	23.5	30.0	---	---	---
11	---	17.0	---	---	---	20.5	25.0	20.0	31.0	---	---	---
12	---	---	10.0	---	---	19.5	---	20.5	32.0	---	---	---
13	---	---	10.0	---	---	23.0	28.5	---	27.0	---	---	---
14	---	20.0	---	---	---	23.0	---	24.0	32.0	---	---	---
15	---	---	---	---	---	18.5	24.0	25.5	29.0	---	---	---
16	---	19.0	---	---	---	21.0	23.0	26.0	31.0	---	---	---
17	---	---	---	---	11.5	23.0	23.0	27.0	26.0	---	---	---
18	23.0	12.0	---	---	---	18.0	24.5	---	31.0	---	---	---
19	24.0	14.0	---	---	---	21.0	27.0	---	---	---	---	---
20	20.0	---	---	---	---	20.0	22.0	---	---	---	---	---
21	20.0	14.0	---	---	---	21.0	24.0	29.5	29.0	---	---	---
22	22.0	10.0	---	---	---	23.0	---	---	32.0	---	---	---
23	---	---	---	---	---	23.0	---	30.5	32.0	---	---	---
24	---	---	---	---	---	---	22.5	32.5	34.0	---	---	---
25	---	12.0	---	---	---	21.0	---	---	34.0	---	---	---
26	24.0	---	---	---	---	21.5	19.0	31.0	36.0	---	---	---
27	---	---	---	---	---	23.0	18.5	27.0	36.0	---	---	---
28	24.0	---	---	---	---	21.5	18.0	---	34.0	---	---	---
29	---	14.0	---	---	---	17.0	---	---	30.0	---	---	---
30	---	---	---	---	---	13.5	---	26.0	---	---	---	---
31	---	---	---	---	---	19.5	---	27.0	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	31.0	---	---	---

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1.5	26	.11	38	20	2.1	32	35	3.0
2	1.3	26	.09	34	15	1.4	130	1030	866
3	1380	4280	21500	32	12	1.0	909	2560	6820
4	562	2860	4620	28	7	.53	420	1000	1180
5	267	1420	1020	27	10	.73	737	2180	5480
6	130	620	218	24	10	.65	900	1530	3720
7	68	290	53	21	10	.57	410	950	1050
8	43	140	16	19	10	.51	823	1950	7870
9	31	120	10	16	8	.35	2540	2860	21100
10	23	68	4.2	13	15	.53	4540	3980	60000
11	20	50	2.7	13	20	.70	1510	1780	7260
12	17	30	1.4	13	25	.88	1240	1550	5190
13	15	20	.81	13	30	1.1	1040	1620	4550
14	15	30	1.2	12	35	1.1	824	1850	4260
15	13	30	1.1	12	35	1.1	1030	1820	5600
16	13	30	1.1	12	35	1.1	500	820	1110
17	12	30	.97	12	35	1.1	300	950	770
18	14	42	1.6	144	1880	966	163	880	387
19	39	128	14	71	673	140	84	810	184
20	1710	4410	29800	44	250	30	63	790	134
21	644	2630	4570	34	110	10	66	780	139
22	320	1460	1260	29	25	2.0	91	890	219
23	163	750	330	63	139	31	100	600	162
24	76	250	51	72	142	28	97	160	42
25	51	110	15	54	43	6.3	98	100	26
26	47	69	8.8	46	30	3.7	86	95	22
27	56	80	12	39	25	2.6	77	90	19
28	63	113	19	34	20	1.8	71	90	17
29	48	70	9.1	30	18	1.5	69	85	16
30	44	50	5.9	27	25	1.8	78	100	21
31	42	30	3.4	--	--	--	83	95	21
TOTAL	5928.8	--	63550.48	1026	--	1240.15	19111	--	138238.0

TRINITY RIVER BASIN

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08051500 CLEAR CREEK NEAR SANGER, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	75	90	18	32	32	2.8	20	24	1.3
2	69	85	16	34	34	3.1	19	24	1.2
3	64	82	14	29	34	2.7	18	25	1.2
4	59	80	13	28	34	2.6	18	26	1.3
5	58	78	12	29	30	2.3	17	28	1.3
6	56	75	11	29	28	2.2	16	30	1.3
7	54	73	11	28	26	2.0	17	35	1.6
8	51	71	9.8	26	24	1.7	17	35	1.6
9	55	73	11	26	22	1.5	15	35	1.4
10	55	73	11	25	20	1.4	15	35	1.4
11	54	73	11	26	18	1.3	16	32	1.4
12	53	70	10	31	20	1.7	17	40	1.8
13	51	65	9.0	33	20	1.8	17	28	1.3
14	46	60	7.5	31	18	1.5	17	26	1.2
15	38	55	5.6	29	16	1.3	16	32	1.4
16	35	55	5.2	26	12	.84	17	16	.73
17	43	55	6.4	25	11	.74	16	24	1.0
18	43	50	5.8	24	12	.78	15	23	.93
19	42	48	5.4	22	12	.71	15	25	1.0
20	41	45	5.0	21	14	.79	15	6	.24
21	40	44	4.8	22	16	.95	16	8	.35
22	39	42	4.4	22	16	.95	16	14	.60
23	39	40	4.2	21	16	.91	15	8	.32
24	38	38	3.9	23	20	1.2	21	37	2.1
25	35	35	3.3	23	20	1.2	22	13	.77
26	32	33	2.9	22	20	1.2	18	11	.53
27	34	35	3.2	20	20	1.1	17	15	.69
28	35	35	3.3	20	20	1.1	16	10	.43
29	34	34	3.1	20	22	1.2	14	10	.38
30	33	33	2.9	--	--	--	13	21	.74
31	32	32	2.8	--	--	--	13	36	1.3
TOTAL	1433	--	236.5	747	--	43.57	514	--	32.81
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	13	27	.95	85	1090	273	6.4	8	.14
2	13	45	1.6	43	247	30	6.0	9	.15
3	13	21	.74	30	130	11	5.7	9	.14
4	12	25	.81	24	90	5.8	5.3	9	.13
5	11	15	.45	20	80	4.3	4.9	19	.25
6	12	24	.78	19	72	3.7	4.6	29	.36
7	12	20	.65	20	48	2.6	4.4	40	.48
8	11	16	.48	25	80	5.4	3.8	56	.57
9	10	28	.76	21	61	3.5	3.6	10	.10
10	11	26	.77	17	55	2.5	3.5	11	.10
11	12	28	.91	15	43	1.7	3.2	23	.20
12	12	18	.58	1040	7370	33500	3.0	11	.09
13	11	8	.24	490	5490	7700	2.8	19	.14
14	14	12	.45	220	2970	1820	5.3	11	.16
15	20	16	.86	119	2280	734	4.3	18	.21
16	20	34	1.8	75	1230	258	4.7	91	1.2
17	13	5	.18	49	217	30	4.0	19	.21
18	10	4	.11	32	103	8.9	3.1	6	.05
19	10	11	.30	25	77	5.2	2.5	10	.07
20	237	1840	1820	20	68	3.7	2.1	10	.06
21	150	1750	728	16	62	2.7	6.6	251	8.9
22	71	984	203	14	50	1.9	6.1	62	1.0
23	34	280	26	12	25	.81	6.0	10	.16
24	23	80	5.0	11	30	.89	5.1	15	.21
25	17	50	2.3	10	22	.59	3.1	5	.04
26	13	54	1.9	9.0	14	.34	2.2	10	.06
27	57	731	233	8.3	25	.56	1.4	31	.12
28	80	1660	364	7.7	20	.42	.97	10	.03
29	46	595	80	7.4	20	.40	1.1	75	.22
30	57	382	85	7.0	14	.26	.96	20	.05
31	--	--	--	6.8	7	.13	--	--	--
TOTAL	1025	--	3561.62	2498.2	--	44412.30	116.73	--	15.60

TRINITY RIVER BASIN

08051500 CLEAR CREEK NEAR SANGER, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1.5	20	.08	0	0	0	0	0	0
2	1.5	20	.08	0	0	0	0	0	0
3	1.2	20	.06	0	0	0	0	0	0
4	1.3	20	.07	0	0	0	0	0	0
5	2.0	20	.11	0	0	0	0	0	0
6	1.6	20	.09	0	0	0	0	0	0
7	.98	20	.05	0	0	0	0	0	0
8	.55	20	.03	0	0	0	0	0	0
9	.29	20	.02	0	0	0	0	0	0
10	.13	20	.01	0	0	0	0	0	0
11	.04	20	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	--	--	--
TOTAL	11.09	--	.60	0	--	0	0	--	0

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

32410.82
251331.63

255

LOCATION.--Lat 33°21'55", long 96°49'25", Collin County, at gaging station at bridge on Farm Road 455, 3.6 miles northwest of Celina, and 10 miles upstream from Mustang Creek.

Sediment records: February 1966 to September 1972.

Sediment loads: Maximum daily 3,890 tons, Dec. 9; minimum daily, 0 tons on many days.

Sediment loads: Maximum daily, 15,200 tons Apr. 28, 1966; minimum daily, 0 tons on many days.

SPECIFIC CONDUCTANCE (MICRIMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

TRINITY RIVER BASIN

08052650 LITTLE ELM CREEK NEAR CELINA, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	17.0	8.0	12.0	---	---	---	23.0	---	---	---	---
2	25.0	17.0	7.0	---	---	---	---	24.0	---	---	---	---
3	20.0	---	5.0	11.0	---	---	---	25.0	---	---	---	---
4	21.0	---	6.0	4.0	---	---	---	25.0	---	---	---	---
5	21.0	---	7.0	5.0	---	---	---	23.0	---	---	---	---
6	21.0	---	7.0	5.0	---	---	---	21.0	---	---	---	---
7	21.0	---	7.0	5.0	---	---	---	19.0	---	---	---	---
8	20.0	12.0	10.0	5.0	---	---	---	20.0	---	---	---	---
9	19.0	---	11.0	---	---	---	---	20.0	---	---	---	---
10	19.0	---	10.0	---	---	---	---	21.0	---	---	---	---
11	19.0	---	9.0	---	---	---	---	22.0	---	---	---	---
12	---	---	10.0	7.5	---	---	---	20.0	---	---	---	---
13	---	---	11.0	---	---	---	---	20.0	---	---	---	---
14	---	---	11.0	---	---	---	---	20.0	---	---	---	---
15	---	---	10.0	---	---	---	---	20.0	---	---	---	---
16	---	---	11.0	---	---	---	---	22.5	---	---	---	---
17	---	---	10.0	---	---	---	---	---	---	---	---	---
18	22.0	16.0	10.0	---	---	---	---	---	---	---	---	---
19	19.5	15.0	12.0	---	---	---	---	---	---	---	---	---
20	19.5	13.5	12.0	---	---	---	---	---	---	---	---	---
21	19.5	14.0	11.0	---	---	---	---	---	---	---	---	---
22	17.5	10.5	10.0	---	---	---	---	---	---	---	---	17.0
23	18.5	10.0	12.0	---	---	---	---	---	---	---	---	21.0
24	17.5	10.0	13.0	---	---	---	---	---	---	---	---	21.0
25	16.0	14.0	13.0	---	---	---	---	---	---	---	---	21.0
26	17.0	16.5	13.0	---	---	---	---	---	---	---	---	22.0
27	19.0	11.0	14.0	---	---	---	---	---	---	---	---	23.0
28	20.0	11.0	12.0	---	---	---	---	---	---	---	---	23.0
29	20.0	9.0	12.0	---	---	---	---	---	---	---	---	---
30	17.0	8.0	12.0	---	---	---	19.5	---	---	---	---	---
31	17.0	---	13.0	---	---	---	---	---	---	---	---	---
MONTH	19.5	---	10.5	---	---	---	---	---	---	---	---	---

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2.7	95	.69	4.1	100	1.1	31	356	31
2	1.8	85	.41	3.1	69	.58	372	1560	2780
3	292	1280	1240	2.4	65	.42	364	781	887
4	163	419	198	1.8	60	.29	197	375	199
5	78	210	44	1.3	60	.21	663	960	1850
6	46	140	17	.85	55	.13	362	504	496
7	23	145	9.0	.74	50	.10	266	290	208
8	14	100	3.8	.50	50	.07	508	832	1630
9	9.2	70	1.7	.20	45	.02	1290	1100	3890
10	5.5	74	1.1	.14	40	.02	1050	457	1590
11	3.5	47	.44	.07	40	.01	444	324	388
12	2.3	45	.28	.05	35	0	392	310	328
13	1.7	40	.18	.02	30	0	357	245	236
14	1.2	35	.11	.01	30	0	388	222	268
15	.85	33	.08	0	0	0	423	298	350
16	.50	30	.04	0	0	0	226	337	206
17	2.2	83	2.5	231	585	1930	149	305	123
18	86	1110	416	737	877	2240	100	227	61
19	495	1290	1750	277	457	350	70	218	41
20	704	756	1890	208	315	177	55	230	34
21	281	350	266	132	272	97	28	228	23
22	222	380	228	102	449	178	35	217	15
23	143	250	97	138	262	121	18	197	9.6
24	76	220	45	67	150	27	13	160	5.6
25	48	205	27	42	120	14	10	125	3.4
26	31	223	19	27	125	9.1	8.3	130	2.9
27	24	223	14	18	137	6.7	7.1	108	2.1
28	16	197	8.5	12	138	4.5	5.8	125	2.0
29	11	177	5.3	9.2	127	3.2	4.6	125	1.6
30	7.3	149	2.9	9.4	117	3.3	5.7	108	1.7
31	5.5	103	1.5	--	--	--	4.6	112	1.4
TOTAL	2797.25	--	6289.53	2024.88	--	5163.75	7847.1	--	15664.3

08052650 LITTLE ELM CREEK NEAR CELINA, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	4.0	75	.81	.20	25	.01	0	0	0
2	4.0	89	.96	.20	20	.01	0	0	0
3	3.3	32	.29	.10	15	0	0	0	0
4	3.0	50	.41	.05	8	0	0	0	0
5	1.9	54	.28	.05	10	0	0	0	0
6	1.4	65	.25	.05	10	0	0	0	0
7	1.4	54	.20	.02	10	0	0	0	0
8	1.5	100	.41	.02	10	0	0	0	0
9	1.9	100	.51	.03	10	0	0	0	0
10	2.4	100	.65	.03	10	0	0	0	0
11	1.8	100	.49	.03	10	0	0	0	0
12	1.3	97	.34	.20	10	.01	0	0	0
13	.96	100	.26	.50	10	.01	0	0	0
14	.74	100	.20	.14	10	0	0	0	0
15	.20	100	.05	.05	10	0	0	0	0
16	.14	100	.04	.02	10	0	0	0	0
17	.02	100	.01	.03	10	0	0	0	0
18	.05	95	.01	.02	10	0	0	0	0
19	.10	90	.02	.01	10	0	0	0	0
20	.28	85	.06	0	0	0	0	0	0
21	.50	80	.11	0	0	0	0	0	0
22	.38	75	.08	0	0	0	0	0	0
23	.20	70	.04	0	0	0	0	0	0
24	.14	65	.02	0	0	0	.95	55	.41
25	.10	60	.02	0	0	0	.96	77	.20
26	.05	55	.01	0	0	0	.10	43	.01
27	.05	50	.01	0	0	0	.01	15	0
28	.62	45	.08	0	0	0	0	0	0
29	.50	40	.05	0	0	0	0	0	0
30	.38	35	.04	--	--	--	0	0	0
31	.20	30	.02	--	--	--	0	0	0
TOTAL	33.51	--	6.73	1.75	--	.04	2.02	--	.62
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	0	0	0	13	473	26	0	0	0
2	0	0	0	1.4	215	.81	0	0	0
3	0	0	0	.07	125	.02	0	0	0
4	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0
7	0	0	0	.07	46	.01	0	0	0
8	0	0	0	.05	81	.01	0	0	0
9	0	0	0	.02	25	0	0	0	0
10	0	0	0	.01	39	0	0	0	0
11	0	0	0	.01	31	0	0	0	0
12	0	0	0	72	766	298	0	0	0
13	0	0	0	18	115	5.6	0	0	0
14	0	0	0	7.9	123	2.6	0	0	0
15	0	0	0	4.0	137	1.5	0	0	0
16	0	0	0	1.1	170	.50	0	0	0
17	0	0	0	.10	108	.03	0	0	0
18	0	0	0	3.0	73	1.8	0	0	0
19	0	0	0	4.1	99	1.4	0	0	0
20	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0
29	.01	10	0	0	0	0	0	0	0
30	23	747	94	0	0	0	0	0	0
31	--	--	--	0	0	0	--	--	--
TOTAL	23.01	--	94	124.83	--	338.28	0	--	0

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

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LOCATION.--Lat 33°17'00", long 96°53'33", Denton County, at gaging station at bridge on Farm Road 1385, 1.5 miles upstream from Mustang Creek, 5.5 miles east of Aubrey, and 18 miles upstream from Lewisville Dam.

PERIOD OF RECORD.--Chemical analyses: January 1968.
Specific conductance: December 1968 to September 1972.
Water temperatures: February 1966 to September 1972.
Sediment records: February 1966 to September 1972.

EXTREMES, February 1966 to September 1972.--Water temperatures (February 1966 to September 1970): Maximum, 33.0°C on several days during June and July of 1968 and 1969; minimum, freezing point Feb. 22, 1968.
Sediment concentrations: Maximum daily, 4,750 mg/l Aug. 13, 1966; minimum daily, no flow on many days.
Sediment loads: Maximum daily, 17,900 tons May 31, 1967; minimum daily, 0 tons on many days.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

TRINITY RIVER BASIN

08052700 LITTLE ELM CREEK NEAR AUBREY, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	23.0	7.0	10.0	8.0	17.0	---	22.5	---	---	---	---
2	26.0	22.0	5.5	---	4.0	8.0	---	25.0	---	---	---	---
3	20.0	19.0	6.0	10.0	---	12.0	20.0	25.0	---	---	---	---
4	21.5	19.0	5.0	---	6.0	12.0	---	24.0	---	---	---	---
5	22.0	21.0	5.5	---	5.0	---	19.0	20.0	---	---	---	---
6	20.0	---	6.5	6.0	---	15.0	---	---	---	---	---	---
7	22.0	---	7.0	8.0	5.0	18.0	---	18.0	---	---	---	---
8	21.0	9.0	9.0	---	9.0	16.0	---	16.0	---	---	---	---
9	21.0	13.0	10.0	---	8.0	---	---	23.0	---	---	---	---
10	---	13.0	9.5	9.0	10.0	---	---	21.0	---	---	---	---
11	24.0	---	9.0	11.0	5.0	---	---	22.0	---	---	---	---
12	23.0	13.0	---	14.0	---	---	---	20.0	---	---	---	---
13	26.0	---	8.0	10.0	---	---	---	22.5	---	---	---	---
14	23.0	---	13.0	7.0	18.0	---	---	---	---	---	---	---
15	25.0	---	11.0	---	12.0	---	---	---	---	---	---	---
16	25.0	17.0	10.0	---	13.0	20.0	---	29.0	---	---	---	---
17	---	18.0	10.0	12.0	14.0	20.0	---	30.0	---	---	---	---
18	23.0	13.0	10.0	---	11.0	18.0	---	25.5	---	---	---	---
19	21.0	13.0	---	18.0	---	---	---	18.0	---	---	---	---
20	20.0	14.0	12.0	20.0	---	20.0	---	20.0	---	---	---	---
21	19.0	---	12.0	10.0	20.0	20.0	---	---	---	---	---	22.5
22	19.0	10.0	10.0	13.0	20.0	17.0	---	25.0	---	---	---	18.5
23	19.0	7.5	13.0	---	13.0	20.0	---	27.0	---	---	---	21.5
24	---	9.5	14.0	---	17.0	20.0	---	25.0	---	---	---	---
25	17.0	11.0	15.0	10.0	20.0	---	---	---	---	---	---	18.0
26	21.0	13.0	---	7.0	12.0	---	---	---	---	---	---	32.0
27	20.0	12.0	---	5.0	---	18.0	15.0	---	---	---	---	26.0
28	22.0	---	11.0	5.0	17.0	20.0	17.0	---	---	---	---	29.0
29	24.0	10.0	15.0	4.0	18.0	17.0	18.0	---	---	---	---	23.0
30	23.0	7.0	13.0	---	---	12.0	---	---	---	---	---	24.0
31	---	---	12.0	---	---	13.0	---	---	---	---	---	---
MONTH	22.0	---	10.0	---	---	---	---	---	---	---	---	---

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	4.2	250	2.8	5.6	188	2.8	26	225	17
2	2.5	260	1.8	4.2	160	1.8	309	446	721
3	224	1680	1180	3.4	172	1.6	677	1120	2440
4	368	708	719	2.5	150	1.0	262	480	340
5	101	600	164	1.8	137	.67	650	1100	2370
6	52	405	57	1.0	140	.38	614	496	874
7	26	295	21	.50	125	.17	366	378	373
8	15	235	9.5	.23	105	.07	376	732	1120
9	11	202	6.0	.14	77	.03	2050	1020	4220
10	7.3	175	3.4	.12	57	.02	2030	685	3020
11	5.1	137	1.9	.12	40	.01	513	470	651
12	3.6	118	1.1	.10	29	.01	424	400	458
13	2.6	111	.78	.06	25	0	395	285	304
14	1.8	127	.62	.05	25	0	398	342	382
15	.86	115	.27	.04	25	0	529	824	1230
16	.40	100	.11	8.9	100	3.1	319	402	352
17	.23	100	.06	183	562	1120	230	325	202
18	24	268	26	1090	1420	4500	163	322	142
19	503	1040	1360	375	670	694	115	325	101
20	1080	729	2130	263	530	376	80	313	68
21	424	465	532	171	450	208	50	330	48
22	303	382	313	112	605	201	40	395	43
23	214	344	199	230	891	575	31	394	33
24	114	320	98	94	345	88	25	402	27
25	56	304	46	56	345	52	21	410	23
26	34	375	34	38	362	37	18	412	20
27	25	350	24	26	355	25	16	413	18
28	18	260	13	12	255	8.3	14	412	16
29	13	220	7.7	8.7	180	4.2	.11	412	12
30	9.3	200	5.0	8.2	137	3.0	11	405	12
31	7.2	193	3.8	--	--	--	8.4	355	8.1
TOTAL	3650.09	--	6960.84	2695.66	--	7903.16	10771.4	--	19645.1

08052700 LITTLE ELM CREEK NEAR AUBREY, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	6.4	275	4.8	.56	11	.02	.07	66	.01
2	6.1	205	3.4	.45	11	.01	.04	54	.01
3	5.5	150	2.2	.30	15	.01	.02	56	0
4	4.6	100	1.2	.30	20	.02	.02	50	0
5	3.7	90	.90	.26	11	.01	.02	50	0
6	3.0	62	.50	.26	13	.01	.02	50	0
7	2.7	52	.38	.20	15	.01	.01	54	0
8	3.0	60	.49	.17	10	0	.02	34	0
9	3.2	50	.43	.20	11	.01	0	0	0
10	3.4	43	.39	.12	10	0	0	0	0
11	3.6	55	.53	.12	21	.01	0	0	0
12	2.7	86	.63	.26	25	.02	0	0	0
13	2.2	56	.33	.63	30	.05	0	0	0
14	1.6	47	.20	.56	32	.05	0	0	0
15	.95	40	.10	.56	21	.03	0	0	0
16	.70	35	.07	.35	54	.05	.50	50	.07
17	.45	26	.03	.26	30	.02	.56	90	.14
18	.40	18	.02	.17	35	.02	.50	75	.10
19	.50	8	.01	.08	40	.01	.26	55	.04
20	.50	14	.02	.07	50	.01	.23	35	.02
21	.56	14	.02	.07	56	.01	.30	50	.04
22	.63	16	.03	.08	51	.01	.12	57	.02
23	.56	14	.02	.06	48	.01	.06	42	.01
24	.50	11	.01	.10	69	.02	.70	75	.14
25	.30	6	0	.12	32	.01	.95	75	.19
26	.26	14	.01	.12	49	.02	6.6	548	32
27	.35	9	.01	.07	40	.01	13	575	31
28	.70	17	.03	.06	38	.01	2.9	260	2.0
29	.95	14	.04	.07	66	.01	1.7	250	1.1
30	.78	13	.03	--	--	--	.40	173	.19
31	.56	12	.02	--	--	--	.20	150	.08
TOTAL	61.35	--	16.85	6.63	--	.48	29.20	--	67.16

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.08	160	.03	15	478	23	0	0	0
2	.03	165	.01	7.3	308	6.8	0	0	0
3	.02	165	.01	1.1	79	.23	0	0	0
4	.01	164	0	.06	78	.01	0	0	0
5	0	0	0	0	0	0	0	0	0
6	.01	160	0	0	0	0	0	0	0
7	.01	160	0	0	0	0	0	0	0
8	.01	160	0	0	0	0	0	0	0
9	0	0	0	.01	58	0	0	0	0
10	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0
12	0	0	0	95	1590	695	0	0	0
13	0	0	0	26	770	75	0	0	0
14	0	0	0	7.6	440	9.0	0	0	0
15	0	0	0	4.1	600	6.6	0	0	0
16	0	0	0	2.0	670	3.6	0	0	0
17	0	0	0	.35	84	.08	0	0	0
18	0	0	0	.95	184	.84	0	0	0
19	0	0	0	1.2	339	1.1	0	0	0
20	0	0	0	.78	180	.45	0	0	0
21	0	0	0	.05	112	.02	0	0	0
22	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0
24	.02	170	.01	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0
27	1.1	175	.52	0	0	0	0	0	0
28	2.3	165	1.0	0	0	0	0	0	0
29	2.9	120	.94	0	0	0	0	0	0
30	42	664	114	0	0	0	0	0	0
31	--	--	--	0	0	0	--	--	--
TOTAL	48.49	--	116.52	161.50	--	821.73	0	--	0

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SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

TRINITY RIVER BASIN

08057410 TRINITY RIVER BELOW DALLAS, TEX.

LOCATION.--Lat 32°42'27", long 96°44'08", Dallas County, at gaging station at bridge on South Loop Highway 12, 1 mile downstream from White Rock Creek, 1.5 miles upstream from Fivemile Creek, and 6.4 miles southeast of Dallas County Courthouse in Dallas.

DRAINAGE AREA.--6,278 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

Chemical and biochemical analyses: January 1968 to September 1972.

Pesticide analyses: October 1971 to September 1972.

Water temperatures: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
01-02	447	15	54	5.7	100	168	0	100	70
03-06	4740	7.3	56	3.5	24	158	0	51	13
07-18	714	11	63	5.1	63	174	0	92	42
19-24	12800	7.3	56	3.5	24	158	0	51	13
25-31	1590	5.1	66	4.3	45	200	0	56	38
NOV.									
01-17	689	12	60	8.4	86	194	0	98	73
18-20	1540	7.0	58	5.7	44	170	0	58	37
21-22	630	9.4	65	5.3	66	170	0	94	50
23-30	1380	7.0	58	5.7	44	170	0	58	37
DEC.									
01-05	3870	6.0	58	4.7	39	161	0	68	26
06-09	8480	5.7	58	2.3	27	150	0	60	15
10-12	22900	1.6	47	2.1	17	124	0	46	8.8
13-31	6820	5.5	56	3.7	27	161	0	43	23
JAN.									
01-31	4500	4.9	50	3.7	27	148	0	36	24
FEB.									
01-17	549	12	78	6.2	110	220	0	130	81
18-20	617	10	73	5.3	100	192	0	120	80
21-29	491	12	78	5.2	130	216	0	140	94
MAR.									
01-31	488	16	66	8.6	140	204	0	130	110
APR.									
01-26	588	13	54	13	120	206	0	110	90
27-30	2530	8.2	66	5.2	58	188	0	82	44
MAY									
01-09	1380	7.1	62	4.3	51	156	0	94	30
10-25	655	14	58	7.7	100	166	0	110	74
26-31	427	14	56	7.9	120	180	0	120	80
JUNE									
01-30	513	14	45	8.1	110	144	0	100	83
JULY									
01-12	353	18	40	11	130	164	0	110	97
13-16	698	9.5	48	5.8	65	140	0	79	48
17-31	387	16	40	9.2	130	138	0	110	94
AUG.									
01-31	456	17	39	8.9	140	200	0	120	100
SEP.									
01-30	486	15	32	11	100	116	0	97	81
WTD. AVG.	--	7.1	54	4.6	45	158	0	60	34
TIME WTD.									
AVG.	1840	12	53	7.4	92	171	0	95	69
TOT. LOAD (TONS)	--	12900	98300	8340	81700	288000	0	110000	61200

TRINITY RIVER BASIN

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08057410 TRINITY RIVER BELOW DALLAS, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 624 mg/l Mar. 1-31; minimum, 185 mg/l Dec. 10-12.
Hardness: Maximum, 220 mg/l Feb. 1-17, 21-29; minimum, 130 mg/l Dec. 10-12, Aug. 1-31, Sept. 1-30.

EXTREMES, October 1967 to September 1968, October 1969 to September 1972.--Dissolved solids: Maximum, 624 mg/l Mar. 1-31, 1972; minimum, 185 mg/l Dec. 10-12, 1971.

Hardness: Maximum, 220 mg/l June 8, 1968, Feb. 1-17, 21-29, 1972; minimum, 110 mg/l July 19-20, 1971.

Specific conductance (1967-68): Maximum daily, 1,070 micromhos Dec. 13, 1967; minimum daily, 390 micromhos May 27, 1968.

Water temperatures (1967-68): Minimum, 4.0°C Jan. 10, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-02	--	9.6	471	160	20	3.5	762	7.4
03-06	--	1.4	239	150	24	.8	402	7.4
07-18	--	5.0	384	180	36	2.1	620	7.6
19-24	--	1.4	239	150	24	.8	402	7.4
25-31	--	.8	316	180	18	1.4	529	8.0
NOV.								
01-17	--	2.1	442	180	25	--	781	7.5
18-20	--	3.5	309	170	28	--	518	7.6
21-22	--	5.7	399	180	44	2.1	654	7.9
23-30	--	3.5	309	170	28	1.5	518	7.6
DEC.								
01-05	--	2.5	292	160	32	1.3	485	7.8
06-09	--	1.9	250	150	31	.9	401	7.6
10-12	--	.4	185	130	24	.7	313	7.9
13-31	--	1.4	243	160	23	.9	416	7.7
JAN.								
01-31	.3	1.3	225	140	19	1.0	374	8.1
FEB.								
01-17	.7	11	576	220	40	3.3	917	7.9
18-20	.9	8.5	527	200	46	3.2	853	8.0
21-29	.9	10	576	220	39	3.8	1000	7.5
MAR.								
01-31	1.2	12	624	200	33	4.3	1030	7.4
APR.								
01-26	1.1	9.8	551	190	19	3.9	903	8.0
27-30	.6	2.8	360	190	32	--	569	8.0
MAY								
01-09	.5	3.7	342	170	44	1.7	549	8.1
10-25	.9	8.8	481	180	40	3.2	762	7.8
26-31	1.2	9.6	523	170	24	3.8	838	7.8
JUNE								
01-30	1.1	11	485	146	28	4.0	786	7.6
JULY								
01-12	1.4	12	543	150	12	4.8	905	8.1
13-16	.8	5.4	349	140	30	2.4	578	7.8
17-31	1.5	13	525	140	25	4.7	858	7.3
AUG.								
01-31	1.6	1.9	536	130	0	5.4	958	7.0
SEP.								
01-30	1.5	11	448	130	31	4.1	736	8.1
WTD. AVG.	--	2.9	295	154	24	1.5	493	7.8
TIME WTD.								
AVG.	--	6.9	444	164	26	3.2	737	7.7
TOT. LOAD (TONS)	--	5310	538000	--	--	--	--	--

TRINITY RIVER BASIN

08057410 TRINITY RIVER BELOW DALLAS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
18...	1515	1800	10	54	5.2	70	180	0	98	50	.6	.67
DEC.												
03...	1525	6000	7.0	52	3.0	26	148	0	50	19	.3	.78
JAN.												
31...	1525	575	13	68	10	96	288	0	110	67	.7	.57
MAR.												
27...	1500	710	13	66	4.7	97	252	0	110	72	.6	.02
MAY												
10...	1420	690	10	59	3.2	70	172	0	100	50	1.0	.56
JUNE												
05...	1720	395	13	44	11	130	276	0	110	88	1.3	.77
23...	1330	640	8.5	46	8.0	77	196	0	91	54	.7	.67
JULY												
12...	1150	345	17	39	8.4	140	272	0	110	96	1.3	.84
26...	1115	370	14	38	11	170	258	0	160	110	1.7	.97
AUG.												
14...	1715	595	.0	40	11	130	276	0	93	100	1.3	.83
30...	1205	415	14	40	9.7	120	224	0	110	84	1.3	.82
SEP.												
21...	1500	480	16	39	7.4	140	264	0	110	100	1.6	1.7
DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILTRABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.												
18...	.15	5.3	1.2	1.6	389	202	44	160	8	2.4	647	6.9
DEC.												
03...	.051	1.1	.7	1.9	235	1080	116	140	21	.9	384	7.2
JAN.												
31...	.10	7.7	.9	5.0	517	42	14	210	0	2.9	843	7.5
MAR.												
27...	.19	8.1	.9	6.4	498	74	21	180	0	3.1	829	6.9
MAY												
10...	.26	4.3	1.5	3.2	394	146	30	160	19	2.4	654	7.1
JUNE												
05...	.52	13	1.3	8.3	556	27	24	160	0	4.4	934	6.9
23...	.19	5.8	.9	3.6	393	85	39	150	0	2.7	667	7.1
JULY												
12...	.88	9.9	.3	7.7	567	18	2	130	0	5.4	931	7.1
26...	.60	11	1.5	8.8	652	16	9	140	0	6.1	1080	6.9
AUG.												
14...	.30	12	1.2	8.8	534	36	26	140	0	4.7	893	7.0
30...	.32	9.3	.9	7.6	501	23	14	140	0	4.2	844	7.4
SEP.												
21...	.27	12	1.1	8.7	565	37	23	130	0	5.5	944	6.9
DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- CORALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)
OCT.												
18...	24.0	25	95	5.2	61	44	8.5	2	.46	--	20	0
DEC.												
03...	7.5	25	600	8.8	73	59	15	0	.00	--	--	--
JAN.												
31...	10.5	15	20	7.3	65	54	16	3	1.0	--	20	0
MAR.												
27...	22.0	30	35	2.8	32	69	34	10	1.6	--	10	10
MAY												
10...	22.5	30	50	4.7	55	46	11	5	.45	--	--	--
JUNE												
05...	29.0	20	15	2.0	26	78	19	5	.26	--	10	10
23...	29.0	20	40	2.1	27	40	14	2	1.0	--	--	--
JULY												
12...	28.6	20	4	.3	4	82	8.3	0	1.4	--	--	--
26...	29.5	10	8	.8	10	69	7.9	0	1.8	--	--	--
AUG.												
14...	30.0	15	20	1.2	16	59	19	7	1.4	--	--	--
30...	--	20	10	.3	0	57	16	10	1.8	--	--	--
SEP.												
21...	28.0	35	15	.4	5	--	17	29	1.9	36	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972[illegible]

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

TRINITY RIVER BASIN

08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TEX.

LOCATION.--Lat 32°38'18", long 96°29'05", Kaufman County, at gaging station at bridge on U.S. Highway 175, 0.7 mile downstream from Mustang Creek, 1.8 miles northwest of Crandall, and 4.0 miles upstream from Buffalo Creek.

DRAINAGE AREA.--1,256 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

Chemical and biochemical analyses: October 1967 to September 1972.

Water temperatures: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-03	110	14	48	3.5	60	--	7.4	144	0	60
04-05	1460	11	43	2.1	--	11	--	132	0	18
06-08	178	12	52	2.7	--	25	--	152	0	36
09-18	55	14	48	3.5	60	--	7.4	144	0	60
19-24	3340	11	43	2.1	--	11	--	132	0	18
25-31	187	12	52	2.7	--	25	--	152	0	36
NOV.										
01-07	73	14	48	3.4	--	44	--	156	0	41
08-30	954	4.9	44	3.3	--	19	--	144	0	27
DEC.										
01-02	182	7.8	46	3.4	--	40	--	146	0	41
03-31	4690	5.7	47	2.8	--	13	--	144	0	24
JAN.										
01-21	4380	3.0	42	3.0	12	--	3.7	138	0	23
22-31	355	6.0	52	3.3	--	25	--	156	0	36
FEB.										
01-12	222	6.1	48	3.4	--	37	--	146	0	40
13-17	86	8.1	66	4.5	--	59	--	182	0	74
18-29	90	6.1	48	3.4	--	37	--	146	0	40
MAR.										
01-10	70	6.6	46	3.5	--	40	--	132	0	45
11-25	44	11	46	4.4	--	82	--	126	0	65
26-31	142	6.6	46	3.5	--	40	--	132	0	45
APR.										
01-03	41	6.1	46	3.5	33	--	5.7	144	0	42
04-27	35	12	40	4.3	--	80	--	122	0	63
28-30	265	6.1	52	3.3	--	24	--	142	0	42
MAY										
01-31	44	12	46	3.9	--	73	--	132	0	60
JUNE										
01-29	43	13	39	3.8	--	77	--	126	0	48
30...	115	7.5	52	2.9	--	21	--	144	0	33
JULY										
01-31	30	16	38	3.8	82	--	11	118	0	42
AUG.										
01-31	27	17	30	3.8	--	91	--	127	0	40
SEP.										
01-30	26	12	26	4.7	94	--	13	97	0	69
WTD. AVG.	--	5.5	45	3.0	--	--	--	141	0	25
TIME WTD.										
AVG.	802	10	42	7.1	--	--	--	132	0	45
TOT. LOAD (TONS)	--	4340	35500	2390	--	--	--	112000	0	19800

TRINITY RIVER BASIN

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08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 411 mg/l Sept. 1-30; minimum, 162 mg/l

Oct. 4-5, 19-24.

Hardness: Maximum, 180 mg/l Feb. 13-17; minimum, 84 mg/l Sept. 1-30.

Specific conductance: Maximum daily, 880 micromhos Apr. 24; minimum daily, 201 micromhos Oct. 20.

Water temperatures: Maximum, 31.0°C June 26; minimum, 4.0°C Jan. 5, 15.

EXTREMES, October 1967 to September 1972.--Dissolved solids: Maximum, 438 mg/l Jan. 1-30, 1969; minimum, 139 mg/l May 31, 1970.

Hardness: Maximum, 189 mg/l Dec. 7-10, 1967; minimum, 84 mg/l Apr. 1-18, 1971, Sept. 1-30, 1972.

Specific conductance: Maximum daily, 1,010 micromhos Nov. 23, 1968; minimum daily, 201 micromhos Oct. 20, 1971.

Water temperatures: Maximum, 33.0°C on several days during July and August, 1969; minimum, 3.0°C Jan. 1, 1969.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	DIS- SOLVED FLUOR- IDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-03	43	1.1	10	352	130	16	2.3	589	7.1
04-05	6.5	--	1.2	162	120	8	.4	267	6.9
06-08	16	--	3.0	232	140	16	.9	387	6.8
09-18	43	1.1	10	352	130	16	2.3	589	7.1
19-24	6.5	--	1.2	162	120	8	.4	267	6.9
25-31	16	--	3.0	232	140	16	.9	387	6.8
NOV.									
01-07	28	.8	4.9	278	130	6	1.7	475	7.8
08-30	11	--	1.1	185	120	5	.7	327	7.1
DEC.									
01-02	25	.8	4.2	255	130	9	1.5	440	7.0
03-31	9.0	--	.6	175	130	11	.5	310	7.1
JAN.									
01-21	7.0	.4	.5	164	120	4	.5	304	8.1
22-31	16	--	2.5	226	140	15	.9	399	7.7
FEB.									
01-12	21	.7	5.9	254	130	14	1.4	433	8.1
13-17	43	--	7.2	376	180	34	1.9	643	8.0
18-29	21	.7	5.9	254	130	14	1.4	433	8.1
MAR.									
01-10	26	.9	6.0	259	130	21	1.5	465	7.7
11-25	57	--	17	402	130	30	3.1	755	7.2
26-31	26	.9	6.0	259	130	21	1.5	465	7.7
APR.									
01-03	23	.6	4.2	250	130	11	1.3	446	7.1
04-27	53	--	14	374	120	18	3.2	719	6.8
28-30	19	--	2.3	224	140	27	.9	413	6.9
MAY									
01-31	47	1.4	14	370	130	23	2.8	657	7.4
JUNE									
01-29	56	1.9	12	354	110	10	3.1	615	6.9
30...	14	--	4.1	219	140	24	.8	366	6.9
JULY									
01-31	56	2.4	22	406	110	14	3.4	678	7.8
AUG.									
01-31	61	2.6	14	369	90	0	4.2	675	6.8
SEPT.									
01-30	59	1.5	19	411	84	5	2.5	693	7.0
WTD. AVG.	10.0	--	1.2	180	125	8	.6	320	7.4
TIME WTD.									
AVG.	37	--	10.0	307	119	13	2.2	542	7.3
TOT. LOAD (TONS)	7910	--	939	142000	--	--	--	--	--

TRINITY RIVER BASIN

08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NESIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.											
18...	1635	75	14	50	2.7	86	264	0	63	58	1.5
DEC.											
03...	1610	1100	5.9	50	.8	16	148	0	25	9.8	.3
JAN.											
30...	2145	300	5.2	52	2.5	18	160	0	30	12	.5
MAR.											
27...	1640	140	4.3	52	2.5	38	194	0	41	26	.7
MAY											
10...	1315	45	7.5	52	2.0	40	180	0	49	18	.8
JUNE											
05...	1850	25	14	37	5.7	110	320	0	40	80	1.9
23...	1210	100	5.2	36	4.9	33	150	0	34	23	1.0
JULY											
12...	1240	28	17	38	5.1	95	298	0	27	70	3.3
26...	1205	27	14	36	2.2	97	288	0	34	66	3.8
AUG.											
14...	1800	25	13	38	5.1	93	288	0	31	69	3.0
30...	1300	24	16	28	8.3	96	268	0	43	64	2.5
SEP.											
21...	1415	30	16	26	7.5	95	280	0	36	68	1.7

DATE	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.											
18...	--	.020	13	.1	4.9	423	--	--	140	0	3.2
DEC.											
03...	--	.030	.31	.5	.58	183	--	--	130	7	.6
JAN.											
30...	--	.028	.88	.4	.86	202	--	--	140	9	.7
MAR.											
27...	--	.045	4.9	.2	2.9	267	--	--	140	0	1.4
MAY											
10...	--	.10	1.0	.5	3.1	262	--	--	140	0	1.5
JUNE											
05...	--	.000	18	.2	13	470	--	--	120	0	4.5
23...	--	.035	3.7	.1	2.1	216	--	--	110	0	1.4
JULY											
12...	--	.007	16	.07	13	424	--	--	120	0	3.8
26...	--	.005	18	.00	12	418	--	--	99	0	4.2
AUG.											
14...	--	.006	16	.1	12	416	--	--	120	0	3.8
30...	--	.010	14	.3	14	409	--	--	100	0	4.1
SEP.											
21...	.68	.006	18	.1	15	412	32	24	96	0	4.2

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT.											
18...	720	7.0	24.0	--	--	2.4	28	12	--	--	--
DEC.											
03...	308	7.7	6.5	--	--	9.4	76	6.6	--	--	--
JAN.											
30...	354	7.4	7.0	--	--	9.0	74	4.6	--	--	--
MAR.											
27...	468	7.3	--	--	--	8.2	92	20	--	--	--
MAY											
10...	479	7.2	22.0	--	--	4.2	49	7.7	--	--	--
JUNE											
05...	818	7.4	28.5	--	--	.4	5	38	--	1.2	--
23...	378	6.8	27.0	--	--	.7	9	11	--	--	--
JULY											
12...	759	7.4	28.8	--	--	.2	3	8.2	--	--	--
26...	744	7.1	30.0	--	--	.3	4	7.9	--	--	--
AUG.											
14...	728	7.4	30.0	--	--	.1	1	33	--	--	--
30...	720	7.8	--	--	--	2.1	27	30	--	--	--
SEP.											
21...	739	7.1	26.5	70	15	1.3	16	24	21	2.9	22

TRINITY RIVER BASIN

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08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	586	426	420	---	343	---	365	542	661	425	691	615
2	636	404	453	318	347	487	467	609	625	429	633	693
3	569	422	327	308	349	462	504	569	689	453	600	667
4	286	471	---	308	349	467	568	545	729	522	549	724
5	285	513	309	305	351	471	680	595	727	606	604	688
6	340	525	262	303	376	495	634	681	717	603	625	758
7	395	549	311	305	364	458	654	748	665	625	698	746
8	429	363	304	307	368	499	702	576	661	608	717	736
9	483	337	295	307	377	503	722	398	614	679	678	472
10	538	332	270	307	427	556	809	458	651	611	616	578
11	580	326	271	305	427	697	830	552	703	718	541	731
12	573	318	314	307	452	793	737	582	680	779	628	705
13	559	319	308	304	631	812	520	624	716	748	714	692
14	550	320	307	301	722	855	560	712	738	638	688	779
15	627	331	318	307	708	849	762	570	650	756	671	756
16	627	318	313	306	637	761	804	578	661	806	706	713
17	691	323	310	301	529	711	807	627	523	727	686	736
18	656	339	311	296	449	824	861	596	591	827	663	688
19	279	326	317	286	475	848	790	684	679	729	683	717
20	201	314	319	300	508	865	773	776	612	740	726	799
21	216	325	348	300	483	819	773	697	450	707	785	716
22	276	314	350	359	487	601	516	792	441	690	818	685
23	292	318	370	413	481	545	665	829	380	809	806	740
24	307	314	310	417	533	606	880	854	435	658	671	563
25	332	330	315	419	504	792	725	768	581	688	663	675
26	341	324	308	433	510	498	776	591	536	768	644	712
27	386	315	305	437	504	436	746	750	663	728	732	838
28	420	323	301	438	483	460	353	724	587	679	748	638
29	390	327	305	376	466	423	398	804	607	826	688	672
30	407	372	304	358	---	412	488	809	366	750	728	782
31	430	---	299	337	---	364	---	761	---	712	693	---
MONTH	442	361	318	336	470	612	662	658	611	679	680	700

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	22.0	11.0	---	8.0	16.0	15.0	23.0	25.0	26.0	29.0	26.0
2	26.0	21.0	10.0	11.0	7.0	14.0	18.0	22.0	25.0	28.0	29.0	26.0
3	22.0	19.0	7.0	11.0	6.0	13.0	19.0	23.0	26.0	28.0	28.0	26.0
4	19.5	17.0	8.0	6.0	6.0	13.0	17.0	23.0	27.0	27.0	28.0	26.0
5	21.0	17.0	8.0	4.0	7.0	13.0	18.0	24.0	27.0	26.0	28.0	26.0
6	22.0	17.0	7.0	5.0	9.0	13.0	20.0	22.0	28.0	26.0	29.0	26.0
7	22.0	15.0	10.0	7.0	8.0	17.0	21.0	22.0	27.0	25.0	27.0	27.0
8	21.0	15.0	11.0	8.0	7.0	16.0	21.0	20.0	28.0	26.0	28.0	29.0
9	22.0	16.0	11.0	11.0	8.0	14.0	20.0	21.0	27.0	28.0	28.0	29.5
10	20.0	16.0	10.0	9.0	8.0	16.0	21.0	20.0	27.0	28.0	28.0	29.0
11	20.0	17.0	10.0	9.0	8.0	17.0	22.0	22.0	30.0	27.0	27.0	29.0
12	19.0	17.0	11.0	10.0	8.0	19.0	23.0	23.0	27.0	28.0	27.0	29.0
13	19.0	17.0	10.0	9.0	9.0	19.0	25.0	23.0	27.0	28.0	28.0	28.0
14	21.0	18.0	15.0	7.0	12.0	19.0	24.0	24.0	27.0	28.0	27.0	28.0
15	22.0	18.0	12.0	4.0	12.0	19.0	24.0	23.0	26.0	28.0	27.0	29.0
16	23.0	17.0	12.0	5.0	12.0	18.0	22.0	23.0	27.0	29.0	26.0	27.0
17	23.0	17.0	11.0	6.0	12.0	17.0	22.0	24.0	27.0	29.0	26.5	26.5
18	24.0	17.0	10.0	9.0	9.0	19.0	22.0	24.0	27.0	28.0	27.0	28.0
19	22.0	13.0	12.0	11.0	11.0	19.0	22.0	25.0	28.0	28.0	29.0	28.0
20	20.0	14.0	12.0	12.0	12.0	19.0	24.0	25.0	27.0	28.0	29.0	28.0
21	19.0	15.0	12.0	10.0	15.0	20.0	22.0	26.0	27.0	28.0	29.5	26.0
22	19.0	12.0	11.0	10.0	16.0	20.0	21.0	25.0	27.0	28.0	29.0	23.5
23	19.0	12.0	11.0	11.0	15.0	20.0	24.0	25.0	27.0	27.0	29.0	24.0
24	20.0	12.0	11.0	12.0	16.0	21.0	24.0	25.0	29.0	29.0	28.5	24.0
25	20.0	11.0	13.0	11.0	18.0	20.0	20.0	25.0	29.0	29.0	28.0	25.0
26	19.0	14.0	19.0	9.0	16.0	19.0	20.0	27.0	31.0	28.0	27.0	25.0
27	20.0	13.0	16.0	9.0	16.0	20.0	18.0	28.0	30.0	29.0	28.0	27.0
28	20.0	13.0	12.0	7.0	16.0	19.0	18.0	27.0	30.0	29.0	29.0	26.0
29	21.0	13.0	13.0	6.0	17.0	17.0	20.0	26.0	30.0	29.0	29.0	26.0
30	20.0	12.0	14.0	7.0	---	15.0	21.0	26.0	26.0	29.0	28.0	23.0
31	22.0	---	13.0	7.0	---	15.0	---	25.0	---	28.0	27.0	---
MONTH	21.0	15.5	11.5	8.5	11.0	17.5	21.0	24.0	27.5	28.0	28.0	26.5

TRINITY RIVER BASIN

08062500 TRINITY RIVER NEAR ROSSER, TEX.

LOCATION.--Lat 32°25'36", long 96°27'44", Kaufman County, at gaging station at bridge on State Highway 34, 2.5 miles south of Rosser, and 8.5 miles downstream from East Fork Trinity River.

DRAINAGE AREA.--8,146 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1954 to September 1972.

Chemical and biochemical analyses: January 1968 to September 1972.

Pesticide analyses: January 1968 to September 1972.

Water temperatures: October 1954 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-03	486	13	52	5.0	84	--	9.8	160	0	88
04-06	7270	8.6	41	2.3	--	25	--	116	0	35
07-10	1260	12	58	3.9	--	45	--	163	0	67
11-18	566	13	52	5.0	84	--	9.8	160	0	88
19-23	20900	8.6	41	2.3	--	25	--	116	0	35
24-31	3970	12	58	3.9	--	45	--	163	0	67
NOV.										
01-03	2420	7.3	51	4.3	--	36	--	151	0	48
04-15	1080	11	56	4.6	--	60	--	175	0	65
16-30	2590	7.3	51	4.3	--	36	--	151	0	48
DEC.										
01-02	1910	8.6	52	4.5	--	50	--	153	0	56
03-04	6210	7.7	53	4.1	--	29	--	150	0	45
05-21	18600	7.1	48	3.4	--	18	--	136	0	35
22-25	8080	7.7	53	4.1	--	29	--	150	0	45
26-31	10800	7.1	48	3.4	--	18	--	136	0	35
JAN.										
01-22	10700	5.7	47	3.4	19	--	3.7	140	0	29
23-31	2140	8.8	60	4.7	--	47	--	179	0	61
FEB.										
01-06	1040	8.4	64	4.7	--	52	--	188	0	68
07-29	724	12	73	5.7	--	87	--	200	0	100
MAR.										
01-31	563	14	65	6.6	--	120	--	194	0	120
APR.										
01-28	643	14	52	6.4	100	--	10	176	0	97
29-30	3400	7.7	58	4.5	--	45	--	146	0	71
MAY										
01-15	1240	10	62	5.1	--	63	--	156	0	94
16-31	491	14	59	5.8	--	92	--	168	0	98
JUNE										
01-15	378	16	44	6.3	--	140	--	164	0	110
16-30	617	12	45	4.9	--	94	--	140	0	90
JULY										
01-14	435	19	44	5.6	120	--	13	152	0	100
15-16	510	10	39	4.4	--	63	--	126	0	66
17-31	372	19	44	5.6	120	--	13	152	0	100
AUG.										
01-09	371	18	41	5.7	--	130	--	144	0	110
10-12	712	10	37	3.6	--	57	--	114	0	58
13-31	442	18	41	5.7	--	130	--	144	0	110
SEP.										
01-30	448	16	39	5.7	--	120	--	135	0	100
WTD. AVG.	--	8.2	49	3.7	--	35	--	142	0	46
TIME WTD.										
AVG.	2890	13	52	5.1	--	83	--	159	0	84
TOT. LOAD (TONS)	--	23400	140000	10600	--	100000	--	406000	0	131000

TRINITY RIVER BASIN

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08062500 TRINITY RIVER NEAR ROSSER, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 549 mg/l Mar. 1-31; minimum, 198 mg/l Oct. 4-6, 19-23, Dec. 5-21, 26-31.

Hardness: Maximum, 210 mg/l Feb. 7-29; minimum, 110 mg/l Oct. 4-6, 19-23, Aug. 10-12.

Specific conductance: Maximum daily, 1,070 micromhos Apr. 20; minimum daily, 218 micromhos Oct. 20.

Water temperatures: Maximum, 31.0°C June 27, 28, 29; minimum, 5.0°C Jan. 6, 16.

EXTREMES, October 1954 to September 1972.--Dissolved solids: Maximum, 1,800 mg/l Aug. 21-31, 1956; minimum, 122 mg/l July 28-31, 1962.

Hardness: Maximum, 310 mg/l Oct. 11-20, 1956; minimum, 64 mg/l July 28-31, 1962, Jan. 19, 1964.

Specific conductance: Maximum daily, 2,990 micromhos Oct. 13, 1956; minimum daily, 200 micromhos July 30, 1962.

Water temperatures: Maximum, 36.0°C July 1, 1955; minimum, 1.0°C on several days during December and January of most years.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-03	64	.9	10	440	150	19	3.0	713	7.1
04-06	20	--	2.0	198	110	17	1.0	299	7.2
07-10	29	--	4.1	313	160	27	1.5	508	6.9
11-18	64	.9	10	440	150	19	3.0	713	7.1
19-23	20	--	2.0	198	110	17	1.0	299	7.2
24-31	29	--	4.1	313	160	27	1.5	508	6.9
NOV.									
01-03	26	.5	3.3	262	140	21	1.3	462	7.3
04-15	43	--	4.9	348	160	15	2.1	595	7.2
16-30	26	.5	3.3	262	140	21	1.3	462	7.3
DEC.									
01-02	41	.6	3.9	305	150	22	1.8	532	7.0
03-04	25	--	1.8	246	150	26	1.0	434	7.0
05-21	15	--	.9	198	130	22	.7	355	6.9
22-25	25	--	1.8	246	150	26	1.0	434	7.0
26-31	15	--	.9	198	130	22	.7	355	6.9
JAN.									
01-22	16	.4	4.0	211	130	16	.7	352	7.6
23-31	36	--	2.8	318	170	22	1.6	556	7.6
FEB.									
01-06	40	.6	2.4	341	180	25	1.7	609	8.0
07-29	66	--	8.9	482	210	42	2.6	813	8.0
MAR.									
01-31	82	1.0	11	549	190	30	3.7	893	7.7
APR.									
01-28	77	.8	11	494	160	12	3.5	825	7.2
29-30	33	--	5.8	317	160	44	1.5	521	7.1
MAY									
01-15	45	.8	6.2	384	180	48	2.1	643	7.2
16-31	69	--	9.7	464	170	34	3.1	792	7.1
JUNE									
01-15	96	1.6	12	544	140	2	5.1	904	7.3
16-30	68	--	91	423	130	18	--	698	7.3
JULY									
01-14	89	1.3	11	519	130	8	4.5	855	7.1
15-16	43	--	5.7	312	120	12	2.5	531	6.7
17-31	89	1.3	11	519	130	8	4.5	855	7.1
AUG.									
01-09	92	1.5	9.8	510	130	8	4.9	855	7.0
10-12	44	--	4.3	285	110	14	2.4	514	7.0
13-31	92	1.5	9.8	510	130	8	4.9	855	7.0
SEP.									
01-30	90	1.5	12	497	120	10	4.9	827	7.1
WTD. AVG.	26	--	4.0	253	136	21	1.2	429	7.2
TIME WTD.									
AVG.	61	--	11	413	151	20	2.9	691	7.3
TOT. LOAD (TONS)	74500	--	11400	722000	--	--	--	--	--

TRINITY RIVER BASIN

08062500 TRINITY RIVER NEAR ROSSER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (CO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RINE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 19...	0925	3600	10	54	3.8	53	178	0	70	39	.6	.85
DEC. 03...	1700	--	7.3	48	4.9	30	160	0	40	24	.3	.79
JAN. 30...	2400	1150	9.2	70	5.2	47	210	0	74	42	.7	.51
MAR. 27...	1800	775	12	64	10	80	232	0	100	76	1.0	.03
MAY 10...	1200	1370	5.3	65	4.4	42	156	0	110	20	.7	.54
JUNE 07...	1350	325	14	42	12	130	288	0	100	96	1.4	.52
23...	1120	1220	7.1	42	3.6	55	170	0	52	43	.6	.51
JULY 12...	1340	345	18	33	13	130	274	0	110	94	1.4	.63
26...	1315	335	19	35	11	120	236	0	110	91	1.5	.59
AUG. 14...	1900	335	13	42	8.0	88	202	0	90	74	1.8	.64
30...	1420	440	14	42	8.5	120	264	0	85	94	1.1	.60
SEP. 21...	1315	370	12	42	4.6	99	216	0	84	74	1.0	.67

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 19...	.18	4.3	1.5	2.4	331	1520	264	150	4	1.9	561	6.7
DEC. 03...	.090	1.5	.9	--	240	740	96	140	9	1.1	404	7.4
JAN. 30...	.092	4.0	.9	2.7	361	95	18	200	24	1.5	634	7.3
MAR. 27...	.029	9.8	.1	5.5	472	31	18	200	10	2.5	849	7.1
MAY 10...	.23	1.9	1.4	1.9	333	336	46	180	52	1.4	573	6.9
JUNE 07...	.056	13	.2	9.5	553	12	12	160	0	4.5	952	7.2
23...	.008	5.1	.4	3.5	296	242	80	120	0	2.2	501	7.0
JULY 12...	.042	13	.06	9.3	556	23	8	140	0	5.0	944	7.2
26...	.10	12	.03	8.8	525	30	16	130	0	4.6	917	7.2
AUG. 14...	.11	11	.2	6.2	431	24	12	140	0	3.3	746	7.2
30...	.16	12	.3	7.3	510	18	13	140	0	4.4	888	7.7
SEP. 21...	.27	9.6	.6	2.9	438	16	5	120	0	3.9	756	7.0

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- CORALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)
OCT. 19...	23.5	35	300	1.6	19	77	6.6	0	.02	--	50	20
DEC. 03...	8.0	25	350	7.6	64	61	14	1	.00	--	--	--
JAN. 30...	7.5	25	45	4.2	35	13	9.6	0	1.8	--	10	0
MAR. 27...	22.0	30	2	1.4	16	47	14	13	.98	--	10	0
MAY 10...	22.0	25	180	3.0	35	55	17	4	.25	--	--	--
JUNE 07...	30.0	30	1	2.3	30	57	17	2	.40	--	0	10
23...	27.0	25	100	.3	4	30	19	5	.43	--	--	--
JULY 12...	28.5	20	8	2.4	31	70	8.3	0	.91	--	--	--
26...	31.0	20	20	2.6	35	56	7.9	0	.40	--	--	--
AUG. 14...	30.0	15	15	2.6	34	40	9.3	14	.12	--	--	--
30...	--	20	6	3.4	44	47	10	0	.38	--	--	--
SEP. 21...	28.0	20	12	1.2	15	--	6.3	3	.40	49,	--	--

TRINITY RIVER BASIN

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08062500 TRINITY RIVER NEAR ROSSER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 19...	1	0	0	5	100	2	0	100	1.1	9	380	60
DEC. 03...	--	--	--	--	--	--	--	--	--	--	--	--
JAN. 30...	0	0	0	8	30	0	20	100	1.9	9	640	50
MAR. 27...	0	0	0	8	130	0	20	110	.5	21	490	90
MAY 10...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE 07...	0	0	0	9	150	0	20	170	.4	16	400	90
23...	--	--	--	--	--	--	--	--	--	--	--	--
JULY 12...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
AUG. 14...	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--
SEP. 21...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
OCT. 19...	0925	3600	.00	<.2	.00	23	.03	<.2	.00	<.2	.04
JAN. 30...	2400	1150	.00	<.2	.00	3.2	.00	2.4	.02	1.9	.01
MAR. 27...	1800	775	--	<.2	--	2.3	--	3.3	--	5.0	--
APR. 27...	1000	526	--	--	--	--	--	--	--	--	--
JUNE 07...	1350	325	.00	<.2	.00	8.9	.00	6.0	.00	20	.03

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOT- TOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
OCT. 19...	43	.00	<.2	.00	<.2	.00	<.2	.03	<.2	.2
JAN. 30...	2.2	.00	<.2	.00	<.2	.00	<.2	.03	<.2	.3
MAR. 27...	2.7	--	<.2	--	<.2	--	<.2	--	<.2	--
APR. 27...	--	--	--	--	--	--	--	--	--	--
JUNE 07...	5.3	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.1

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)	SUS- PENDED SEDI- MENT (MG/L)
OCT. 19...	440	.14	.00	.00	.00	.06	.06	.00	290	--
JAN. 30...	64	.07	.05	.00	.00	.14	.03	.00	20	--
MAR. 27...	53	.37	.00	.00	.00	.07	.04	.00	20	--
APR. 27...	--	--	--	--	--	--	--	--	--	204
JUNE 07...	87	.37	.00	.00	.00	.29	.04	.00	80	--

TRINITY RIVER BASIN

08062500 TRINITY RIVER NEAR ROSSER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	STREAM VELOC- ITY (FPS)	MEAN DEPTH (FT)	NUMBER OF SAM- PLING POINTS	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM
APR. 27...	1000	526	20.5	204	290	.7	7.8	3	100	70	75
		SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	RED MAT. SIEVE DIAM. % FINER THAN .062 MM	RED MAT. SIEVE DIAM. % FINER THAN .125 MM	RED MAT. SIEVE DIAM. % FINER THAN .250 MM	RED MAT. SIEVE DIAM. % FINER THAN .500 MM	RED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	RED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	RED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
APR. 27...	81	90	95	8	10	13	21	29	53	81	97

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	669	459	509	346	604	886	785	524	821	860	913	836
2	703	454	548	359	614	890	797	508	884	714	893	855
3	769	467	533	361	669	904	896	573	891	773	815	836
4	273	545	456	337	687	869	872	629	958	755	812	864
5	396	638	390	357	407	859	865	699	909	760	809	821
6	371	657	340	356	675	879	872	738	923	806	943	798
7	487	673	364	356	700	893	938	765	888	894	893	792
8	538	683	356	347	718	856	949	743	864	809	936	884
9	554	651	388	349	716	866	949	595	905	884	893	931
10	592	539	316	343	772	911	818	600	962	962	646	874
11	627	541	299	355	681	915	821	600	966	923	431	824
12	650	561	285	356	833	912	801	674	942	894	463	799
13	678	562	282	359	869	942	799	717	954	848	641	799
14	720	517	329	367	773	938	843	622	846	884	756	702
15	751	553	379	350	801	887	807	702	815	456	857	804
16	762	508	381	340	821	904	863	773	754	610	827	884
17	758	462	381	338	852	942	908	758	742	689	860	881
18	779	481	375	336	821	946	724	779	676	722	890	909
19	226	427	378	350	862	942	813	792	616	874	936	902
20	218	550	380	346	789	950	1070	671	736	851	940	854
21	293	409	382	356	702	942	826	666	788	898	869	722
22	322	404	413	372	749	886	783	680	758	874	893	858
23	291	402	403	413	830	919	605	650	459	854	841	939
24	339	491	408	478	892	958	765	731	504	829	803	804
25	388	508	392	494	889	1010	739	771	560	884	792	709
26	467	442	369	494	849	958	749	886	660	908	896	812
27	515	429	355	601	941	886	742	915	746	811	841	851
28	625	460	350	646	911	769	696	922	795	923	860	670
29	554	465	354	654	922	717	531	918	784	979	796	798
30	555	462	348	617	---	740	514	966	871	1040	836	827
31	488	---	357	617	---	792	---	852	---	870	798	---
MONTH	528	513	381	411	771	893	805	723	799	833	819	828

TRINITY RIVER BASIN

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08062500 TRINITY RIVER NEAR ROSSER, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	21.0	13.0	12.0	8.0	17.0	16.5	21.0	26.5	29.0	30.0	28.0
2	26.0	21.0	13.0	11.0	9.0	16.0	17.0	22.0	26.0	29.0	30.0	28.0
3	26.0	20.0	10.0	11.0	7.0	16.0	19.0	22.0	26.5	29.0	30.0	27.5
4	21.0	18.0	9.0	9.0	7.0	16.5	19.0	24.0	27.0	29.0	29.0	27.0
5	21.0	18.0	8.0	8.0	8.0	14.0	18.5	24.0	27.0	27.0	30.0	27.0
6	23.0	18.5	8.0	5.0	10.0	14.0	21.0	23.5	27.0	26.0	29.5	26.0
7	22.0	16.0	8.0	7.0	8.0	16.0	21.0	23.0	27.5	27.0	28.0	27.5
8	22.0	17.0	10.0	8.0	8.0	17.0	20.5	21.0	28.0	27.0	30.0	28.0
9	22.0	15.0	11.0	10.0	10.0	16.0	20.0	21.0	28.0	28.0	29.0	28.5
10	22.0	15.0	11.0	10.0	10.0	16.0	21.5	21.0	28.0	28.0	28.0	29.0
11	20.0	15.0	12.0	10.0	11.0	18.0	22.0	22.0	28.0	28.0	27.5	29.0
12	21.0	16.0	11.0	10.0	11.0	19.0	22.0	23.0	28.0	28.5	27.0	29.5
13	21.0	17.0	11.0	10.0	11.0	20.0	23.5	24.0	29.0	29.0	28.0	29.0
14	21.0	19.0	12.0	10.0	11.0	19.5	24.5	24.0	28.0	29.0	29.0	28.5
15	22.0	20.0	11.5	7.0	12.0	20.0	25.0	25.0	29.0	27.0	28.5	29.0
16	23.0	19.0	12.0	5.0	13.0	18.0	23.5	25.5	27.0	29.0	28.0	28.5
17	23.0	19.0	12.0	7.0	13.0	18.5	23.0	24.0	28.0	29.0	28.5	27.5
18	24.0	19.0	11.0	8.0	13.0	20.0	23.0	25.0	28.0	29.0	28.0	29.0
19	22.0	17.0	11.0	11.0	14.0	19.0	23.0	25.0	28.0	29.0	29.0	28.0
20	22.0	15.0	12.0	12.0	13.0	20.0	25.0	25.5	30.0	30.0	29.0	28.0
21	21.0	14.0	12.0	12.0	14.0	20.0	24.0	26.0	30.0	29.0	29.5	28.5
22	21.0	14.0	11.5	11.5	15.5	20.0	23.5	26.0	29.0	29.5	29.5	27.0
23	20.0	12.0	11.0	11.0	16.0	20.0	23.0	26.0	27.0	29.0	28.0	25.5
24	20.0	12.0	12.0	12.0	18.0	21.0	23.0	26.0	28.0	30.0	28.0	26.0
25	20.0	12.0	13.0	11.0	18.5	20.0	22.5	27.0	29.0	29.5	29.0	25.0
26	20.0	13.0	14.0	11.0	17.0	20.5	21.0	27.0	30.0	30.0	28.0	26.0
27	20.0	13.0	14.0	11.0	---	21.0	21.0	28.0	31.0	30.0	29.0	26.0
28	21.0	14.0	14.0	9.0	17.0	21.0	20.0	28.0	31.0	30.0	29.0	26.0
29	21.0	15.0	14.0	9.0	18.0	18.5	19.0	27.0	31.0	30.5	29.0	27.0
30	21.0	13.0	13.0	7.5	---	18.0	20.0	27.0	30.0	30.5	28.5	25.0
31	21.0	---	13.0	8.0	---	16.0	---	26.0	---	30.0	29.0	---
MONTH	22.0	16.5	11.5	9.5	12.0	18.5	21.5	24.5	28.5	29.0	29.0	27.5

TRINITY RIVER BASIN

08062700 TRINITY RIVER AT TRINIDAD, TEX.

LOCATION.--Lat 32°08'05", long 96°06'20", Henderson County, at pumping station of Texas Power and Light Co., near southwest boundary of Trinidad, 0.5 mile downstream from St. Louis Southwestern Railway Lines bridge, 0.9 mile downstream from bridge on State Highway 31.

DRAINAGE AREA.--8,538 sq mi, not including 1,007 sq mi upstream from Cedar Creek Reservoir.

PERIOD OF RECORD.--Chemical analyses: April 1967 to September 1970.

Chemical and biochemical analyses: January 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.									
21...	0930	17300	3.6	32	3.4	17	108	0	21
DEC.									
03...	1820	4000	6.3	41	4.8	29	132	0	38
JAN.									
31...	0140	3600	7.0	42	3.7	27	132	0	36
MAR.									
27...	1930	700	14	61	13	120	294	0	120
MAY									
10...	0945	4300	4.2	70	4.3	47	146	0	140
JUNE									
07...	1530	350	13	45	13	130	250	0	100
23...	0940	912	9.6	37	12	77	176	0	85
JULY									
12...	1515	317	15	41	10	120	252	0	93
26...	1420	340	16	40	11	120	208	0	100
AUG.									
14...	2000	420	13	38	5.1	78	180	0	80
30...	1620	525	17	36	11	120	238	0	100
SEP.									
21...	1135	375	16	37	9.6	130	248	0	97

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT.									
21...	13	.5	--	.030	.54	.5	3.3	146	94
DEC.									
03...	27	.3	--	.17	1.4	.9	1.3	218	120
JAN.									
31...	22	.4	--	.059	1.2	1.2	.83	210	120
MAR.									
27...	92	1.1	--	.31	11	1.3	6.4	586	200
MAY									
10...	20	.7	--	.030	2.0	1.5	2.2	368	190
JUNE									
07...	92	1.2	--	1.3	6.7	3.5	7.9	545	160
23...	60	1.0	--	.96	5.4	1.4	4.6	385	140
JULY									
12...	90	1.1	--	.36	9.1	1.3	7.1	514	140
26...	100	1.6	--	.90	6.0	2.4	8.0	521	150
AUG.									
14...	78	1.8	--	.34	18	.8	6.5	410	120
30...	96	1.7	--	.44	12	1.0	8.4	524	140
SEP.									
21...	110	1.5	.59	.072	11	.2	8.9	539	130

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT.									
21...	6	.8	258	6.4	21.0	6.7	74	3.6	--
DEC.									
03...	14	1.1	385	7.3	9.5	8.0	70	8.7	--
JAN.									
31...	12	1.1	365	7.4	7.0	9.7	80	7.2	--
MAR.									
27...	37	3.6	995	7.5	21.5	9.5	107	38	--
MAY									
10...	72	1.5	618	6.8	22.0	1.3	15	28	--
JUNE									
07...	0	4.3	903	7.2	29.0	2.8	36	42	.19
23...	0	2.8	669	6.9	29.0	1.5	19	37	--
JULY									
12...	0	4.4	890	7.1	29.5	3.7	48	8.3	--
26...	0	4.5	901	7.1	31.0	5.5	73	7.8	--
AUG.									
14...	0	3.2	723	7.2	30.0	4.1	54	11	--
30...	0	4.6	907	7.6	--	5.3	70	14	--
SEP.									
21...	0	5.0	923	7.2	28.5	1.6	20	5.0	--

TRINITY RIVER BASIN

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08063200 PIN OAK CREEK NEAR HUBBARD, TEX.

LOCATION.--Lat 31°48'01", long 96°43'02", Limestone County, at gaging station at bridge on State Highway 171, 5.8 miles southeast of Hubbard, and 11 miles upstream from Elm Creek.

DRAINAGE AREA.--17.6 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1971.

Specific conductance: April 1967 to September 1972.

Water temperatures: January 1957 to September 1960, October 1964 to September 1972.

Sediment records: October 1956 to September 1960, September 1962 to September 1972.

EXTREMES, October 1971 to September 1972.--Water temperatures: Minimum, 4.0°C Jan. 28.

Sediment concentrations: Maximum daily, 1,080 mg/l July 4; minimum daily, no flow on many days.

Sediment loads: Maximum daily, 1,780 tons Dec. 9; minimum daily, 0 tons on many days.

EXTREMES, October 1956 to September 1960, September 1962 to September 1972: Water temperatures (January 1957 to September 1960, October 1964 to September 1972): Maximum, 32.0°C July 27, 28, 1968; minimum, 1.0°C Jan. 27, 1957, Feb. 12, 1958, Feb. 25, 1960.

Sediment concentrations: Maximum daily, 5,160 mg/l June 4, 1957; minimum daily, no flow at times each year.

Sediment loads: Maximum daily, 12,200 tons Apr. 20, 1957; minimum daily, 0 tons on many days.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	350	190	283	1810	2490	2080	---	---	---	---
2	---	---	274	208	252	1810	2480	2090	---	---	---	---
3	804	---	194	217	388	1810	2460	2070	---	---	---	---
4	813	---	200	219	416	1810	2480	2110	---	312	---	---
5	284	---	179	218	420	1810	2510	2140	---	273	---	---
6	---	---	202	245	544	1880	2520	1950	---	258	---	---
7	408	---	231	292	541	1940	2510	2040	---	331	---	---
8	394	---	257	395	598	2000	2520	2060	---	309	---	---
9	458	---	166	293	596	2020	2520	1840	---	---	---	---
10	---	---	202	396	692	2260	2500	1760	---	---	---	---
11	---	---	211	438	682	2270	2510	1770	---	---	---	---
12	---	---	214	470	682	2260	2510	1870	---	---	---	---
13	---	---	249	471	690	2260	2500	1030	---	---	---	---
14	---	---	256	524	709	2270	2500	1010	---	---	---	---
15	---	---	333	545	714	2300	2520	1330	662	---	---	---
16	---	---	280	545	714	2320	2500	1310	572	---	---	---
17	---	---	279	561	807	2430	2520	1320	582	---	---	---
18	---	267	324	589	807	2440	2520	1380	574	---	---	---
19	---	285	323	718	805	2430	2500	1370	---	---	---	---
20	691	324	372	713	810	2420	2320	1360	---	---	---	---
21	1220	326	441	796	995	2420	2340	---	---	---	---	---
22	1140	354	436	821	1020	2430	2590	---	---	---	---	---
23	1140	340	444	827	---	2420	2400	---	---	---	---	---
24	1180	244	352	876	1200	2430	2300	---	---	---	---	---
25	1180	312	350	880	1210	2430	2270	---	---	---	---	---
26	1110	307	350	1010	1200	2430	---	---	---	---	---	---
27	1140	332	351	1010	1350	2430	827	---	---	---	---	---
28	1160	333	390	1010	1350	2470	2250	---	---	---	---	---
29	1160	336	553	174	1350	2470	2010	---	---	---	---	---
30	---	350	562	225	---	2470	2070	---	---	---	---	---
31	---	---	---	260	---	2450	---	---	---	---	---	---
MONTH	---	---	311	521	779	2240	2380	---	---	---	---	---

TRINITY RIVER BASIN

08063200 PIN OAK CREEK NEAR HUBBARD, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	8.0	13.0	9.0	24.0	20.5	26.5	---	---	---	---
2	---	---	7.5	14.0	8.5	18.5	24.0	26.5	---	---	---	---
3	29.5	---	9.0	14.5	5.5	19.0	23.5	26.5	---	---	---	---
4	23.5	---	8.5	6.0	8.0	20.5	18.0	26.5	---	24.5	---	---
5	23.5	---	8.5	5.5	9.0	20.5	21.0	26.5	---	25.0	---	---
6	---	---	9.0	9.0	9.0	20.0	24.5	26.0	---	25.0	---	---
7	26.5	---	12.0	10.0	4.5	26.0	25.0	20.5	---	29.5	---	---
8	22.0	---	14.0	13.0	9.0	23.0	24.0	21.0	---	29.5	---	---
9	23.0	---	13.5	10.0	9.5	14.0	26.0	19.5	---	---	---	---
10	---	---	12.0	13.0	10.0	26.0	28.0	21.0	---	---	---	---
11	---	---	14.0	12.0	10.5	25.5	28.5	28.5	---	---	---	---
12	---	---	13.5	12.0	12.0	26.5	28.0	26.5	---	---	---	---
13	---	---	14.0	9.0	14.5	27.0	29.5	25.5	---	---	---	---
14	---	---	15.0	8.0	12.0	26.5	24.0	28.5	---	---	---	---
15	---	---	15.5	9.0	13.0	26.5	24.0	25.5	---	---	---	---
16	---	---	15.0	10.0	14.0	20.0	24.5	24.5	---	---	---	---
17	---	---	15.5	10.0	15.5	24.0	28.0	24.0	---	---	---	---
18	---	18.0	16.5	14.5	17.0	26.5	28.5	25.5	---	---	---	---
19	---	14.5	17.0	17.0	18.0	27.0	29.0	26.5	---	---	---	---
20	22.5	17.0	12.0	17.0	18.5	26.0	26.5	27.0	---	---	---	---
21	17.0	18.0	11.0	15.5	19.0	10.0	28.5	---	---	---	---	---
22	19.0	11.0	10.0	17.0	19.0	26.5	29.0	---	---	---	---	---
23	19.5	14.0	15.0	17.0	---	27.0	29.0	---	---	---	---	---
24	18.5	10.0	14.5	21.0	21.0	25.5	26.5	---	---	---	---	---
25	18.5	9.0	14.5	14.5	24.0	25.5	26.0	---	---	---	---	---
26	19.5	10.0	15.5	15.0	26.0	25.5	---	---	---	---	---	---
27	20.0	15.5	20.0	10.0	24.0	26.0	18.0	---	---	---	---	---
28	21.0	10.0	15.5	4.0	24.5	25.5	19.5	---	---	---	---	---
29	21.0	10.0	16.5	5.0	25.0	15.5	20.0	---	---	---	---	---
30	---	9.0	18.0	9.0	---	15.5	26.5	---	---	---	---	---
31	---	---	---	9.0	---	18.5	---	---	---	---	---	---
MONTH	---	---	13.5	11.5	14.5	23.0	25.0	---	---	---	---	---

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	0	0	0	0	0	0	.04	167	.02
2	0	0	0	0	0	0	16	427	.43
3	1.8	375	6.7	0	0	0	12	341	.18
4	5.1	929	14	0	0	0	2.4	178	1.2
5	2.6	160	1.1	0	0	0	41	740	146
6	1.4	137	.52	0	0	0	20	522	.42
7	.40	135	.15	0	0	0	7.5	348	.18
8	.10	135	.04	0	0	0	.89	175	.42
9	.02	145	.01	0	0	0	510	1020	1780
10	.01	100	0	0	0	0	179	699	393
11	0	0	0	0	0	0	109	265	.78
12	0	0	0	0	0	0	82	193	.43
13	0	0	0	0	0	0	51	170	.23
14	0	0	0	0	0	0	33	140	.12
15	0	0	0	0	0	0	22	117	6.9
16	0	0	0	0	0	0	9.9	50	1.3
17	0	0	0	.04	0	0	4.6	49	.61
18	0	0	0	30	989	114	1.8	37	.18
19	0	0	0	2.7	155	1.1	.68	27	.05
20	9.3	888	26	1.1	95	.28	.27	50	.04
21	3.5	300	2.8	.55	82	.12	.10	62	.02
22	1.7	230	1.1	1.5	195	3.6	.02	49	0
23	.79	250	.53	14	640	31	.01	43	0
24	.33	330	.29	2.4	172	1.1	2.3	69	.43
25	.10	310	.08	.94	230	.58	1.5	53	.21
26	.03	270	.02	.68	375	.69	.47	39	.05
27	.02	355	.02	.55	460	.68	.22	68	.04
28	.01	420	.01	.40	310	.33	.08	41	.01
29	0	0	0	.22	180	.11	.02	40	0
30	0	0	0	.10	178	.05	.02	65	0
31	0	0	0	--	--	--	.01	60	0
TOTAL	27.21	--	53.37	55.18	--	153.64	1107.83	--	2607.48

08063200 PIN OAK CREEK NEAR HUBBARD, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	59	604	209	13	88	3.1	.22	150	.09
2	64	294	73	7.8	120	2.5	.22	182	.11
3	70	503	148	4.4	120	1.4	.22	195	.12
4	62	176	34	2.9	71	.56	.22	270	.16
5	27	68	5.0	2.4	86	.56	.22	318	.19
6	18	65	3.2	2.6	66	.46	.22	68	.04
7	12	59	1.9	2.1	52	.29	.22	97	.06
8	7.5	69	1.4	1.5	42	.17	.22	170	.10
9	4.4	70	.83	1.2	66	.21	.22	255	.15
10	2.1	31	.18	1.1	90	.27	.22	145	.09
11	1.1	51	.15	1.1	35	.10	.22	105	.06
12	.33	33	.03	1.1	83	.25	.22	113	.07
13	.22	80	.05	.94	88	.22	.22	85	.05
14	.08	40	.01	1.4	56	.21	.22	87	.05
15	.03	55	0	1.2	44	.14	.22	120	.07
16	.02	40	0	.94	55	.14	.22	110	.07
17	.01	73	0	.55	73	.11	.22	150	.09
18	.01	71	0	.47	58	.07	.10	142	.04
19	.01	69	0	.40	83	.09	.08	148	.03
20	.01	27	0	.40	51	.06	.08	177	.04
21	.01	28	0	.40	51	.06	.08	145	.03
22	.01	50	0	.40	58	.06	.08	115	.02
23	.01	61	0	.40	62	.07	.08	115	.02
24	.01	80	0	.40	65	.07	.08	128	.03
25	0	0	0	.33	63	.06	.03	120	.01
26	0	0	0	.33	61	.05	.03	155	.01
27	0	0	0	.27	70	.05	.03	147	.01
28	.04	48	.01	.22	66	.04	.03	185	.01
29	79	481	168	.22	58	.03	.04	193	.02
30	42	200	23	--	--	--	.02	165	.01
31	20	83	4.5	--	--	--	.02	144	.01
TOTAL	468.90	--	672.26	50.47	--	11.40	4.52	--	1.86

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.02	162	.01	.68	405	.74	0	0	0
2	.02	175	.01	.47	410	.52	0	0	0
3	.02	152	.01	.33	395	.35	0	0	0
4	.01	150	0	.10	355	.10	0	0	0
5	.02	125	.01	.02	450	.02	0	0	0
6	.02	88	0	.02	430	.02	0	0	0
7	.02	124	.01	.13	420	.15	0	0	0
8	.01	98	0	.10	620	.17	0	0	0
9	.01	46	0	.02	470	.03	0	0	0
10	.02	66	0	.01	360	.01	0	0	0
11	.02	69	0	.01	347	.01	0	0	0
12	.03	86	.01	.08	262	.10	0	0	0
13	.04	81	.01	.27	580	.42	0	0	0
14	.08	85	.02	.03	540	.04	0	0	0
15	.10	98	.03	.01	300	.01	.94	193	.89
16	.10	81	.02	.01	315	.01	.03	670	.05
17	.04	105	.01	.01	320	.01	0	0	0
18	.04	107	.01	0	0	0	0	0	0
19	.04	120	.01	0	0	0	0	0	0
20	.02	128	.01	0	0	0	0	0	0
21	.03	140	.01	0	0	0	0	0	0
22	.01	96	0	0	0	0	0	0	0
23	.01	96	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0
27	4.6	307	3.1	0	0	0	0	0	0
28	4.6	468	5.8	0	0	0	0	0	0
29	1.7	415	1.9	0	0	0	0	0	0
30	.79	355	.76	0	0	0	.47	180	.36
31	--	--	--	0	0	0	--	--	--
TOTAL	12.42	--	11.75	2.30	--	2.71	1.44	--	1.30

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.10	370	.10	0	0	0	0	0	0
2	.01	285	.01	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0
4	27	1080	154	0	0	0	0	0	0
5	4.8	503	14	0	0	0	0	0	0
6	.06	150	.02	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	--	--	--
TOTAL	31.97	--	168.13	0	--	0	0	--	0
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)						1762.24			
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)						3683.90			

TRINITY RIVER BASIN

285

08063500 RICHLAND CREEK NEAR RICHLAND, TEX.

LOCATION.--Lat 31°57'00", long 96°25'17", Navarro County, at gaging station at bridge on U.S. Highway 75, 800 feet downstream from Texas and New Orleans Railroad Co. bridge, 1 mile north of Richland, and 3.5 miles downstream from Pin Oak Creek.

DRAINAGE AREA.--734 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

Water temperatures: October 1967 to September 1970.

EXTREMES, October 1967 to September 1969.--Dissolved solids: Maximum, 974 mg/l Nov. 1-5, 1968; minimum, 83 mg/l Oct. 30-31, 1967.

Hardness: Maximum, 436 mg/l Nov. 1-5, 1968; minimum, 61 mg/l May 5-6, 1969.

Specific conductance: Maximum daily, 1,920 micromhos Nov. 5, 1968; minimum daily, 119 mg/l Oct. 30, 1967.

Water temperatures: Maximum, 34.0°C Aug. 18, 1969; minimum, 3.0°C Jan. 7, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 19...	0930	1930	10	28	2.0	12	82	0	23	6.2
JAN. 18...	1500	807	3.8	49	3.3	25	145	0	46	14
FEB. 24...	1600	54	3.5	72	7.4	40	192	0	80	37
MAR. 29...	1635	12	8.7	160	14	110	356	12	210	130
MAY 08...	1340	.59	9.0	170	22	140	388	0	230	180
JULY 25...	1300	.02	11	59	8.0	28	176	0	52	28

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 19...	.1	1.0	126	78	11	.6	201	7.0	--
JAN. 18...	.4	.7	216	140	17	.9	361	7.9	9.0
FEB. 24...	.4	.7	337	210	52	1.2	567	7.7	18.0
MAR. 29...	.4	.3	820	470	160	2.2	1260	8.3	19.5
MAY 08...	.5	.2	937	510	190	2.7	1460	8.2	22.0
JULY 25...	.4	.3	275	180	36	.9	460	7.8	--

TRINITY RIVER BASIN

287

08064500 CHAMBERS CREEK NEAR CORSICANA, TEX.

LOCATION.--Lat 32°06'29", long 96°22'14", Navarro County, at gaging station at bridge on State Highway 31, 500 feet upstream from St. Louis Southwestern Railway Lines bridge, 6,000 feet upstream from city of Corsicana diversion dam, 6 miles east of Corsicana, and 17 miles upstream from Richland Creek.

DRAINAGE AREA.--963 sq mi.

PERIOD OF RECORD.--Chemical analyses: September 1961 to September 1972.

Water temperatures: September 1961 to September 1970.

EXTREMES, October 1961 to September 1969.--Dissolved solids: Maximum, 1,550 mg/l Aug. 1-5, 12-14, 1966; minimum, 97 mg/l Oct. 30-31, 1967.

Hardness: Maximum, 492 mg/l Mar. 12, 1964; minimum, 66 mg/l June 30, 1962.

Specific conductance: Maximum daily, 2,900 micromhos Nov. 29, 1966; minimum daily, 125 micromhos Oct. 30, 1967.

Water temperatures: Maximum, 33.0°C on several days during summer months; minimum, freezing point on Jan. 11, 1962.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	WICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 21...	1450	12800	8.8	45	2.1	14	116	0	44	4.2
DEC. 08...	1430	2980	9.1	50	2.7	18	126	0	52	9.2
FEB. 25...	1300	121	25	80	5.0	34	204	0	83	25
MAR. 28...	1340	29	4.0	110	7.4	77	230	0	180	64
MAY 09...	1100	276	8.3	95	8.3	60	149	0	190	54
AUG. 30...	1010	1.8	8.2	92	5.0	100	176	0	190	86

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AN- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 21...	.3	.8	179	120	26	.6	289	7.2	21.0
DEC. 08...	.2	1.4	209	140	33	.7	339	7.4	9.0
FEB. 25...	.3	1.3	336	220	53	1.0	555	8.1	18.0
MAR. 28...	.4	1.2	554	300	110	1.9	853	8.1	20.5
MAY 09...	.5	2.6	497	270	150	1.6	793	8.3	20.0
AUG. 30...	.7	.7	575	250	110	2.8	887	7.6	27.0

TRINITY RIVER BASIN

08064600 RICHLAND CREEK NEAR FAIRFIELD, TEX.

LOCATION.--Lat 31°57'05", long 96°05'52", Freestone County, at gaging station at bridge on Farm Road 488, 5.8 miles upstream from mouth, 9.0 miles downstream from Chambers Creek, and 16 miles north of Fairfield.

DRAINAGE AREA.--1,957 sq mi.

PERIOD OF RECORD.--Chemical analyses: April 1956 to September 1966, March to September 1972.
Water temperatures: April 1956 to September 1966, March to September 1972.

WATER QUALITY DATA, MARCH TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
MAR.									
01-04	80	3.4	89	5.3	60	212	6	100	54
05-15	32	3.5	110	7.4	85	240	6	160	84
16-28	67	4.2	110	8.4	89	236	8	160	82
29-31	51	6.3	91	11	160	220	0	100	220
APR.									
01-14	22	3.6	110	6.2	98	248	0	160	97
15-29	16	2.0	100	9.8	110	244	0	160	110
30...	205	19	80	6.2	58	176	0	120	48
MAY									
01-09	74	6.1	110	8.6	98	184	0	220	100
10-12	189	8.3	100	8.6	61	194	0	170	54
13-14	101	6.1	110	8.6	98	184	0	220	100
15-18	48	3.9	76	6.2	92	174	0	130	95
19...	55	6.1	110	8.6	98	184	0	220	100
20...	71	6.8	130	15	300	260	10	120	480
21-27	16	6.1	110	8.6	98	184	0	220	100
28-31	6.9	3.9	76	6.2	92	174	0	130	95
JUNE									
01-14	5.4	5.2	84	7.4	110	206	0	140	110
15-25	64	8.0	56	4.0	74	156	0	56	88
26-30	6.6	7.7	68	6.4	85	192	0	88	90
JULY									
01...	102	--	76	6.4	89	220	0	90	96
02-09	100	8.5	50	4.6	53	140	0	63	51
10-19	3.6	8.6	52	6.4	46	148	0	54	52
20-24	.04	7.7	70	7.2	74	200	0	80	82
25-31	.04	8.3	83	7.5	100	224	0	100	120
AUG.									
01-06	16	5.0	68	9.4	120	224	0	90	130
07-11	.52	6.3	74	11	140	232	0	89	170
12-17	.26	5.0	68	9.4	120	224	0	90	130
18-31	.07	7.4	74	16	140	200	0	100	200
SEPT.									
01-09	.23	7.1	80	12	150	248	0	83	200
10-12	33	6.2	60	12	67	196	0	64	80
13-22	6.6	5.5	72	9.8	93	216	0	91	100
23-26	17	6.2	60	12	67	196	0	64	80
27-30	79	5.1	30	2.2	32	112	0	20	26
WTD. AVG.									
TIME WTD.	--	6.3	85	7.0	82	192	2	128	85
AVG.									
TOT. LOAD	32	5.8	83	8.4	97	206	1	119	108
(TONS)	--	113	1560	128	1490	3500	32	2330	1550

TRINITY RIVER BASIN

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08064600 RICHLAND CREEK NEAR FAIRFIELD, TEX.--Continued

EXTREMES, March to September 1972.--Dissolved solids: Maximum, 1,190 mg/l May 20; minimum, 174 mg/l Sept. 27-30.

Hardness: Maximum, 380 mg/l May 20; minimum, 84 mg/l Sept. 27-30.

Specific conductance: Maximum daily, 2,110 micromhos May 20; minimum daily, 280 micromhos Sept. 28.

Water temperatures: Maximum, 35.0°C June 26, July 27.

EXTREMES, April 1956 to September 1966, March to September 1972.--Dissolved solids: Maximum, 13,500 mg/l Aug. 11-31, 1956; minimum, 102 mg/l Jan. 19, 1961.

Hardness: Maximum, 460 mg/l Oct. 18, 1956; minimum, 60 mg/l Jan. 19, 1961.

Specific conductance: Maximum daily, 22,000 micromhos Aug. 22, 1956; minimum daily, 157 micromhos Apr. 25, 1957.

Water temperatures: Maximum, 37.0°C Aug. 14, 1961; minimum, freezing point Jan. 3, 4, 1959.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, MARCH TO SEPTEMBER 1972

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SOPP- TION RATIO	SPE- CFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
MAR.								
01-04	.3	1.6	433	240	60	1.7	700	8.3
05-15	.4	1.7	576	300	94	2.1	889	8.3
16-28	.4	1.9	585	300	97	2.2	935	8.3
29-31	.4	2.4	708	270	92	4.1	1240	8.1
APR.								
01-14	.5	1.4	604	300	97	2.5	971	8.1
15-29	.5	1.4	628	300	95	2.8	1030	8.1
30...	.5	2.4	435	220	81	1.7	680	8.0
MAY								
01-09	.4	1.8	650	320	170	2.4	1030	7.8
10-12	.5	3.4	510	290	130	1.6	797	7.9
13-14	.4	1.8	650	320	170	2.4	1030	7.8
15-18	.4	1.8	494	220	72	2.7	809	7.8
19...	.4	1.8	650	320	170	2.4	1030	7.8
20...	.4	.9	1190	380	150	6.7	2110	8.4
21-27	.4	1.8	650	320	170	2.4	1030	7.8
28-31	.4	1.8	494	220	72	2.7	809	7.8
JUNE								
01-14	.5	.5	568	240	71	3.1	931	8.0
15-25	.4	1.8	371	160	28	2.6	634	8.2
26-30	.5	.7	443	200	38	2.6	738	8.0
JULY								
01...	--	--	--	220	36	2.6	804	8.3
02-09	.5	1.6	307	140	30	1.9	513	7.9
10-19	.5	1.2	298	160	35	1.6	493	7.9
20-24	.5	.1	420	200	40	2.2	702	8.1
25-31	.5	.1	534	240	54	2.9	901	8.0
AUG.								
01-06	.7	.5	530	210	24	3.5	895	8.2
07-11	.7	.3	599	230	40	3.9	1020	8.2
12-17	.7	.5	530	210	24	3.5	895	8.2
18-31	.6	.3	639	250	86	3.8	1130	8.2
SEP.								
01-09	.7	1.0	668	250	47	4.2	1170	8.1
10-12	.6	1.0	390	200	40	2.1	669	8.1
13-22	.7	1.5	487	220	43	2.7	834	8.0
23-26	.6	1.0	390	200	40	2.1	669	8.1
27-30	.4	.6	174	84	0	1.5	312	7.8
WTD. AVG. TIME WTD. AVG.	.4	1.8	500	243	84	2.3	813	8.0
TOT. LOAD (TONS)	.5	1.2	532	243	73	2.7	881	8.1
	7.9	32	8970	--	--	--	--	--

TRINITY RIVER BASIN

08064600 RICHLAND CREEK NEAR FAIRFIELD, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	679	1090	1040	873	804	876	1210
2	---	---	---	---	---	681	1010	1040	900	680	864	1230
3	---	---	---	---	---	699	976	1020	912	478	923	1170
4	---	---	---	---	---	740	967	990	907	505	907	1330
5	---	---	---	---	---	852	967	971	924	709	936	1390
6	---	---	---	---	---	867	971	975	949	501	944	1260
7	---	---	---	---	---	867	971	939	941	312	976	1140
8	---	---	---	---	---	910	976	935	928	407	967	1060
9	---	---	---	---	---	902	1000	939	976	---	1020	1020
10	---	---	---	---	---	906	1010	810	1000	480	1060	888
11	---	---	---	---	---	890	972	---	986	482	1000	693
12	---	---	---	---	---	886	976	785	990	366	915	680
13	---	---	---	---	---	890	995	971	995	431	857	716
14	---	---	---	---	---	898	995	1070	896	519	836	745
15	---	---	---	---	---	902	1000	846	445	531	861	794
16	---	---	---	---	---	922	1030	520	701	---	887	794
17	---	---	---	---	---	953	1000	854	613	506	940	887
18	---	---	---	---	---	948	1020	829	615	545	986	958
19	---	---	---	---	---	944	1010	1270	555	586	1000	927
20	---	---	---	---	---	906	995	2110	567	632	1040	880
21	---	---	---	---	---	923	1010	1150	437	678	1070	851
22	---	---	---	---	---	935	1040	1050	608	714	971	804
23	---	---	---	---	---	944	1020	1060	932	717	1040	641
24	---	---	---	---	---	944	990	1080	795	772	1010	641
25	---	---	---	---	---	906	981	1080	728	812	1030	777
26	---	---	---	---	---	981	1000	1020	746	857	1060	762
27	---	---	---	---	---	910	1030	926	755	899	1080	310
28	---	---	---	---	---	894	1070	847	733	944	1100	280
29	---	---	---	---	---	1510	1080	845	746	995	1120	321
30	---	---	---	---	---	919	680	870	736	923	1140	325
31	---	---	---	---	---	1280	---	860	---	895	1180	---
MONTH	---	---	---	---	---	916	994	990	796	644	987	849

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	18.5	20.0	24.5	24.5	32.0	31.0	28.5
2	---	---	---	---	---	16.0	20.0	23.5	29.0	30.0	30.0	30.0
3	---	---	---	---	---	16.0	21.0	25.5	28.0	28.0	30.0	29.5
4	---	---	---	---	---	17.5	19.5	20.5	27.0	27.5	31.0	27.5
5	---	---	---	---	---	16.0	23.0	24.0	26.0	29.0	29.5	29.0
6	---	---	---	---	---	17.5	20.0	22.5	32.0	28.0	30.5	30.5
7	---	---	---	---	---	19.0	24.5	23.0	25.5	27.5	32.5	31.0
8	---	---	---	---	---	16.0	21.5	24.5	26.0	28.0	31.5	31.5
9	---	---	---	---	---	18.0	20.0	26.0	26.5	---	31.5	29.5
10	---	---	---	---	---	20.0	23.0	23.0	27.0	30.0	29.0	27.5
11	---	---	---	---	---	19.0	21.0	---	30.0	29.5	30.5	31.5
12	---	---	---	---	---	20.0	24.0	20.5	26.5	29.0	29.0	31.0
13	---	---	---	---	---	20.5	27.0	25.0	26.5	31.0	30.0	31.0
14	---	---	---	---	---	22.5	25.0	25.0	26.0	29.5	30.0	30.0
15	---	---	---	---	---	21.0	25.0	28.0	26.5	28.5	28.5	30.5
16	---	---	---	---	---	21.0	24.0	26.0	27.5	---	31.0	27.5
17	---	---	---	---	---	21.5	24.5	28.0	26.0	30.0	29.5	27.5
18	---	---	---	---	---	19.5	24.0	28.5	25.0	32.5	31.0	29.5
19	---	---	---	---	---	18.5	25.0	28.0	31.5	32.5	28.0	29.5
20	---	---	---	---	---	24.0	29.0	25.5	32.0	34.0	28.0	31.0
21	---	---	---	---	---	21.0	25.0	28.5	27.5	32.5	33.0	28.5
22	---	---	---	---	---	21.0	22.5	29.5	31.0	30.0	27.0	26.0
23	---	---	---	---	---	22.0	24.5	29.0	32.0	27.0	29.0	26.5
24	---	---	---	---	---	22.5	26.0	30.0	31.5	32.0	33.0	25.5
25	---	---	---	---	---	20.5	25.0	31.5	32.0	34.0	32.5	27.5
26	---	---	---	---	---	21.5	23.0	25.5	35.0	34.5	27.5	27.5
27	---	---	---	---	---	23.0	19.0	27.0	34.5	35.0	28.0	24.5
28	---	---	---	---	---	21.0	21.0	31.0	33.0	32.0	33.0	25.5
29	---	---	---	---	---	20.0	22.0	30.0	33.0	34.0	31.0	25.5
30	---	---	---	---	---	14.0	21.5	31.0	27.5	31.0	29.5	24.0
31	---	---	---	---	---	---	---	28.5	---	31.5	29.0	---
MONTH	---	---	---	---	---	19.5	23.0	26.5	29.0	30.5	30.0	28.5

TRINITY RIVER BASIN

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08064700 TEHUACANA CREEK NEAR STREETMAN, TEX.

LOCATION.--Lat 31°50'54", long 96°17'23", Freestone County, at gaging station at U.S. Highway 75, 2.8 miles southeast of Streetman, 3.1 miles downstream from Chicago, Rock Island and Pacific Railroad Co. bridge, and 3.8 miles upstream from Caney Creek.

DRAINAGE AREA.--142 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 18...	1225	2.4	12	67	22	120	223	0	110	160
FEB. 22...	1600	2.9	8.2	80	34	160	244	0	140	240
MAY 08...	1500	.17	8.9	140	58	340	416	0	260	520
AUG. 29...	1500	.04	5.5	64	27	160	216	0	140	210

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AND SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JAN. 18...	.2	.3	608	260	74	3.4	1030	7.7	9.0
FEB. 22...	.2	.1	786	340	140	3.8	1360	7.7	16.0
MAY 08...	.4	.4	1540	600	260	6.1	2500	8.2	20.5
AUG. 29...	.4	.09	706	270	93	4.2	1220	7.6	31.0

TRINITY RIVER BASIN

293

08065200 UPPER KEECHI CREEK NEAR OAKWOOD, TEX.

LOCATION.--Lat 31°34'11", long 96°53'17", Leon County, at gaging station on U.S. Highway 79, 1.5 miles upstream from Missouri Pacific Railroad Co. bridge, 2 miles southwest of Oakwood, 11 miles upstream from Buffalo Creek, and 21 miles upstream from mouth.

DRAINAGE AREA.--150 sq mi.

PERIOD OF RECORD.--Chemical analyses: June 1962 to April 1964, November 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED CHLORIDE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 26...	1210	4.0	15	16	7.8	24	16	0	58	35
NOV. 29...	1320	6.5	19	22	17	13	12	0	76	46
JAN. 10...	1245	47	16	23	9.6	31	19	0	79	46
FEB. 07...	1150	24	18	28	16	32	16	0	99	63
MAR. 13...	1230	11	18	30	14	43	22	0	100	72
APR. 26...	1130	2.0	20	24	11	37	24	0	78	59
MAY 30...	1830	.28	22	22	9.5	32	40	0	60	48
AUG. 01...	1445	.02	14	16	5.6	31	38	0	30	46
SEP. 05...	1130	.03	13	10	4.4	22	28	0	26	28

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 26...	.1	.1	164	72	59	--	290	6.2	20.0
NOV. 29...	.0	.03	199	130	120	.5	371	6.0	14.5
JAN. 10...	.1	.09	214	97	81	1.4	375	6.5	12.0
FEB. 07...	.2	.00	264	130	120	1.2	471	6.3	8.5
MAR. 13...	.2	.00	290	130	110	1.6	514	6.3	20.0
APR. 26...	.2	.2	241	100	84	1.2	419	6.3	--
MAY 30...	.2	.01	214	94	61	1.4	377	6.4	31.0
AUG. 01...	.2	.8	165	63	32	1.7	305	6.4	31.0
SEP. 05...	.0	.6	120	43	20	1.5	222	6.5	25.5

TRINITY RIVER BASIN

08065350 TRINITY RIVER NEAR CROCKETT, TEX.

LOCATION.--Lat 31°20'08", long 95°39'27", Houston County, at gaging station at bridge on State Highway 7, 7.1 miles downstream from Upper Keechi Creek, and 11.9 miles west of Crockett.

DRAINAGE AREA.--13,911 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1964 to September 1972.

Chemical and biochemical analyses: October 1967 to September 1972.

Pesticide analyses: October 1971 to September 1972.

Water temperatures: February 1964 to September 1971.

Sediment records: October 1967 to September 1968.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
01-03	1010	13	42	6.1	98	122	0	92	72
04-31	7010	8.2	47	3.1	31	126	0	45	27
NOV.									
01-30	6720	7.8	48	4.0	29	138	0	39	26
DEC.									
01-31	25000	6.8	42	3.7	17	118	0	31	17
JAN.									
01-20	20600	5.3	42	3.7	16	120	0	28	17
27-31	5480	7.2	56	4.7	31	149	0	48	34
FEB.									
01-07	6470	6.0	43	3.6	25	114	0	32	31
08-29	1850	7.1	65	9.2	63	162	0	88	62
MAR.									
01-31	1190	8.5	66	10	73	164	0	88	80
APR.									
01-30	931	12	64	6.0	98	177	0	89	94
MAY									
01...	2390	14	--	--	100	174	0	59	130
02-31	1620	8.8	60	8.4	52	152	0	79	58
JUNE									
01-30	957	14	51	8.5	91	166	0	86	81
JULY									
01-13	740	16	46	7.5	77	140	0	73	76
14-31	515	18	46	8.8	93	167	0	74	84
AUG.									
01-14	438	15	45	9.1	100	169	0	86	90
15...	908	17	55	7.1	130	190	0	110	110
16-31	501	15	45	9.1	100	169	0	86	90
SEP.									
01-30	513	15	42	11	120	171	0	91	100
WTD. AVG.	--	7.1	45	4.3	27	127	0	39	26
TIME WTD.									
AVG.	5520	11	51	7.0	65	151	0	68	61
TOT. LOAD (TONS)	--	38800	246000	23200	147000	692000	0	212000	144000

TRINITY RIVER BASIN

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08065350 TRINITY RIVER NEAR CROCKETT, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 530 mg/l Aug. 15; minimum, 175 mg/l Jan. 1-26.
 Hardness: Maximum, 120 mg/l Mar. 1-31; minimum, 120 mg/l Dec. 1-31, Jan. 1-26, Feb. 1-7.
 Specific conductance: Maximum daily, 1,020 micromhos Aug. 15; minimum daily, 210 micromhos Dec. 15.

EXTREMES, February 1964 to September 1972.--Dissolved solids: Maximum, 1,150 mg/l Sept. 8, 1967; minimum, 97 mg/l Apr. 26-30, 1966.
 Hardness: Maximum, 210 mg/l Sept. 8, 1967, Mar. 1-31, 1972; minimum, 55 mg/l Apr. 26-30, 1966.
 Specific conductance: Maximum daily, 2,370 micromhos Sept. 22, 1964; minimum daily, 148 micromhos Apr. 27, 1966.
 Water temperatures (1964-71): Maximum, 37.0°C July 4, 1970; minimum, 4.0°C Jan. 30, 1966.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-03	1.0	12	438	130	30	3.7	766	7.2
04-31	--	2.4	234	130	27	1.2	444	7.3
NOV.								
01-30	.4	2.4	233	140	23	1.1	427	7.3
DEC.								
01-31	.3	1.2	181	120	23	.7	332	7.3
JAN.								
01-26	.2	.8	175	120	22	.6	326	7.2
27-31	--	1.6	261	160	37	1.1	475	7.2
FEB.								
01-07	.2	1.4	203	120	29	1.0	382	7.3
08-29	.5	6.3	403	200	67	1.9	683	7.5
MAR.								
01-31	.6	6.7	437	210	72	2.2	786	7.0
APR.								
01-30	.7	6.8	481	180	39	3.1	825	8.2
MAY								
01...	.7	6.4	--	180	37	3.3	883	7.3
02-31	--	2.4	352	180	60	1.7	660	7.5
JUNE								
01-30	.8	5.0	436	160	26	3.1	755	7.6
JULY								
01-13	.8	4.1	383	150	32	2.8	669	7.3
14-31	--	5.6	431	150	14	3.3	770	7.5
AUG.								
01-14	1.0	4.3	451	150	12	3.7	809	7.3
15...	--	7.2	530	170	11	4.4	985	7.2
16-31	1.0	4.3	451	150	12	3.7	809	7.3
SEP.								
01-30	.0	8.1	503	150	10	4.3	859	7.8
WTD. AVG.	.3	1.8	219	130	26	1.0	403	7.3
TIME WTD.								
AVG.	.5	4.3	355	156	33	2.2	635	7.4
TOT. LOAD (TONS)	1460	10000	1193000	--	--	--	--	--

TRINITY RIVER BASIN

08065350 TRINITY RIVER NEAR CROCKETT, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BITCAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
OCT. 22...	1200	6880	13	55	5.0	76	--	8.7	158	0
DEC. 06...	1215	12000	7.5	36	3.1	--	19	--	104	0
FEB. 07...	1600	3100	9.6	57	5.3	--	36	--	152	0
APR. 11...	1440	805	12	58	6.7	--	75	--	170	0
JUNE 19...	1400	1600	8.3	48	8.0	--	110	--	148	0
AUG. 21...	1340	520	18	47	6.2	130	--	11	186	0
SEP. 26...	1045	490	14	46	11	--	110	--	170	0

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FIL- TRABLE RESIDUE (MG/L)
OCT. 22...	84	66	.8	1.0	1.6	1.4	4.0	3.2	412	1160
DEC. 06...	25	21	.2	.84	.056	.46	.9	.75	168	1510
FEB. 07...	57	40	.4	.45	.054	.72	1.0	.72	286	188
APR. 11...	74	73	.7	.67	.26	.21	3.5	--	400	46
JUNE 19...	83	120	.8	.57	.031	.03	4.1	3.6	473	135
AUG. 21...	110	110	1.2	.84	1.5	1.2	4.6	7.1	544	58
SEP. 26...	84	110	1.1	.34	.015	.08	5.0	3.0	477	72

DATE	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
OCT. 22...	120	160	28	2.6	696	7.1	22.0	20	260	.8
DEC. 06...	144	100	17	.8	302	7.1	8.5	40	450	8.9
FEB. 07...	16	160	39	1.2	508	7.7	7.5	15	75	9.1
APR. 11...	46	170	32	2.5	680	7.8	23.5	20	9	6.2
JUNE 19...	46	150	32	3.9	842	7.0	30.0	25	55	4.0
AUG. 21...	8	140	0	4.7	930	7.4	32.5	20	30	5.9
SEP. 26...	15	160	20	3.7	852	6.8	28.0	30	30	5.4

DATE	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)
OCT. 22...	9	57	17	14	.00	--	20	10	0	0
DEC. 06...	75	41	6.5	1	.00	--	--	--	--	--
FEB. 07...	76	16	6.5	0	.00	--	30	0	0	0
APR. 11...	72	31	--	1	.00	--	10	10	0	0
JUNE 19...	53	31	4.4	0	.04	--	--	--	--	--
AUG. 21...	80	39	15	1	.00	--	10	10	0	10
SEP. 26...	68	--	2.7	0	--	11	--	--	--	--

TRINITY RIVER BASIN

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08065350 TRINITY RIVER NEAR CROCKETT, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 22...	2	3	50	0	0	350	<.5	12	440	10
DEC. 06...	--	--	--	--	--	--	--	--	--	--
FEB. 07...	0	15	30	0	10	0	.2	0	550	30
APR. 11...	2	3	10	0	20	0	.2	6	470	50
JUNE 19...	--	--	--	--	--	--	--	--	--	--
AUG. 15...	--	--	--	--	--	--	--	--	--	--
SEP. 21...	0	4	20	0	20	0	.2	25	480	50
SEP. 26...	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE-POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE-POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE-POSITS (UG/KG)	DI-ELDRIN (UG/L)
NOV. 15...	1130	--	.00	<.2	.00	<.2	.00	.2	.00	<.2	.01
FEB. 07...	1600	3100	--	<.2	--	.6	--	.8	--	<.2	--
JUNE 20...	1130	--	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.01

DATE	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOTTOM DE-POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE-POSITS (UG/KG)	CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)
NOV. 15...	.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.0	<1.0
FEB. 07...	1.0	--	<.2	--	<.2	--	<.2	--	<.2	--	12
JUNE 20...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.0	<1.0

DATE	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	PCR (UG/L)	PCR IN BOTTOM DE-POSITS (UG/KG)	SUSPENDED SEDIMENT (MG/L)
NOV. 15...	.08	.00	.00	.00	.06	.01	.00	.0	<2.0	--
FEB. 07...	--	--	--	--	.04	.01	.00	--	2.0	--
JUNE 20...	.13	.00	.00	.00	.12	.02	.00	.0	<2.0	288

TRINITY RIVER BASIN

08065350 TRINITY RIVER NEAR CROCKETT, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	866	348	439	354	468	722	707	883	807	715	653	815
2	698	368	454	352	312	719	777	756	783	735	713	854
3	765	405	442	350	324	687	813	561	751	779	811	875
4	504	503	460	345	333	752	910	530	749	738	853	879
5	423	463	419	278	374	738	885	529	718	556	852	897
6	453	463	333	270	374	769	807	529	741	556	901	879
7	518	465	374	261	478	778	791	563	727	621	892	850
8	424	459	350	254	529	778	756	547	771	578	884	848
9	444	462	291	255	538	797	744	600	803	564	836	854
10	396	455	297	264	561	813	738	604	815	685	857	889
11	391	452	292	275	590	813	686	608	868	699	868	889
12	423	481	256	294	620	791	730	604	902	757	866	882
13	453	520	229	315	631	797	788	774	906	773	868	879
14	487	537	222	332	637	806	811	658	905	809	907	840
15	543	564	210	346	643	830	871	610	820	716	1020	835
16	541	570	226	355	668	810	777	604	666	680	887	840
17	547	534	249	360	681	803	863	623	706	680	886	848
18	588	520	270	364	692	823	852	638	905	736	872	831
19	599	421	282	366	709	833	894	619	953	728	913	---
20	614	369	287	364	724	810	902	638	718	821	926	867
21	574	251	295	361	739	803	884	674	661	826	911	884
22	645	253	308	362	783	830	884	676	802	792	679	839
23	288	312	328	365	775	840	869	703	765	909	805	814
24	318	341	343	367	739	855	829	759	751	903	899	817
25	289	332	364	376	775	851	828	711	708	883	833	843
26	290	326	359	378	790	851	881	756	594	898	620	863
27	312	322	378	424	764	873	766	787	606	884	632	977
28	328	378	382	458	755	763	763	741	588	843	629	982
29	331	458	381	513	755	778	971	780	635	652	701	763
30	336	500	377	503	---	696	957	800	701	537	830	829
31	341	---	365	488	---	724	---	827	---	612	824	---
MONTH	475	428	331	353	612	791	824	667	761	731	827	861

TRINITY RIVER BASIN

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08065500 TRINITY RIVER NEAR MIDWAY, TEX.

LOCATION.--Lat 31°04'38", long 95°41'57", Madison County, at gaging station on Madison-Harrison County line, at bridge on State Highway 21, 5.0 miles northeast of Midway, and 8.0 miles downstream from Boggy Creek.

DRAINAGE AREA.--14,450 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT. 18...	1015	9.8	60	4.5	--	47	--	140	0	82
JAN. 12...	1115	7.3	38	3.0	--	13	--	110	0	24
MAR. 15...	1030	8.7	65	7.4	75	--	6.7	172	0	89
MAY 01...	1330	14	53	7.6	--	110	--	176	0	96
JULY 18...	0950	13	48	6.2	--	94	--	146	0	77

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO
OCT. 18...	33	.4	.020	.00	6.4	.55	334	170	54	1.6
JAN. 12...	12	.2	.047	.04	.6	.28	154	110	17	.5
MAR. 15...	79	1.0	.40	.99	5.9	--	445	190	52	2.4
MAY 01...	88	.9	3.7	.02	7.5	4.0	506	160	20	3.9
JULY 18...	95	.8	.024	.15	4.1	2.7	424	150	26	3.4

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)
OCT. 18...	534	7.2	23.5	2.8	33	2.1	14000	80	400
JAN. 12...	275	7.3	9.5	9.5	83	1.9	150000	570	300
MAR. 15...	757	7.2	20.0	5.4	59	--	--	--	--
MAY 01...	833	6.8	24.5	1.0	12	15	120000	3	60
JULY 18...	742	7.4	29.5	6.6	86	2.6	10000	72	140

TRINITY RIVER BASIN

08065800 BEDIAS CREEK NEAR MADISONVILLE, TEX.

LOCATION.--Lat 30°53'03", long 95°46'39", Madison County, at gaging station on U.S. Highways 75 and 190, 0.5 mile upstream from Interstate Highway 45, 1.5 miles downstream from Caney Creek, and 9.5 miles southeast of Madisonville.

DRAINAGE AREA.--321 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1962 to April 1964, January 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 18...	0915	590	6.1	4.8	1.6	3.6	14	0	9.0	4.2
NOV. 01...	1605	.46	13	16	4.4	20	38	0	35	23
DEC. 02...	1340	6.2	10	10	2.7	11	27	0	18	13
JAN. 04...	1715	327	12	12	3.4	13	30	0	22	16
JAN. 12...	1025	20	17	17	4.8	18	38	0	34	25
FEB. 07...	1240	36	14	16	3.2	25	27	0	44	27
MAR. 15...	0935	3.2	15	34	10	59	63	0	88	78
MAR. 15...	1300	3.2	11	34	11	53	56	0	86	78
APR. 17...	1225	1.5	13	37	12	66	84	0	82	91
MAY 01...	1200	5.5	14	36	13	80	103	0	70	110
MAY 22...	1500	9.7	13	26	6.4	42	52	0	43	65
JULY 05...	1340	.06	12	25	8.7	59	80	0	59	67
JULY 17...	1330	.60	11	14	4.6	21	56	0	22	21
JULY 31...	1150	.07	12	11	3.5	13	37	0	18	11
SEP. 15...	1255	.55	3.0	12	3.7	15	38	0	23	16

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 18...	.1	.021	.43	.3	.40	38	19	7	.4
NOV. 01...	.0	--	--	1.3	--	132	58	27	--
DEC. 02...	.0	--	--	.5	--	80	36	14	.8
JAN. 04...	.0	--	--	.4	--	95	44	19	.9
JAN. 12...	.0	.000	.06	.2	.21	136	62	31	1.0
FEB. 07...	.0	--	--	.6	--	145	53	31	1.5
MAR. 15...	.3	.000	.00	.1	--	316	130	74	2.3
MAR. 15...	.2	--	--	.09	--	302	130	84	2.0
APR. 17...	.2	--	--	.9	--	346	140	71	2.4
MAY 01...	.2	.037	.27	.5	.70	379	140	59	2.9
MAY 22...	.1	--	--	.8	--	225	91	48	1.9
JULY 05...	.1	--	--	1.3	--	276	98	32	2.6
JULY 17...	.2	.035	.39	.6	1.2	125	54	8	1.2
JULY 31...	.0	--	--	1.8	--	94	42	12	.9
SEP. 15...	.0	--	--	.07	--	92	45	14	1.0

TRINITY RIVER BASIN

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08065800 BEDIAS CREEK NEAR MADISONVILLE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTMBER 1972

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)
OCT. 18...	70	6.4	22.5	7.1	81	2.5	21000	2500	3500
NOV. 01...	232	6.2	22.0	--	--	--	--	--	--
DEC. 02...	146	6.5	11.0	--	--	--	--	--	--
JAN. 04...	168	6.4	7.0	--	--	--	--	--	--
12...	233	6.4	10.0	8.2	73	.1	11000	590	600
FEB. 07...	250	6.0	7.5	--	--	--	--	--	--
MAR. 15...	554	6.6	20.0	4.4	48	--	--	--	--
15...	552	6.5	20.0	--	--	--	--	--	--
APR. 17...	643	6.4	23.5	--	--	--	--	--	--
MAY 01...	674	6.9	22.5	2.8	32	3.6	80000	190	1000
22...	417	7.0	22.5	--	--	--	--	--	--
JULY 05...	488	6.9	28.5	--	--	--	--	--	--
17...	230	6.4	25.5	2.8	34	4.2	82000	120	1200
31...	163	6.8	28.0	--	--	--	--	--	--
SEPT. 15...	175	7.5	26.0	--	--	--	--	--	--

TRINITY RIVER BASIN

08065950 NELSON CREEK NEAR RIVERSIDE, TEX.

LOCATION.--Lat 30°53'40", long 95°30'51", Walker County, at low-water crossing on County Road, 3.1 miles north of Farm Road 980, 6.0 miles upstream from mouth at Lake Livingston and 7.4 miles northwest of Riverside.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 18...	1220	13	7.8	1.6	6.7	16	0	14	9.6
JAN. 12...	1330	22	15	3.0	15	26	0	28	23
MAR. 16...	1000	27	26	5.1	46	32	0	69	61
MAY 03...	0920	15	9.0	2.4	8.8	21	0	16	12
JULY 18...	1130	42	20	3.8	38	32	0	47	52

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 18...	.0	.015	.36	.2	.26	62	26	13	.6
JAN. 12...	.0	.000	.08	.06	.24	119	50	28	.9
MAR. 16...	.3	--	--	.00	--	250	86	60	2.2
MAY 03...	.2	.026	.22	.2	.29	75	32	15	.7
JULY 18...	.1	.000	.00	.1	.10	219	66	39	2.0

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)
OCT. 18...	100	6.6	26.0	6.7	82	3.2	100000	6000	1400
JAN. 12...	193	6.4	10.0	8.5	75	1.6	6000	170	72
MAR. 16...	406	6.9	23.0	9.2	106	--	--	--	--
MAY 03...	123	5.9	22.0	6.5	74	3.8	400000	3300	4100
JULY 18...	341	6.8	28.0	8.4	106	2.5	22000	28	96

TRINITY RIVER BASIN

303

08065980 HARMON CREEK NEAR RIVERSIDE, TEX.

LOCATION.--Lat 30°51'38", long 95°26'00", Walker County, at bridge on Farm Road 980, 2.8 miles upstream from mouth at Lake Livingston, 0.5 mile downstream from Caney Creek, and 1.9 miles west of Riverside.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HC03) (MG/L)	CAR-BONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 18...	1200	16	26	1.8	44	76	0	14	23
JAN. 12...	1305	19	32	2.6	21	99	0	16	26
MAR. 16...	1100	17	46	3.3	67	170	0	28	73
MAY 02...	1000	11	19	1.8	3.8	58	0	5.6	7.0
JULY 18...	1230	17	52	4.6	75	188	0	53	72

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO
OCT. 18...	.2	.024	.54	.4	.45	165	14	0	5.1
JAN. 12...	.2	.020	.10	.2	.53	167	91	9	1.0
MAR. 16...	.7	.090	.00	.1	--	320	130	0	2.6
MAY 02...	.2	.000	.40	.2	.74	79	55	7	.2
JULY 18...	.5	.000	.07	.03	.93	366	150	0	2.7

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)
OCT. 18...	238	7.0	24.0	7.6	89	5.2	240000	9100	5000
JAN. 12...	283	6.7	12.5	5.4	50	3.4	4700	76	90
MAR. 16...	569	7.5	18.5	8.6	91	--	--	--	--
MAY 02...	136	6.7	20.0	6.1	66	13	890000	23000	62000
JULY 18...	649	6.9	27.5	1.5	19	6.5	11000	8	40

TRINITY RIVER BASIN

08066000 TRINITY RIVER AT RIVERSIDE, TEX.

LOCATION.--Lat 30°51'35", long 95°23'54", Walker County, at gaging station at bridge on State Highway 19, 1,200 ft upstream from Missouri-Pacific Railroad Company bridge and 0.5 mile north of Riverside.

DRAINAGE AREA.--15,589 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 18...	1130	8.8	44	3.6	47	128	0	55	38
JAN. 12...	1245	7.8	36	3.0	11	104	0	22	11
MAR. 15...	1315	7.3	64	6.6	66	172	0	81	63
MAY 02...	1100	8.8	54	7.3	79	172	0	74	78
JULY 17...	1545	9.7	52	5.7	91	176	0	77	86

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO
OCT. 18...	.5	.25	.36	2.8	.98	273	120	20	1.8
JAN. 12...	.2	.000	.05	.5	.32	144	100	17	.5
MAR. 15...	.7	.26	.00	3.7	--	390	190	46	2.1
MAY 02...	.6	.079	.21	1.8	1.2	395	160	24	2.7
JULY 17...	.7	.27	.33	.8	1.7	414	150	9	3.2

DATE	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMF-DIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)
OCT. 18...	469	7.1	24.0	2.7	32	4.3	18000	400	300
JAN. 12...	260	7.4	10.0	9.5	84	4.8	22000	360	290
MAR. 15...	675	8.2	20.0	12.8	139	--	--	--	--
MAY 02...	702	7.1	23.0	4.0	46	5.5	76000	48	360
JULY 17...	739	7.6	29.0	7.0	90	8.2	14000	40	80

TRINITY RIVER BASIN

305

08066050 WEST CAROLINA CREEK NEAR OAKHURST, TEX.

LOCATION.--Lat 30°49'32", long 95°20'10", Walker County, at gaging station on county road, 6.2 miles north of Oakhurst and 4.2 miles southeast of Riverside.

DRAINAGE AREA.--15.2 sq mi.

PERIOD OF RECORD.--Chemical analyses: March 1966 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 26...	1610	.23	15	40	2.0	11	116	0	6.8	20
NOV. 29...	1345	.11	13	42	1.5	24	115	0	8.8	42
JAN. 04...	1340	70	16	24	.5	10	67	0	7.2	14
FEB. 07...	1420	1.9	19	42	.8	23	110	0	24	30
MAR. 15...	1355	.39	7.0	50	5.2	37	124	0	16	77
APR. 17...	1330	.08	24	58	2.7	32	164	0	14	54
MAY 22...	1620	.54	20	53	3.8	18	159	0	9.2	33

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 26...	.0	.2	154	110	13	0.5	283	7.2	22.5
NOV. 29...	.0	.07	149	110	17	1.0	350	7.3	--
JAN. 04...	.0	.4	106	62	7	.6	184	6.9	8.0
FEB. 07...	.0	.07	193	110	18	1.0	326	6.8	10.0
MAR. 15...	.2	.00	253	150	44	1.3	483	7.3	24.5
APR. 17...	.1	.1	266	160	22	1.1	464	6.9	30.5
MAY 22...	.0	.3	216	150	18	.6	374	7.0	31.5

TRINITY RIVER BASIN

08066130 WHITE ROCK CREEK NEAR TRINITY, TEX.

LOCATION.--Lat 31°02'13", long 95°21'23", Trinity County, at gaging station at Trin-Lady Park, 2.0 miles upstream from Little White Rock Creek, 2.2 miles upstream from Tantabogue Creek, 6.4 miles north of Trinity, and 14.2 miles above mouth.

DRAINAGE AREA.--228 sq mi.

PERIOD OF RECORD.--Chemical analyses: April 1965 to September 1970.

Chemical and biochemical analyses: October 1969 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 18...	1100	13	50	10	240	104	0	310	190
JAN. 12...	1200	11	17	5.4	26	35	0	47	31
MAR. 15...	1115	8.4	32	9.0	80	61	0	100	96
MAY 03...	1010	8.3	12	4.8	26	35	0	33	31
JULY 18...	1505	5.5	15	3.8	38	52	0	41	36

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 18...	.2	.006	.00	.1	.060	869	170	81	8.0
JAN. 12...	.1	.000	.09	.1	.18	155	65	36	1.4
MAR. 15...	.3	.000	.00	.03	--	357	120	67	3.2
MAY 03...	.2	.034	.37	.2	.24	134	50	21	1.6
JULY 18...	.2	.000	.19	.04	.24	166	53	10	2.3

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)
OCT. 18...	1450	7.6	24.0	5.6	66	3.2	11000	120	20
JAN. 12...	273	6.7	13.0	8.4	79	2.4	18000	360	240
MAR. 15...	624	7.1	22.5	8.2	93	--	--	--	--
MAY 03...	247	6.2	24.0	4.8	56	5.4	60000	120	320
JULY 18...	317	8.5	32.0	10.2	138	9.0	17000	20	170

TRINITY RIVER BASIN

307

08066140 TANTABOGUE CREEK NEAR TRINITY, TEX.

LOCATION.--Lat 31°03'51", long 95°25'26", Trinity County, at gaging station on State Highway 19, and 9.4 miles north of Trinity.

DRAINAGE AREA.--61.3 sq mi.

PERIOD OF RECORD.--Chemical analyses: March 1966 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 26...	1735	.01	10	16	3.9	32	72	0	21	31
NOV. 29...	1650	.16	8.5	10	2.9	18	38	0	21	16
JAN. 04...	0925	.80	12	15	4.0	22	16	0	37	26
FEB. 08...	0930	4.2	16	20	6.1	40	31	0	58	54
MAR. 15...	1545	.18	12	40	12	95	59	0	120	130
APR. 17...	1600	.48	18	25	7.2	53	62	0	48	74
MAY 22...	1850	.10	15	28	10	70	74	0	44	110

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 26...	.0	.3	150	56	0	1.9	283	6.6	19.5
NOV. 29...	.1	.2	96	37	6	1.3	177	6.4	11.0
JAN. 04...	.0	.3	133	54	28	1.3	240	6.4	10.5
FEB. 08...	.0	.3	210	75	50	2.0	374	6.2	6.5
MAR. 15...	.2	.00	436	150	100	3.4	784	6.5	20.0
APR. 17...	.1	.4	257	92	41	2.4	476	6.3	20.0
MAY 22...	.1	.2	314	110	52	2.9	569	6.6	24.0

TRINITY RIVER BASIN

08066145 CANEY CREEK NEAR GROVETON, TEX.

LOCATION.--Lat 30°59'14", long 95°12'52", Trinity County, at county road crossing, 7.3 miles southwest of Groveton.

DRAINAGE AREA.--41.4 sq mi.

PERIOD OF RECORD.--Chemical analyses: March 1966 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 27...	1035	.24	40	27	3.5	220	180	0	130	190
NOV. 30...	1045	.24	44	28	4.9	190	150	0	140	160
FER. 08...	1305	3.0	21	26	5.1	51	22	0	99	54
MAR. 14...	1555	.06	24	36	8.3	160	102	0	170	150
APR. 18...	1020	.27	33	30	5.6	250	192	0	140	230
MAY 23...	1130	.31	29	20	5.1	180	146	0	74	170
JULY 06...	0900	.10	24	21	2.1	250	224	0	83	230
AUG. 01...	1055	.06	48	15	1.8	310	276	0	69	300
SEP. 06...	1000	.42	36	25	2.6	130	134	0	80	120

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 27...	.0	.2	702	82	0	10	1190	7.6	20.5
NOV. 30...	.3	.04	636	90	0	8.5	1050	7.5	11.0
FER. 08...	.0	.04	267	86	68	2.4	483	6.1	12.0
MAR. 14...	.3	.00	612	120	40	6.4	1040	7.0	22.0
APR. 18...	.4	.7	786	98	0	11	1360	7.2	21.5
MAY 23...	.3	.2	552	71	0	7.9	925	6.9	26.5
JULY 06...	.4	.1	724	61	0	14	1250	7.2	28.0
AUG. 01...	.5	.4	881	45	0	20	1520	8.0	28.0
SEP. 06...	.0	.06	463	73	0	6.8	787	7.1	25.0

TRINITY RIVER BASIN

309

08066147 WHITEROCK CREEK AT FARM ROAD 356, NEAR TRINITY, TEX.

LOCATION.--Lat 30°54'48", long 95°16'14", Trinity County, at bridge on Farm Road 356, 0.8 mile upstream from mouth at old Trinity River Channel, 1.0 mile downstream from Caney Creek, and 6.6 miles southeast of Trinity.

PERIOD OF RECORD---Chemical and biochemical analyses: October 1970 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HC03) (MG/L)	CAR-BONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT. 19...	1000	11	44	4.8	73	144	0	65	62
JAN. 13...	1045	7.8	38	3.7	23	116	0	31	22
MAR. 16...	1200	.6	38	4.2	31	104	8	38	29
MAY 02...	1200	4.2	43	5.4	43	140	0	47	42
JULY 19...	1100	4.0	48	5.0	45	162	0	43	42
DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA, MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO
OCT. 19...	.6	.32	.30	4.0	1.8	351	130	12	2.8
JAN. 13...	.2	.000	.06	.4	.35	185	110	15	1.0
MAR. 16...	.4	.000	.00	.04	--	200	110	13	1.3
MAY 02...	.3	.023	.20	.2	.25	255	130	15	1.6
JULY 19...	.3	.000	.13	.02	.31	268	140	8	1.7
DATE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)	STREP-TOCOCCI (COL-ONIES PER 100 ML)
OCT. 19...	611	7.2	23.5	6.3	73	5.2	7300	32	20
JAN. 13...	331	7.2	11.0	9.1	82	1.7	3700	18	48
MAR. 16...	354	7.7	19.0	10.8	115	--	--	--	--
MAY 02...	454	7.0	22.0	2.2	25	3.4	24000	4	200
JULY 19...	490	7.0	29.0	4.8	62	2.9	8900	0	86

TRINITY RIVER BASIN

08066170 KICKAPOO CREEK NEAR ONALASKA, TEX.

LOCATION.--Lat 30°54'25", long 95°05'18", Polk County, at gaging station 114 ft downstream from old bridge site, 1.2 miles downstream from Magnolia Creek, 6.2 miles upstream from Rocky Creek, and 7.3 miles northeast of Onalaska.

DRAINAGE AREA.--57.0 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1963 to September 1969.
Chemical and biochemical analyses: October 1969 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT. 19...	1035	2.5	15	9.5	2.6	--	25	--	16	0
JAN. 13...	1130	4.5	29	9.5	3.2	19	--	3.6	15	0
MAR. 15...	1225	1.8	32	26	6.5	--	65	--	25	0
MAY 03...	1130	110	12	6.0	2.2	--	9.8	--	10	0
JULY 18...	1610	.05	21	11	3.2	--	45	--	48	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 19...	42	23	.1	.000	.30	.1	.18	126	34	21
JAN. 13...	37	20	.0	.000	1.6	.03	.10	130	37	25
MAR. 15...	120	61	.3	.000	.00	.04	--	323	92	71
MAY 03...	22	10	.1	.000	.10	.04	.14	67	24	16
JULY 18...	51	32	.2	.000	.11	.05	.60	188	41	1

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)
OCT. 19...	1.9	214	7.1	23.5	6.0	70	2.7	45000	400	1100
JAN. 13...	1.4	182	6.5	14.5	9.7	94	1.5	1500	56	44
MAR. 15...	2.9	504	6.7	23.0	9.0	103	--	--	--	--
MAY 03...	.9	108	5.8	23.0	7.9	91	4.0	150000	1500	2400
JULY 18...	3.1	313	7.0	33.0	9.6	132	2.4	23000	6	52

TRINITY RIVER BASIN

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08066180 ROCKY CREEK NEAR ONALASKA, TEX.

LOCATION.--Lat 30°52'02", long 95°03'42", Polk County, at gaging station at county road crossing, 5.4 miles northeast of Onalaska.

DRAINAGE AREA.--40.6 sq mi.

PERIOD OF RECORD.--Chemical analyses: March 1966 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 27...	1335	.11	24	50	3.0	18	155	0	7.2	30
NOV. 30...	1255	.48	17	47	2.1	28	136	0	12	44
JAN. 05...	1620	32	12	11	.6	.3	27	0	1.2	5.0
FEB. 09...	0905	4.9	23	26	1.3	11	62	0	13	21
MAR. 14...	1255	1.1	25	42	6.1	26	129	0	20	42
APR. 18...	1330	.55	31	74	4.5	21	215	0	8.0	45
MAY 23...	1530	1.7	36	56	3.5	16	166	0	12	28
JULY 06...	1240	.65	22	50	.8	17	148	0	4.8	27
AUG. 03...	0840	.40	27	38	2.7	16	118	0	8.0	25
SEP. 06...	1355	.88	26	55	4.6	20	167	0	5.2	40

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 27...	.0	.04	208	140	10	.7	370	7.5	20.5
NOV. 30...	.2	.00	217	130	15	1.1	396	7.3	12.0
JAN. 05...	.0	.02	43	30	8	.0	83	6.4	7.0
FEB. 09...	.0	.03	125	70	19	.6	214	6.4	5.0
MAR. 14...	.2	.00	224	130	24	1.0	388	7.2	22.0
APR. 18...	.1	.05	290	200	27	.6	521	7.2	24.0
MAY 23...	.0	.1	234	150	18	.6	382	6.9	29.5
JULY 06...	.2	.1	195	130	7	.7	336	7.2	27.0
AUG. 03...	.0	.00	175	110	9	.7	297	7.4	25.5
SEP. 06...	.0	.03	233	160	19	.7	403	7.6	27.0

TRINITY RIVER BASIN

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08066191 LIVINGSTON RESERVOIR OUTFLOW WEIR, NEAR GOODRICH, TEX.

LOCATION.--Lat 30°37'55", long 95°01'11", Polk County, at outlet structure, 0.5 mile to the right of spillway, and 4.8 miles northwest of Goodrich.

DRAINAGE AREA.--16,583 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1969 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 13...	1230	--	8.4	40	3.4	20	123	0	28	17
MAR. 16...	1330	--	4.7	41	3.6	22	128	0	30	18
MAY 02...	1400	7.8	3.1	41	4.0	22	132	0	30	19
JULY 19...	1330	--	4.6	42	4.0	25	135	0	30	23

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
JAN. 13...	.2	.000	.00	.7	.23	180	110	13	.8
MAR. 16...	.5	--	--	.5	--	185	120	12	.9
MAY 02...	.3	.000	.00	.1	.095	185	120	11	.9
JULY 19...	.3	.000	.00	.01	.21	195	120	11	1.0

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)
JAN. 13...	320	7.3	14.0	10.1	97	.7	74	0	0
MAR. 16...	322	7.7	16.0	10.2	102	--	--	--	--
MAY 02...	335	6.9	22.0	8.6	98	1.8	3600	26	140
JULY 19...	362	7.8	27.0	7.6	94	2.4	5000	33	180

08066200 LONG KING CREEK AT LIVINGSTON, TEX.

LOCATION.--Lat 30°42'58", long 94°57'31", Polk County, at gaging station at bridge on U.S. Highway 190, 2 miles west of Livingston, 2 miles upstream from Choates Creek, and 14.8 miles from mouth.

DRAINAGE AREA.--141 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1963 to September 1972.

Water temperatures: January 1963 to September 1972.

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 282 mg/l May 18-31; minimum, 109 mg/l Dec. 1-19. Hardness: Maximum, 180 mg/l Feb. 15-29, Mar. 1-20, Apr. 1-21, May 18-31; minimum, 77 mg/l Dec. 1-19. Specific conductance: Maximum daily, 618 micromhos June 9; minimum daily, 108 micromhos Dec. 7. Water temperatures: Minimum, 5.0°C Jan. 6.

WATER QUALITY DATA; WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-31	24	15	34	1.7	--	9.6	--	99	0	7.0
NOV.										
01-18	5.4	18	62	3.7	--	22	--	171	0	12
19-30	7.8	13	40	.8	--	12	--	105	0	8.8
DEC.										
01-19	137	13	28	1.7	--	6.9	--	78	0	5.8
20-31	8.9	20	55	3.1	--	17	--	148	0	12
JAN.										
01-31	104	15	37	1.9	--	12	--	100	0	9.2
FEB.										
01-14	34	14	45	1.9	--	16	--	118	0	12
15-29	11	17	64	3.7	--	27	--	167	0	18
MAR.										
01-20	17	16	62	6.2	--	17	--	166	0	11
21-31	271	13	34	2.7	--	7.0	--	89	0	12
APR.										
01-21	13	19	66	3.7	--	27	--	180	0	15
22-30	308	11	34	2.2	--	12	--	94	0	7.6
MAY										
01-17	311	15	34	3.2	--	7.7	--	96	0	7.2
18-31	11	22	70	2.3	--	28	--	186	0	16
JUNE										
01-30	7.7	20	62	4.7	--	21	--	165	0	15
JULY										
01-31	5.2	16	46	3.2	--	17	--	127	0	10
AUG.										
01-31	1.7	19	55	4.1	--	23	--	149	0	6.4
SEPT.										
01-22	1.2	20	56	4.4	--	36	--	151	0	13
23-30	12	9.7	32	2.5	--	12	--	90	0	8.8
WTD. AVG.	--	14	36	2.6	--	10	--	99	0	8.7
TIME WTD.										
AVG.	54	17	49	3.2	--	18	--	133	0	11
TOT. LOAD (TONS)	--	756	1940	137	--	551	--	5320	0	469

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	321	414	361	---	164	534	318	261	532	493	392	467
2	336	415	273	151	213	261	362	123	550	---	---	474
3	---	---	157	181	252	259	391	120	585	488	427	---
4	363	425	143	176	288	338	411	187	---	---	440	---
5	165	434	165	---	320	---	433	255	583	274	453	478
6	144	439	129	186	---	406	453	307	604	241	---	481
7	135	---	108	225	349	440	463	345	603	259	474	499
8	163	452	150	259	337	461	474	288	595	278	481	509
9	185	461	192	295	371	477	---	291	618	---	484	503
10	---	462	182	288	393	485	---	323	---	337	485	513
11	229	471	203	295	407	506	513	344	570	366	---	504
12	240	475	---	309	408	516	524	134	482	391	478	509
13	260	484	192	---	387	522	532	115	537	406	---	518
14	265	---	230	---	396	530	540	---	385	457	456	516
15	280	494	230	---	417	541	548	233	324	462	448	524
16	277	499	254	---	431	520	---	279	331	---	428	518
17	132	505	217	---	440	495	556	329	356	254	425	---
18	128	465	229	---	448	526	566	364	---	270	429	468
19	162	208	283	---	457	---	572	394	284	332	443	444
20	199	231	320	287	---	534	578	416	332	254	---	451
21	203	---	342	151	490	153	472	---	367	266	---	459
22	215	---	361	194	492	168	281	462	393	284	---	482
23	242	258	382	---	500	530	---	477	439	---	---	297
24	---	292	396	291	508	586	347	495	450	---	---	186
25	297	286	---	328	513	320	377	512	---	---	---	204
26	330	288	---	355	515	---	412	512	458	---	---	277
27	331	312	430	382	---	270	119	518	470	---	---	294
28	346	---	440	402	525	139	113	540	481	---	---	190
29	359	---	448	417	529	155	135	561	488	---	441	231
30	363	364	454	247	---	219	216	559	497	---	449	281
31	---	---	461	120	---	277	---	559	---	363	460	---
MONTH	247	---	276	---	406	399	412	355	474	---	---	418

08066200 LONG KING CREEK AT LIVINGSTON, TEX.--Continued

EXTREMES, January 1963 to September 1972.--Dissolved solids: Maximum, 334 mg/l Dec. 1-14, 1967; minimum, 48 mg/l Feb. 22, 1969.

Hardness: Maximum, 202 mg/l May 1, 1967; minimum, 37 mg/l Feb. 22, 1969.

Specific conductance: Maximum daily, 669 micromhos May 23, 1965; minimum daily, 71 micromhos May 7, 1969.

Water temperatures: Maximum, 34.0°C Aug. 9, 1964, July 14, 15, 29, 1969; minimum, 2.0°C Dec. 23, 1963.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	17	.0	.1	134	92	11	.4	246	7.1
NOV. 01-18	45	.1	.1	247	170	30	.7	457	7.5
19-30	23	.1	.2	151	100	17	.5	283	7.2
DEC. 01-19	15	.0	.2	109	77	13	.3	206	6.8
20-31	38	--	.00	218	150	29	.6	398	7.2
JAN. 01-31	24	.0	.07	148	100	18	.5	270	7.0
FEB. 01-14	32	.1	.00	179	120	23	.6	331	7.0
15-29	55	.1	.00	267	180	38	.9	477	7.2
MAR. 01-20	50	.1	.00	244	180	44	.6	464	7.1
21-31	18	--	.09	131	96	23	.3	234	7.0
APR. 01-21	54	.1	.00	274	180	32	.9	489	8.0
22-30	24	--	.1	137	94	17	.5	254	7.8
MAY 01-17	20	.0	.1	134	98	19	.3	247	7.2
18-31	53	--	.03	282	180	32	.9	487	7.6
JUNE 01-30	48	.1	.1	252	170	39	.7	471	7.6
JULY 01-31	36	.1	.00	190	130	24	.7	349	7.3
AUG. 01-31	52	.0	.3	234	150	32	.8	448	7.5
SEP. 01-22	70	.0	.2	274	160	34	1.2	480	7.7
23-30	24	--	.1	133	90	16	.5	245	7.5
WTD. AVG. TIME WTD. AVG.	23	.0	.1	143	101	19	.4	263	7.2
TOT. LOAD (TONS)	38	.1	.1	201	135	26	.6	369	7.3
	1220	.5	5.4	7700	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.0	22.0	12.0	---	8.0	21.0	15.0	24.0	26.0	36.0	29.0	28.0
2	26.0	24.0	10.0	15.0	10.0	12.0	19.0	20.0	26.0	---	---	27.0
3	---	---	9.0	15.0	6.0	14.0	21.0	23.0	24.0	31.0	29.0	---
4	26.0	19.0	8.0	12.0	7.0	16.0	21.0	22.0	---	---	29.0	---
5	25.0	17.0	9.0	---	7.0	---	21.0	22.0	27.0	25.5	29.0	29.0
6	24.0	17.0	10.0	5.0	---	15.0	23.0	21.0	28.0	27.0	---	29.0
7	24.0	---	11.0	7.0	10.0	18.0	25.0	20.0	30.0	26.0	30.0	30.0
8	23.0	16.0	13.0	7.0	8.0	17.0	23.0	21.0	30.0	27.0	30.0	31.0
9	23.0	18.0	18.0	8.0	11.0	18.0	---	22.0	28.0	---	29.0	28.0
10	---	17.0	17.0	16.0	10.0	17.0	---	22.0	---	28.0	28.0	28.0
11	23.0	15.0	12.0	15.0	12.0	18.0	24.0	21.0	27.0	27.0	---	29.0
12	20.0	15.0	---	15.0	10.0	18.0	25.0	20.0	28.0	30.0	27.0	29.0
13	21.0	16.0	16.0	---	9.0	21.0	27.0	21.0	27.0	29.0	---	29.0
14	23.0	---	19.0	---	13.0	22.0	27.0	---	26.0	28.0	29.0	29.0
15	22.0	19.0	17.0	---	16.0	22.0	27.0	23.0	28.0	27.0	28.0	27.0
16	22.0	19.0	17.0	---	17.0	21.0	---	23.0	27.0	---	29.0	26.0
17	21.0	19.0	16.0	---	16.0	21.0	25.0	24.0	26.0	28.0	29.0	---
18	24.0	19.0	13.0	---	15.0	19.0	25.0	26.0	---	28.0	28.0	28.0
19	25.0	16.0	14.0	---	11.0	---	25.0	26.0	30.0	31.0	28.0	28.0
20	26.0	14.0	15.0	18.0	---	20.0	27.0	25.0	31.0	30.0	---	28.0
21	22.0	---	16.0	18.0	15.0	17.0	24.0	---	31.0	29.0	---	28.0
22	22.0	---	14.0	19.0	17.0	18.0	19.0	27.0	29.0	28.0	---	28.0
23	20.0	12.0	14.0	---	18.0	19.0	---	28.0	30.0	---	---	25.0
24	---	12.0	15.0	20.0	20.0	20.0	26.0	28.0	30.0	---	---	25.0
25	20.0	10.0	---	17.0	21.0	18.0	23.0	31.0	---	---	---	25.0
26	20.0	14.0	---	15.0	20.0	---	23.0	31.0	34.0	---	---	25.0
27	21.0	13.0	18.0	18.0	---	20.0	17.0	28.0	32.0	---	---	25.0
28	22.0	---	20.0	16.0	18.0	20.0	19.0	31.0	34.0	---	31.0	26.0
29	23.0	---	20.0	13.0	20.0	19.0	20.0	28.0	33.0	---	30.0	28.0
30	22.0	13.0	20.0	8.0	---	15.0	25.0	28.0	32.0	---	28.0	22.0
31	---	---	18.0	7.0	---	15.0	---	26.0	---	29.0	28.0	---
MONTH	23.0	---	14.5	---	13.5	18.5	23.0	24.5	29.0	---	---	27.5

TRINITY RIVER BASIN

08066250 TRINITY RIVER NEAR GOODRICH, TEX.

LOCATION.--Lat 30°34'19", long 94°56'55", Polk County, at gaging station on U.S. Highway 59, 0.2 mile downstream from Long King Creek, and 3.0 miles southeast of Goodrich.

DRAINAGE AREA.--16,844 sq mi.

PERIOD OF RECORD.--Chemical analyses: March 1966 to September 1972.

Specific conductance: October 1969 to September 1972.

Water temperatures: October 1969 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
01-31	339	2.4	48	7.4	40	164	0	38	44
NOV.									
01-30	5360	3.2	50	5.7	43	164	0	42	43
DEC.									
01-31	25100	4.6	47	3.8	40	148	0	40	38
JAN.									
01-31	19600	6.5	40	3.5	21	116	0	28	24
FEB.									
01-29	4070	5.8	44	3.0	19	126	0	28	20
MAR.									
01-31	1570	6.2	41	4.3	15	118	0	24	20
APR.									
01-30	1620	5.9	42	2.7	18	121	0	26	20
MAY									
01-15	4710	14	32	1.5	11	88	0	15	15
16-31	1990	6.5	44	3.5	18	130	0	26	20
JUNE									
01-30	907	6.2	46	3.0	29	134	0	44	23
JULY									
01-31	1110	6.2	46	3.0	29	134	0	44	23
AUG.									
01-31	355	6.5	52	6.1	20	164	0	24	26
SEP.									
01-30	481	5.5	50	3.7	27	155	0	30	28
WTD. AVG.	--	5.6	44	3.7	30	134	0	34	30
TIME WTD.									
AVG.	5360	5.8	45	4.1	26	138	0	32	27
TOT. LOAD (TONS)	--	29900	233000	19700	159000	710000	0	179000	161000

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	506	---	509	313	306	348	---	239	358	363	397	---
2	513	---	390	293	---	388	343	132	355	259	389	---
3	512	---	279	308	318	318	346	121	356	367	397	---
4	513	---	432	390	318	345	350	186	372	356	400	---
5	513	---	372	291	323	336	352	291	364	277	351	---
6	519	---	391	295	321	344	352	306	356	345	398	---
7	518	---	404	309	322	344	355	289	357	360	404	---
8	517	---	499	308	323	344	348	287	352	358	416	400
9	517	---	499	315	326	340	350	306	354	360	301	400
10	515	---	483	321	327	336	349	308	351	359	418	404
11	518	---	494	332	331	338	350	311	351	358	419	409
12	518	---	480	322	330	372	355	139	359	359	407	410
13	463	---	472	317	330	340	353	128	349	357	410	407
14	463	---	488	321	332	340	353	200	356	340	414	410
15	463	---	475	325	333	351	352	275	360	324	430	408
16	465	---	486	332	334	348	354	297	352	350	405	414
17	464	---	472	330	334	353	352	315	329	362	415	407
18	463	---	475	328	336	358	349	331	348	366	423	408
19	463	---	470	330	339	354	353	333	349	364	424	409
20	462	---	467	330	339	---	355	339	352	370	435	407
21	522	---	458	308	339	207	347	344	341	369	296	413
22	524	---	450	325	341	240	200	344	346	374	394	406
23	524	504	454	328	340	261	284	349	355	376	---	415
24	525	510	---	313	342	311	320	352	359	375	286	392
25	524	514	---	323	353	327	339	348	366	362	330	406
26	525	513	---	330	367	327	341	358	358	369	379	367
27	525	519	430	---	382	333	---	357	364	370	383	373
28	525	516	---	---	386	341	151	359	363	362	384	---
29	524	518	---	---	428	148	209	359	---	371	413	408
30	524	510	---	---	---	279	199	361	361	365	380	422
31	524	---	---	---	---	314	---	356	---	393	395	---
MONTH	505	---	---	321	339	323	324	291	355	356	390	---

08066250 TRINITY RIVER NEAR GOODRICH, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 271 mg/l Nov. 1-30; minimum, 133 mg/l May 1-15.
 Hardness: Maximum, 160 mg/l Aug. 1-31; minimum, 86 mg/l May 1-15.
 Specific conductance: Maximum daily, 525 micromhos Oct. 24, 26, 27, 28; minimum daily, 121 micromhos May 3.
 Water temperatures: Maximum, 31.0°C on several days during August and September; minimum, 10.0°C Feb. 3.

EXTREMES, October 1969 to September 1972.--Dissolved solids: Maximum, 391 mg/l Nov. 1-30, 1970; minimum, 196 mg/l Mar. 1-31, 1970.
 Hardness: Maximum, 179 mg/l Oct. 1-31, 1970; minimum, 86 mg/l May 1-15, 1972.
 Specific conductance: Maximum daily, 712 micromhos Dec. 3, 1970; minimum daily, 121 micromhos May 3, 1972.
 Water temperatures: Maximum, 32.0°C July 3, 1970; minimum, 7.0°C Jan. 8, 9, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	.4	.9	262	150	16	1.4	501	7.4
NOV.								
01-30	.4	.6	271	150	14	1.5	510	7.7
DEC.								
01-31	.4	.6	250	130	12	--	456	7.8
JAN.								
01-31	.0	.8	184	110	19	.9	321	7.0
FEB.								
01-29	.2	.7	185	120	19	.7	339	7.1
MAR.								
01-31	.2	.4	170	120	23	.6	322	7.2
APR.								
01-30	.2	.2	176	120	17	.7	326	7.5
MAY								
01-15	.0	.3	133	86	14	.5	236	7.1
16-31	--	.2	183	120	17	.7	343	7.4
JUNE								
01-30	.3	.5	220	130	17	--	362	7.4
JULY								
01-31	.3	.5	220	130	17	1.1	362	7.4
AUG.								
01-31	.2	.2	217	160	21	.7	396	7.5
SEP.								
01-30	.0	.5	222	140	13	1.0	405	7.5
WTD. AVG.	.2	.6	217	123	16	.9	392	7.4
TIME WTD.								
AVG.	.2	.5	211	130	17	.9	383	7.4
TOT. LOAD (TONS)	1200	3340	1149000	--	--	--	--	--

TEMPERATURE (°) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	---	15.0	15.0	12.0	19.0	---	25.0	26.0	29.0	30.0	---
2	26.0	---	14.0	15.0	---	16.0	19.0	22.0	26.0	28.0	31.0	---
3	26.0	---	11.0	15.0	10.0	16.0	20.0	24.0	25.0	29.0	30.0	---
4	26.0	---	12.0	14.0	13.0	16.0	20.0	25.0	28.0	26.0	30.0	---
5	26.0	---	12.0	12.0	13.0	16.0	22.0	23.0	28.0	26.0	29.0	---
6	26.0	---	12.0	12.0	---	15.0	22.0	23.0	27.0	28.0	30.0	---
7	26.0	---	13.0	13.0	11.0	17.0	22.0	21.0	28.0	26.0	31.0	---
8	21.0	---	15.0	14.0	11.0	15.0	22.0	23.0	27.0	26.0	30.0	30.0
9	21.0	---	16.0	14.0	11.0	15.0	20.0	25.0	26.0	28.0	28.0	30.0
10	20.0	---	15.0	14.0	12.0	16.0	20.0	24.0	27.0	27.0	29.0	31.0
11	20.0	---	15.0	14.0	12.0	16.0	20.0	23.0	27.0	28.0	29.0	30.0
12	20.0	---	15.0	14.0	12.0	16.0	22.0	20.0	26.0	27.0	30.0	30.0
13	20.0	---	16.0	14.0	14.0	16.0	24.0	22.0	25.0	27.0	30.0	30.0
14	20.0	---	16.0	13.0	13.0	17.0	22.0	25.0	26.0	27.0	30.0	30.0
15	20.0	---	16.0	13.0	14.0	17.0	23.0	25.0	27.0	28.0	29.0	30.0
16	20.0	---	16.0	12.0	14.0	18.0	22.0	24.0	26.0	28.0	29.0	30.0
17	22.0	---	15.0	13.0	14.0	18.0	22.0	26.0	27.0	27.0	29.0	29.0
18	23.0	---	14.0	13.0	13.0	18.0	21.0	26.0	28.0	27.0	28.0	30.0
19	23.0	---	15.0	13.0	12.0	19.0	23.0	26.0	27.0	27.0	30.0	30.0
20	23.0	---	15.0	14.0	14.0	---	24.0	26.0	28.0	27.0	31.0	30.0
21	23.0	---	15.0	14.0	14.0	18.0	21.0	26.0	28.0	28.0	31.0	29.0
22	23.0	---	14.0	15.0	15.0	18.0	24.0	26.0	28.0	28.0	31.0	30.0
23	23.0	17.0	15.0	14.0	15.0	18.0	24.0	26.0	29.0	28.0	---	27.0
24	23.0	16.0	---	15.0	15.0	18.0	24.0	26.0	29.0	28.0	29.0	29.0
25	23.0	16.0	---	14.0	17.0	19.0	24.0	25.0	30.0	30.0	28.0	26.0
26	23.0	17.0	---	14.0	17.0	18.0	23.0	28.0	30.0	29.0	31.0	28.0
27	23.0	17.0	14.5	---	13.0	19.0	---	27.0	30.0	29.0	30.0	28.0
28	23.0	17.0	---	---	20.0	20.0	20.0	27.0	29.0	29.0	30.0	---
29	23.0	17.0	---	---	19.0	20.0	22.0	27.0	---	28.0	30.0	29.0
30	23.0	17.0	---	---	---	19.0	24.0	27.0	28.0	28.0	30.0	25.0
31	23.0	---	---	---	---	18.0	---	24.0	---	29.0	30.0	---
MONTH	23.0	---	---	13.5	14.0	17.5	22.0	24.5	27.5	27.5	29.5	---

TRINITY RIVER BASIN

08066300 MENARD CREEK NEAR RYE, TEX.

LOCATION.--Lat 30°28'52", long 94°46'46", Liberty County, at gaging station at bridge on State Highway 146, 2.3 miles northwest of Rye, and about 6 miles upstream from mouth.

DRAINAGE AREA.--152 sq mi.

PERIOD OF RECORD.--Chemical analyses: April 1966 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
18...	1602	15	10	9.5	1.5	24	15	0	2.0	47
NOV.										
18...	1320	23	9.5	30	4.1	110	12	0	2.0	220
DEC.										
23...	1755	83	10	9.5	2.5	17	18	0	5.6	35
JAN.										
11...	1035	76	11	10	2.7	22	15	0	4.8	47
FEB.										
11...	1000	57	10	12	1.0	26	14	0	5.6	52
MAR.										
17...	0900	27	10	13	2.8	37	18	0	2.4	76
APR.										
20...	1155	20	12	10	4.1	21	16	0	2.8	50
MAY										
25...	1500	36	13	6.2	1.6	8.4	18	0	4.0	15
JULY										
12...	1320	18	10	10	2.0	28	13	0	2.8	57
AUG.										
07...	1250	9.1	13	10	2.2	25	16	0	2.0	52
SEPT.										
13...	1125	9.1	12	12	2.7	30	4	0	2.0	72

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
18...	.0	.1	101	30	18	1.9	199	6.5	25.5
NOV.									
18...	.0	.3	379	92	82	4.8	744	6.3	18.5
DEC.									
23...	.0	.1	89	34	19	1.3	168	6.2	13.5
JAN.									
11...	.0	.3	105	36	24	1.6	204	6.2	12.5
FEB.									
11...	.0	.03	114	34	23	1.9	219	5.9	10.0
MAR.									
17...	.0	.2	151	44	29	2.4	300	6.2	17.0
APR.									
20...	.0	.4	110	42	29	1.4	209	6.1	22.5
MAY									
25...	.0	.06	58	22	7	.8	88	6.4	23.0
JULY									
12...	.0	.1	116	33	22	2.1	216	6.1	26.0
AUG.									
07...	.0	.00	112	34	21	1.9	213	6.3	28.5
SEPT.									
13...	.0	.05	133	41	38	2.0	276	5.4	25.0

TRINITY RIVER BASIN

319

08066400 BIG CREEK NEAR SHEPHERD, TEX.

LOCATION.--Lat 30°30'59", long 94°59'06", San Jacinto County, at gaging station at bridge on U.S. Highway 59, 1.5 miles northeast of Shepherd.

DRAINAGE AREA.--38.8 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1963 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED CHLORIDE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 28...	1520	3.2	16	4.8	1.2	8.2	16	0	2.8	13
NOV. 30...	1600	4.7	17	2.0	2.9	8.3	15	0	4.0	13
JAN. 07...	1310	9.9	15	5.5	2.0	8.4	16	0	6.0	14
FEB. 10...	1430	12	15	6.5	.7	9.5	11	0	7.2	16
MAR. 16...	1510	7.7	15	5.5	1.5	8.4	16	0	4.4	14
APR. 20...	1025	4.4	16	5.0	1.6	7.8	17	0	4.0	12
28...	1000	125	5.0	3.5	1.0	5.0	10	0	2.8	8.5
MAY 25...	0905	8.8	16	5.5	1.5	9.9	17	0	3.6	16
JULY 12...	0855	5.3	16	5.0	1.3	10	16	0	4.4	15
AUG. 07...	1415	4.9	16	4.0	.5	10	14	0	2.8	13
SEP. 12...	1325	4.1	16	4.5	1.4	6.9	15	0	2.0	12

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 28...	.0	.1	54	17	4	.9	89	6.2	19.5
NOV. 30...	.0	.08	55	17	5	.9	84	6.2	11.0
JAN. 07...	.0	.3	60	22	9	.8	101	6.4	6.0
FEB. 10...	.0	.2	61	19	10	.9	98	6.1	8.5
MAR. 16...	.1	.1	52	20	7	.8	95	5.6	18.0
APR. 20...	.0	.3	56	19	5	.8	92	6.4	23.0
28...	.0	.2	32	13	5	.6	55	6.4	--
MAY 25...	.0	.3	62	20	6	1.0	94	6.2	21.5
JULY 12...	.0	.3	61	18	5	1.0	93	6.4	22.5
AUG. 07...	.0	.4	55	12	1	1.3	83	6.5	25.5
SEP. 12...	.0	.2	51	17	5	.7	83	6.3	25.0

TRINITY RIVER BASIN

08066500 TRINITY RIVER AT ROMAYOR, TEX.

LOCATION.--Lat 30°25'30", long 94°51'02", Liberty County, at gaging station at bridge on State Highway 105, 1.9 miles south of Romayor, 1.9 miles downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, and 3.7 miles downstream from Big Creek.

DRAINAGE AREA.--17,186 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1945 to November 1949, February 1950 to September 1951, April 1953 to September 1972.

Chemical and biochemical analyses: February 1968 to September 1972.

Pesticide analyses: February 1968 to September 1972.

Water temperatures: February 1950 to September 1951, April 1953 to January 1959, March 1961 to September 1972.

Sediment records: April 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 01-31	437	4.5	46	5.7	--	43	--	75	0	32
NOV. 01-30	5210	3.3	51	5.0	--	45	--	168	0	40
DEC. 01-31	24200	4.6	48	4.0	--	38	--	148	0	40
JAN. 01-31	10500	6.5	40	3.2	--	19	--	118	0	28
FEB. 01-29	4300	3.9	38	3.2	--	20	--	113	0	28
MAR. 01-31	1750	5.5	42	1.8	--	19	--	114	0	24
APR. 01-28	1520	4.0	41	3.3	--	20	--	120	0	26
04-30	4140	6.5	29	2.8	--	13	--	83	0	14
MAY 01-31	3920	4.3	38	3.7	--	18	--	115	0	24
JUNE 01-30	952	6.5	42	4.2	--	19	--	126	0	25
JULY 01-31	1220	2.2	38	4.2	--	21	--	119	0	25
AUG. 01-31	404	6.1	44	5.2	--	24	--	137	0	24
SEP. 01-30	472	6.0	45	4.3	--	28	--	143	0	27
WTD. AVG. TIME WTD. AVG.	5380	4.8	43	4.0	--	26	--	124	0	29
TOT. LOAD (TONS)	--	26800	233000	19700	--	152000	--	706000	0	175000

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	505	509	500	325	289	412	308	304	345	320	369	385
2	509	514	483	314	291	398	---	278	357	---	355	378
3	---	---	---	303	311	344	329	191	361	361	337	---
4	511	510	450	317	309	352	338	269	---	---	369	390
5	500	513	---	298	301	---	341	305	354	345	367	390
6	495	517	433	302	---	349	---	308	---	268	---	396
7	505	---	426	309	310	345	310	---	361	331	381	394
8	528	514	474	317	321	346	341	292	361	259	403	390
9	511	520	492	---	322	346	---	305	354	---	406	394
10	---	520	494	324	324	346	333	304	337	268	407	---
11	495	519	496	325	323	335	308	290	---	308	394	397
12	515	519	499	325	324	---	326	300	353	334	393	396
13	523	---	477	327	---	338	337	228	316	355	---	391
14	530	---	495	328	286	339	348	---	329	323	393	394
15	521	532	490	328	300	339	333	271	319	332	404	393
16	465	531	487	---	297	341	---	294	336	---	406	396
17	---	530	475	332	293	365	341	314	311	318	407	---
18	496	516	476	328	305	362	360	322	---	362	409	401
19	462	501	470	332	316	---	338	333	352	365	404	403
20	351	516	462	329	---	356	342	337	353	366	---	402
21	388	---	458	329	338	280	332	---	352	366	404	---
22	473	512	453	329	334	272	324	342	349	356	---	400
23	501	503	446	---	323	276	---	343	353	---	409	403
24	---	508	439	333	312	262	313	345	357	365	401	---
25	500	---	---	332	309	255	302	347	---	361	383	391
26	506	506	427	335	337	---	322	350	357	---	357	390
27	517	512	435	335	---	331	348	351	---	377	---	401
28	522	---	419	336	360	336	303	---	360	375	387	413
29	528	510	398	340	370	334	242	356	362	---	374	371
30	523	512	395	---	---	235	---	355	363	---	392	388
31	---	---	368	311	---	286	---	356	---	374	370	---
MONTH	495	---	458	324	316	329	326	311	348	---	388	394

08066500 TRINITY RIVER AT ROMAYOR, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 274 mg/l Nov. 1-30; minimum, 126 mg/l Apr. 29-30.

Hardness: Maximum, 150 mg/l Nov. 1-30; minimum, 84 mg/l Apr. 29-30.

Specific conductance: Maximum daily, 532 micromhos Nov. 15; minimum daily, 191 micromhos May 3.

Water temperatures: Maximum, 29.0°C on several days during August and September.

EXTREMES, October 1945 to September 1950, October 1953 to September 1972.--Dissolved solids: Maximum, 1,900 mg/l Nov. 7, 1953; minimum, 82 mg/l July 31, 1954.

Hardness: Maximum, 258 mg/l Oct. 21-31, 1956; minimum, 32 mg/l Nov. 1-3, 1953.

Specific conductance: Maximum daily, 3,800 micromhos Oct. 30, 1956; minimum daily, 103 micromhos Nov. 9, 1946.

Water temperatures (1953-58, 1961-72): Maximum, 37.0°C July 18, 27, 1953; minimum, 3.0°C Jan. 18, 1956, Jan. 15, 16, 1968.

Sediment concentration (1945-50, 1953-71): Maximum daily, 3,310 mg/l June 23, 1968; minimum daily, 5 mg/l Oct. 6, 1969.

Sediment loads (1945-50, 1953-71): Maximum daily, 273,000 tons June 23, 1968; minimum daily, 13 tons Jan. 13, Sept. 17, 1971.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRA- TE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AN- ION SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	52	--	.4	259	140	13	1.6	495	7.5
NOV. 01-30	45	.4	.4	274	150	10	1.6	516	7.2
DEC. 01-31	38	.4	.6	249	140	15	1.4	454	7.8
JAN. 01-31	18	.2	.6	176	110	16	.8	321	7.2
FEB. 01-29	20	.3	.02	170	110	15	.8	315	7.2
MAR. 01-31	24	.2	.5	175	110	19	.8	327	7.4
APR. 01-28	22	.2	.4	177	120	18	.8	326	7.7
29-30	20	--	.4	126	84	16	.6	242	7.0
MAY 01-31	20	.2	.1	166	110	16	.7	308	7.6
JUNE 01-30	22	.2	.5	183	120	19	.7	343	7.6
JULY 01-31	24	.3	.00	174	110	14	.9	337	7.2
AUG. 01-31	31	.0	.4	203	130	19	.9	390	7.6
SEP. 01-30	32	.0	.3	214	130	13	1.1	392	7.5
WTD. AVG. TIME WTD.	29	.3	.4	211	125	15	1.1	389	7.5
AVG. TOT. LOAD (TONS)	29	.2	.3	201	123	16	1.0	377	7.5
	153000	1570	2610	1124000	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	23.0	13.0	10.0	---	19.0	15.0	23.0	25.0	28.0	27.0	27.0
2	27.0	23.0	13.0	11.0	---	14.0	---	21.0	25.0	---	28.0	27.0
3	---	---	---	8.0	---	12.0	19.0	21.0	25.0	27.0	29.0	---
4	26.0	19.0	11.0	10.0	---	15.0	18.0	21.0	---	---	27.0	27.0
5	26.0	20.0	---	9.0	---	---	0.0	21.0	24.0	25.0	27.0	28.0
6	24.0	21.0	12.0	---	---	13.0	---	22.0	---	24.0	---	27.0
7	24.0	---	12.0	9.0	---	16.0	21.0	---	25.0	24.0	29.0	29.0
8	24.0	19.0	13.0	8.0	---	16.0	20.0	20.0	26.0	24.0	29.0	29.0
9	23.0	19.0	15.0	---	8.0	14.0	---	21.0	26.0	---	28.0	29.0
10	---	18.0	13.0	14.0	9.0	14.0	19.0	20.0	25.0	27.0	27.0	---
11	19.0	18.0	12.0	13.5	10.0	15.0	20.0	20.0	---	26.0	26.0	28.0
12	20.0	19.0	15.0	14.0	9.0	---	21.0	21.0	25.0	26.0	28.0	27.0
13	21.0	19.0	14.0	15.0	---	16.0	21.0	20.0	25.0	26.0	---	28.0
14	21.0	---	16.0	11.0	13.0	17.0	23.0	---	25.0	26.0	27.0	27.0
15	22.0	21.0	14.0	10.0	12.0	17.0	22.0	22.0	25.0	26.0	26.0	27.0
16	23.0	19.0	15.0	---	12.0	17.0	---	22.0	25.0	---	27.0	28.0
17	---	21.0	14.0	11.0	12.0	17.0	20.0	22.0	25.0	27.0	27.0	---
18	24.0	20.0	13.0	12.0	12.0	16.0	20.0	22.0	---	24.0	27.0	27.0
19	---	16.0	14.0	13.0	12.0	---	22.0	22.0	27.0	27.0	28.0	28.0
20	25.0	17.0	15.0	13.0	---	18.0	22.0	22.0	27.0	26.0	---	28.0
21	22.0	---	15.0	13.0	13.0	17.0	23.0	---	25.0	26.0	29.0	---
22	22.0	15.0	14.0	14.0	14.0	17.0	19.0	22.0	26.0	26.0	---	27.0
23	22.0	14.0	24.0	---	14.0	18.0	---	23.0	25.0	---	28.0	27.0
24	---	15.0	15.0	14.0	16.0	18.0	22.0	23.0	27.0	27.0	28.0	---
25	20.0	---	---	12.0	16.0	17.0	20.0	24.0	---	27.0	27.0	25.0
26	20.0	16.0	15.0	13.0	17.0	---	19.0	25.0	27.0	---	27.0	25.0
27	21.0	17.0	15.0	14.0	---	19.0	21.0	25.0	---	28.0	---	25.0
28	22.0	---	15.0	12.0	15.0	19.0	21.0	---	27.0	28.0	27.0	25.0
29	22.0	15.0	16.0	12.0	18.0	17.0	20.0	25.0	28.0	28.0	27.0	26.0
30	22.0	14.0	16.0	---	---	15.0	---	25.0	28.0	---	27.0	22.0
31	---	---	25.0	10.0	---	16.0	---	25.0	---	26.0	27.0	---
MONTH	22.5	18.5	15.0	12.0	---	16.5	19.5	22.0	26.0	---	27.5	27.0

TRINITY RIVER BASIN

08066500 TRINITY RIVER AT ROMAYOR, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 25...	1300	375	7.9	47	5.5	44	151	0	32	55	.3	.36
DEC. 21...	1445	33500	.5	46	5.2	37	152	0	40	34	.4	.24
FEB. 08...	1430	6430	6.9	41	2.8	17	115	0	27	18	.3	.15
APR. 17...	1515	1650	1.9	44	3.2	20	131	0	29	20	.3	.26
JUNE 06...	1400	950	5.4	46	3.8	21	142	0	28	21	.3	.20
AUG. 23...	1300	310	5.0	48	4.2	30	153	0	25	35	.2	.24

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 25...	.000	.10	.00	.080	266	50	--	140	16	1.6	501	6.9
DEC. 21...	.035	.00	.5	.14	240	90	10	140	11	1.4	459	7.2
FEB. 08...	.000	.06	.9	.14	174	28	2	110	20	.7	323	7.0
APR. 17...	.012	.07	.06	.10	183	40	24	120	16	.8	345	6.7
JUNE 06...	.000	.02	.02	.17	196	15	4	130	14	.8	349	7.7
AUG. 23...	.002	.03	.01	.19	222	27	0	140	12	1.1	400	7.7

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUR- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 25...	22.5	45	25	7.7	88	25	2.6	0	.00	--	--	--
DEC. 21...	20.0	35	30	10.8	117	17	2.2	0	.00	10	0	0
FEB. 08...	10.5	40	25	11.6	104	16	1.4	0	.00	300	0	0
APR. 17...	23.5	15	15	10.0	116	20	3.3	9	.00	--	--	--
JUNE 06...	28.0	20	7	9.0	114	15	3.0	0	.00	10	0	1
AUG. 23...	31.0	15	30	9.0	120	11	1.7	3	.06	10	10	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 25...	--	--	--	--	--	--	--	--	--	--	--
DEC. 21...	0	0	9	0	0	0	0	.2	0	300	70
FEB. 08...	0	0	100	490	0	0	20	.2	0	360	160
APR. 17...	--	--	--	--	--	--	--	--	--	--	--
JUNE 06...	0	0	8	10	0	0	0	.8	0	310	110
AUG. 23...	0	1	3	0	0	0	0	2.3	0	360	50

TRINITY RIVER BASIN

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08066500 TRINITY RIVER AT ROMAYOR, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
DEC. 21...	1445	33500	.00	--	.00	--	.00	--	.00	--
FEB. 08...	1430	6430	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 17...	1515	1650	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 06...	1400	950	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 23...	1300	310	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
DEC. 21...	.00	--	.00	--	.00	--	.00	--	.00	--
FEB. 08...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 17...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 06...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 23...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 21...	.0	--	.01	.00	.00	.00	.00	.01	.00
FEB. 08...	.0	<1.0	.02	.00	.00	.00	.00	.01	.00
APR. 17...	.0	<1.0	.01	.00	.00	.00	.00	.01	.00
JUNE 06...	.0	<1.0	.01	.00	.00	.00	.00	.00	.00
AUG. 23...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00

TRINITY RIVER BASIN

08066800 GAYLOR CREEK NEAR MOSS HILL, TEX.

LOCATION.--Lat 30°16'55", long 94°51'36", Liberty County, at timber bridge on county road, 7.5 miles northwest of Moss Hill.

DRAINAGE AREA.--32.3 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1966 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 19...	0915	4.6	1.4	4.0	1.2	4.5	15	0	4.8	4.5
JAN. 11...	1500	7.0	5.3	9.5	2.7	3.3	29	0	6.4	8.0
FEB. 14...	1650	10	1.0	9.5	4.2	4.2	25	0	8.0	14
MAR. 17...	1335	6.4	6.0	11	2.6	7.8	38	0	6.4	12
APR. 20...	1625	.51	8.1	16	3.9	5.7	58	0	4.8	10
MAY 25...	1700	.53	6.0	14	3.2	4.8	48	0	3.2	10

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 19...	.0	.3	29	15	3	.5	63	6.3	24.0
JAN. 11...	.0	.08	50	35	11	.2	104	6.6	14.0
FEB. 14...	.0	.4	55	41	20	.3	123	6.0	13.5
MAR. 17...	.1	.06	65	38	7	.5	122	6.3	19.5
APR. 20...	.1	.4	79	56	8	.3	148	6.4	26.0
MAY 25...	.0	.5	67	48	9	.3	125	6.4	27.0

08067000 TRINITY RIVER AT LIBERTY, TEX.

LOCATION.-- Lat 30°03'27", long 94°49'05", Liberty County, at gaging station at bridge on U.S. Highway 90 in Liberty, and 450 feet downstream from Texas and New Orleans Railroad Company Bridge.

DRAINAGE AREA.--17,468 sq mi.

PERIOD OF RECORD.-- Chemical and biochemical analyses: October 1970 to September 1972.
Pesticide analyses: May 1971 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
27...	1140	--	13	46	6.1	34	144	0	24	50	.3	.28
NOV.												
01...	0915	--	4.8	51	4.3	42	164	0	30	50	.3	.67
15...	0920	--	1.6	55	10	37	190	0	39	43	.4	.08
30...	1100	11200	1.1	50	3.4	51	168	0	46	44	.5	.05
DEC.												
28...	1200	39100	6.2	46	4.0	34	144	0	37	31	.5	.64
JAN.												
12...	1030	27000	7.6	41	2.6	17	118	0	25	17	.3	.15
APR.												
19...	1000	--	1.2	48	4.2	15	136	0	28	20	.3	.27
MAY												
03...	1030	4500	4.8	32	4.4	7.4	90	0	15	17	.2	.23
15...	1000	9500	3.3	30	2.5	8.8	87	0	8.4	16	.2	.21
AUG.												
09...	1050	400	8.7	55	5.1	26	176	0	23	32	.3	.23
31...	1345	--	6.6	44	4.9	23	140	0	18	32	.2	.23

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.												
27...	.000	.10	.2	.040	245	--	140	22	1.3	473	7.4	22.5
NOV.												
01...	.011	.03	.00	.11	263	--	140	11	1.5	505	7.6	24.0
15...	.006	.00	.00	.11	279	--	180	24	1.2	542	7.8	21.0
30...	.016	.01	.3	.13	280	77	140	2	1.9	517	7.1	16.0
DEC.												
28...	.055	.00	.7	.20	233	--	130	13	1.3	436	7.1	16.0
JAN.												
12...	.000	.06	.6	.16	171	6	110	16	.7	327	7.3	15.5
APR.												
19...	.002	.02	.00	.10	184	57	140	26	.6	360	7.8	23.5
MAY												
03...	.007	.04	.08	.16	125	90	98	24	.3	256	7.2	23.0
15...	.000	.00	.3	.15	114	--	85	14	.4	239	7.1	23.5
AUG.												
09...	.000	.05	.00	.11	237	17	160	14	.9	512	6.6	30.5
31...	.001	.01	.00	.10	198	23	130	15	.9	387	7.5	30.5

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT.												
27...	55	25	8.1	92	25	2.8	27000	110	76	7	.00	--
NOV.												
01...	20	340	7.4	87	15	2.2	10000	28	44	20	.00	--
15...	20	50	8.2	91	22	2.0	8700	46	94	14	.00	20
30...	30	35	8.5	85	12	1.6	8000	24	94	5	.00	10
DEC.												
28...	65	60	9.2	92	20	1.1	18000	58	260	16	.00	0
JAN.												
12...	50	40	10.1	100	21	1.7	5300	650	46	5	.00	10
APR.												
19...	20	20	8.2	95	17	5.0	1200	15	15	7	.00	--
MAY												
03...	60	40	7.7	89	35	2.4	9000	1000	1600	0	.00	10
15...	130	40	7.8	91	28	2.5	1500	520	560	10	.00	20
AUG.												
09...	25	15	7.9	104	7	2.6	10	6	25	3	.04	--
31...	20	20	8.9	117	8	5.1	100	7	24	0	.00	10

TRINITY RIVER BASIN

08067000 TRINITY RIVER AT LIBERTY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.											
27...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
01...	--	--	--	--	--	--	--	--	--	--	--
15...	0	1	0	0	6	0	0	0	1.0	6	100
30...	0	1	0	0	3	0	0	50	<.2	2	60
DEC.											
28...	0	1	0	0	15	0	0	50	.3	0	60
JAN.											
12...	0	0	0	0	7	20	0	0	<.2	2	30
APR.											
19...	--	--	--	--	--	--	--	--	--	--	--
MAY											
03...	0	0	0	1	8	100	0	0	.5	6	80
15...	10	0	0	1	25	100	0	0	<.2	10	70
AUG.											
09...	--	--	--	--	--	--	--	--	--	--	--
31...	0	0	0	0	4	0	0	0	--	0	20

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
NOV.										
15...	0920	--	.00	.00	.00	.00	.00	.00	.00	.00
30...	1100	11200	.00	.00	.00	.00	.00	.00	.00	.00
DEC.										
28...	1200	39100	--	--	--	--	--	--	--	--
JAN.										
12...	1030	27000	.00	.00	.00	.00	.00	.00	.00	.00
MAY										
03...	1030	4500	.00	.00	.00	.00	.00	.00	.00	.00
AUG.										
31...	1245	--	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV.									
15...	.00	.0	.00	.00	.00	.00	.00	.00	.00
30...	.00	.0	.00	.00	.00	.00	.00	.00	.00
DEC.									
28...	--	--	.02	.00	.00	.00	.03	.01	.00
JAN.									
12...	.00	.0	.01	.00	.00	.00	.00	.01	.00
MAY									
03...	.00	.0	.00	.00	.00	.00	.04	.01	.00
AUG.									
31...	.00	.0	.00	.00	.00	.00	.06	.00	.00

TRINITY RIVER BASIN

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08067120 TURTLE BAYOU NEAR HANKAMER, TEX.

LOCATION.--Lat 29°53'47", long 94°39'48", Liberty County, at culvert on private road, 2.1 miles east of Farm Road 563, and 3.5 miles northwest of Hankamer.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.
Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
26...	1240	.08	6.8	66	9.1	160	120	0	96	250	.3	.36
NOV.												
03...	1220	.07	5.6	92	6.9	2700	0	0	220	4200	.1	.05
APR.												
17...	1340	3.6	4.1	35	6.0	48	106	0	42	60	.4	.57
AUG.												
09...	1200	.45	5.1	54	8.6	100	130	0	10	190	.4	.21
31...	1230	.40	6.5	72	11	200	126	0	8.8	390	.0	.47

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.												
26...	.000	.36	.00	.020	643	--	200	100	4.9	1210	7.1	20.5
NOV.												
03...	.002	.91	.03	.030	7200	106	260	260	73	12800	4.6	21.0
APR.												
17...	.020	.12	.08	.11	248	84	110	25	2.0	477	7.5	25.5
AUG.												
09...	.000	.07	.03	.050	435	113	170	64	3.4	810	6.7	29.0
31...	.007	.00	.00	.050	748	70	220	120	5.8	1360	7.2	27.0

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT.												
26...	30	50	6.8	75	64	1.4	13000	5700	650	59	.00	--
NOV.												
03...	10	95	7.3	81	18	.7	550	29	42	14	.02	--
APR.												
17...	60	45	11.0	133	55	6.0	7300	130	110	5	.00	--
AUG.												
09...	35	70	4.7	60	10	3.4	--	400	370	2	.02	--
31...	45	50	7.0	86	26	2.8	310	150	260	0	.04	10

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.											
26...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
03...	--	--	--	--	--	--	--	--	--	--	--
APR.											
17...	--	--	--	--	--	--	--	--	--	--	--
AUG.											
09...	--	--	--	--	--	--	--	--	--	--	--
31...	0	1	0	0	6	20	0	60	.2	0	120

TRINITY RIVER BASIN

08067120 TURTLE BAYOU NEAR HANKAMER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR EPOXIDE (UG/L)
AUG. 31...	1230	.40	.00	.00	.00	.00	.01	.00	.00	.00

	LINDANE	CHLOR-DANE	DI-AZINON	MALA-THION	METHYL-PARA-THION	PARA-THION	2,4-D	2,4,5-T	SILVEX
DATE	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
AUG.									
31...	.00	.0	.00	.00	.00	.00	.00	.00	.00

08067250 TURTLE BAYOU NEAR ANAHUAC, TEX.

LOCATION.--Lat 29°49'42", long 94°40'11", Chambers County, at Farm Road 563 and 3.7 miles north of Anahuac.

DRAINAGE AREA.--180 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: December 1971 to September 1972.
Pesticide analyses: December 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
DEC. 06...	1140	2310	12	9.0	1.6	13	17	0	16	17	.0	.19
FEB. 02...	0915	250	4.4	11	1.8	13	27	0	12	20	.1	.30
MAR. 22...	1210	540	5.1	13	1.8	17	23	0	22	24	.1	.35
MAY 03...	1145	1360	4.8	9.5	2.7	8.3	23	0	10	16	.1	.31

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
DEC. 06...	.010	.10	.8	.25	80	--	29	15	1.0	134	6.4	12.0
FEB. 02...	.000	.16	.1	.10	76	--	35	13	1.0	151	6.6	10.0
MAR. 22...	.037	.14	.2	.14	95	124	40	21	1.2	187	7.0	21.0
MAY 03...	.004	.18	.4	.24	64	230	35	16	.6	130	6.7	23.0

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
DEC. 06...	180	140	6.3	58	22	3.2	340000	19000	9800	12	.00	10
FEB. 02...	200	85	10.4	92	43	2.4	1500000	3000	9200	1	.00	0
MAR. 22...	50	65	6.2	69	37	4.4	9300	3800	2900	8	.00	--
MAY 03...	140	130	5.3	61	43	3.4	29000	5100	3800	0	.00	150

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
DEC. 06...	0	0	0	0	20	200	0	120	.5	0	20
FEB. 02...	0	0	0	0	14	320	0	0	.2	0	40
MAR. 22...	--	--	--	--	--	--	--	--	--	--	--
MAY 03...	0	0	0	0	6	150	0	0	.4	6	50

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
DEC. 06...	1140	2310	.00	.00	.00	.00	.01	.00	.00	.00
MAR. 22...	1210	540	.00	.00	.00	.00	.01	.00	.00	.00
MAY 03...	1155	--	.00	.00	.00	.00	.02	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 06...	.00	.0	.00	.00	.00	.00	.00	.00	.00
MAR. 22...	.00	.0	.00	.00	.00	.00	.10	.12	.00
MAY 03...	.00	.0	.00	.00	.00	.00	.00	.02	.00

TRINITY RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08043000 BRIDGEPORT RESERVOIR ABOVE BRIDGEPORT, TEX. (Lat 33°13'22", long 97°49'54")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
FEB. 11...	2150	167000	.4	80	0	30	6.1	23	108	0	18

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FEB. 11...	30	.3	.01	161	100	12	1.0	294	7.8	4.0

08043700 LAKE AMON G. CARTER NEAR BOWIE, TEX. (Lat 33°28'08", long 97°51'56")

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
FEB. 11...	2045	4.6	650	20	23	6.0	24	85	0	14

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FEB. 11...	34	.2	.4	150	82	12	1.2	277	7.4	5.0

08045400 LAKE WORTH ABOVE FORT WORTH, TEX. (Lat 32°47'29", long 97°24'54")

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
FEB. 13...	2150	5.4	110	0	46	7.1	31	164	0	23

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FEB. 13...	36	.3	.2	231	140	10	1.1	394	8.0	7.5

TRINITY RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08046500 BENBROOK LAKE NEAR BENBROOK, TEX. (Lat 32°39'02", long 97°26'54")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FF) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
FEB. 13...	1400	88710	6.6	80	5	51	5.0	18	164	0	24

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FEB. 13...	18	.3	.5	206	150	14	.6	352	8.0	10.0

08049200 LAKE ARLINGTON AT ARLINGTON, TEX. (Lat 32°43'04", long 97°11'36")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
FEB. 13...	2100	44530	4.0	220	0	38	5.2	36	148	0	34

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FEB. 13...	23	.3	1.0	217	120	0	1.5	378	7.6	10.5

08050500 MOUNTAIN CREEK LAKE NEAR GRAND PRAIRIE, TEX. (Lat 32°43'55", long 96°56'35")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
FEB. 13...	1620	20520	7.3	330	0	70	5.2	42	156	0	130

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FEB. 13...	16	.3	.8	349	200	68	1.3	534	7.8	13.0

TRINITY RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08051000 ISLE DU BOIS CREEK NEAR PILOT POINT, TEX. (Lat 33°24'23", long 97°00'45")

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 13...	1545	11	13	83	20	89	228	6	110	120

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JAN. 13...	.3	.1	553	290	91	2.3	910	8.3	7.0

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT (MG/L)	DIS- CHARGE (T/DAY)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM
NOV. 10...	1440	1.7	11.0	4	.02	--	--	--
MAR. 30...	0915	2.1	14.5	7	.04	--	--	--
MAY 03...	1615	9.2	21.0	158	3.9	1	2	

DATE	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
NOV. 10...	--	--	--	--	--	--
MAR. 30...	--	--	--	--	--	--
MAY 03...	4	7	16	22	26	33

08052800 LEWISVILLE LAKE NEAR LEWISVILLE, TEX. (Lat 33°04'09", long 96°57'51")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (MG/L)	TOTAL MAN- GANESE (MN) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
FEB. 13...	1910	463900	6.2	240	10	38	3.2	19	120	0	24

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FEB. 13...	17	.2	.5	169	110	10	.8	293	7.5	7.5

TRINITY RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08053500 DENTON CREEK NEAR JUSTIN, TEX. (Lat 33°07'08", long 97°17'25")

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT (T/DAY)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM
MAR. 30...	1530	15	13.5	28	1.1	--	--
MAY 05...	1010	16	20.5	116	5.2	43	56

DATE	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
MAR. 30...	--	--	--	--	--	--
MAY 05...	65	80	89	94	98	100

08054500 GRAPEVINE LAKE NEAR GRAPEVINE, TEX. (Lat 32°58'21", long 97°03'22")

DATE	TIME	RESE- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
FEB. 13...	2000	190300	6.5	200	5	42	5.6	17	138	0	26

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FEB. 13...	16	.2	.4	183	130	15	.6	315	7.8	8.0

08060500 LAVON LAKE NEAR LAVON, TEX. (Lat 33°01'54", long 96°28'56")

DATE	TIME	RESE- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
FEB. 13...	1750	144700	4.8	290	10	57	3.4	11	178	0	24

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FEB. 13...	5.1	.2	.3	195	160	10	.4	321	7.9	7.0

TRINITY RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08061500 LAKE RAY HUBBARD NEAR FORNEY, TEX. (Lat 32°48'00", long 96°29'45")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
FER. 09...	1530	456900	3.5	80	10	47	2.6	14	152	0	22

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FER. 09...	5.5	.3	.4	172	130	3	.5	289	7.8	8.0

08063100 CEDAR CREEK RESERVOIR NEAR TRINIDAD, TEX. (Lat 32°14'34", long 96°08'28")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
FER. 10...	1850	643500	4.6	600	20	16	2.5	11	52	0	15

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FER. 10...	9.7	.2	.5	88	50	7	.7	151	6.7	8.5

08063050 NAVARRO MILLS LAKE NEAR DAWSON, TEX. (Lat 31°57'27", long 96°41'21")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
FER. 10...	1745	63300	3.7	240	10	52	3.5	24	152	0	46

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FER. 10...	14	.3	.9	222	140	19	.9	370	7.8	8.0

TRINITY RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08063700 BARDWELL LAKE NEAR ENNIS, TEX. (Lat 32°15'00", long 96°38'49")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
FEB. 10...	2015	54870	3.9	350	5	52	5.4	16	172	0	25

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FEB. 10...	11	.3	1.0	203	150	11	.6	345	8.1	8.0

08065330 HOUSTON COUNTY LAKE NEAR CROCKETT, TEX. (Lat 31°24'24", long 95°36'06")

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
APR. 25...	1250	4.0	7.5	2.3	11	31	0	6.0	14

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
APR. 25...	.0	.09	60	28	3	.9	122	6.5	26.5

CEDAR BAYOU BASIN

08067500 CEDAR BAYOU NEAR CROSBY, TEX.

LOCATION.--Lat 29°58'21", long 94°59'08", Harris County, at bridge on U.S. Highway 90, and about 6.6 miles northeast of Crosby.

DRAINAGE AREA.--64.9 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.
Pesticide analyses: May 1971 to September 1972.

REMARKS.-- See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 27...	0945	1.4	15	48	18	140	120	0	33	260
NOV. 01...	1015	3.9	5.0	58	7.7	80	166	0	15	140
DEC. 06...	1320	1250	6.5	9.5	1.3	14	21	0	14	16
JAN. 12...	1210	5.6	8.4	70	6.7	78	192	0	16	140
FEB. 02...	1055	125	5.8	17	3.8	22	53	0	13	33
MAR. 21...	1420	1210	4.4	12	1.2	17	27	0	8.0	28
APR. 19...	1100	1.8	3.4	61	9.7	71	132	0	36	140
MAY 03...	0930	280	7.9	22	4.4	28	61	0	20	43
15...	1100	190	8.8	22	2.7	21	80	0	6.4	26
JULY 19...	1400	30	8.0	32	3.0	40	118	0	7.2	54
AUG. 09...	1200	12	22	44	5.6	70	185	0	11	86
30...	1330	.37	16	40	6.3	69	178	0	10	84
SEP. 25...	0935	85	--	--	--	--	--	--	--	--

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT. 27...	.4	.44	.000	.16	.2	.080	568	--	--	200
NOV. 01...	.3	.19	.031	.11	.00	.27	388	35	--	180
DEC. 06...	.0	.32	.010	.07	1.3	.19	77	--	--	29
JAN. 12...	.3	.22	.000	.10	.04	.23	414	53	--	200
FEB. 02...	.2	.30	.000	.10	.4	.12	123	--	--	58
MAR. 21...	.1	.27	.090	.10	.5	.24	86	304	--	35
APR. 19...	.3	.34	.010	.09	.02	.060	389	17	--	190
MAY 03...	.2	.37	.009	.19	.5	.21	158	218	--	73
15...	.2	.31	.010	.05	.4	.15	128	--	--	66
JULY 19...	.2	.38	.000	.19	.00	.11	203	24	--	92
AUG. 09...	.4	.30	.049	.28	.1	.28	331	--	--	130
30...	.4	.44	.010	.20	.00	.19	314	--	--	130
SEP. 25...	--	.40	.010	.21	.3	.26	--	124	12	--

CEDAR BAYOU BASIN

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08067500 CEDAR BAYOU NEAR CROSBY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
OCT. 27...	98	4.4	1130	7.4	19.5	70	120	8.0	86	34
NOV. 01...	40	2.6	757	8.2	23.0	35	130	7.3	84	22
DEC. 06...	12	1.1	133	7.0	10.5	220	80	9.4	84	30
JAN. 12...	44	2.4	792	8.4	18.0	40	30	12.1	127	35
FEB. 02...	15	1.3	239	7.3	9.5	140	70	10.8	95	31
MAR. 21...	13	1.2	174	7.5	19.0	120	130	6.9	73	33
APR. 19...	84	2.2	747	8.2	25.0	40	10	7.6	90	28
MAY 03...	23	1.4	305	6.7	24.0	140	110	6.0	69	47
15...	0	1.1	241	7.0	25.0	160	65	6.0	71	40
JULY 19...	0	1.8	379	7.2	28.0	60	55	6.8	86	28
AUG. 09...	0	2.6	593	7.5	30.5	45	30	8.5	112	28
30...	0	2.7	557	7.9	29.0	70	85	6.0	78	26
SEP. 25...	--	--	443	6.7	24.0	120	65	6.4	75	--
DATE	BIOCHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	OIL AND GREASE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)
OCT. 27...	1.8	7000	680	1000	5	.00	--	--	--	--
NOV. 01...	.8	8300	170	370	12	.00	--	--	--	--
DEC. 06...	3.3	260000	4000	10000	13	.00	10	--	0	0
JAN. 12...	2.2	12000	1200	56	7	.00	10	--	0	0
FEB. 02...	2.9	400000	2600	8200	0	.00	10	--	0	0
MAR. 21...	3.3	26000	6700	24000	7	.00	--	--	--	--
APR. 19...	5.9	1500	6	38	6	.00	--	--	--	--
MAY 03...	4.1	9000	2100	2300	8	.00	10	--	0	0
15...	3.0	1500	250	380	13	.00	20	--	0	0
JULY 19...	2.9	3100	1300	1600	0	.05	20	--	--	--
AUG. 09...	4.7	1500	400	1000	6	.06	--	--	--	--
30...	5.2	--	1000	260	0	.00	20	--	--	--
SEP. 25...	4.5	22000	19000	6900	--	.00	--	20	--	--

CEDAR BAYOU BASIN

08067500 CEDAR BAYOU NEAR CROSBY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 27...	--	--	--	--	--	--	--	--	--
NOV. 01...	--	--	--	--	--	--	--	--	--
DEC. 06...	0	0	13	660	0	60	.5	0	60
JAN. 12...	0	0	8	60	0	50	<.2	3	40
FEB. 02...	0	0	10	120	0	0	<.2	0	40
MAR. 21...	--	--	--	--	--	--	--	--	--
APR. 19...	--	--	--	--	--	--	--	--	--
MAY 03...	0	2	5	100	0	0	.3	8	50
15...	0	0	5	170	0	0	.2	6	30
JULY 19...	--	--	--	--	--	--	--	--	--
AUG. 09...	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--
SEP. 25...	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR EPOXIDE (UG/L)
DEC. 06...	1320	1250	.00	.00	.00	.00	.01	.00	.00	.00
JAN. 12...	1210	5.6	.00	.00	.00	.00	.01	.00	.00	.00
MAY 03...	0930	280	.00	.00	.00	.00	.02	.00	.00	.00
15...	1100	190	.00	.00	.00	.00	.02	.00	.00	.00
JULY 19...	1400	30	.00	.00	.00	.00	.02	.00	.00	.00
AUG. 30...	1330	.37	.00	.00	.00	.00	.02	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR-DANE (UG/L)	DI-AZINON (UG/L)	MALA-THION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 06...	.00	.0	.00	.00	.00	.00	.00	.00	.00
JAN. 12...	.00	.0	.01	.00	.00	.00	.00	.00	.00
MAY 03...	.00	.0	.03	.00	.00	.00	.00	.01	.00
14...	.00	.0	.00	.00	.00	.00	.00	.00	.00
JULY 19...	.00	.0	.00	.00	.00	.00	.00	.00	.00
AUG. 30...	.00	.0	.00	.00	.00	.00	.00	.01	.00

GOOSE CREEK BASIN

08067520 GOOSE CREEK NEAR McNAIR, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
AUG. 30...	1420	1.1	.00	.00	.00	.00	.04	.00	.00	.00
SEP. 10...	1300	135	.00	.00	.00	.00	.01	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
AUG. 30...	.00	.1	.04	.00	.00	.00	--	.00	.00	.00
SEP. 10...	.00	.0	.00	.00	.00	.00	.0	.00	.50	.00

SAN JACINTO RIVER BASIN

341

08067900 LAKE CREEK NEAR CONROE, TEX.

LOCATION.--Lat 30°15'12", long 95°34'43", Montgomery County, at bridge on county road, 8.3 miles southwest of Conroe.

DRAINAGE AREA.--291 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NESIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 26...	1255	12	15	30	2.7	20	90	0	7.2	33
NOV. 29...	0945	2.5	20	18	2.5	27	49	0	4.8	48
JAN. 12...	1210	24	17	36	1.8	23	86	0	11	46
FEB. 15...	1240	26	75	58	2.1	47	130	0	17	92
MAR. 21...	1230	285	7.0	20	2.2	14	45	0	6.4	32
APR. 24...	1400	9.5	14	34	3.7	30	77	0	6.4	66
MAY 30...	1325	12	20	37	3.1	24	96	0	6.4	50
JULY 03...	1315	4.3	20	32	3.7	30	83	0	5.0	62
AUG. 08...	1355	2.4	20	27	2.1	51	50	0	4.0	100
SEP. 14...	1420	4.9	16	36	4.9	47	77	0	6.0	100

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 26...	.2	.2	153	86	12	.9	280	7.0	19.5
NOV. 29...	.0	.00	144	55	15	1.6	275	6.9	12.0
JAN. 12...	.1	.1	177	97	26	1.0	331	7.1	13.0
FEB. 15...	.0	.2	296	150	46	1.7	554	7.0	14.0
MAR. 21...	.1	.2	105	59	22	.8	208	6.3	18.0
APR. 24...	.0	.4	194	100	37	1.3	370	6.6	23.0
MAY 30...	.0	.2	188	100	26	1.0	334	6.7	25.0
JULY 03...	.1	.1	194	95	27	1.3	346	6.7	28.0
AUG. 08...	.1	.00	229	76	35	2.5	412	6.2	27.0
SEP. 14...	.0	.4	250	110	47	2.0	485	6.9	26.0

SAN JACINTO RIVER BASIN

08068000 WEST FORK SAN JACINTO RIVER NEAR CONROE, TEX.

LOCATION.--Lat 30°14'41", long 95°27'26", Montgomery County, at gaging station at bridge on Interstate Highway 45 and U. S. Highway 75, 281 feet upstream from Missouri Pacific Railroad Co. bridge, 3.5 miles downstream from Lake Creek, and 4.2 miles south of Conroe.

DRAINAGE AREA.--809 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1972.

Chemical and biochemical analyses: January 1968 to September 1972.

Water temperatures: October 1961 to September 1972.

Sediment records: October 1966 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
01-31	19	17	21	2.3	22	57	0	6.0	40
NOV.									
01-30	10	17	22	1.5	25	56	0	4.8	45
DEC.									
01-31	125	13	31	3.1	17	87	0	7.2	34
JAN.									
01-31	139	14	36	3.2	20	97	0	10	40
FEB.									
01-29	128	8.5	42	3.5	23	105	0	12	49
MAR.									
01-31	109	12	44	4.2	23	106	0	10	56
APR.									
01-27	56	14	42	3.7	30	106	0	10	62
MAY									
01-30	862	8.0	--	--	13	50	0	6.0	26
01-08	848	12	30	3.2	15	85	0	7.2	30
09...	1840	4.8	--	--	1.6	22	0	.0	6.0
10-11	1160	12	30	3.2	15	85	0	7.2	30
12...	3160	3.5	--	--	.2	15	0	.0	3.0
13-31	1010	12	30	3.2	15	85	0	7.2	30
JUNE									
01-30	64	16	30	2.7	17	84	0	6.4	32
JULY									
01-31	21	20	28	2.2	19	72	0	6.8	38
AUG.									
01-31	17	20	22	4.9	19	57	0	5.6	45
SEP.									
01-30	18	17	26	3.9	32	66	0	8.4	62
WTD. AVG.	--	12	33	3.3	16	81	0	7.2	33
TIME WTD.									
AVG.	156	15	31	3.2	22	81	0	7.8	44
TOT. LOAD (TONS)	--	1790	4350	438	2470	12400	0	1110	5090

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.0	24.0	12.0	16.0	13.0	20.0	22.0	23.0	29.0	32.0	26.5	25.0
2	---	25.0	11.0	17.0	16.0	15.0	22.0	24.0	---	---	29.0	32.0
3	30.0	22.0	12.0	19.0	9.0	18.0	22.0	26.0	23.0	32.0	26.0	29.0
4	29.0	20.0	12.0	11.0	10.0	20.0	21.0	25.0	27.0	30.0	27.5	27.0
5	29.0	24.0	11.0	10.0	10.0	18.0	23.0	25.0	27.0	30.0	26.5	27.0
6	28.0	---	11.0	10.0	12.0	18.0	22.0	---	31.0	32.0	---	---
7	28.0	19.0	15.0	12.0	10.0	19.0	21.0	21.0	31.0	29.0	---	28.0
8	29.0	20.0	15.0	13.0	10.0	19.0	21.0	24.0	29.0	30.0	---	29.5
9	28.0	20.0	15.0	15.0	11.0	18.0	19.0	29.0	29.0	29.0	---	27.0
10	26.0	20.0	16.0	16.0	11.0	20.0	22.0	25.0	27.0	30.0	27.5	29.5
11	28.0	19.0	17.0	16.0	11.0	20.0	25.0	25.0	29.0	30.0	26.0	29.0
12	29.0	20.0	16.0	17.0	10.0	19.0	27.0	29.0	29.0	31.0	28.0	26.0
13	29.0	23.0	17.0	17.0	11.0	24.0	30.0	28.0	28.0	27.0	28.0	29.0
14	30.0	25.0	17.0	14.0	12.0	22.0	25.0	---	28.0	30.0	32.0	28.0
15	25.0	23.0	18.0	11.0	13.0	22.0	28.0	28.0	29.0	29.0	26.0	29.0
16	25.0	25.0	18.0	9.0	19.0	20.0	28.0	26.0	28.0	30.0	25.5	30.5
17	26.0	23.0	14.0	10.0	19.0	20.0	---	27.0	29.0	---	28.0	28.0
18	29.0	21.0	16.0	17.0	19.0	19.0	25.0	29.0	30.0	29.0	28.0	28.0
19	29.0	20.0	18.0	18.0	19.0	20.0	26.0	28.0	31.0	30.0	---	27.5
20	24.0	17.0	20.0	19.0	20.0	---	24.0	24.0	30.0	28.0	26.5	29.5
21	24.0	18.0	20.0	19.0	19.0	21.0	24.0	26.0	30.0	29.0	28.0	28.0
22	24.0	14.0	19.0	19.0	20.0	21.0	28.0	28.0	30.0	29.0	---	29.0
23	23.0	---	19.0	20.0	20.0	20.0	26.0	29.0	30.0	31.0	28.5	25.5
24	22.0	13.0	18.0	20.0	20.0	20.0	29.0	29.0	31.0	30.0	28.5	25.0
25	25.0	14.0	19.0	19.0	20.0	22.0	27.0	28.0	30.0	31.0	27.5	24.0
26	24.0	19.0	19.0	15.0	18.0	22.0	27.0	30.0	30.0	31.0	27.5	---
27	25.0	19.0	20.0	19.0	20.0	21.0	21.0	29.0	31.0	30.0	28.0	25.5
28	21.0	20.0	19.0	12.0	20.0	23.0	20.0	28.0	32.0	30.0	29.0	24.0
29	24.0	21.0	19.0	13.0	20.0	22.0	20.0	29.0	33.0	30.0	27.5	30.5
30	---	15.0	---	---	---	20.0	26.0	28.0	32.0	31.0	26.0	24.0
31	25.0	---	18.0	10.0	---	20.0	---	28.0	---	30.0	25.5	---
MONTH	26.5	20.0	16.5	15.0	15.0	20.0	24.0	27.0	29.5	30.0	27.5	27.5

08068000 WEST FORK SAN JACINTO RIVER NEAR CONROE, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 215 mg/l Apr. 1-27; minimum, 136 mg/l Oct. 1-31.
 Hardness: Maximum, 130 mg/l Mar. 1-31; minimum, 18 mg/l May 12.
 Specific conductance: Maximum daily, 479 micromhos Apr. 3; minimum daily, 52 micromhos May 12.
 Water temperatures: Maximum, 33.0°C June 29; minimum, 9.0°C Jan. 16, Feb. 3.

EXTREMES, October 1961 to September 1972.--Dissolved solids: Maximum, 323 mg/l Mar. 16-31, 1962; minimum, 35 mg/l Feb. 23, 1969.
 Hardness: Maximum, 220 mg/l Apr. 20, 1971; minimum, 16 mg/l Oct. 13, 1966.
 Specific conductance: Maximum daily, 763 micromhos Apr. 20, 1971; minimum daily, 52 micromhos May 12, 1972.
 Water temperatures: Maximum, 36.0°C Aug. 6, 1964, July 9, 1967; minimum, freezing point Dec. 22, 1963, Jan. 31, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DTS- SOLVED SOLIDS (SUM OF CONSTIT- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	.0	.00	136	62	15	1.2	251	7.3
NOV.								
01-30	.1	.02	144	61	15	1.4	268	7.5
DEC.								
01-31	.1	.2	149	90	19	.8	283	7.1
JAN.								
01-31	.0	.2	172	100	24	.9	322	7.3
FEB.								
01-29	.2	.06	190	120	33	.9	368	7.1
MAR.								
01-31	.1	.04	202	130	40	.9	385	7.1
APR.								
01-27	.1	.2	215	120	33	1.2	395	7.8
28-30	--	.5	--	58	17	.7	193	7.4
MAY								
01-08	.0	.3	141	88	18	.7	254	7.2
09...	--	.3	--	24	6	.1	72	6.6
10-11	.0	.3	141	88	18	.7	254	7.2
12...	--	.5	--	18	6	.0	52	6.1
13-31	.0	.3	141	88	18	.7	254	7.2
JUNE								
01-30	.1	.3	--	86	17	--	285	7.2
JULY								
01-31	.2	.2	150	79	20	.9	269	7.4
AUG.								
01-31	.0	.1	145	75	28	1.0	280	7.1
SEP.								
01-30	.0	.2	182	81	27	1.5	324	7.1
WTD. AVG.	.0	.2	156	86	20	.7	262	7.1
TIME WTD.								
AVG.	.1	.1	165	90	24	1.0	304	7.3
TOT. LOAD (TONS)	5.3	41	24000	--	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	245	262	273	298	309	408	416	277	284	293	278	260
2	---	254	165	305	303	422	471	185	---	---	288	369
3	242	254	232	328	314	432	479	275	282	295	303	426
4	241	258	294	315	364	423	464	325	278	274	304	406
5	237	257	128	375	344	429	436	385	287	293	298	363
6	244	---	190	341	342	418	440	367	278	294	283	---
7	258	259	334	311	347	432	423	110	268	299	290	329
8	248	256	320	374	343	432	412	155	269	293	304	476
9	239	251	238	314	343	414	423	72	349	270	301	356
10	243	256	232	308	342	427	402	249	277	282	283	301
11	257	261	204	312	337	418	404	181	269	281	279	273
12	253	260	210	312	360	414	393	52	268	290	249	263
13	252	260	275	313	364	412	394	209	256	190	214	263
14	250	269	316	323	359	410	406	---	262	240	268	267
15	239	266	320	322	362	405	397	213	251	245	233	268
16	171	262	318	321	390	404	380	231	162	245	225	294
17	241	262	294	328	386	405	---	249	161	---	236	295
18	242	251	311	321	389	412	380	251	177	256	278	292
19	249	261	306	347	393	418	370	235	209	261	---	297
20	400	277	311	334	399	---	374	235	330	260	284	318
21	298	285	304	368	403	265	---	241	363	282	271	325
22	278	280	291	335	399	270	321	244	333	285	---	324
23	234	---	308	331	397	300	329	289	317	272	265	321
24	214	293	377	336	400	334	312	287	303	275	261	294
25	246	318	346	335	407	352	325	295	301	275	277	245
26	258	297	332	342	405	358	334	281	295	275	317	---
27	266	279	329	334	398	357	348	275	295	289	315	316
28	271	277	319	343	414	362	152	282	294	289	298	254
29	268	280	316	220	405	360	159	283	305	285	289	476
30	---	278	---	---	---	380	266	285	301	283	381	415
31	268	---	313	233	---	371	---	286	---	282	263	---
MONTH	254	269	284	323	370	388	372	243	277	274	281	325

SAN JACINTO RIVER BASIN

08068000 WEST FORK SAN JACINTO RIVER NEAR CONROE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT. 25...	1430	23	24	26	2.7	15	78	0
DEC. 20...	1520	79	12	36	3.0	17	106	0
FEB. 07...	1430	201	12	40	3.4	20	101	0
APR. 17...	1630	29	15	41	4.3	25	104	0
JUNE 06...	1630	44	16	31	3.1	17	84	3
AUG. 23...	1430	12	21	22	3.2	23	58	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)
OCT. 25...	6.8	27	.1	.010	.07	.1	.15	140	76
DEC. 20...	8.8	30	.1	.047	.00	.06	.090	159	100
FEB. 07...	11	44	.2	.000	.06	.09	.12	181	110
APR. 17...	9.2	57	.2	.000	.14	.00	.050	203	120
JUNE 06...	8.0	31	.1	.003	.05	.03	.14	150	90
AUG. 23...	6.4	46	.0	.006	.03	.03	.070	151	68

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 25...	12	.7	254	6.5	23.0	8.8	101	1.7
DEC. 20...	15	.7	309	6.6	21.0	--	--	2.9
FEB. 07...	31	.8	343	7.4	10.5	12.4	111	2.5
APR. 17...	35	1.0	385	6.6	28.0	7.4	94	2.0
JUNE 06...	16	.8	266	7.0	30.0	7.5	99	3.7
AUG. 23...	20	1.2	261	8.0	32.0	9.0	122	1.7

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
JUNE 06...	1420	39	25.0	44

08068450 PANTHER BRANCH NEAR SPRING, TEX.

LOCATION.--Lat 30°08'04", long 95°28'38", Montgomery County, 300 ft upstream from Sawdust Road, 3.0 miles upstream from mouth, and 5.1 miles northwest of Spring.

DRAINAGE AREA.--34.5 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1972 to September 1972.
Pesticide analyses: May 1972 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
MAY												
02...	1045	13	6.0	3.5	1.5	.9	7	0	2.8	5.5	.0	.60
08...	1755	485	.0	2.5	.7	.2	5	0	.8	2.5	.0	.37

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
MAY												
02...	.000	.16	.3	.20	25	966	15	9	.1	47	5.6	20.0
08...	.000	.12	.4	.040	11	26	9	5	.0	30	5.2	20.0

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
MAY												
02...	560	350	6.8	74	76	2.7	39000	12000	23000	15	.00	--
08...	220	20	7.3	79	71	6.0	1300	620	2300	40	.00	.0

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
MAY											
02...	0	0	0	2	9	450	0	110	<.2	7	50
08...	0	0	0	0	5	260	0	40	.3	6	40

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
MAY										
02...	1045	13	.00	<.2	.00	<.2	.00	<.2	.00	<.2
08...	1755	485	.00	--	.00	--	.00	--	.00	--

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
MAY										
02...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
08...	.00	--	.00	--	.00	--	.00	--	.00	--

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAY									
02...	.0	<1.0	.00	.00	.00	.00	.00	.02	.00
08...	.0	--	.00	.00	.00	.00	.00	.00	.00

SAN JACINTO RIVER BASIN

08068750 CYPRESS CREEK NEAR CYPRESS, TEX.

LOCATION.--Lat 29°57'23", long 95°40'41", Harris County, at bridge on U.S. Highway 290, 1.5 miles southeast of Cypress.

DRAINAGE AREA.--138 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1972.
Pesticide analyses: October 1970 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
DEC. 20...	1045	27	7.5	13	2.8	33	52	0	9.2	43	.2	.52
FEB. 07...	1000	20	5.1	12	3.2	25	36	0	18	34	.2	.41
JUNE 08...	1000	19	2.3	20	3.3	29	48	16	1.2	41	.3	.68
AUG. 24...	1000	1.2	16	27	3.0	130	124	0	10	180	.3	.53

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
DEC. 20...	.024	.05	.4	.27	137	222	49	44	1	2.2	268	6.6
FEB. 07...	.000	.20	.6	.31	118	175	41	43	14	1.7	233	7.8
JUNE 08...	.013	.15	.1	.27	138	128	24	63	0	1.6	282	7.4
AUG. 24...	.010	.19	.3	.32	431	1600	184	80	0	6.4	742	7.3

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
DEC. 20...	17.0	360	140	--	--	55	3.7	0	.00	260	0	0
FEB. 07...	9.5	280	110	9.8	86	53	5.3	2	.00	390	0	0
JUNE 08...	28.0	35	60	9.0	114	44	8.1	0	.00	10	0	0
AUG. 24...	28.5	280	470	4.4	56	45	2.6	5	.00	100	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
DEC. 20...	0	0	21	590	5	0	0	.3	0	70	80
FEB. 07...	0	0	15	1300	0	0	0	<.2	0	70	30
JUNE 08...	0	0	4	70	0	0	20	1.1	0	150	50
AUG. 24...	0	0	9	220	0	20	0	2.2	3	160	40

SAN JACINTO RIVER BASIN

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08068750 CYPRESS CREEK NEAR CYPRESS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	OIS- CHARGE (CFS)	ALDRIN (UG/L)	DDO (UG/L)	DDP (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
DEC. 20...	1045	27	.00	.00	.00	.00	.01	.00	.00	.00
FFB. 07...	1000	20	.00	.00	.00	.00	.01	.00	.00	.00
JUNE 08...	1000	19	.00	.00	.00	.00	.01	.00	.00	.00
AUG. 24...	1000	1.2	.00	.00	.00	.00	.01	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 20...	.00	.0	.00	.00	.00	.00	.00	.00	.00
FFB. 07...	.00	.0	.01	.00	.00	.00	.25	.13	.00
JUNE 08...	.00	.0	.00	.00	.00	.00	.00	.00	.00
AUG. 24...	.00	.0	.00	.00	.00	.00	.11	.00	.00

SAN JACINTO RIVER BASIN

08069200 CYPRESS CREEK NEAR HUMBLE, TEX.

LOCATION.--Lat 30°01'49", long 95°19'47", Harris County, 500 feet north of end of dirt extension of Tettar Road, about 2 miles upstream from mouth, and 4.7 miles northwest of Humble.

DRAINAGE AREA.--319 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1972.
Pesticide analyses: October 1970 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
DEC. 20...	1430	44	8.0	14	2.9	36	54	0	12	46	.2	.50
FEB. 07...	1250	38	8.5	14	3.2	18	50	0	14	22	.2	.42
JUNE 08...	1300	24	16	28	4.8	37	106	2	16	43	.3	.30
AUG. 24...	1130	--	5.4	13	2.3	13	47	0	11	13	.2	.43

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
DEC. 20...	.058	.24	.8	.62	150	199	70	47	3	2.3	287	6.7
FEB. 07...	.015	.32	.4	.62	107	247	43	48	7	1.1	205	6.6
JUNE 08...	.18	.18	.8	1.5	203	56	10	90	0	1.7	373	7.5
AUG. 24...	.050	.29	.7	.65	85	418	60	42	4	.9	166	6.9

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
DEC. 20...	23.0	240	130	--	--	45	3.5	0	.00	240	0	0
FEB. 07...	10.5	280	85	9.7	87	50	5.7	2	.00	300	0	0
JUNE 08...	28.0	50	35	9.0	114	35	8.3	0	.01	30	0	0
AUG. 24...	27.0	140	300	5.4	67	46	4.9	6	.00	100	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
DEC. 20...	0	0	15	530	0	0	0	.4	0	0	80
FEB. 07...	0	0	17	630	0	0	40	<.2	0	120	30
JUNE 08...	0	0	4	220	0	0	20	.2	0	120	50
AUG. 24...	0	0	8	120	0	0	0	4.5	0	80	40

SAN JACINTO RIVER BASIN

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08069200 CYPRESS CREEK NEAR HUMBLE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	ODE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
DEC. 20...	1430	44	.00	.00	.00	.00	.01	.00	.00	.00
FEB. 07...	1250	38	.00	.00	.00	.02	.12	.00	.00	.00
JUNE 08...	1300	24	.00	.00	.00	.00	.01	.00	.00	.00
AUG. 24...	1130	--	.00	.00	.00	.00	.02	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 20...	.00	.0	.01	.00	.00	.00	.00	.00	.00
FEB. 07...	2.9	.0	.02	.00	.01	.00	.08	.04	.00
JUNE 08...	.00	.0	.15	.00	.00	.00	.00	.01	.00
AUG. 24...	.43	.1	.16	.00	.00	.00	.17	.05	.00

SAN JACINTO RIVER BASIN

08070000 EAST FORK SAN JACINTO RIVER NEAR CLEVELAND, TEX.

LOCATION.--Lat 30°20'11", long 95°06'14", Liberty County, at gaging station on State Highway 105, 1,880 ft downstream from Gulf, Colorado and Santa Fe Railway Co. bridge, 1.2 miles west of Cleveland, and 4.3 miles downstream from Winter Creek.

DRAINAGE AREA.--325 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 28...	1720	16	12	18	2.5	23	47	0	8.4	41
DEC. 01...	1600	17	12	9.5	2.3	29	17	0	6.0	54
JAN. 11...	1405	73	13	22	2.5	19	49	0	9.2	40
FEB. 10...	1710	52	11	23	2.6	28	44	0	10	58
MAR. 20...	1400	20	10	30	3.2	36	63	0	6.0	76
APR. 21...	0930	15	9.2	28	3.7	37	58	0	4.4	80
MAY 26...	1005	31	16	30	2.7	29	65	0	6.8	62
JULY 12...	1705	13	8.5	12	2.9	34	24	0	3.6	66
AUG. 08...	0825	8.9	10	15	2.3	34	29	0	2.8	66
SEP. 12...	1540	9.6	9.9	15	2.6	24	37	0	2.0	48

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 28...	.0	.4	128	55	16	1.3	236	6.6	21.5
DEC. 01...	.0	.00	121	33	19	2.2	230	6.3	--
JAN. 11...	.0	.1	130	65	25	1.0	240	6.8	14.0
FEB. 10...	.0	.06	155	68	32	1.5	295	6.3	10.0
MAR. 20...	.1	.00	192	88	36	1.7	382	6.9	20.0
APR. 21...	.0	.4	193	85	37	1.7	365	6.7	24.5
MAY 26...	.0	.1	179	86	33	1.4	320	6.5	25.5
JULY 12...	.0	.07	139	42	22	2.3	259	6.3	29.0
AUG. 08...	.0	.00	144	47	23	2.2	289	6.4	28.0
SEP. 12...	.0	.05	120	48	18	1.5	230	6.7	29.0

SAN JACINTO RIVER BASIN

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08072000 LAKE HOUSTON NEAR SHELDON, TEX.

LOCATION.--Lat 29°54'58", long 95°08'28", Harris County, at intake structure on San Jacinto River, 100 ft upstream from Lake Houston Dam, 4.0 miles north of Sheldon, 4.6 miles upstream from bridge on U.S. Highway 90, and 18 miles northeast of Houston.

DRAINAGE AREA.--2,828 sq mi.

PERIOD OF RECORD.--Pesticide analyses: May 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAP- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
APR. 07...	0840	146100	5.5	14	2.4	18	44	0	4.8	30
DATE	TIME	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
APR. 07...		.1	.1	97	45	9	1.2	193	6.6	20.0
DATE	TIME	RESER- VOIR STORAGE (AC-FT)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
APR. 07...	0840	146100	.00	.00	.00	.00	.00	.00	.00	.00
MAY 09...	1545	162600	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 13...	1035	142900	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 21...	1515	134000	.00	.00	.00	.00	.00	.00	.00	.00
DATE	TIME	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
APR. 07...		.00	.0	.00	.00	.00	.00	.00	.00	.00
MAY 09...		.00	.0	.00	.00	.00	.00	.00	.00	.00
JUNE 13...		.00	.0	.00	.00	.00	.00	.07	.08	.00
AUG. 21...		.00	.0	.00	.00	.00	.00	.00	.02	.00

SAN JACINTO RIVER BASIN

08072050 SAN JACINTO RIVER NEAR SHELDON, TEX.

LOCATION.--Lat 29°52'34", long 95°05'37", Harris County, at U.S. Highway 90 bridge, 1.5 miles east of Sheldon, 4.6 miles downstream from Lake Houston, 21.3 miles northeast of Houston, and 24.4 miles upstream from mouth.

DRAINAGE AREA.--2,879 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: February 1970 to September 1972.
Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	DIS- SOLVED FLUOR- IDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.												
27...	0845	13	130	500	2800	110	0	770	5400	1.2	.31	.48
NOV.												
01...	1110	4.5	130	420	3000	113	0	800	5400	1.5	.21	.60
JAN.												
12...	1325	7.1	62	110	820	88	0	190	1500	.5	.27	.086
FEB.												
02...	1130	6.5	16	1.0	19	42	0	8.0	29	.1	.20	.000
MAR.												
22...	1030	7.5	18	1.2	17	46	0	9.0	28	.2	.21	.030
APR.												
19...	1145	5.9	37	33	320	75	0	99	540	.2	.25	.000
MAY												
12...	1305	3.1	15	2.1	14	40	0	13	20	.1	.35	.000
15...	1200	2.4	8.5	1.7	4.9	23	0	2.8	11	.1	.37	.000
AUG.												
09...	1240	3.8	92	200	1800	94	0	410	3200	1.0	.30	.028
30...	1310	6.3	110	220	2600	97	0	540	4400	1.2	.41	.32

DATE	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FIL- TRABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
OCT.												
27...	.40	.2	.36	9610	--	2400	2300	25	16400	6.8	23.0	35
NOV.												
01...	.51	.07	.68	9720	19	2000	2000	29	16700	7.5	25.0	30
JAN.												
12...	.31	.3	.30	2730	44	600	530	15	5600	7.6	17.0	40
FEB.												
02...	.12	.4	.10	103	--	44	10	1.2	197	7.4	12.0	160
MAR.												
22...	.03	.08	.18	104	128	50	12	1.0	205	7.0	20.0	120
APR.												
19...	.16	.3	.19	1070	129	230	170	9.2	1920	7.3	25.0	70
MAY												
12...	.14	.5	.14	90	--	46	13	.9	150	6.4	22.5	160
15...	.03	.4	.12	44	--	28	9	.4	91	6.7	23.0	200
AUG.												
09...	.18	.03	.53	5770	13	1000	970	24	10700	7.9	32.0	30
30...	.31	.00	.52	7850	11	1200	1100	33	12100	7.5	30.5	50

DATE	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT.											
27...	15	5.2	60	25	2.2	34000	1	370	3	.04	--
NOV.											
01...	240	3.7	44	43	1.2	3400	50	52	20	.10	--
JAN.											
12...	30	8.8	91	37	2.7	98000	1500	110	5	.00	10
FEB.											
02...	70	11.6	107	17	1.4	20000	270	820	2	.00	10
MAR.											
22...	70	9.7	105	26	2.3	1700	250	140	5	.00	--
APR.											
19...	70	7.0	83	26	3.3	550	21	79	9	.00	--
MAY											
12...	80	8.7	99	23	1.8	1800	750	1200	28	.00	--
15...	55	8.8	101	38	2.5	380	210	120	9	.02	50
AUG.											
09...	8	9.6	130	--	4.4	2000	900	5300	1	.37	--
30...	15	10.2	134	30	5.3	190	14	10	0	.34	20

SAN JACINTO RIVER BASIN

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08072050 SAN JACINTO RIVER NEAR SHELDON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 27...	--	--	--	--	--	--	--	--	--	--	--
NOV. 01...	--	--	--	--	--	--	--	--	--	--	--
JAN. 12...	0	0	0	0	11	20	0	140	<.2	5	80
FEB. 02...	0	0	0	0	8	950	0	60	.2	0	10
MAR. 22...	--	--	--	--	--	--	--	--	--	--	--
APR. 19...	--	--	--	--	--	--	--	--	--	--	--
MAY 12...	--	--	--	--	--	--	--	--	--	--	--
15...	0	0	0	0	4	280	0	0	.2	7	30
AUG. 09...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELORIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
JAN. 12...	1325	.00	.00	.00	.00	.00	.00	.00	.00
MAY 14...	1200	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 30...	1310	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
JAN. 12...	.00	.0	.01	.00	.00	.00	.00	.01	.00
MAY 14...	.00	.0	.00	.00	.00	.00	.11	.09	.00
AUG. 30...	.00	.0	.00	.00	.00	.00	.00	.03	.01

SAN JACINTO RIVER BASIN

07073500 BUFFALO BAYOU NEAR ADDICKS, TEX.

LOCATION.--Lat 29°45'42", long 95°36'20", Harris County, at gaging station at bridge on Dairy-Ashford Road over rectified channel, 1.8 miles downstream from South Mayde Creek, and 2.6 miles southeast of Addicks.

DRAINAGE AREA.--293 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: August 1970 to September 1972.

Pesticide analyses: August 1970 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
JAN. 31...	0930	300	4.6	11	2.3	9.1	30	0	10	14	.1	.30
MAY 09...	0940	420	4.1	14	2.7	8.4	43	0	7.6	13	.1	.30
22...	1045	311	2.4	70	14	90	292	0	26	110	.4	.32
JULY 26...	1325	175	14	29	5.3	34	110	0	9.2	48	.2	.20
SEP. 12...	0930	36	--	--	--	--	--	--	--	--	--	.37

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS).	PH (UNITS)
JAN. 31...	.000	.25	.7	.28	70	--	--	37	12	.7	139	7.1
MAY 09...	.008	.28	1.0	.22	76	--	--	46	11	.5	142	6.9
22...	.011	.22	.3	.31	462	--	--	230	0	2.6	826	6.1
JULY 26...	.010	.17	.3	.25	195	--	--	94	11	1.4	365	6.9
SEP. 12...	.010	.23	.3	.88	--	186	15	--	--	--	641	7.3

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
JAN. 31...	6.0	140	120	11.8	94	--	4.0	1400000	6100	36000	--	.00
MAY 09...	21.0	130	80	8.4	93	24	3.8	6800	1200	1800	0	.00
22...	24.0	50	95	7.3	86	30	3.4	25000	1400	650	0	.00
JULY 26...	31.0	110	75	7.4	99	22	3.5	4900	370	120	4	.02
SEP. 12...	26.5	100	100	6.6	80	--	2.1	7300	6700	360	--	.00

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
JAN. 31...	0	0	0	0	7	330	0	0	<.2	0	40
MAY 09...	0	0	0	3	5	80	3	0	.2	10	20
22...	--	--	--	--	--	--	--	--	--	--	--
JULY 26...	--	--	--	--	--	--	--	--	--	--	--
SEP. 12...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
MAY 09...	0945	.00	.00	.00	.00	.01	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAY 09...	.00	.0	.00	.00	.00	.00	.00	.00	.02

08073700 BUFFALO BAYOU AT PINEY POINT, TEX.

LOCATION.--Lat 29°44'48", long 95°31'24", Harris County, at gaging station at bridge on Piney Point Road, village at Piney Point, 3.7 miles downstream from Rummel Creek, 10.8 miles downstream from gage, Buffalo Bayou near Addicks, and 12.5 miles downstream from gage, Buffalo Bayou at Houston.

DRAINAGE AREA.--317 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1972.
Pesticide analyses: October 1970 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CAL- CIUM (CA) (MG/L)	DIS-SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	DIS-SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
FEB. 01...	1335	220	6.8	20	3.2	21	75	0	14	22	.2	.30
MAY 09...	1020	440	4.8	14	4.1	8.6	48	0	6.2	14	.2	.31
22...	1120	55	7.6	14	.5	1.4	48	0	7.0	9.5	.2	.40
JULY 26...	1250	200	15	33	4.0	39	116	0	10	54	.2	.20
SEP. 12...	1010	55	--	--	--	--	--	--	--	--	--	.34

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
FEB. 01...	.020	.46	.6	.41	128	--	--	63	2	1.2	250	7.1
MAY 09...	.015	.35	1.6	.59	84	--	--	52	13	.5	160	6.9
22...	.32	6.5	.4	4.0	76	--	--	37	0	.1	121	6.4
JULY 26...	.063	.35	.8	.55	216	--	--	99	4	1.7	394	6.8
SEP. 12...	.020	5.0	.08	3.5	--	38	8	--	--	--	704	6.9

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
FEB. 01...	9.0	140	65	9.9	83	32	4.5	280000	680	310	1	.00
MAY 09...	22.5	160	90	7.8	89	27	6.3	7000	400	160	0	.00
22...	26.0	120	40	4.4	54	26	4.5	9300	850	670	0	.13
JULY 26...	29.5	90	85	5.9	77	24	2.6	6800	600	130	0	.01
SEP. 12...	27.5	55	35	1.8	22	--	4.4	49000	26000	490	--	.12

DATE	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CAD- MIUM (CD) (UG/L)	DIS-SOLVED CHRO- MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED MAN- GANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
FEB. 01...	10	0	0	0	11	190	0	90	<.2	0	30
MAY 09...	0	0	0	1	5	80	2	0	.2	8	30
22...	--	--	--	--	--	--	--	--	--	--	--
JULY 26...	--	--	--	--	--	--	--	--	--	--	--
SEP. 12...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
MAY 09...	1020	440	.00	.00	.00	.00	.02	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAY 09...	.00	.0	.02	.00	.00	.00	.00	.00	.01

SAN JACINTO RIVER BASIN

08074000 BUFFALO BAYOU AT HOUSTON, TEX.

LOCATION.--Lat 29°45'36", long 95°24'30", Harris County, at gaging station at bridge on Shepherd Drive in Houston and 0.8 mile upstream from Waugh Drive.

DRAINAGE AREA.--358 sq mi, unadjusted for basin boundary changes.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CAL- CIUM (CA) (MG/L)	DIS-SOLVED MAG- NE- SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	
OCT. 26...	0850	350	19	17	3.8	17	74	0	2.4	20	
NOV. 17...	1140	43	21	56	11	96	279	0	28	100	
DEC. 03...	1100	675	4.2	20	1.7	15	71	0	13	12	
08...	1230	260	9.1	19	3.5	15	68	0	9.2	18	
JAN. 24...	1320	420	5.5	16	2.2	15	62	0	8.6	15	
FEB. 02...	0835	445	5.4	21	4.8	14	79	0	10	20	
MAR. 21...	1215	6500	2.7	16	1.7	3.2	46	0	8.4	5.0	
APR. 05...	1320	55	17	54	7.7	69	257	0	18	68	
MAY 09...	1115	485	.0	20	2.9	14	65	0	9.4	17	
24...	0920	900	2.6	15	2.1	8.4	52	0	7.6	10	
JULY 26...	1150	225	16	35	7.5	42	139	0	11	58	
AUG. 14...	0950	175	16	30	5.6	37	115	0	17	44	
28...	0900	96	23	44	4.1	71	199	0	24	78	
DATE		DIS-SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)
OCT. 26...		.2	.53	.44	.37	.5	.88	--	119	--	58
NOV. 17...		.5	.10	.63	5.0	1.1	3.7	--	468	--	180
DEC. 03...		.2	.22	.083	.44	.5	.80	--	104	312	57
08...		.2	.28	.30	.45	.8	.55	--	112	--	62
JAN. 24...		.2	.14	.15	.52	.6	.61	--	96	66	49
FEB. 02...		.2	.30	.011	.70	.6	.53	--	118	--	72
MAR. 21...		.2	.29	.060	.53	.4	.56	--	63	554	47
APR. 05...		.4	.25	.34	4.0	.9	1.2	--	370	16	170
MAY 09...		.2	.37	.036	.51	1.6	.75	--	103	342	62
24...		.2	.31	.060	.57	.3	.53	--	74	--	46
JULY 26...		.3	.25	.25	.35	.8	.75	--	243	121	120
AUG. 14...		.3	.23	.37	.33	1.1	.70	--	213	--	98
28...		.6	.37	.071	5.4	.6	1.1	--	353	--	130

SAN JACINTO RIVER BASIN

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08074000 BUFFALO BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
OCT. 26...	0	1.0	232	6.4	21.5	140	45	6.5	73	36
NOV. 17...	0	3.1	889	7.3	22.0	30	45	4.2	48	11
DEC. 03...	0	.9	201	7.3	9.5	190	150	9.4	82	41
08...	6	.8	223	7.0	14.5	160	65	9.3	90	31
JAN. 24...	0	.9	210	7.2	19.5	160	40	8.5	91	21
FEB. 02...	7	.7	239	7.3	10.0	120	70	9.0	80	32
MAR. 21...	9	.2	125	7.0	19.0	50	200	10.5	112	32
APR. 05...	0	2.3	660	6.9	23.0	40	10	4.2	48	19
MAY 09...	9	.8	211	7.0	22.0	160	140	6.6	75	35
24...	0	.5	144	6.3	24.5	130	60	5.5	65	34
JULY 26...	4	1.7	439	6.8	29.0	55	65	4.8	62	23
AUG. 14...	4	1.6	376	6.7	25.0	55	60	4.2	50	24
28...	0	2.7	641	7.0	28.0	35	30	2.4	30	24

DATE	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	OIL AND GREASE (MG/L)	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)
OCT. 26...	4.8	100000	61000	91000	1	.00	--	--	--	--
NOV. 17...	2.1	80000	5300	150	21	.17	--	--	--	--
DEC. 03...	12	--	--	--	17	.00	20	0	0	0
08...	4.7	1400000	23000	2000	23	.00	--	--	--	--
JAN. 24...	2.5	300000	7300	700	3	.00	10	0	0	0
FEB. 02...	4.5	1200000	7700	2100	1	.00	10	0	0	0
MAR. 21...	4.6	240000	34000	46000	0	.00	--	--	--	--
APR. 05...	3.2	9000	500	120	0	.13	--	--	--	--
MAY 09...	10	660000	36000	2700	0	.00	10	0	0	0
24...	3.5	640000	56000	6500	5	.01	--	--	--	--
JULY 26...	5.8	110000	10000	900	5	.02	20	0	0	0
AUG. 14...	5.1	32000	16000	1900	0	.04	10	10	0	0
28...	>9.2	210000	41000	3500	10	.10	10	10	0	20

DATE	HEXA-VALENT CHROMIUM (CR6) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT. 26...	--	--	--	--	--	--	--	--	--
NOV. 17...	--	--	--	--	--	--	--	--	--
DEC. 03...	--	0	9	120	0	90	<.2	0	30
08...	--	--	--	--	--	--	--	--	--
JAN. 24...	--	0	16	410	2	0	<.2	5	40
FEB. 02...	--	0	12	330	0	0	.2	0	20
MAR. 21...	--	--	--	--	--	--	--	--	--
APR. 05...	--	--	--	--	--	--	--	--	--
MAY 09...	--	0	4	130	0	0	.2	7	30
24...	--	--	--	--	--	--	--	--	--
JULY 26...	--	0	3	120	0	80	2.6	0	60
AUG. 14...	--	0	3	160	0	0	2.1	0	50
28...	10	2	5	20	0	120	.2	0	80

SAN JACINTO RIVER BASIN

08074000 BUFFALO BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
DEC. 03...	1100	675	.00	--	.02	--	.00	--	.03	--
JAN. 24...	1320	420	.00	--	.00	--	.00	--	.00	--
MAR. 21...	1215	6500	.00	--	.04	--	.01	--	.10	--
MAY 09...	1115	485	.00	--	.00	--	.00	--	.00	--
24...	--	--	--	<.2	--	32	--	7.8	--	32
JULY 26...	1150	225	.00	--	.00	--	.00	--	.00	--
AUG. 14...	0950	175	.00	--	.00	--	.00	--	.15	--
28...	0900	96	.00	--	.02	--	.00	--	.01	--

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
DEC. 03...	.06	--	.00	--	.00	--	.00	--	.05	--
JAN. 24...	.01	--	.00	--	.00	--	.00	--	.01	--
MAR. 21...	.03	--	.00	--	.00	--	.00	--	.14	--
MAY 09...	.02	--	.00	--	.00	--	.00	--	.00	--
24...	--	4.8	--	<.2	--	<.2	--	<.2	--	<.2
JULY 26...	.02	--	.00	--	.00	--	.00	--	.00	--
AUG. 14...	.07	--	.00	--	.00	--	.00	--	.00	--
28...	.04	--	.00	--	.00	--	.00	--	.17	--

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 03...	.2	--	.07	.00	.00	.00	.00	.02	.00
JAN. 24...	.0	--	.03	.00	.00	.00	.00	.00	.00
MAR. 21...	.2	--	.26	.00	.00	.00	.18	.12	.05
MAY 09...	.1	--	.10	.00	.00	.00	.00	.05	.04
24...	--	96	--	--	--	--	--	--	--
JULY 26...	.1	--	.08	.00	.00	.00	.00	.06	.00
AUG. 14...	.2	--	.15	.00	.00	.00	.04	.09	.00
28...	.1	--	.16	.00	.00	.00	.13	.07	.19

SAN JACINTO RIVER BASIN

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08074250 BRICKHOUSE GULLY AT COSTA RICA STREET, AT HOUSTON, TEX.

LOCATION.--Lat 29°49'40", long 95°28'09", Harris County, at gaging station at bridge at Costa Rica Street in northwest Houston and 1.0 mile upstream from Whiteoak Bayou.

DRAINAGE AREA.--11.3 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1972.
Pesticide analyses: October 1970 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
JAN. 31...	1020	45	5.5	28	8.1	9.5	97	0	12	22	.1	.44
MAR. 20...	1700	880	4.2	20	1.5	8.5	62	0	15	7.0	.2	.55
20...	2000	5500	2.6	13	1.3	.7	37	0	5.2	3.0	.0	.25
MAY 16...	0910	8.8	11	53	9.7	34	200	0	9.2	50	.2	.28
JULY 26...	1400	2.1	12	82	25	210	202	0	47	390	.4	.22
SEP. 12...	0840	.92	--	--	--	--	--	--	--	--	--	.42

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA, MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
JAN. 31...	.000	.13	.3	.25	135	--	--	100	24	.4	255	7.6
MAR. 20...	.062	1.2	.5	1.4	90	--	--	56	5	.5	171	8.1
20...	.040	.32	.08	.40	45	--	--	38	8	.0	95	8.2
MAY 16...	.022	.07	.3	.15	267	--	--	170	8	1.1	506	7.6
JULY 26...	.000	.07	.02	.12	870	--	--	310	140	5.3	1550	8.3
SEP. 12...	.025	.04	.00	.33	--	9	2	--	--	--	1530	7.7

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
JAN. 31...	5.5	160	135	10.6	84	47	3.9	1800000	65000	32000	1	.00
MAR. 20...	20.0	40	310	9.2	93	130	11	120000	26000	58000	9	.00
20...	18.5	60	230	8.6	91	30	3.7	110000	15000	54000	2	.00
MAY 16...	22.5	160	55	9.1	103	42	3.6	31000	1400	3100	10	.01
JULY 26...	38.0	20	8	15.5	228	27	3.7	5300	400	31	8	.20
SEP. 12...	25.5	25	7	10.0	120	--	2.0	25000	19000	1400	--	.14

SAN JACINTO RIVER BASIN

08074250 BRICKHOUSE GULLY AT COSTA RICA STREET, AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
JAN. 31...	0	0	0	0	9	840	0	40	<.2	0	60
MAR. 20...	--	--	--	--	--	--	--	--	--	--	--
MAY 16...	--	--	--	--	--	--	--	--	--	--	--
JULY 26...	--	--	--	--	--	--	--	--	--	--	--
SEP. 12...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)
MAR. 20...	2000	5500	.00	.00	.00	.13	.04	.00

DATE	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)
MAR. 20...	.00	.00	.04	.2	.12	.00	.00	.00

08074500 WHITEOAK BAYOU AT HOUSTON, TEX.

LOCATION.--Lat 29°46'30", long 95°23'49", Harris County, at gaging station on Heights Boulevard in Houston, 560 ft downstream from Texas and New Orleans Railroad Co. bridge, and 2.4 miles upstream from Little Whiteoak Bayou.

DRAINAGE AREA.--84.7 sq mi, unadjusted for basin boundary changes. During extreme floods when capacity of drainage ditches is exceeded, the drainage area is defined by natural ridges and is 92.0 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticides analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.									
26...	0930	13	30	66	15	85	256	0	57
NOV.									
17...	1100	14	21	62	18	130	327	0	31
18...	1145	45	4.3	33	5.3	25	90	0	35
DEC.									
02...	1215	1700	1.8	14	4.1	16	76	0	9.2
08...	1200	155	7.6	18	1.7	14	67	0	8.8
27...	1400	32	21	76	18	120	340	0	44
JAN.									
24...	1400	14	19	72	18	99	342	0	31
31...	1110	310	5.2	23	3.8	15	78	0	12
MAR.									
21...	1315	1500	3.8	22	2.0	6.1	64	0	14
APR.									
05...	1245	19	15	81	29	130	326	0	32
27...	1645	1150	4.7	24	2.9	12	75	0	14
MAY									
16...	1035	65	12	36	7.1	26	136	0	11
22...	1200	18	9.0	36	7.3	57	194	0	17
JULY									
26...	1115	10	21	70	17	110	304	0	32
AUG.									
08...	0900	30	12	38	6.6	40	138	0	20
14...	1045	45	6.6	33	6.2	26	123	0	18
28...	0945	11	24	64	17	100	302	0	28
SEP.									
12...	1130	6.0	--	--	--	--	--	--	--

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)
OCT.										
26...	100	.3	.43	.42	3.4	.8	2.2	494	--	--
NOV.										
17...	170	.4	.19	1.1	8.8	.7	4.1	610	--	--
18...	35	.2	.15	.28	1.7	1.1	1.2	190	--	--
DEC.										
02...	9.0	.2	.15	.012	.45	.5	.55	94	695	--
08...	14	.0	.21	.035	.34	.2	.40	99	--	--
27...	140	.5	.64	1.1	2.2	.8	1.1	595	--	--
JAN.										
24...	120	.4	.30	.50	4.2	.6	3.2	535	47	--
31...	20	.1	.25	.000	.28	.4	.49	119	--	--
MAR.										
21...	10	.1	.32	.038	1.7	.3	1.6	93	526	--
APR.										
05...	220	.4	.18	.18	2.0	.4	1.9	676	30	--
27...	16	.2	.46	.013	1.0	.8	1.0	116	1200	--
MAY										
16...	38	.2	.35	.13	.78	.5	.80	201	--	--
22...	48	.3	.39	1.0	1.9	.7	2.4	278	--	--
JULY										
26...	140	.4	.22	.86	.15	.7	3.1	546	19	--
AUG.										
08...	55	.4	.40	.15	1.3	.4	1.3	244	--	--
14...	34	.2	.27	.029	1.2	.3	1.1	187	--	--
28...	130	.6	.44	.44	3.6	.7	1.8	521	--	--
SEP.										
12...	--	--	.37	.50	4.5	.7	3.5	--	34	9

SAN JACINTO RIVER BASIN

08074500 WHITEOAK BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
OCT.										
26...	220	15	2.5	910	6.8	21.5	70	35	8.2	92
NOV.										
17...	230	0	3.8	1170	7.7	24.0	30	40	10.9	128
18...	100	30	1.1	388	6.6	20.0	40	110	8.3	90
DEC.										
02...	52	0	1.0	187	7.6	10.0	220	220	10.5	93
08...	52	0	.8	174	7.1	16.0	160	50	10.4	104
27...	260	0	3.2	1050	7.8	24.0	40	20	10.5	124
JAN.										
24...	250	0	2.7	975	7.8	24.0	160	30	11.6	136
31...	73	9	.8	226	7.5	5.5	120	80	11.0	87
MAR.										
21...	63	11	.3	186	6.7	19.0	70	150	6.6	70
APR.										
05...	320	53	3.2	1260	8.0	25.5	30	15	18.8	227
27...	72	11	.6	218	7.8	19.5	110	280	8.6	92
MAY										
16...	120	8	1.0	383	7.4	25.0	160	45	8.2	98
22...	120	0	2.3	499	7.2	28.5	50	20	9.7	124
JULY										
26...	240	0	3.1	985	7.5	31.0	15	15	13.2	176
AUG.										
08...	120	9	1.6	469	7.1	26.0	40	80	6.9	84
14...	110	7	1.1	368	6.9	26.0	65	80	6.7	82
28...	230	0	2.9	942	7.4	29.0	35	15	11.4	146
SEP.										
12...	--	--	--	1040	7.6	29.5	30	15	14.2	184

DATE	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.										
26...	23	4.8	64000	18000	5600	2	.10	--	--	--
NOV.										
17...	15	9.6	1700000	54000	71000	19	.72	--	--	--
18...	45	18	660000	2300	66000	16	.00	10	0	0
DEC.										
02...	31	9.3	400000	7300	55000	4	.00	20	0	0
08...	33	3.1	300000	9000	4900	20	.00	--	--	--
27...	25	2.6	56000	2300	680	0	.10	--	--	--
JAN.										
24...	28	16	3800000	140000	9500	4	.72	20	10	0
31...	45	5.6	3600000	19000	8700	0	.00	0	0	0
MAR.										
21...	33	5.2	680000	48000	90000	2	.00	--	--	--
APR.										
05...	28	4.2	84000	1600	130	0	.16	--	--	--
27...	96	12	170000	100000	62000	13	.00	--	--	--
MAY										
16...	47	3.3	220000	16000	2200	21	.07	20	--	--
22...	28	7.5	96000	440	580	0	.26	--	--	--
JULY										
26...	22	5.1	1	1	1	10	.20	200	50	1
AUG.										
08...	29	9.9	300000	17000	2400	5	.07	120	30	0
14...	30	10	3000000	280000	33000	0	.04	--	--	--
28...	21	>9.3	280000	34000	2100	0	.23	20	30	0
SEP.										
12...	--	7.5	1400000	460000	14000	--	.22	--	--	--

SAN JACINTO RIVER BASIN

363

08074500 WHITEOAK BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT.									
26...	--	--	--	--	--	--	--	--	--
NOV.									
17...	--	--	--	--	--	--	--	--	--
18...	0	0	10	320	18	100	.6	6	430
DEC.									
02...	0	0	5	380	0	0	.2	0	40
08...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
JAN.									
24...	0	0	8	40	0	170	<.2	1	60
31...	0	0	6	250	0	0	<.2	0	40
MAR.									
21...	--	--	--	--	--	--	--	--	--
APR.									
05...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
MAY									
16...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
JULY									
26...	0	0	3	10	0	110	2.6	0	80
AUG.									
08...	0	0	7	60	0	20	3.2	3	120
14...	--	--	--	--	--	--	--	--	--
28...	0	0	4	0	0	80	.2	5	90
SEP.									
12...	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR EPOXIDE (UG/L)
NOV.										
18...	1145	45	.00	.00	.01	.03	.02	.00	.00	.00
DEC.										
02...	1215	1700	.00	.00	.00	.01	.03	.00	.00	.00
JAN.										
24...	1400	14	.00	.00	.00	.00	.02	.00	.00	.00
APR.										
27...	1645	1150	.00	.00	.00	.10	.07	.00	.00	.00
MAY										
16...	1035	65	.00	.00	.00	.00	.01	.00	.00	.00
JULY										
26...	1115	10	.00	.00	.00	.00	.01	.00	.00	.00
AUG.										
08...	0900	30	.00	.00	.00	.02	.04	.00	.00	.00
28...	0945	11	.00	.00	.00	.00	.03	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR-DANE (UG/L)	DI-AZINON (UG/L)	MALA-THION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV.									
18...	.07	.2	.10	.08	.00	.00	.00	.00	.00
DEC.									
02...	.00	.1	.02	.00	.00	.00	.00	.05	.00
JAN.									
24...	.01	.1	.15	.00	.00	.00	.00	.00	.00
APR.									
27...	.00	.8	.63	.00	.00	.00	.00	.00	.00
MAY									
16...	.00	.1	.05	.00	.00	.00	.00	.06	.00
JULY									
26...	.00	.0	.24	.00	.00	.00	.00	.05	.00
AUG.									
08...	.01	.1	.24	.00	.00	.00	.15	.17	.00
28...	.02	.0	.36	.00	.00	.00	.00	.03	.00

SAN JACINTO RIVER BASIN

08074550 LITTLE WHITEOAK BAYOU AT HOUSTON, TEX.

LOCATION.--Lat 29°47'05", long 95°21'56", Harris County, at bridge on north Main Street, 0.8 mile upstream from mouth, and 1.7 miles north of Harris County courthouse.

DRAINAGE AREA.--20.9 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.
Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
26...	1005	4.0	33	56	16	150	440	0	21	120
NOV.										
18...	1250	105	2.7	34	4.2	24	114	0	19	30
DEC.										
02...	1130	400	2.0	30	1.7	11	95	0	14	10
JAN.										
17...	1325	3.3	16	75	19	120	398	0	34	110
31...	1200	33	8.5	48	9.1	38	193	0	32	34
MAR.										
20...	2200	6650	2.6	17	.6	1.7	46	0	6.4	3.0
21...	1400	420	4.6	29	3.6	9.3	95	0	15	9.5
APR.										
05...	1155	4.0	15	81	24	130	428	0	48	130
27...	1740	530	4.2	24	1.7	12	80	0	10	12
MAY										
16...	1150	8.6	17	75	18	79	353	0	36	80
JULY										
26...	1040	2.4	13	48	11	76	237	0	24	80
AUG.										
14...	1215	30	7.0	33	4.8	16	112	0	20	20
28...	1015	3.4	14	46	14	71	244	0	23	80
SEP.										
13...	0945	5.2	--	--	--	--	--	--	--	--

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)
OCT.										
26...	.7	.59	.040	7.3	.00	2.0	622	--	--	200
NOV.										
18...	.2	.19	.21	1.1	.6	.80	175	--	--	100
DEC.										
02...	.2	.17	.017	.64	.5	.58	119	335	--	82
JAN.										
17...	.7	.15	.16	1.5	.3	1.3	570	25	--	260
31...	.3	.38	.062	1.4	1.5	.80	274	--	--	160
MAR.										
20...	.0	.18	.033	.27	.2	.47	56	652	--	45
21...	.1	.29	.060	.40	.4	.85	121	612	--	87
APR.										
05...	.7	.18	.17	.49	.7	.62	645	8	--	300
27...	.2	.44	.029	.46	.4	.80	106	680	--	67
MAY										
16...	.5	.32	.12	2.5	.07	1.8	483	--	--	260
JULY										
26...	.5	.28	.14	1.2	.2	.95	372	12	--	160
AUG.										
14...	.0	.26	.050	1.6	.2	.70	159	--	--	100
28...	.4	.52	.010	3.2	.00	1.0	373	--	--	170
SEP.										
13...	--	.49	.000	4.0	--	1.6	--	19	0	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

SAN JACINTO RIVER BASIN

08074550 LITTLE WHITEOAK BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
NOV. 18...	1250	105	.00	.00	.00	.04	.03	.00	.00	.00
DEC. 02...	1130	400	.00	.00	.00	.06	.03	.00	.00	.00
JAN. 17...	1325	3.3	.00	.00	.00	.04	.01	.00	.00	.00
APR. 27...	1740	530	.00	.07	.00	.12	.07	.00	.00	.00
MAY 16...	1150	8.6	.00	.00	.00	.01	.02	.00	.00	.00
JULY 26...	1040	2.4	.00	.00	.00	.00	.01	.00	.00	.00
AUG. 14...	1215	30	.00	.00	.00	.01	.02	.00	.00	.00
28...	1015	3.4	.00	.00	.00	.00	.01	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 18...	.00	.4	.15	.00	.00	.00	.00	.00	.00
DEC. 02...	.00	.3	.13	.00	.00	.00	.44	.27	.00
JAN. 17...	.00	.0	.10	.00	.00	.00	.00	.02	.00
APR. 27...	.00	.7	.46	.07	.00	.00	.13	.16	.00
MAY 16...	.00	.1	.15	.00	.00	.00	.00	.04	.00
JULY 26...	.00	.0	.16	.00	.00	.00	.09	.06	.00
AUG. 14...	.00	.1	.08	.00	.00	.00	.67	.13	.00
28...	.00	.0	.28	.00	.00	.00	.20	.00	.00

SAN JACINTO RIVER BASIN

367

08074700 BUFFALO BAYOU AT 69th STREET, AT HOUSTON, TEX.

LOCATION.--Lat 29°45'15", long 95°17'51", Harris County, at gaging station at bridge on 69th Street in Houston, 1.1 miles upstream from Turning Basin, 2.8 miles upstream from Brays Bayou, and 4.8 miles downstream from Whiteoak Bayou.

DRAINAGE AREA.--476 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.
Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

		DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
DATE	TIME											
OCT.												
26...	1425	28	45	67	600	142	0	150	1000	.5	.44	.23
NOV.												
17...	0930	16	130	290	2200	207	0	580	4000	1.1	.16	.003
DEC.												
02...	1000	11	61	32	300	210	0	85	510	.5	1.8	.070
02...	1720	3.7	--	--	--	--	--	--	--	--	2.0	.062
03...	0930	4.1	--	--	--	--	--	--	--	--	.19	.047
07...	1330	8.1	22	3.2	16	75	0	15	19	.0	.42	.40
27...	1045	13	40	37	340	134	0	110	550	.4	.35	.22
JAN.												
19...	1350	10	32	18	120	158	0	30	190	.5	.47	.22
FEB.												
02...	0930	9.1	33	6.5	41	163	0	18	41	.4	.39	.003
APR.												
05...	1025	13	80	130	1100	232	0	260	1900	.7	.29	.018
MAY												
11...	1335	6.0	28	2.7	13	89	0	14	14	.2	.39	.027
24...	1315	4.1	30	2.7	31	122	0	13	32	.3	.44	.10
AUG.												
14...	1310	6.6	31	110	730	124	0	180	1300	.7	.25	.026
28...	1225	14	100	240	2000	226	0	450	3600	1.2	.50	.045
	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
DATE												
OCT.												
26...	3.6	.4	.68	1990	--	390	270	13	3610	7.2	25.0	80
NOV.												
17...	14	.00	3.3	7380	--	1500	1300	25	12900	7.2	23.0	30
DEC.												
02...	10	.07	4.8	1120	416	280	110	7.9	2070	7.2	14.0	45
02...	1.4	.5	2.8	--	--	--	--	--	607	7.6	11.5	50
03...	1.3	.5	.72	--	246	--	--	--	344	7.3	10.0	160
07...	1.3	.6	.75	126	--	68	7	.8	251	7.0	12.5	160
27...	3.0	.3	1.8	1170	--	250	140	9.3	2120	7.2	20.0	100
JAN.												
19...	3.5	.3	4.0	490	82	160	26	4.3	985	7.5	18.0	70
FEB.												
02...	4.5	.6	1.4	238	--	110	0	1.7	463	7.4	11.0	70
APR.												
05...	7.0	.00	1.9	3540	14	730	540	17	6530	7.0	22.0	30
MAY												
11...	.42	.8	.60	126	--	81	8	.6	241	7.3	21.0	150
24...	2.2	.4	1.2	178	--	86	0	1.5	339	6.8	25.5	100
AUG.												
14...	3.4	.3	1.0	2430	122	520	420	14	4470	7.0	28.0	20
28...	10	.5	1.0	6500	--	1200	1000	25	10200	7.0	31.5	40

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT. 26...	35	1.2	14	39	4.8	200000	10000	2300	5	.16	--
NOV. 17...	35	1.4	16	35	6.9	900000	110000	800	22	.25	--
DEC. 02...	190	3.0	29	160	46	5400000	74000	36000	7	.00	50
02...	230	8.0	73	190	46	1500000	110000	34000	8	.00	30
03...	120	9.2	81	31	12	--	--	--	14	.00	20
07...	95	8.6	80	43	6.9	100000	2300	580	6	.00	0
27...	35	3.0	33	43	6.0	310000	4500	500	27	.02	--
JAN. 19...	50	4.1	43	48	19	3800000	22000	3900	6	.00	10
FEB. 02...	75	7.4	67	53	11	1600000	7000	5700	2	.00	10
APR. 05...	15	.2	2	47	11	1300000	70000	33000	0	.20	--
MAY 11...	120	6.9	77	36	6.4	480000	56000	18000	8	.00	--
24...	55	4.5	54	34	6.6	310000	19000	600	0	.04	--
AUG. 14...	65	2.1	27	32	4.3	980000	250000	9200	0	.12	20
28...	20	.5	7	34	>9.2	600000	34000	5500	1	.63	10

[illegible]

SAN JACINTO RIVER BASIN

369

08074700 BUFFALO BAYOU AT 69th STREET, AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
DEC. 02...	1000	.00	--	.03	--	.00	--	.00	--	.10
JAN. 19...	1350	.00	--	.00	--	.00	--	.00	--	.02
MAY 11...	1335	.00	--	.00	--	.00	--	.02	--	.02
24...	1315	--	<.2	--	45	--	<.2	--	11	--
AUG. 28...	1225	.00	--	.00	--	.00	--	.00	--	.02

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
DEC. 02...	--	.00	--	.00	--	.00	--	.00	--	.4
JAN. 19...	--	.00	--	.00	--	.00	--	.00	--	.1
MAY 11...	--	.00	--	.00	--	.00	--	.01	--	.1
24...	43	--	<.2	--	<.2	--	<.2	--	<.2	--
AUG. 28...	--	.00	--	.00	--	.00	--	.00	--	.1

DATE	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	PCB (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)
DEC. 02...	--	--	--	--	--	.71	.05	.00	.7	--
JAN. 19...	--	.06	.00	.00	.00	.06	.00	.00	--	--
MAY 11...	--	.18	.00	.00	.00	.00	.10	.00	--	--
24...	300	--	--	--	--	--	--	--	--	250
AUG. 28...	--	.22	.06	.00	.00	.12	.06	.06	--	--

LOCATION.--Lat 29°39'55", long 95°35'42", Harris County, at bridge on Keegan Road about 16 miles southwest of Houston.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.

Sediment analyses: October 1970 to September 1971.

	LINDANE	CHLOR-DANE	DI-AZINON	MALA-THION	METHYL PARA-THION	PARA-THION	2,4-D	2,4,5-T	SILVEX
DATE	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
MAY 12...	.00	.0	.00	.00	.00	.00	.00	.00	.00

SAN JACINTO RIVER BASIN

371

08074800 KEEGANS BAYOU AT ROARK ROAD, NEAR HOUSTON, TEX.

LOCATION.--Lat 29°39'23", long 95°33'43", Harris County, at gaging station at bridge on Roark Road and about 2 miles southwest of city limits of Houston.

DRAINAGE AREA.--9.64 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.

Pesticide analyses: October 1968 to September 1972.

Sediment analyses: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
JAN. 31...	1325	60	4.5	10	1.7	5.7	33	0	5.2	7.0	.0	.25
MAY 12...	1050	840	3.2	11	2.6	2.4	40	0	5.6	2.5	.1	.33
JULY 25...	1025	1.9	23	46	18	63	248	0	28	62	.4	.24
SEP. 13...	1130	1.5	--	--	--	--	--	--	--	--	--	.37

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
JAN. 31...	.000	.12	.7	.22	53	--	--	32	5	.4	101	7.3
MAY 12...	.000	.16	.4	.19	49	--	--	38	5	.2	91	8.2
JULY 25...	.88	2.1	2.5	5.1	379	--	--	190	0	2.0	669	7.1
SEP. 13...	.12	6.5	.2	6.0	--	35	5	--	--	--	711	7.1

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOC- CI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
JAN. 31...	6.0	140	100	11.1	89	37	3.9	540000	5600	7900	2	.00
MAY 12...	21.5	180	200	7.2	81	20	5.3	21000	7300	9700	3	.00
JULY 25...	27.5	40	25	8.0	100	11	4.4	740000	36000	5800	0	.12
SEP. 13...	27.5	30	20	1.9	24	--	5.5	35000	20000	1600	--	.23

DATE	OIL AND GREASE (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
JAN. 31...	10	0	0	0	0	5	350	0	0	<.2	0	0
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--
JULY 25...	--	--	--	--	--	--	--	--	--	--	--	--
SEP. 13...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)
MAY 12...	1050	840	.00	.00	.00	.00	.02	.00
DATE	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)
MAY 12...	.00	.00	.01	.1	.02	.00	.00	.00

SAN JACINTO RIVER BASIN

08074900 WILLOW WATERHOLE BAYOU AT LANDSDOWNE STREET, HOUSTON, TEX.

LOCATION.--Lat 29°39'01", long 95°29'11", Harris County, at bridge on Landsdowne Street in southwest Houston.

DRAINAGE AREA.--11.2 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.

Pesticide analyses: October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
MAR. 20...	1915	26	.7	20	2.5	14	62	0	23	14	.2	.28
MAY 12...	1000	270	3.6	14	2.9	4.2	52	0	6.4	4.5	.1	.45

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
MAR. 20...	.040	1.5	.1	1.0	107	60	9	.8	233	6.8	21.0
MAY 12...	.000	.26	.3	.31	63	47	4	.3	121	7.9	21.5

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
MAR. 20...	45	70	6.4	71	43	7.5	--	--	--	7	.00
MAY 12...	180	160	6.8	76	32	8.1	62000	15000	33000	3	.00

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
MAR. 20...	1915	26	.00	.00	.00	.05	.09	.00	.00	.00
MAY 12...	1000	270	.00	.00	.00	.00	.04	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAR. 20...	.05	.3	.85	.07	.00	.00	.38	.50	.15
MAY 12...	.01	.1	.08	.00	.00	.00	.19	.17	.00

373

LOCATION.--Lat 29°41'49", long 95°24'43", Harris County, at gaging station on Main Street bridge in southwest section of Houston, 1.6 miles upstream from Harris Gully, and 11.6 miles upstream from Buffalo Bayou.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

[illegible]

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
DEC. 08...	.10	.58	.8	1.0	141	73	0	1.0	265	7.3	15.0	200
JAN. 31...	.000	.52	1.5	.58	120	66	5	.9	228	7.3	8.0	140
MAR. 20...	.078	1.8	.08	2.1	143	70	0	1.1	294	7.0	21.0	30
MAY 02...	.30	3.5	.6	3.0	286	120	0	2.2	534	7.5	26.0	45
SEP. 13...	.60	5.0	1.7	3.0	--	--	--	--	717	7.3	29.0	40

DATE	TUR- RID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOC- CI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUR- STANCE (MG/L)	OIL AND GREASE (MG/L)
DEC. 08...	60	9.6	94	35	3.3	430000	4100	460	20	.00	10
JAN. 31...	80	11.3	95	38	4.8	1600000	49000	9200	0	.00	20
MAR. 20...	130	6.4	71	110	23	380000	9300	32000	9	.00	--
MAY 02...	35	8.2	100	40	2.9	500	9	60	0	.20	--
SEP. 13...	35	8.0	103	--	6.0	180000	36000	1600	--	.25	--

[illegible]

SAN JACINTO RIVER BASIN

08075000 BRAYS BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DOD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
DEC. 08...	0900	265	.00	.00	.00	.00	.03	.00	.00	.00
MAR. 20...	1800	640	.00	.00	.00	.26	.13	.00	.00	.00
MAY 02...	1250	170	.00	.00	.00	.02	.08	.00	.00	.00
12...	0925	11000	.00	.00	.00	.03	.08	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	STLVEX (UG/L)
DEC. 08...	.00	.0	.05	.00	.00	.00	.00	.02	.00
MAR. 20...	.11	.9	.75	.00	.00	.00	1.1	.50	.20
MAY 02...	.12	.2	.60	.06	.00	.00	.17	.20	.00
12...	.01	.2	.15	.00	.00	.00	.00	.10	.00

SAN JACINTO RIVER BASIN

375

08075100 BRAYS BAYOU AT SCOTT STREET, AT HOUSTON, TEX.

LOCATION.--Lat 29°42'35", long 95°21'23", Harris County, at bridge on Scott Street in Houston.

DRAINAGE AREA.--106 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.

Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
19...	1300	85	35	54	8.1	2200	271	0	52	3300
NOV.										
18...	0930	855	1.9	30	4.7	66	99	0	14	100
DEC.										
08...	1015	285	14	25	5.5	43	113	0	20	46
JAN.										
24...	0940	42	21	42	16	150	300	0	39	160
31...	1100	710	6.6	20	4.9	22	76	0	13	28
MAR.										
20...	1630	1700	3.3	25	1.8	52	90	0	18	66
APR.										
12...	1340	62	22	46	11	130	284	0	38	130
MAY										
02...	1330	350	15	34	9.5	360	190	0	28	520
15...	1300	680	12	28	8.0	100	120	0	15	150
23...	0940	60	9.8	76	14	3800	255	0	98	5800
JULY										
25...	1300	62	23	35	10	110	250	0	35	100
AUG.										
14...	1150	60	16	35	12	100	246	0	36	86
30...	0955	41	21	35	14	110	272	0	37	88
SEP.										
13...	1245	65	--	--	--	--	--	--	--	--

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT.										
19...	.6	.73	.80	5.0	.6	4.0	5780	--	--	170
NOV.										
18...	.2	.21	.040	.80	.6	1.0	270	344	--	94
DEC.										
08...	.3	.60	.25	1.5	.8	1.9	216	--	--	85
JAN.										
24...	.5	.18	.50	5.0	.4	5.2	580	14	--	170
31...	.2	.41	.000	.75	1.4	.60	139	--	--	70
MAR.										
20...	.2	.61	.14	1.3	.4	1.6	214	498	--	70
APR.										
12...	.8	.52	.80	5.0	1.6	4.8	533	33	--	160
MAY										
02...	.5	.55	.33	3.2	.5	3.4	1080	98	--	120
15...	.2	.31	.047	.93	.6	.75	375	--	--	100
23...	.5	.35	1.0	2.8	.5	5.2	9920	--	--	250
JULY										
25...	.6	.36	1.0	5.0	.6	8.8	454	18	--	130
AUG.										
14...	.6	.27	1.7	2.4	1.0	3.8	424	44	--	140
30...	.7	.55	.78	3.8	.8	2.1	449	--	--	150
SEP.										
13...	--	.84	.45	5.0	.8	3.0	--	30	9	--

SAN JACINTO RIVER BASIN

08075100 BRAYS BAYOU AT SCOTT STREET, AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
OCT. 19...	0	74	10700	7.7	28.0	45	20	7.5	95	45
NOV. 18...	13	3.0	498	6.6	20.0	30	120	8.8	96	34
DEC. 08...	0	2.0	405	7.3	16.0	160	60	8.9	89	45
JAN. 24...	0	4.9	1080	7.5	22.5	60	8	7.3	83	10
31...	8	1.1	277	7.4	7.0	140	85	11.8	97	40
MAR. 20...	0	2.7	418	7.1	21.5	40	100	6.7	75	190
APR. 12...	0	4.5	986	7.9	29.0	30	15	14.6	187	46
MAY 02...	0	14	1970	7.5	26.0	30	40	7.6	93	65
15...	4	4.3	671	7.6	26.5	140	45	7.6	93	36
23...	39	105	17700	7.6	26.0	25	20	8.4	102	33
JULY 25...	0	4.3	838	8.0	31.5	15	15	12.5	169	31
AUG. 14...	0	3.8	760	8.6	30.0	10	30	7.9	104	16
30...	0	3.9	812	7.5	27.0	20	20	7.4	91	14
SEP. 13...	--	--	710	7.3	31.0	35	40	4.3	57	--

DATE	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	OIL AND GREASE (MG/L)	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)
OCT. 19...	20	4000000	76000	41000	14	.83	--	--	--	--
NOV. 18...	20	1400000	24000	56000	17	.00	10	0	0	0
DEC. 08...	26	2200000	120000	28000	15	.00	--	--	--	--
JAN. 24...	1.4	280000	7300	150	6	.30	10	0	0	0
31...	9.3	2800000	130000	32000	0	.00	10	0	0	0
MAR. 20...	22	500000	68000	59000	7	.00	--	--	--	--
APR. 12...	17	150000	6700	16	28	.25	--	--	--	--
MAY 02...	19	2600000	120000	36000	0	.12	40	30	1	10
15...	5.2	970000	160000	18000	21	.10	--	--	--	--
23...	6.0	60000	2600	420	0	.89	--	--	--	--
JULY 25...	14	1500000	260000	18000	6	.22	20	10	0	50
AUG. 14...	17	50000	6400	460	7	.14	20	10	0	20
30...	>9.3	39000	9700	2700	1	.26	20	0	1	20
SEP. 13...	20	2800000	300000	58000	--	.39	--	--	--	--

DATE	HEXAVALENT CHROMIUM (CR6) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT. 19...	--	--	--	--	--	--	--	--	--
NOV. 18...	--	0	9	180	20	30	.8	0	50
DEC. 08...	--	--	--	--	--	--	--	--	--
JAN. 24...	--	0	16	20	0	60	<.2	0	50
31...	--	0	8	370	0	0	<.2	0	20
MAR. 20...	--	--	--	--	--	--	--	--	--
APR. 12...	--	--	--	--	--	--	--	--	--
MAY 02...	--	1	13	40	9	0	.6	8	110
15...	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--
JULY 25...	0	0	9	20	5	60	2.4	3	50
AUG. 14...	0	0	7	20	0	0	2.2	0	50
30...	0	0	11	0	0	40	.3	5	60

SAN JACINTO RIVER BASIN

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08075100 BRAYS BAYOU AT SCOTT STREET, AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
NOV. 18...	0930	855	.00	.00	.00	.02	.09	.00	.00	.00
JAN. 24...	0940	42	.00	.00	.00	.04	.06	.00	.00	.00
MAR. 20...	1630	1700	.20	.00	.00	.33	.20	.00	.00	.00
MAY 02...	1330	350	.00	.00	.00	.07	.20	.00	.00	.00
23...	0940	60	.00	.00	.00	.00	.06	.00	.00	.00
JULY 25...	1300	62	.00	.00	.00	.00	.11	.00	.00	.00
AUG. 14...	1150	60	.00	.00	.00	.00	.04	.00	.00	.00
30...	0955	41	.00	.00	.00	.01	.03	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 18...	.00	.7	.20	.00	.00	.00	.00	.00	.00
JAN. 24...	.02	.1	.13	.00	.00	.00	.00	.00	.00
MAR. 20...	.12	1.0	.31	.06	.00	.00	.86	.30	.00
MAY 02...	.00	.3	.41	.04	.00	.00	.00	.00	.00
23...	.00	.1	.21	.00	.00	.00	--	--	--
JULY 25...	.00	.1	.26	.00	.00	.00	.00	.05	.00
AUG. 14...	.00	.1	.23	.00	.00	.00	.00	.11	.00
30...	.00	.1	.32	.00	.00	.00	.00	.06	.06

LOCATION.--Lat 29°37'07", long 95°26'45", Harris County, at gaging station at bridge on Hiram Clarke Street in southwest section of Houston, 12.7 miles upstream from gage, Sims Bayou at Houston, and 19.7 miles upstream from mouth.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1972.
Pesticide analyses: October 1970 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

[illegible]

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 19...	.42	1.4	1.7	2.5	1510	--	--	190	0	16	2760	7.4
JAN. 31...	.000	1.4	.9	.92	200	--	--	83	6	1.9	407	7.3
MAR. 20...	.074	4.4	.4	3.6	471	--	--	120	0	5.1	911	7.0
MAY 02...	.012	1.3	.8	1.0	238	--	--	75	0	2.9	468	7.3
JULY 25...	.16	4.5	.1	6.4	506	--	--	150	0	4.5	931	6.9
SEP. 11...	.027	7.0	.00	8.0	--	18	2	--	--	--	1360	--

DATE	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT. 19...	25.5	55	60	2.7	33	24	6.0	110000	9700	950	0	.13
JAN. 31...	8.0	140	80	10.6	89	48	4.8	71000	1	900	2	.00
MAR. 20...	21.0	40	140	5.7	63	49	10	40	8	500	13	.00
MAY 02...	23.0	130	370	5.6	64	64	5.7	180000	5400	5000	0	.00
JULY 25...	27.5	20	30	1.6	20	26	11	7700	150	3000	6	.15
SEP. 11...	27.0	25	25	1.4	17	--	4.6	7700	2700	1000	--	.19

[illegible]

SAN JACINTO RIVER BASIN

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08075400 SIMS BAYOU AT HIRAM CLARKE STREET, AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
MAR. 20...	1840	33	.00	.00	.00	.03	.04	.00	.00	.00
MAY 02...	1240	68	.00	.00	.00	.00	.02	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAR. 20...	.02	.2	.34	.00	.00	.00	.09	.30	.13
MAY 02...	.00	.1	.23	.00	.00	.00	.00	.20	.02

SAN JACINTO RIVER BASIN

08075500 SIMS BAYOU AT HOUSTON, TEX.

LOCATION.--Lat 29°40'27", long 95°17'21", Harris County, at gaging station at bridge on State Highway 35 in southeast section of Houston, and 7.0 miles upstream from mouth.

DRAINAGE AREA.--64.0 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
19...	1130	28	24	53	12	260	238	0	42	370	.3	.53
NOV.												
17...	0830	19	19	63	13	320	222	0	63	500	.6	.30
DEC.												
02...	1700	360	5.3	48	8.3	240	120	0	37	390	.4	.47
08...	1110	110	12	30	7.1	110	102	0	28	160	.2	.33
27...	1200	18	19	57	23	250	316	0	65	350	.7	.37
JAN.												
11...	1155	20	18	55	18	220	361	0	36	280	.6	.50
31...	1010	340	7.8	24	9.3	57	94	0	26	82	.2	.40
MAR.												
22...	0910	48	12	42	9.0	200	160	0	230	150	.3	.45
APR.												
05...	0920	21	15	72	20	500	333	0	460	440	.8	.40
27...	1415	88	7.4	25	8.6	81	130	0	24	110	.2	.30
MAY												
02...	1130	165	7.7	26	8.0	69	110	0	33	92	.2	.44
23...	1025	22	6.0	55	17	140	280	0	48	170	.5	.43
JULY												
25...	1145	20	16	54	13	160	214	0	42	240	.5	.40
AUG.												
08...	1110	19	18	51	12	140	255	0	50	180	.5	.38
14...	0900	20	19	41	16	190	278	0	45	240	.6	.70
29...	0845	18	19	47	17	170	298	0	55	200	.5	1.1
SEP.												
11...	1015	26	--	--	--	--	--	--	--	--	--	.53
DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.												
19...	.020	6.5	.00	2.8	884	--	--	180	0	8.4	1680	6.9
NOV.												
17...	.017	13	.00	4.8	1100	--	--	210	29	9.5	2130	7.2
DEC.												
02...	.021	2.0	.8	3.5	798	632	--	150	56	8.5	1520	7.2
08...	.66	.79	1.2	1.0	406	--	--	100	20	4.7	766	7.0
27...	.10	9.5	.00	4.0	936	--	--	240	0	7.2	1760	7.5
JAN.												
11...	.061	10	.02	5.9	814	22	--	210	0	6.5	1540	7.5
31...	.000	.88	1.3	.35	259	--	--	98	21	2.5	476	7.3
MAR.												
22...	.10	3.4	.3	2.2	732	292	--	140	11	7.3	1290	7.0
APR.												
05...	.014	9.5	.00	6.0	1690	12	--	260	0	13	2780	7.2
27...	.045	3.0	.3	2.2	324	90	--	98	0	3.6	638	7.2
MAY												
02...	.016	2.2	.5	1.8	295	464	--	98	8	3.0	566	6.9
23...	.10	7.0	.07	3.2	584	--	--	210	0	4.1	1060	7.4
JULY												
25...	.090	7.5	.04	4.4	639	--	--	190	10	5.0	1230	7.2
AUG.												
08...	.040	9.5	.02	3.5	583	--	--	180	0	4.5	1070	7.3
14...	.035	10	.07	4.8	707	--	--	170	0	6.4	1240	7.0
29...	.011	7.0	.00	3.2	660	--	--	190	0	5.4	1250	7.2
SEP.												
11...	.032	6.5	.01	6.0	--	9	8	--	--	--	1270	7.2

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WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT. 19...	26.5	50	15	1.9	23	42	9.0	3800000	15000	1600	0	1.2
NOV. 17...	22.0	30	40	.1	1	35	13	1500000	8700	2000	24	1.2
DEC. 02...	12.5	80	250	9.4	88	99	23	700000	160000	19000	17	.00
08...	15.0	180	75	6.3	62	36	7.2	4000000	64000	64000	22	.00
27...	22.0	25	9	2.7	31	29	4.1	480000	3200	1800	26	.29
JAN. 11...	19.0	40	10	3.5	37	47	13	20000000	6100	680	12	.98
31...	7.0	160	120	10.6	87	58	7.4	26000000	160000	54000	0	.00
MAR. 22...	20.0	60	120	2.6	28	54	9.6	700000	18000	560	2	.00
APR. 05...	21.0	30	15	1.6	18	41	12	110000	17000	980	2	.64
27...	22.5	35	55	3.0	34	45	9.9	350000	18000	69000	0	.00
MAY 02...	23.0	40	190	4.1	47	58	9.6	310000	41000	28000	15	.00
23...	26.5	20	10	5.1	62	31	6.6	100000	2200	420	0	.31
JULY 25...	30.0	20	10	5.8	76	34	7.0	240000	20000	2400	4	.28
AUG. 08...	29.5	25	8	6.8	88	36	10	50000	20000	800	3	.27
14...	27.5	20	7	.9	12	29	11	100000	11000	1700	0	.46
29...	27.5	20	20	.8	10	36	>9.5	2900000	39000	2100	1	.50
SEP. 11...	27.5	30	10	1.1	14	--	12	180000	59000	2100	--	.57

[illegible]

SAN JACINTO RIVER BASIN
08075500 SIMS BAYOU AT HOUSTON, TEX.--Continued
WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
DEC. 02...	1700	360	.00	.00	.00	.00	.09	.00	.00	.00
JAN. 11...	1155	20	.00	.00	.00	.00	.05	.00	.00	.00
APR. 27...	1415	88	.00	.00	.00	.00	.02	.00	.00	.00
MAY 02...	1130	165	.00	.00	.00	.03	.05	.00	.00	.00
23...	1025	22	.00	.00	.00	.00	.05	.00	.00	.00
AUG. 08...	1110	19	.00	.00	.00	.00	.03	.00	.00	.00
29...	0845	18	.00	.00	.00	.00	.05	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 02...	.00	.2	.58	.00	.00	.00	.18	.10	.00
JAN. 11...	.00	.1	.22	.00	.00	.00	.00	.00	.17
APR. 27...	.00	.1	.32	.00	.00	.00	.20	.78	.00
MAY 02...	.00	.2	.15	.00	.00	.00	.13	.60	.00
23...	.03	.1	.20	.00	.00	.00	.00	.02	.00
AUG. 08...	.00	.1	.19	.00	.00	.00	.00	.00	.00
29...	.00	.1	.27	.00	.00	.00	.00	.01	.00

SAN JACINTO RIVER BASIN

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08075650 BERRY BAYOU AT FOREST OAKS STREET, HOUSTON, TEX.

LOCATION.--Lat 29°40'35", long 95°14'37", Harris County, at gaging station at Forest Oaks Street bridge in southeast Houston, 0.8 mile upstream from auxiliary gage at mouth of Berry Creek, and 1.7 miles upstream from Sims Bayou.

DRAINAGE AREA.--11.1 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
27...	0930	4.3	26	55	9.5	290	386	0	67	320	1.6	.57
NOV.												
22...	1105	6.0	15	34	12	330	338	0	39	400	1.7	.27
DEC.												
14...	0950	14	17	28	34	270	242	0	56	380	1.0	.38
JAN.												
24...	1200	7.4	15	42	18	400	454	0	41	470	1.8	.80
MAR.												
22...	1030	6.6	12	20	26	130	266	0	42	140	.7	.59
APR.												
12...	0930	3.5	14	34	11	230	348	0	34	250	1.0	.73
27...	1320	72	10	66	26	720	222	0	30	1200	.6	.90
MAY												
08...	1350	20	13	53	15	190	202	0	37	280	.5	.47
11...	0900	264	9.3	24	4.6	29	88	0	15	37	.2	.35
AUG.												
08...	1215	4.3	15	26	9.0	250	306	0	28	260	1.5	.39
14...	1000	4.6	15	37	18	490	292	0	33	690	1.4	.31
29...	1015	5.2	14	28	13	330	288	0	30	420	1.1	.47
SEP.												
11...	1220	7.2	--	--	--	--	--	--	--	--	--	.41

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.												
27...	.66	8.1	.2	5.3	969	--	--	180	0	9.5	1780	7.4
NOV.												
22...	.47	10	.2	3.8	1020	19	--	130	0	13	1910	7.7
DEC.												
14...	1.0	1.8	.3	1.7	918	--	--	210	12	8.1	1720	7.5
JAN.												
24...	.46	12	.1	8.0	1220	44	--	180	0	13	2230	7.8
MAR.												
22...	.40	5.5	.2	3.6	513	92	--	160	0	4.6	967	7.2
APR.												
12...	.080	12	.03	8.0	761	27	--	130	0	8.8	1430	7.1
27...	.14	6.5	.2	3.8	2140	256	--	270	90	19	3760	7.4
MAY												
08...	.50	2.2	.5	1.1	696	--	--	200	30	5.8	1230	7.2
11...	.043	.34	.5	.44	165	--	--	79	7	1.4	312	7.0
AUG.												
08...	.76	3.5	.1	5.0	753	7	--	100	0	11	1360	7.5
14...	.29	6.5	.05	6.0	1440	--	--	170	0	16	2540	7.9
29...	.40	6.6	.2	3.0	981	--	--	120	0	13	1740	7.3
SEP.												
11...	.000	7.0	.2	5.0	--	46	14	--	--	--	1260	--

SAN JACINTO RIVER BASIN

08075650 BERRY BAYOU AT FOREST OAKS STREET, HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT. 27...	22.5	55	15	4.3	49	45	13	1000000	2700	54	73	.47
NOV. 22...	18.0	50	45	7.5	79	38	8.1	19000	140	1	100	.67
DEC. 14...	21.0	140	15	6.1	68	47	15	310000	9000	1200	30	.21
JAN. 24...	23.5	160	25	7.2	84	77	38	3400000	250000	31000	10	1.1
MAR. 22...	21.0	40	20	6.4	71	59	13	20000	850	30	35	.64
APR. 12...	25.0	60	15	1.4	17	69	18	84000	2500	1200	21	1.5
27...	23.0	50	90	3.2	37	150	28	2200000	260000	50000	15	.00
MAY 08...	25.0	100	25	6.3	75	66	16	90000	3900	1100	0	.21
11...	20.0	130	50	6.0	65	40	8.4	310000	28000	40000	6	.03
AUG. 08...	31.0	35	5	11.5	153	32	6.5	30000	1500	2000	0	.31
14...	27.0	25	4	1.9	23	25	5.4	2200	120	4800	1	.29
29...	28.0	30	15	2.8	35	26	8.1	7300	800	2000	3	.33
SEP. 11...	29.0	25	30	5.5	71	--	17	2200000	1200000	20000	--	.64

DATE	OIL AND GREASE (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 27...	--	--	--	--	--	--	--	--	--	--	--	--
NOV. 22...	--	--	--	--	--	--	--	--	--	--	--	--
DEC. 14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN. 24...	20	0	0	0	0	23	80	0	170	<.2	5	80
MAR. 22...	--	--	--	--	--	--	--	--	--	--	--	--
APR. 12...	--	--	--	--	--	--	--	--	--	--	--	--
27...	50	10	0	0	0	11	60	6	110	.3	8	130
MAY 08...	--	10	1	0	0	12	100	2	0	.3	8	100
11...	10	--	--	--	--	--	--	--	--	--	--	--
AUG. 08...	10	0	0	0	0	5	60	0	70	3.9	5	50
14...	--	--	--	--	--	--	--	--	--	--	--	--
29...	10	10	1	0	0	6	40	0	120	<.2	5	70
SEP. 11...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
JAN. 24...	1200	7.4	.00	.00	.00	.00	.03	.00	.00	.00
APR. 27...	1320	72	.00	.04	.00	.00	.14	.00	.00	.00
MAY 08...	1350	20	.00	.00	.00	.00	.06	.00	.00	.00
11...	0900	264	.00	.00	.00	.01	.02	.00	.00	.00
12...	1320	655	.00	.00	.00	.02	.02	.00	.00	.00
AUG. 08...	1215	4.3	.00	.00	.00	.00	.03	.00	.00	.00
29...	1015	5.2	.00	.00	.00	.00	.03	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
JAN. 24...	.02	.4	.11	.00	.00	.00	.00	.00	.00
APR. 27...	.00	.7	.26	.40	.00	.00	.76	.14	.00
MAY 08...	.03	.2	.07	.00	.00	.00	.26	.12	.00
11...	.01	.1	.09	.00	.00	.00	.09	.12	.00
12...	.00	.1	.06	.00	.00	.00	.14	.09	.00
AUG. 08...	.00	.1	.18	.06	.00	.00	.00	.00	.00
29...	.00	.1	.12	.00	.00	.00	.00	.00	.00

SAN JACINTO RIVER BASIN

385

08075720 PLUM CREEK AT HOUSTON, TEX.

LOCATION.--Lat 29°42'11", long 95°17'00", Harris County, at bridge on Berkley Street at Houston.

DRAINAGE AREA.--2.72 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.

Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- RONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
27...	1100	.52	--	--	--	--	--	--	--	--	--	.26
NOV.												
22...	1225	1.2	8.6	39	1.4	54	128	0	39	53	.3	.05
DEC.												
02...	1100	53	--	--	--	--	--	--	--	--	--	--
02...	1600	53	1.7	28	3.0	10	98	0	16	5.0	.2	.07
14...	1200	.68	14	41	5.8	27	120	0	33	37	.3	.25
JAN.												
11...	1245	.70	10	32	5.9	44	112	0	26	59	.3	.28
MAR.												
15...	1620	22	4.7	24	4.4	28	99	0	28	20	.2	.29
APR.												
03...	1025	.50	10	26	6.6	39	90	0	40	43	.2	.15
27...	1110	87	3.7	25	1.4	14	73	0	18	15	.1	.50
MAY												
16...	0950	7.2	7.8	38	5.2	15	115	0	22	22	.2	.26
JULY												
18...	1100	.75	3.1	30	2.7	16	81	0	26	26	.2	.38
AUG.												
15...	1320	1.0	3.1	35	4.3	15	92	0	28	22	.2	.15
29...	1330	.40	5.5	34	3.7	18	75	0	32	28	1.9	.12

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FIL- TRABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.												
27...	.10	.78	.1	.60	--	--	--	--	--	478	7.6	22.5
NOV.												
22...	.010	.40	.2	.52	260	--	100	0	2.3	494	7.5	17.5
DEC.												
02...	--	--	--	--	--	--	--	--	--	--	--	12.0
02...	.024	.55	.4	.36	114	136	82	2	.5	195	7.2	12.0
14...	.049	.43	.2	.60	219	--	130	28	1.0	431	7.1	20.5
JAN.												
11...	.061	1.2	.03	2.2	235	16	100	12	1.9	494	7.4	18.5
MAR.												
15...	.057	.30	.3	4.4	160	172	78	0	1.4	318	6.7	22.0
APR.												
03...	.012	.11	.06	4.0	209	18	92	18	1.8	392	7.0	22.0
27...	.069	.45	.3	2.0	115	192	68	8	.7	228	6.9	22.0
MAY												
16...	.016	.02	.3	.39	169	--	120	22	.6	332	7.1	22.0
JULY												
18...	.34	3.6	.2	3.0	151	145	86	20	.8	283	6.6	27.0
AUG.												
15...	.073	.10	.2	.22	154	--	100	30	.6	289	6.5	29.5
29...	.013	.14	.03	.15	160	--	100	39	.8	297	7.4	31.0

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT.												
27...	20	10	6.3	72	14	2.8	26000	1200	690	8	.17	--
NOV.												
22...	160	200	6.7	70	19	2.8	620000	21000	1400	0	.00	--
DEC.												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	80	75	11.3	105	52	9.0	220000	13000	25000	2	.00	20
14...	100	15	5.2	57	35	2.7	1100000	16000	2200	18	.00	--
JAN.												
11...	30	10	5.2	55	36	11	1600000	940000	820	11	.70	10
MAR.												
15...	30	80	5.6	64	120	16	1100000	52000	21000	13	.21	--
APR.												
03...	20	9	9.9	112	19	3.4	34000	950	410	0	.07	--
27...	40	70	6.5	74	130	29	740000	61000	120000	44	.00	50
MAY												
16...	65	15	5.1	58	30	2.6	34000	1500	4100	0	.09	--
JULY												
18...	40	50	3.8	47	39	4.6	290000	29000	3700	0	.13	--
AUG.												
15...	25	10	6.6	86	27	2.4	55000	2800	2800	0	.12	20
29...	20	15	9.3	124	8	5.6	39000	4100	440	1	.09	70

SAN JACINTO RIVER BASIN

08075720 PLUM CREEK AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 27...	--	--	--	--	--	--	--	--	--	--	--
NOV. 22...	--	--	--	--	--	--	--	--	--	--	--
DEC. 02...	--	--	--	--	--	--	--	--	--	--	--
02...	0	0	3	0	14	0	33	0	.2	0	60
14...	--	--	--	--	--	--	--	--	--	--	--
JAN. 11...	0	0	20	0	14	60	11	150	<.2	0	40
MAR. 15...	--	--	--	--	--	--	--	--	--	--	--
APR. 03...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
MAY 16...	--	--	--	--	--	--	--	--	--	--	--
JULY 18...	10	0	0	0	3	40	10	50	.4	6	50
AUG. 15...	--	--	--	--	--	--	--	--	--	--	--
29...	0	0	0	0	3	20	0	60	.2	0	50

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
DEC. 02...	1100	53	.00	.00	.00	.05	.03	.00	.00	.00
JAN. 11...	1245	.70	.00	.00	.00	.00	.01	.00	.00	.00
APR. 27...	1110	87	.00	.00	.00	.09	.02	.00	.00	.00
JULY 18...	1100	.75	.00	.00	.00	.00	.02	.00	.00	.00
AUG. 29...	1330	.80	.00	.00	.00	.00	.01	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 02...	.00	.2	.07	.00	.00	.00	--	--	--
JAN. 11...	.01	.0	.07	.00	.00	.00	.03	.00	.00
APR. 27...	.00	.6	.14	.13	.00	.00	.00	.00	.00
JULY 18...	.00	.0	.09	.04	.00	.00	.40	.19	.00
AUG. 29...	.00	.0	.02	.00	.00	.00	.04	.04	.00

SAN JACINTO RIVER BASIN

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08075730 VINCE BAYOU AT PASADENA, TEX.

LOCATION.--Lat 29°41'40", long 95°12'58", Harris County, at concrete-lined channel at end of West Ellaine Avenue, Pasadena.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.
Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 25...	1350	.51	8.2	22	4.6	170	108	89	35	110	1.4	.49
NOV. 18...	0920	200	.7	22	3.2	5.6	69	0	12	7.0	.2	.15
DEC. 13...	0920	13	16	36	8.3	50	196	0	18	36	.6	.53
JAN. 10...	0925	1.9	12	6.4	17	65	335	0	16	56	.5	.38
MAR. 15...	1320	64	6.1	26	3.0	57	170	0	16	34	.5	1.0
APR. 12...	1025	.45	4.7	34	11	160	346	0	28	120	1.3	.64
27...	1200	63	5.7	26	4.9	41	146	0	13	30	.3	.42
MAY 05...	0930	95	10	22	4.6	15	90	0	13	13	.2	.42
12...	1125	420	5.9	18	3.2	9.7	68	0	12	7.0	.2	.41
JULY 18...	1015	.03	7.7	50	14	65	290	0	8.4	55	.4	.24
AUG. 07...	1100	.50	15	24	4.9	160	375	0	34	100	1.0	1.5
15...	1235	1.1	12	42	14	67	270	0	15	50	.4	.17
29...	0850	22	14	42	14	95	319	0	7.6	70	1.0	.19
SEP. 11...	1300	100	--	--	--	--	--	--	--	--	--	.39

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 25...	.040	.17	.00	.35	495	--	--	74	0	8.6	912	10.3
NOV. 18...	.015	.30	.5	.57	87	637	--	68	11	.3	179	8.2
DEC. 13...	.095	.20	.3	.27	263	--	--	120	0	2.0	475	7.5
JAN. 10...	.14	.61	.2	.23	398	52	--	230	0	1.9	729	7.8
MAR. 15...	.025	1.4	.2	2.4	229	720	--	77	0	2.8	440	7.5
APR. 12...	.006	1.0	.01	1.6	538	17	--	130	0	6.2	1000	9.1
27...	.074	1.2	.4	.80	196	180	--	85	0	1.9	375	8.5
MAY 05...	.021	.62	.4	.47	124	--	--	74	0	.8	234	7.1
12...	.012	.37	.5	.41	92	--	--	58	2	.6	164	6.8
JULY 18...	.007	.18	.03	.18	344	14	--	180	0	2.1	618	7.9
AUG. 07...	.000	15	.06	6.5	548	55	--	80	0	8.0	995	7.2
15...	.000	.04	.05	.21	334	--	--	160	0	2.3	586	8.2
29...	.006	.20	.04	.22	401	--	--	160	0	3.2	758	7.8
SEP. 11...	.032	.40	.1	1.2	--	16	0	--	--	--	985	9.2

08075730 VINCE BAYOU AT PASADENA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

		COLOR (PLAT- INUM- COBALT	TUR- RID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FFCAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUR- STANCE (MG/L)
DATE	TEMPER- ATURE (DEG C)											
OCT.												
25...	29.0	65	20	>20.0	>256	46	9.0	12000	11000	1000	38	.81
NOV.												
18...	19.5	60	220	8.2	88	25	2.5	1500000	10000	38000	11	.00
DEC.												
13...	16.0	240	50	10.2	102	46	3.9	4200000	20000	8200	10	.00
JAN.												
10...	20.0	20	30	10.6	115	24	3.9	2500000	18000	1100	9	.00
MAR.												
15...	22.5	40	150	6.6	75	220	19	2500000	260000	8800	7	.00
APR.												
12...	27.0	40	7	>20.0	>247	97	12	240000	9000	270	9	.46
27...	22.5	35	75	8.8	78	61	17	940000	150000	50000	6	.00
MAY												
05...	20.5	140	55	6.8	75	47	6.2	800000	120000	42000	9	.05
12...	22.0	140	90	6.2	70	39	5.5	270000	26000	75000	31	.00
JULY												
18...	28.0	30	10	12.7	161	53	2.1	250000	20000	900	0	.06
AUG.												
07...	29.0	65	35	4.2	54	180	22	130000000	200000	120000	110	4.8
15...	32.0	15	85	17.2	232	17	3.2	88000	5800	1200	0	.02
29...	26.0	20	80	9.0	110	9	>9.1	320000	26000	7400	0	.00
SEP.												
11...	32.0	40	25	18.3	247	--	10	29000	7100	550	--	.83
DATE	OIL AND GREASE (MG/L)	DIS- SOLVD ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.												
25...	--	--	--	--	--	--	--	--	--	--	--	--
NOV.												
18...	--	0	0	0	0	6	260	0	60	.3	0	30
DEC.												
13...	10	0	0	0	0	22	300	0	0	.2	0	80
JAN.												
10...	30	0	0	0	0	14	10	0	0	.2	1	80
MAR.												
15...	--	--	--	--	--	--	--	--	--	--	--	--
APR.												
12...	--	--	--	--	--	--	--	--	--	--	--	--
27...	40	20	0	0	0	14	50	24	0	.2	6	60
MAY												
05...	10	0	0	0	1	6	170	4	0	.2	7	70
12...	10	--	--	--	--	--	--	--	--	--	--	--
JULY												
18...	0	0	0	0	0	2	10	0	0	.6	0	50
AUG.												
07...	60	0	1	10	0	15	320	16	40	5.8	3	70
15...	20	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
SEP.												
11...	--	--	--	--	--	--	--	--	--	--	--	--

SAN JACINTO RIVER BASIN

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08075730 VINCE BAYOU AT PASADENA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
NOV. 18...	0920	200	.00	.00	.00	.17	.06	.00	.00	.00
JAN. 10...	0925	1.9	.00	.00	.00	.00	.01	.00	.00	.00
APR. 27...	1200	63	.00	.00	.00	.07	.02	.00	.00	.00
MAY 11...	0930	--	.00	.00	.00	.01	.02	.00	.00	.00
12...	1125	420	.00	.00	.00	.05	.05	.00	.00	.00
JULY 18...	1015	.03	.00	.00	.00	.00	.04	.00	.00	.00
AUG. 07...	1100	.50	.00	.00	.00	.00	.10	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 18...	.00	.1	.07	.00	.00	.00	.00	.00	.00
JAN. 10...	.01	.0	.02	.00	.00	.00	.02	.01	.00
APR. 27...	.00	.2	.06	.00	.00	.00	.62	.29	.00
MAY 11...	.00	.1	.04	.00	.00	.00	.00	.16	.00
12...	.00	.2	.07	.00	.00	.00	.00	.12	.00
JULY 18...	.00	.0	.04	.00	.00	.00	.00	.07	.00
AUG. 07...	.02	.8	.17	.00	.00	.00	.00	.00	.00

08075740 LITTLE VINCE BAYOU AT PASADENA, TEX.

LOCATION.--Lat 29°42'38", long 95°12'08", Harris County, at bridge on East Eagle Street, at Pasadena.

DRAINAGE AREA.--4.33 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.
Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
26...	0930	.13	17	30	8.5	91	260	0	21	50	.7	1.0
NOV.												
18...	1045	138	.5	16	2.9	7.5	50	0	14	8.0	.2	.13
DEC.												
13...	1010	5.3	16	36	5.4	31	152	0	23	21	.4	.34
JAN.												
10...	1020	2.3	10	26	5.1	150	358	0	10	70	1.2	.33
MAR.												
15...	1450	31	3.6	25	2.8	120	286	0	19	60	.9	.27
APR.												
03...	1340	.60	7.0	23	4.0	170	378	0	11	80	1.0	.21
MAY												
11...	1030	54	9.4	25	4.0	14	92	0	15	12	.2	.37
16...	1105	2.0	12	39	8.1	75	268	0	13	44	.6	.29
JULY												
18...	0930	1.0	3.9	20	2.5	60	152	0	16	36	.4	.32
AUG.												
07...	1155	1.0	8.7	30	2.7	110	262	0	16	75	.9	.29
29...	1010	.28	8.6	35	4.5	47	162	0	32	32	.5	.31

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- UENTS) (MG/L)	TOTAL NON- FILTR- ABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.												
26...	.030	.11	.1	.52	347	--	110	0	3.8	644	8.0	21.0
NOV.												
18...	.030	.29	.5	.54	77	179	52	11	.5	152	7.8	20.0
DEC.												
13...	.080	.36	.4	.65	210	--	110	0	1.3	387	6.9	16.5
JAN.												
10...	.10	.49	.09	.90	447	16	86	0	6.9	824	7.9	20.0
MAR.												
15...	.020	.26	.2	1.6	377	152	74	0	6.2	686	7.9	22.0
APR.												
03...	.007	.04	.00	.46	479	24	74	0	8.4	861	8.1	21.0
MAY												
11...	.033	.32	.4	.50	127	--	79	4	.7	234	6.9	20.5
16...	.16	.85	.3	.70	327	--	130	0	2.9	594	7.5	24.0
JULY												
18...	.016	.98	.06	.75	215	16	60	0	3.4	385	6.9	26.5
AUG.												
07...	.025	1.3	.02	.85	378	6	86	0	5.3	689	8.4	28.5
29...	.050	1.4	.00	.54	242	--	110	0	2.0	435	7.0	28.0

DATE	COLOR (PLAT- INUM- COBAL UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT.												
26...	50	30	6.2	69	38	3.8	210000	120000	2600	4	.05	--
NOV.												
18...	40	110	7.4	80	31	5.7	67000	8000	39000	9	.00	--
DEC.												
13...	200	30	4.4	45	47	5.0	3900000	76000	14000	8	.00	--
JAN.												
10...	40	15	5.5	60	15	3.1	1200000	44000	2400	9	.00	20
MAR.												
15...	30	70	8.3	94	67	13	500000	69000	9900	4	.00	--
APR.												
03...	30	15	6.4	71	16	2.0	10000	4400	1200	0	.01	--
MAY												
11...	150	30	5.6	62	40	6.2	440000	49000	40000	10	.05	10
16...	110	30	4.1	48	27	3.3	380000	45000	2000	0	.10	--
JULY												
18...	40	15	1.3	16	30	5.8	300000	74000	5300	0	.18	10
AUG.												
07...	25	6	6.9	88	22	11	560000	180000	62000	20	.15	20
29...	40	30	3.0	38	55	>9.2	760000	170000	70000	1	.20	--

SAN JACINTO RIVER BASIN

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08075740 LITTLE VINCE BAYOU AT PASADENA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTMBER 1972

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 26...	--	--	--	--	--	--	--	--	--	--	--
NOV. 18...	10	0	0	0	7	200	8	80	.3	0	40
DEC. 13...	--	--	--	--	--	--	--	--	--	--	--
JAN. 10...	0	0	30	0	10	40	2	40	<.2	2	50
MAR. 15...	--	--	--	--	--	--	--	--	--	--	--
APR. 03...	--	--	--	--	--	--	--	--	--	--	--
MAY 11...	0	0	0	1	6	100	13	0	.2	7	50
16...	--	--	--	--	--	--	--	--	--	--	--
JULY 18...	10	1	0	0	21	100	12	30	.3	3	70
AUG. 07...	0	0	0	0	10	50	0	0	4.7	5	40
29...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
NOV. 18...	1045	138	.00	.00	.00	.05	.02	.00	.00	.00
JAN. 10...	1020	2.3	.00	.00	.00	.00	.01	.00	.00	.00
MAY 11...	1030	54	.00	.00	.00	.00	.03	.00	.00	.00
JULY 18...	0930	1.0	.00	.00	.00	.00	.01	.00	.00	.00
AUG. 07...	1155	1.0	.00	.00	.00	.00	.01	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 18...	.00	.1	.09	.00	.00	.00	.00	.00	.00
JAN. 10...	.01	.0	.02	.00	.00	.00	.00	.01	.00
MAY 11...	.05	.1	.08	.00	.00	.00	.09	.28	.00
JULY 18...	.00	.0	.33	.00	.00	.00	.00	.22	.00
AUG. 07...	.00	.0	.08	.00	.00	.00	.00	.08	.00

SAN JACINTO RIVER BASIN

08075760 HUNTING BAYOU AT FALLS STREET, AT HOUSTON, TEX.

LOCATION.--Lat 29°48'22", long 95°19'50", Harris County, at bridge on Falls Street in northeast Houston.

DRAINAGE AREA.--3.5 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1972.
Pesticide analyses: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
FEB. 01...	1300	6.0	14	88	18	120	342	0	69	140
MAR. 21...	0020	420	2.5	19	1.1	8.0	53	0	11	9.5
APR. 27...	1830	260	3.0	20	2.9	7.7	62	0	9.6	12
JULY 25...	1500	.44	15	38	11	120	310	0	16	88
SEP. 20...	1125	.40	--	--	--	--	--	--	--	--

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)
FEB. 01...	.5	.24	.10	1.0	.8	.55	622	--	--
MAR. 21...	.0	.16	.022	.23	.5	.46	78	--	--
APR. 27...	.1	.28	.022	.25	.4	.52	87	--	--
JULY 25...	.6	.15	.045	.38	.05	.95	438	--	--
SEP. 20...	--	.25	.033	.68	.02	.68	--	50	1

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
FEB. 01...	290	14	3.0	1110	6.9	14.0	40	20	7.1
MAR. 21...	52	9	.5	161	7.6	18.0	40	55	7.0
APR. 27...	62	11	.4	176	7.8	18.5	45	120	8.0
JULY 25...	140	0	4.3	779	7.9	30.5	10	15	7.5
SEP. 20...	--	--	--	633	6.9	27.0	30	15	1.8

DATE	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
FEB. 01...	68	24	17	3000000	50000	26000	25	.33	--
MAR. 21...	74	35	6.9	300000	73000	200000	4	.00	--
APR. 27...	85	54	9.3	110000	100000	120000	13	.00	--
JULY 25...	99	18	3.9	100000	4000	17000	6	.14	--
SEP. 20...	22	--	2.7	26000	22000	9000	--	.17	14

SAN JACINTO RIVER BASIN

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08075770 HUNTING BAYOU AT U.S. HIGHWAY 90-A, HOUSTON, TEX.

LOCATION.--Lat 29°47'43", long 95°16'21", Harris County, at gaging station near bridge on U.S. Highway 90-A in northeast section of Houston, and 9.2 miles upstream from mouth.

DRAINAGE AREA.--14.4 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
26...	1105	5.5	29	63	14	100	352	0	35	91
NOV.										
17...	1010	6.0	17	52	13	98	324	0	35	88
DEC.										
02...	1040	157	5.4	38	4.2	44	150	0	44	35
27...	1010	6.6	19	74	19	120	392	0	55	100
JAN.										
19...	1240	8.3	14	77	15	100	306	0	42	140
FEB.										
01...	1345	26	12	67	13	63	276	0	68	68
MAR.										
21...	0150	2400	2.4	18	.3	5.9	42	0	16	6.5
APR.										
10...	1235	7.0	17	64	18	120	369	0	45	100
27...	1915	560	5.5	30	3.9	25	97	0	37	23
MAY										
15...	1255	22	16	76	16	72	330	0	40	74
23...	1120	10	7.6	76	20	130	417	0	55	110
JULY										
26...	0915	2.6	14	53	7.5	85	256	0	42	76
AUG.										
08...	1015	7.5	15	45	10	80	242	0	35	80
15...	0845	53	8.5	50	11	59	150	0	100	40
30...	1115	1.5	15	54	16	85	260	0	54	96
SEP.										
20...	1200	6.0	--	--	--	--	--	--	--	--

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT.										
26...	.7	.31	.28	4.8	.1	1.2	518	--	--	210
NOV.										
17...	.6	.14	.39	10	.6	3.2	480	--	--	180
DEC.										
02...	.5	.20	.070	5.5	2.3	1.7	262	278	--	110
27...	.9	.16	.28	2.8	.2	1.5	581	--	--	260
JAN.										
19...	.7	.20	.50	4.8	.4	.80	545	20	--	250
FEB.										
01...	.6	.40	.10	12	1.8	3.0	451	--	--	222
MAR.										
21...	.1	.18	.025	.83	.4	.60	73	204	--	46
APR.										
10...	.6	.34	.95	1.7	1.9	1.6	563	16	--	240
27...	.4	.60	.12	3.2	1.4	2.2	183	904	--	91
MAY										
15...	.6	.22	.084	2.5	.5	.95	462	--	--	260
23...	.7	.39	.036	4.6	.04	2.5	610	--	--	270
JULY										
26...	.6	.24	.10	4.2	.05	2.4	410	31	--	160
AUG.										
08...	.5	.29	.055	6.5	.03	2.5	393	--	--	150
15...	.7	.42	.50	6.0	8.5	3.1	392	--	--	170
30...	.5	.41	.34	7.2	.9	1.8	463	--	--	200
SEP.										
20...	--	.62	.40	6.5	5.2	3.0	--	25	5	--

SAN JACINTO RIVER BASIN

08075770 HUNTING BAYOU AT U.S. HIGHWAY 90-A, HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
OCT. 26...	0	3.1	967	7.0	23.0	30	10	6.1	70	26
NOV. 17...	0	3.1	870	7.3	22.5	30	40	5.9	67	19
DEC. 02...	0	1.8	443	7.4	11.0	80	150	7.8	70	49
27...	0	3.1	1050	7.2	20.5	100	15	3.9	43	25
JAN. 19...	1	2.8	1030	7.5	21.0	30	15	7.6	84	32
FEB. 01...	0	1.8	837	7.3	12.5	40	30	7.4	69	27
MAR. 21...	12	.4	145	7.4	17.5	40	75	8.1	84	33
APR. 10...	0	3.5	1010	7.2	22.0	20	10	10.4	118	23
27...	12	1.1	329	7.5	19.0	50	270	6.5	69	230
MAY 15...	0	2.0	809	7.1	25.0	80	15	3.6	43	30
23...	0	3.3	1070	7.5	26.0	20	25	9.9	121	44
JULY 26...	0	2.9	757	6.9	27.0	20	25	2.6	32	35
AUG. 08...	0	2.8	734	7.1	28.0	20	20	3.8	48	48
15...	49	2.0	639	6.9	24.0	45	35	1.4	88	75
30...	0	2.6	867	7.3	27.0	30	20	9.8	121	36
SEP. 20...	--	--	774	6.8	28.0	50	20	3.0	38	--
DATE	RIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	OIL AND GREASE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)
OCT. 26...	5.4	1300000	1000000	250	3	.46	--	--	--	--
NOV. 17...	4.8	120000	2100	500	7	.37	--	--	--	--
DEC. 02...	17	1100000	18000	100000	12	.00	20	--	0	0
27...	4.5	55000	320	150	15	.45	--	--	--	--
JAN. 19...	10	79000	600	350	7	.22	10	--	0	0
FEB. 01...	6.3	2500000	62000	20000	5	.22	--	--	--	--
MAR. 21...	5.4	420000	300000	41000	2	.00	--	--	--	--
APR. 10...	7.5	50000	16000	1000	5	.18	--	--	--	--
27...	14	1000000	280000	130000	22	.00	40	--	--	--
MAY 15...	3.6	10000	1500	580	13	.20	20	--	0	0
23...	5.2	6600	2400	440	4	.16	--	--	--	--
JULY 26...	3.9	26000	3000	500	4	.23	--	--	--	--
AUG. 08...	7.8	19000	10000	550	8	.32	130	--	0	0
15...	23	1100000	100000	310000	1	.25	--	--	--	--
30...	>8.6	12000	2000	1000	0	.24	20	--	10	1
SEP. 20...	6.9	33000	31000	2800	--	.40	--	25	--	--

08075770 HUNTING BAYOU AT U.S. HIGHWAY 90-A, HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED CHROMIUM (CR) (UG/L)	HEXA-VALENT CHROMIUM (CR6) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 26...	--	--	--	--	--	--	--	--	--	--
NOV. 17...	--	--	--	--	--	--	--	--	--	--
DEC. 02...	0	--	0	18	0	0	110	.4	0	100
27...	--	--	--	--	--	--	--	--	--	--
JAN. 19...	0	--	8	8	20	0	800	<.2	23	1200
FEB. 01...	--	--	--	--	--	--	--	--	--	--
MAR. 21...	--	--	--	--	--	--	--	--	--	--
APR. 10...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
MAY 15...	--	0	0	6	30	0	80	<.2	9	140
23...	--	--	--	--	--	--	--	--	--	--
JULY 26...	--	--	--	--	--	--	--	--	--	--
AUG. 08...	0	--	0	4	120	0	100	3.0	16	60
15...	--	--	--	--	--	--	--	--	--	--
30...	0	--	18	24	40	0	560	.2	80	140
SEP. 20...	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE-POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE-POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE-POSITS (UG/KG)	DI-ELDRIN (UG/L)
DEC. 02...	1040	157	.00	--	.02	--	.00	--	.07	--	.03
JAN. 19...	1240	8.3	.00	--	.00	--	.00	--	.00	--	.01
MAR. 21...	0150	2400	.00	--	.02	--	.00	--	.05	--	.02
APR. 27...	1915	560	.00	--	.07	--	.00	--	.08	--	.04
MAY 15...	1255	22	.00	--	.00	--	.00	--	.00	--	.01
23...	1120	10	--	<.2	--	79	--	<.2	--	10	--
AUG. 08...	1015	7.5	.00	--	.00	--	.00	--	.00	--	.01
30...	1115	1.5	.00	--	.05	--	.01	--	.00	--	.01

DATE	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOTTOM DE-POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE-POSITS (UG/KG)	CHLOR-DANE (UG/L)
DEC. 02...	--	.00	--	.00	--	.00	--	.00	--	.1
JAN. 19...	--	.00	--	.00	--	.00	--	.00	--	.1
MAR. 21...	--	.00	--	.00	--	.00	--	.04	--	.1
APR. 27...	--	.00	--	.00	--	.00	--	.00	--	.2
MAY 15...	--	.00	--	.00	--	.00	--	.00	--	.0
23...	12	--	<.2	--	<.2	--	<.2	--	<.2	--
AUG. 08...	--	.00	--	.00	--	.00	--	.00	--	.0
30...	--	.00	--	.00	--	.00	--	.00	--	.0

DATE	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	PCR (UG/L)	PCR IN BOTTOM DE-POSITS (UG/KG)
DEC. 02...	--	.04	.00	.00	.00	.00	.09	.00	--	--
JAN. 19...	--	.08	.01	.00	.00	.80	2.5	.00	--	--
MAR. 21...	--	.08	.00	.00	.00	12	1.3	.00	--	--
APR. 27...	--	.06	.00	.00	.00	13	.72	.00	.7	--
MAY 15...	--	.04	.00	.00	.00	.30	.18	.00	--	--
23...	56	--	--	--	--	--	--	--	--	220
AUG. 08...	--	.15	.00	.00	.00	.24	.04	.00	--	--
30...	--	.11	.00	.00	.00	.00	.05	.00	--	--

08076000 GREENS BAYOU NEAR HOUSTON, TEX.

LOCATION.--Lat 29°55'05", long 95°18'24", Harris County, at gaging station at bridge on U.S. Highway 59, 10.5 miles northeast of Houston, 12.0 miles upstream from Harris Bayou, and 23.4 miles upstream from mouth.

DRAINAGE AREA.--72.7 sq mi, unadjusted for basin boundary changes.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
JAN. 31...	1245	370	5.7	17	4.3	8.6	58	0	8.8	15	.1	.26
MAR. 20...	2330	5000	2.0	11	.9	2.3	32	0	3.2	4.5	.0	.22
APR. 26...	1250	8.5	30	81	15	170	326	0	26	240	.4	.36
MAY 12...	1000	710	7.7	20	3.4	11	71	0	10	13	.1	.46
SEP. 20...	1000	6.2	--	--	--	--	--	--	--	--	--	.35

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- HABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
JAN. 31...	.000	.12	.3	.45	90	--	--	60	12	.5	175	7.2
MAR. 20...	.033	.17	.2	.33	41	--	--	31	5	.2	87	7.3
APR. 26...	.26	.41	.6	2.6	727	--	--	260	0	4.6	1230	8.1
MAY 12...	.013	.21	.4	.36	102	--	--	64	6	.6	181	6.5
SEP. 20...	.85	1.7	1.9	2.5	--	151	9	--	--	--	946	7.3

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
JAN. 31...	6.5	140	55	10.2	82	49	5.1	1600000	26000	29000	2	.00
MAR. 20...	17.5	60	170	9.2	96	24	3.5	94000	17000	75000	5	.00
APR. 26...	23.0	20	70	8.9	102	28	6.9	5500	600	520	2	.00
MAY 12...	22.5	180	60	6.2	70	33	5.2	36000	8300	10000	13	.00
SEP. 20...	27.0	55	80	2.8	35	--	3.0	16000	7000	400	--	.01

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
JAN. 31...	--	0	0	0	0	7	230	0	0	.2	0	0
MAR. 20...	--	--	--	--	--	--	--	--	--	--	--	--
APR. 26...	--	10	0	0	2	26	300	0	190	.4	6	110
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--
SEP. 20...	16	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
MAY 12...	1000	710	.00	.00	.00	.00	.01	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAY 12...	.00	.0	.00	.00	.00	.00	.00	.01	.00

08076500 HALLS BAYOU AT HOUSTON, TEX.

LOCATION.--Lat 29°51'42", long 95°20'05", Harris County, at gaging station at bridge on Jenson Drive in northeast section of Houston, and 11.0 miles upstream from mouth.

DRAINAGE AREA.--24.7 sq mi. unadjusted for basin boundary changes.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.

Pesticide analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
JAN. 31...	1335	100	7.6	31	6.0	43	106	0	16	65	.2	.31
MAR. 21...	0045	3700	2.3	14	1.0	5.7	39	0	7.0	9.0	.0	.18
APR. 26...	1325	8.2	29	40	17	230	322	0	34	280	.3	.60
MAY 12...	0915	190	10	38	5.6	40	133	0	14	57	.2	.44
SEP. 20...	1040	4.3	--	--	--	--	--	--	--	--	--	.56

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
JAN. 31...	.006	.68	.8	.85	225	--	--	100	15	1.8	436	7.2
MAR. 21...	.030	.24	.05	.44	59	--	--	39	7	.4	121	7.7
APR. 26...	.26	9.5	.5	8.2	809	--	--	170	0	7.7	1480	8.4
MAY 12...	.034	.70	.5	.80	233	--	--	120	9	1.6	440	6.6
SEP. 20...	.024	10	.03	8.0	--	33	24	--	--	--	1980	7.3

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
JAN. 31...	7.5	120	50	9.2	77	46	8.1	1500000	16000	39000	0	.00
MAR. 21...	13.0	60	120	7.2	68	25	2.9	200000	38000	110000	9	.00
APR. 26...	24.5	45	15	16.1	192	61	17	240000	2300	1200	6	.22
MAY 12...	22.5	130	55	5.0	57	33	4.9	170000	56000	27000	31	.05
SEP. 20...	27.5	50	15	4.0	50	--	19	3000000	1900000	8000	--	1.6

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
JAN. 31...	--	0	0	0	0	5	400	0	30	<.2	0	50
MAR. 21...	--	--	--	--	--	--	--	--	--	--	--	--
APR. 26...	--	0	0	0	2	16	30	6	0	.6	7	60
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--
SEP. 20...	29	--	--	--	--	--	--	--	--	--	--	--

		DIS-CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR EPOXIDE (UG/L)
DATE	TIME									
MAY 12...	0915	190	.00	.00	.00	.00	.02	.00	.00	.00
DATE	LINDANE (UG/L)	CHLOR-DANE (UG/L)	DI-AZINON (UG/L)	MALA-THION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	
MAY 12...	.00	.0	.03	.00	.00	.00	.00	.09	.00	

SAN JACINTO RIVER BASIN

08076700 GREENS BAYOU AT LEY ROAD, AT HOUSTON, TEX.

LOCATION.--Lat 29°50'13", long 95°13'59", Harris County, at bridge on Ley Road, 300 ft downstream from mouth of Halls Bayou, and 9.2 miles northeast of the courthouse in downtown Houston.

DRAINAGE AREA.--213 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1972.
Pesticide analyses: October 1970 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 26...	1200	15	35	94	20	400	293	0	22	670
NOV. 01...	1205	17	22	84	26	380	282	0	26	660
DEC. 02...	1550	1780	2.1	26	1.7	40	123	0	8.0	35
JAN. 19...	0915	40	18	120	26	420	332	0	24	730
FEB. 02...	1045	251	7.4	42	8.0	72	122	0	17	130
MAR. 21...	0200	8300	2.3	18	.8	11	46	0	8.4	18
21...	1245	13800	2.1	14	1.0	6.2	40	0	5.6	10
APR. 26...	1010	16	23	75	27	350	332	0	32	560
MAY 12...	1145	2000	5.2	31	3.6	29	87	0	13	50
23...	1240	34	8.8	100	20	310	324	0	26	520
JULY 18...	1115	51	11	54	10	180	149	0	16	300
AUG. 15...	1140	200	5.8	32	4.9	65	88	0	22	100
30...	1155		22	74	20	330	282	0	26	530
SEP. 20...	1300	12	--	--	--	--	--	--	--	--

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT. 26...	.4	.60	.000	6.7	1.2	3.6	1400	--	--	320
NOV. 01...	.4	.28	.32	11	.7	6.5	1360	--	--	320
DEC. 02...	.2	.22	.010	.46	.4	.80	175	969	--	72
JAN. 19...	.4	.38	.50	4.0	1.1	4.6	1510	27	--	410
FEB. 02...	.2	.38	.008	.84	.6	.75	336	--	--	140
MAR. 21...	.1	.21	.040	.32	.08	.55	83	614	--	48
21...	.0	.13	.028	.16	.06	.23	60	422	--	39
APR. 26...	.4	.60	.13	10	.2	6.0	1240	42	--	300
MAY 12...	.2	.40	.006	.28	.3	.50	177	--	--	92
23...	.4	.35	.20	2.4	.3	2.8	1160	--	--	340
JULY 18...	.3	.23	.50	2.0	1.0	2.3	650	98	--	180
AUG. 15...	.2	.22	.037	.41	.7	.75	279	282	--	100
30...	.4	.45	.16	6.2	.3	1.9	1150	--	--	270
SEP. 20...	--	.49	.13	6.0	.8	4.0	--	41	18	--

SAN JACINTO RIVER BASIN

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08076700 GREENS BAYOU AT LEY ROAD, AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
OCT. 26...	76	9.8	2640	7.0	21.0	45	20	5.0	56	29
NOV. 01...	85	9.4	2630	7.8	23.5	35	55	4.8	56	42
DEC. 02...	0	2.0	299	8.2	9.5	180	310	10.2	89	46
JAN. 19...	140	9.0	2810	7.3	16.0	40	15	7.6	76	44
FEB. 02...	38	2.7	673	7.3	10.0	140	80	9.3	82	44
MAR. 21...	10	.7	169	7.5	14.0	70	200	7.5	72	36
21...	6	.4	126	7.9	19.0	80	140	7.5	72	31
APR. 26...	24	8.8	2230	7.7	22.5	40	15	3.4	39	55
MAY 12...	21	1.3	329	6.7	21.5	200	150	6.8	76	41
23...	74	7.4	2060	7.8	27.5	35	15	8.3	104	39
JULY 18...	55	5.8	1240	7.3	27.0	40	60	3.4	42	26
AUG. 15...	28	2.8	524	7.7	25.0	65	130	5.2	62	32
30...	37	8.8	2080	7.6	27.0	30	10	5.0	62	32
SEP. 20...	--	--	1910	7.1	27.5	40	25	3.1	39	--
DATE	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	OIL AND GREASE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)
OCT. 26...	6.9	180000	20000	800	4	1.1	--	--	--	--
NOV. 01...	4.5	3100000	18000	1600	16	1.7	--	--	--	--
DEC. 02...	4.8	480000	65000	79000	4	.00	10	--	0	1
JAN. 19...	13	130000	2100	550	7	1.1	10	--	0	0
FEB. 02...	17	720000	5800	2300	1	.00	10	--	0	0
MAR. 21...	4.3	260000	52000	100000	2	.00	--	--	--	--
21...	3.2	51000	12000	41000	0	.00	--	--	--	--
APR. 26...	17	320000	9000	6700	0	.19	40	--	10	0
MAY 12...	4.7	40000	38000	50000	0	.00	100	--	--	--
23...	9.3	61000	420	460	0	.59	--	--	--	--
JULY 18...	7.6	84000	3900	920	0	.09	--	--	10	0
AUG. 15...	6.6	240000	15000	9700	1	.00	20	--	--	--
30...	>9.0	69000	3100	580	0	.31	10	--	10	0
SEP. 20...	7.8	44000	7900	780	--	.54	--	16	--	--

SAN JACINTO RIVER BASIN

08076700 GREENS BAYOU AT LEY ROAD, AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHROMIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MANGANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 26...	--	--	--	--	--	--	--	--	--
NOV. 01...	--	--	--	--	--	--	--	--	--
DEC. 02...	0	0	6	0	0	80	.2	0	30
JAN. 19...	30	0	17	130	0	380	.2	7	70
FEB. 02...	0	0	8	310	0	60	.2	0	0
MAR. 21...	--	--	--	--	--	--	--	--	--
APR. 26...	0	2	28	210	0	180	.3	7	160
MAY 12...	--	--	--	--	--	--	--	--	--
JULY 18...	0	0	5	30	0	70	.8	4	60
AUG. 15...	--	--	--	--	--	--	--	--	--
SEP. 30...	0	0	4	40	0	290	.2	5	110
20...	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
DEC. 02...	1550	1780	.00	.00	.00	.02	.05	.00	.00	.00
JAN. 19...	0915	40	.00	.00	.00	.00	.03	.00	.00	.00
APR. 26...	1010	16	.00	.00	.00	.00	.06	.00	.00	.00
MAY 12...	1145	2000	.00	.00	.00	.00	.02	.00	.00	.00
JULY 18...	1115	51	.00	.00	.00	.00	.02	.00	.00	.00
AUG. 30...	1155		.00	.00	.00	.00	.02	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 02...	.00	.2	.03	.00	.00	.00	.00	.02	.03
JAN. 19...	.00	.1	.38	.00	.00	.00	.00	.00	.00
APR. 26...	.04	.2	.23	.00	.00	.00	.00	.00	.00
MAY 12...	.00	.0	.02	.00	.00	.00	.00	.04	.00
JULY 18...	.03	.0	.42	.11	.00	.00	.00	.16	.00
AUG. 30...	.04	.1	.19	.00	.00	.00	.00	.02	.00

08076800 BUFFALO BAYOU TRIBUTARY AT PASADENA, TEX.

LOCATION.--Lat 29°43'31", long 95°09'59", Harris County, at wooden bridge just off a private road used as the south entrance of Ethyl Corporation, about 0.9 mile north of State Highway 225, at Pasadena.

DRAINAGE AREA.--2.58 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.
Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
26...	1320	.80	31	16	7.3	160	366	0	29	77	1.0	.37
NOV.												
18...	1245	50	3.8	24	1.2	33	95	0	25	19	.3	.27
DEC.												
15...	1100	7.6	18	38	9.5	81	256	0	35	50	.7	.33
JAN.												
10...	1300	3.8	18	20	12	160	396	0	24	76	.9	.91
MAR.												
15...	1542	290	3.4	20	9.0	17	106	0	20	16	.3	1.2
APR.												
03...	1115	.70	19	20	9.2	150	357	0	30	82	.9	.34
MAY												
08...	1250	14	12	28	6.1	38	136	0	27	24	.3	.74
11...	1230	66	10	23	5.7	21	104	0	15	14	.3	1.8
12...	0955	380	2.9	14	2.7	8.0	50	0	14	5.0	.1	.35
JULY												
18...	0855	3.3	8.0	20	5.3	84	202	0	25	57	.5	.40
AUG.												
07...	1330	3.4	20	16	6.8	150	306	0	32	86	1.0	.38
29...	0850	2.9	18	16	9.7	130	284	0	34	75	.9	.48

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.												
26...	.40	9.7	.00	4.8	510	372	70	0	8.3	958	7.5	29.0
NOV.												
18...	.090	1.7	3.0	1.6	169	422	65	0	1.8	306	7.1	19.5
DEC.												
15...	.10	2.5	.1	2.8	362	--	130	0	3.0	685	7.1	20.5
JAN.												
10...	.50	8.0	1.2	7.2	518	96	99	0	6.8	957	7.4	24.0
MAR.												
15...	.030	3.0	.7	3.0	145	1700	87	0	.8	285	7.0	21.5
APR.												
03...	.90	8.0	.1	6.9	502	20	88	0	7.0	923	7.3	24.0
MAY												
08...	.10	.79	1.5	2.0	210	176	95	0	1.7	365	6.9	23.0
11...	.000	.18	1.4	3.7	146	--	81	0	1.0	260	6.9	21.5
12...	.013	.32	.5	.48	74	--	46	5	.5	122	6.8	22.0
JULY												
18...	.044	5.5	.08	4.4	306	35	72	0	4.3	590	7.1	26.5
AUG.												
07...	.50	2.6	.5	6.2	473	--	68	0	8.1	837	7.3	30.5
29...	.48	5.4	.7	3.8	434	--	80	0	6.3	792	7.1	31.0

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUR- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT.												
26...	40	15	4.8	62	41	7.3	34000	340	3100	6	.12	--
NOV.												
18...	240	200	6.0	65	16	11	940000	12000	74000	0	.00	100
DEC.												
15...	120	25	7.1	78	41	5.4	9000	650	34	15	.04	--
JAN.												
10...	40	20	6.3	74	73	35	180000	550	78	3	.57	20
MAR.												
15...	70	250	6.3	71	160	13	480000	75000	31000	6	.00	--
APR.												
03...	20	15	7.9	93	26	10	20	1	23	0	.07	--
MAY												
08...	140	60	5.0	57	110	19	1600000	34000	13000	0	.00	10
11...	160	200	5.8	65	170	26	4000000	160000	7000	4	.00	20
12...	160	140	6.8	77	29	4.5	120000	44000	84000	14	.00	--
JULY												
18...	40	25	1.7	21	27	7.0	38000	1900	2300	0	.10	--
AUG.												
07...	30	60	4.4	58	27	6.6	12000	750	3300	0	.11	10
29...	30	30	4.6	61	26	>8.9	9300	1500	1100	0	.23	60

SAN JACINTO RIVER BASIN

08076800 BUFFALO BAYOU TRIBUTARY AT PASADENA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CORALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.											
26...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
18...	0	0	0	0	9	0	7	0	.7	0	50
DEC.											
15...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
10...	0	0	0	0	17	60	0	0	.3	2	80
MAR.											
15...	--	--	--	--	--	--	--	--	--	--	--
APR.											
03...	--	--	--	--	--	--	--	--	--	--	--
MAY											
08...	0	1	0	3	8	140	3	0	.2	9	60
11...	0	0	0	1	9	90	0	0	.8	9	60
12...	--	--	--	--	--	--	--	--	--	--	--
JULY											
18...	0	0	0	0	7	50	0	0	.6	4	60
AUG.											
07...	0	0	0	0	5	20	0	0	5.2	0	40
29...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
NOV.										
18...	1245	50	.00	.00	.00	.01	.05	.00	.00	.00
JAN.										
10...	1300	3.8	.00	.03	.00	.05	.10	.00	.00	.00
MAY										
08...	1250	14	.00	.00	.00	.00	.06	.00	.00	.00
11...	1230	66	.00	.00	.00	.00	.12	.00	.00	.00
12...	0955	380	.00	.00	.00	.00	.03	.00	.00	.00
JULY										
18...	0855	3.3	.00	.00	.00	.00	.04	.00	.00	.00
AUG.										
07...	1330	3.4	.00	.00	.00	.00	.09	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV.									
18...	.00	.3	.10	.00	.00	.00	.00	.00	.00
JAN.									
10...	.00	.4	.27	.00	.00	.00	.00	.00	.00
MAY									
08...	.00	.6	.11	.00	.00	.00	.64	.18	.00
11...	.00	1.5	.00	.00	.00	.00	.00	.08	.00
12...	.03	.1	.05	.00	.00	.00	.00	.06	.00
JULY									
18...	.00	.2	.29	.00	.00	.00	.13	.08	.00
AUG.									
07...	.00	.3	.22	.00	.00	.00	.07	.00	.00

08076850 PATRICK BAYOU AT DEER PARK, TEX.

LOCATION.--Lat 29°42'38", long 95°06'53", Harris County, at bridge on State Highway 225 at Deer Park.

DRAINAGE AREA.--2.29 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.
Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
26...	1115	2.3	30	26	9.2	150	425	0	10	74	1.4	.81
NOV.												
18...	1130	11	4.4	22	3.7	35	90	0	40	22	.3	.30
DEC.												
15...	0940	6.4	18	42	10	53	212	0	29	44	.6	.48
JAN.												
10...	1120	1.8	16	33	12	130	370	0	13	85	1.4	.98
MAR.												
15...	1520	175	3.0	25	3.3	8.9	72	0	22	12	.3	.52
APR.												
03...	1305	1.8	18	22	14	160	474	0	22	79	1.0	.01
MAY												
08...	1150	10	12	30	8.8	45	176	0	22	32	.5	.49
11...	1120	30	9.3	20	5.4	20	94	0	13	18	.2	.40
12...	1520	87	7.0	21	3.3	11	80	0	10	10	.2	.36
JULY												
18...	0755	1.5	9.4	32	7.3	110	322	0	17	54	.7	.41
AUG.												
07...	1245	1.5	17	18	5.6	180	445	0	18	76	1.7	.72
29...	1120	1.8	17	20	8.8	150	402	0	15	83	1.7	.87

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.												
26...	.30	11	.5	3.3	528	--	100	0	6.4	967	7.7	25.0
NOV.												
18...	.085	1.5	1.0	1.1	178	189	70	0	1.8	325	7.2	19.5
DEC.												
15...	.28	2.1	.4	.95	306	--	150	0	1.9	578	7.5	18.5
JAN.												
10...	.36	9.0	.4	3.1	486	165	130	0	4.9	931	7.7	22.5
MAR.												
15...	.089	1.4	.1	1.1	112	1340	76	17	.4	227	7.5	20.0
APR.												
03...	.18	20	.3	6.0	575	40	110	0	6.5	1060	6.9	23.0
MAY												
08...	.10	2.1	.6	1.4	243	38	110	0	1.9	448	6.9	22.0
11...	.032	.45	.4	.44	134	--	72	0	1.0	246	7.0	22.0
12...	.047	.38	.2	.30	103	--	66	0	.6	196	7.0	21.0
JULY												
18...	.20	5.5	.3	2.4	393	30	110	0	4.4	738	7.3	26.0
AUG.												
07...	.68	12	.7	4.8	555	--	68	0	9.4	986	7.6	29.0
29...	.48	15	.6	2.3	519	--	86	0	7.1	922	7.3	28.0

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT.												
26...	45	20	7.2	86	66	11	140	1	4	5	1.4	--
NOV.												
18...	120	120	6.6	71	23	19	1200000	12000	20000	1	.00	10
DEC.												
15...	160	25	6.9	73	53	11	13000	1400	3500	11	.00	--
JAN.												
10...	40	15	8.1	92	51	13	91000	850	140	9	.85	20
MAR.												
15...	80	270	8.8	96	93	10	900000	50000	9800	2	.00	--
APR.												
03...	40	30	8.7	100	100	29	40	2	370	17	1.2	--
MAY												
08...	140	20	6.1	69	64	16	23	1	2	0	.40	10
11...	150	25	7.2	82	47	7.8	380000	18000	14000	9	.13	10
12...	180	50	6.6	73	38	4.6	120000	28000	17000	14	.07	--
JULY												
18...	40	20	5.0	61	38	10	1600000	25000	21000	0	.47	20
AUG.												
07...	45	25	9.7	124	56	22	44	40	38	16	1.4	20
29...	50	30	6.8	86	66	>9.0	31	26	8	4	1.4	--

SAN JACINTO RIVER BASIN

08076850 PATRICK BAYOU AT DEER PARK, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COHALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 26...	--	--	--	--	--	--	--	--	--	--	--
NOV. 18...	0	0	0	0	7	0	0	30	.3	0	70
DEC. 15...	--	--	--	--	--	--	--	--	--	--	--
JAN. 10...	0	0	0	0	20	60	0	110	.2	1	60
MAR. 15...	--	--	--	--	--	--	--	--	--	--	--
APR. 03...	--	--	--	--	--	--	--	--	--	--	--
MAY 08...	0	1	0	2	10	160	2	0	.3	8	70
11...	0	0	0	1	6	130	3	0	.2	8	50
12...	--	--	--	--	--	--	--	--	--	--	--
JULY 18...	0	0	0	0	11	90	0	60	.6	4	100
AUG. 07...	0	0	0	0	17	100	0	0	4.4	0	50
29...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDO (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
NOV. 18...	1130	11	.00	.00	.00	.00	.07	.00	.00	.00
JAN. 10...	1120	1.8	.00	.03	.00	.03	.04	.00	.00	.00
MAY 08...	1150	10	.00	.00	.00	.00	.04	.00	.00	.00
11...	1120	30	.00	.00	.00	.00	.02	.00	.00	.00
12...	1520	87	.00	.00	.00	.02	.03	.00	.00	.00
JULY 18...	0755	1.5	.00	.00	.00	.00	.06	.00	.00	.00
AUG. 07...	1245	1.5	.00	.00	.00	.02	.17	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 18...	.04	.3	.07	.00	.00	.00	.00	.00	.00
JAN. 10...	.00	.2	.07	.00	.00	.00	.00	.00	.00
MAY 08...	.00	.1	.06	.00	.00	.00	.00	.05	.00
11...	.00	.0	.01	.00	.00	.00	.00	.05	.00
12...	.05	.1	.05	.00	.00	.00	.00	.03	.00
JULY 18...	.00	.1	.46	.00	.00	.00	.00	.05	.00
AUG. 07...	.00	.3	.41	.44	.00	.00	.00	.00	.00

08076900 CARPENTERS BAYOU AT CLOVERLEAF, TEX.

LOCATION.--Lat 29°46'21", long 95°09'21", Harris County, at bridge on East Belt Drive, 0.1 mile north of Interstate Highway 10, and about 0.5 mile east of Cloverleaf.

DRAINAGE AREA.--23.5 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.
Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 27...	1200	3.6	27	34	8.5	72	186	0	27	64
NOV. 15...	1145	2.1	16	28	11	140	282	0	45	100
DEC. 02...	1640	157	4.6	24	2.5	33	100	0	22	24
06...	1415	910	5.4	10	2.2	6.7	32	0	9.2	7.5
JAN. 17...	1145	2.2	13	25	11	120	264	0	30	82
APR. 10...	1150	2.0	18	26	12	130	301	0	41	98
MAY 03...	1340	18	12	32	6.4	31	114	0	24	38
16...	1210	4.3	7.8	28	4.9	27	106	0	11	35
JULY 19...	0700	10	6.8	26	7.6	65	158	0	20	60
AUG. 15...	1050	16	11	34	5.4	42	106	0	40	49
28...	1130	5.7	20	28	7.3	46	142	0	17	48
SEP. 25...	0845	125	--	--	--	--	--	--	--	--

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT. 27...	.6	.42	.63	1.0	1.8	1.9	336	--	--	120
NOV. 15...	.9	.31	.78	5.0	5.1	9.2	514	--	--	120
DEC. 02...	.3	.21	.010	.36	.9	.51	164	49	--	70
06...	.0	.22	.010	.09	.7	.16	60	--	--	34
JAN. 17...	.7	.46	.96	6.0	3.3	7.0	435	28	--	110
APR. 10...	.7	.90	.82	10	2.6	6.2	505	36	--	120
MAY 03...	.3	.36	.047	.46	.8	.75	204	158	--	110
16...	.3	.41	.041	.49	.8	.68	170	--	--	90
JULY 19...	.5	.38	.50	.95	1.0	1.8	271	93	--	96
AUG. 15...	.4	.27	.034	.43	.5	.48	237	233	--	110
28...	.5	.50	.36	1.7	.5	1.0	242	--	--	100
SEP. 25...	--	.56	.031	.35	--	.55	--	196	38	--

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
OCT. 27...	0	2.9	622	7.4	22.5	70	25	5.6	64	29
NOV. 15...	0	5.7	985	7.4	23.5	30	50	6.6	77	32
DEC. 02...	0	1.7	270	7.6	11.0	150	160	11.0	99	37
06...	8	.5	110	7.1	11.0	160	65	9.3	84	32
JAN. 17...	0	4.8	821	7.4	14.0	50	15	9.2	88	48
APR. 10...	0	5.4	953	7.0	23.0	70	20	5.7	66	69
MAY 03...	13	1.3	371	7.2	25.0	120	85	7.4	88	45
16...	3	1.2	332	7.0	24.5	160	50	6.7	80	41
JULY 19...	0	2.9	514	7.0	27.5	50	50	3.9	49	34
AUG. 15...	20	1.8	425	7.8	25.5	110	120	6.4	77	35
28...	0	2.0	441	6.7	29.5	100	40	4.8	62	42
SEP. 25...	--	--	257	6.8	24.5	140	120	7.2	86	--

SAN JACINTO RIVER BASIN

08076900 CARPENTERS BAYOU AT CLOVERLEAF, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	OIL AND GREASE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)
OCT. 27...	3.6	360	1	7	4	.24	--	--	--	--
NOV. 15...	5.4	9700	46	12	15	1.2	--	--	--	--
DEC. 02...	6.9	190000	25000	9900	3	.00	--	--	0	0
06...	2.7	110000	5200	26000	15	.00	10	--	0	0
JAN. 17...	15	1900	1	1	14	1.1	10	--	0	0
APR. 10...	17	25	1	1	15	1.1	--	--	--	--
MAY 03...	2.8	4300	380	390	0	.00	30	--	0	0
16...	3.2	1	1	1	10	.05	--	--	--	--
JULY 19...	7.7	140	1	46	0	.22	20	--	--	--
AUG. 15...	5.4	25000	4600	9900	0	.01	20	--	--	--
28...	>8.5	1	1	1	7	.22	10	--	0	1
SEP. 25...	5.5	140000	79000	110000	--	.00	--	18	--	--

DATE	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 27...	--	--	--	--	--	--	--	--	--
NOV. 15...	--	--	--	--	--	--	--	--	--
DEC. 02...	2	0	10	410	0	190	.3	2	70
06...	0	0	8	160	0	70	.3	0	30
JAN. 17...	0	0	18	120	0	110	.2	0	80
APR. 10...	--	--	--	--	--	--	--	--	--
MAY 03...	0	2	6	100	3	0	.8	8	70
16...	--	--	--	--	--	--	--	--	--
JULY 19...	--	--	--	--	--	--	--	--	--
AUG. 15...	--	--	--	--	--	--	--	--	--
28...	0	0	6	660	0	40	--	4	20
SEP. 25...	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	DDO (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELORIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR EPOXIDE (UG/L)
DEC. 06...	1415	910	.00	.00	.00	.00	.01	.00	.00	.00
JAN. 17...	1145	2.2	.00	.00	.00	.03	.05	.00	.00	.00
MAY 03...	1340	18	.00	.00	.00	.00	.01	.00	.00	.00
16...	1210	4.3	.00	.00	.00	.00	.01	.00	.00	.00
JULY 19...	0700	10	.00	.00	.00	.00	.02	.00	.00	.00
AUG. 28...	1130	5.7	.00	.00	.00	.00	.02	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR-DANE (UG/L)	DI-AZINON (UG/L)	MALA-THION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 06...	.01	.0	.01	.00	.00	.00	.00	.01	.00
JAN. 17...	.04	.3	.19	.00	.00	.00	.00	.00	.00
MAY 03...	.01	.1	.05	.00	.00	.00	.08	.13	.00
16...	.00	.0	.04	.00	.00	.00	.00	.00	.00
JULY 19...	.00	.1	.18	.00	.00	.00	--	--	--
AUG. 28...	.00	.1	.26	.00	.00	.00	.00	.00	.00

SAN JACINTO RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE SAN JACINTO RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08068500 SPRING CREEK NEAR SPRING, TEX. (Lat 30°06'37", long 95°26'10")

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
MAY 08...	1910	2900	21.5	145	1140
JUNE 06...	0910	14	28.5	25	.94

08070500 CANEY CREEK NEAR SPLENDORA, TEX. (Lat 30°15'34", long 95°18'08")

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
JULY 13...	0930	9.7	24.5	18	.47

CLEAR CREEK BASIN

08077540 CLEAR CREEK AT FARM ROAD 2351, AT FRIENDSWOOD, TEX.

LOCATION.--Lat 29°32'31", long 95°11'48", Harris County, at bridge on Farm Road 2351, at Friendswood.

DRAINAGE AREA.--99.6 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.

Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 25...	0945	6.7	22	43	15	140	312	0	33	130
DEC. 01...	1230	4.8	14	39	14	140	342	0	28	120
07...	1125	960	7.5	14	3.7	13	47	0	15	16
JAN. 26...	0930	12	12	62	21	200	363	0	41	230
MAR. 29...	1230	6.0	15	45	19	160	324	0	30	170
MAY 08...	1030	153	10	33	9.2	41	126	0	32	48
JULY 19...	0815	16	8.3	40	15	110	243	0	34	120
AUG. 15...	0900	76	6.9	30	8.8	63	143	0	28	70
29...	1225	11	13	70	23	490	202	0	25	800
SEP. 25...	1155	144	--	--	--	--	--	--	--	--

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT. 25...	.6	.52	.26	2.0	1.8	2.5	555	--	--	170
DEC. 01...	1.0	.14	.13	5.5	.6	6.2	543	51	--	150
07...	.1	.29	.000	.08	.8	.27	96	--	--	50
JAN. 26...	.8	.14	.20	1.9	1.2	3.0	750	29	--	240
MAR. 29...	.9	.18	.043	4.5	.8	4.1	605	50	--	190
MAY 08...	.3	.44	.043	.64	1.6	1.0	244	238	--	120
JULY 19...	.7	.32	.65	.54	.1	2.2	453	71	--	160
AUG. 15...	.5	.32	.029	.70	1.3	1.4	284	324	--	110
29...	.7	.47	.40	1.5	2.6	1.1	1530	67	--	270
SEP. 25...	--	.69	.020	1.3	.8	1.0	--	582	104	--

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
OCT. 25...	0	4.7	1020	7.5	20.0	45	20	3.0	33	43
DEC. 01...	0	5.1	1030	7.2	14.0	110	100	3.1	30	21
07...	12	.8	182	7.1	11.5	200	55	9.0	82	32
JAN. 26...	0	5.5	1370	7.5	17.0	80	15	5.0	52	16
MAR. 29...	0	4.9	1130	7.4	22.0	30	35	3.5	40	27
MAY 08...	17	1.6	434	6.4	21.5	140	110	5.1	57	65
JULY 19...	0	3.9	815	7.1	27.5	50	45	3.4	42	23
AUG. 15...	0	2.6	532	7.0	25.5	55	170	5.0	60	26
29...	100	13	2610	7.2	28.0	50	45	3.4	43	24
SEP. 25...	--	--	449	6.9	24.5	280	240	6.5	77	--

CLEAR CREEK BASIN

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08077540 CLEAR CREEK AT FARM ROAD 2351, AT FRIENDSWOOD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	OIL AND GREASE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)
OCT. 25...	2.4	20000	14000	210	10	.38	20	--	--	--
DEC. 01...	4.8	200000	550	170	8	.13	--	--	--	--
07...	3.4	240000	2400	5900	13	.00	10	--	0	0
JAN. 26...	3.7	140000	520	150	3	.75	0	--	0	0
MAR. 29...	5.4	6800	400	110	0	.03	--	--	--	--
MAY 08...	9.3	160000	18000	7900	0	.00	--	--	--	--
JULY 19...	3.3	7700	140	720	0	.06	10	--	0	0
AUG. 15...	8.0	200000	19000	17000	2	.01	10	--	--	--
29...	7.9	1500	190	980	0	.18	20	--	0	1
SEPT. 25...	4.3	12000	10000	24000	--	.00	--	35	--	--

DATE	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 25...	--	--	--	--	--	--	--	--	--
DEC. 01...	--	--	--	--	--	--	--	--	--
07...	0	0	24	180	0	60	.3	0	30
JAN. 26...	0	0	14	20	0	110	<.2	2	50
MAR. 29...	--	--	--	--	--	--	--	--	--
MAY 08...	--	--	--	--	--	--	--	--	--
JULY 19...	0	0	8	20	0	0	1.0	0	50
AUG. 15...	--	--	--	--	--	--	--	--	--
29...	0	0	11	20	0	80	<.2	0	90
SEPT. 25...	--	--	--	--	--	--	--	--	--

DATE	TIME	DISCHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	HEPTACHLOR EPOXIDE (UG/L)
JAN. 26...	0930	12	.00	.00	.00	.00	.01	.00	.00	.00
MAY 08...	1030	153	.00	.00	.00	.00	.02	.00	.00	.00
JULY 19...	0815	16	.00	.00	.00	.00	.02	.00	.00	.00
AUG. 29...	1225	11	.00	.00	.00	.00	.02	.00	.00	.00

DATE	LINDANE (UG/L)	CHLORDANE (UG/L)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
JAN. 26...	.01	.0	.07	.00	.00	.00	.00	.02	.00
MAY 08...	.01	.1	.12	.00	.00	.00	.07	.28	.00
JULY 19...	.02	.0	.13	.00	.00	.00	.07	.08	.00
AUG. 29...	.01	.0	.10	.00	.00	.00	.06	.08	.01

CLEAR CREEK BASIN

08077620 ARMAND BAYOU NEAR GENOA, TEX.

LOCATION.--Lat 29°38'02", long 95°06'51", Harris County, at bridge on Genoa-Red Bluff Road, about 4.8 miles east of Genoa.

DRAINAGE AREA.--18.2 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.
Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
25...	1240	2.9	30	37	15	160	468	0	26	94
NOV.										
22...	0915	1.5	15	31	11	120	352	0	24	76
DEC.										
06...	1315	320	6.4	11	3.1	7.7	41	0	11	7.5
JAN.										
11...	1000	3.2	14	52	19	97	364	0	22	80
MAR.										
22...	1150	8.0	11	33	10	48	184	0	19	42
28...	1410	2.6	15	51	17	110	370	0	22	88
MAY										
08...	1050	139	9.8	20	6.6	12	77	0	13	17
JULY										
18...	1220	3.8	6.6	34	12	81	254	0	20	58
AUG.										
15...	1145	16	7.0	26	5.6	41	126	0	23	32
29...	1105	2.0	17	30	13	130	381	0	25	74
SEP.										
25...	1045	60	--	--	--	--	--	--	--	--

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT.										
25...	1.0	.56	.42	11	.2	5.0	598	--	--	150
NOV.										
22...	1.0	.28	.24	11	.1	6.2	467	38	--	120
DEC.										
06...	.1	.19	.035	.12	.4	.17	69	--	--	40
JAN.										
11...	.8	.75	.077	6.0	.05	4.3	474	33	--	210
MAR.										
22...	.4	.39	.075	1.1	.1	.85	255	138	--	120
28...	.9	.38	.12	5.0	.6	3.9	495	112	--	200
MAY										
08...	.2	.07	.014	.26	.6	.28	120	136	--	77
JULY										
18...	.5	.30	.009	.31	.06	1.1	338	16	--	140
AUG.										
15...	.4	.30	.067	.80	1.5	.75	205	--	--	88
29...	1.1	.60	.10	8.0	.1	2.8	491	--	--	130
SEP.										
25...	--	.49	.010	.60	.05	.60	--	434	74	--

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
OCT.										
25...	0	5.6	1110	7.6	22.0	45	15	4.4	50	28
NOV.										
22...	0	4.7	913	7.5	14.0	40	50	3.1	30	18
DEC.										
06...	6	.5	132	7.1	11.0	160	40	9.8	88	31
JAN.										
11...	0	2.9	931	7.1	16.5	40	20	3.8	39	35
MAR.										
22...	0	1.9	489	7.0	20.5	120	65	5.6	62	60
28...	0	3.4	911	7.2	27.0	40	50	4.5	56	37
MAY										
08...	14	.6	220	6.7	20.5	240	60	5.4	59	61
JULY										
18...	0	3.0	643	7.1	27.0	30	15	3.6	44	37
AUG.										
15...	0	1.9	373	6.6	25.0	60	80	4.7	56	29
29...	0	5.1	899	7.3	27.0	40	25	2.8	35	34
SEP.										
25...	--	--	249	6.7	24.0	260	190	6.7	79	--

CLEAR CREEK BASIN

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08077620 ARMAND BAYOU NEAR GENOA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.										
25...	6.3	40000	16000	1300	4	.24	--	--	--	--
NOV.										
22...	7.8	99000	2600	920	3	1.2	--	--	--	--
DEC.										
06...	3.6	1100000	59000	16000	12	.00	10	--	0	0
JAN.										
11...	10	7700	580	140	4	.15	10	--	0	0
MAR.										
22...	9.0	26000	2100	420	7	.00	--	--	--	--
28...	9.3	110000	42000	420	5	.01	--	--	--	--
MAY										
08...	4.4	400000	19000	7800	0	.00	20	--	0	0
JULY										
18...	9.6	--	--	--	0	.27	20	--	10	0
AUG.										
15...	7.9	60000	4800	12000	2	.04	20	--	--	--
29...	>9.1	9700	220	1300	2	.24	30	--	0	1
SEP.										
25...	3.3	120000	72000	23000	--	.00	--	20	--	--

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT.									
25...	--	--	--	--	--	--	--	--	--
NOV.									
22...	--	--	--	--	--	--	--	--	--
DEC.									
06...	0	0	9	80	0	0	.8	0	40
JAN.									
11...	0	0	22	100	2	300	<.2	2	70
MAR.									
22...	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--
MAY									
08...	0	2	6	200	4	0	<.2	6	40
JULY									
18...	0	0	5	70	0	140	.4	0	40
AUG.									
15...	--	--	--	--	--	--	--	--	--
29...	0	2	7	100	0	250	<.2	3	70
SEP.									
25...	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
DEC.										
06...	1315	320	.00	.00	.00	.00	.01	.00	.00	.00
JAN.										
11...	1000	3.2	.00	.00	.00	.01	.03	.00	.00	.00
MAY										
08...	1050	139	.00	.00	.00	.00	.01	.00	.00	.00
JULY										
18...	1215	3.8	.00	.00	.00	.00	.02	.00	.00	.00
AUG.										
29...	1105	2.0	.00	.00	.00	.00	.03	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC.									
06...	.01	.0	.01	.00	.00	.00	.03	.02	.00
JAN.									
11...	.01	.2	.09	.00	.00	.00	.00	.01	.00
MAY									
08...	.01	.0	.02	.00	.00	.00	.00	.04	.00
JULY									
18...	.00	.1	.13	.00	.00	.00	.00	.03	.00
AUG.									
29...	.00	.1	.24	.00	.00	.00	.00	.01	.00

08077640 DICKINSON BAYOU NEAR ALVIN, TEX.

LOCATION.--Lat 29°26'09", long 95°10'11", Galveston County, at bridge on Farm Road 517, about 5.0 miles east of Alvin.

DRAINAGE AREA.--15.7 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.
Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
22...	1500	.46	11	82	31	120	291	0	150	140	.4	.28
DEC.												
01...	1135	.16	3.4	82	33	150	345	0	160	160	.6	.07
06...	1015	190	8.5	14	3.9	15	37	0	21	16	.1	.15
JAN.												
26...	1215	.80	5.2	90	36	150	375	0	140	180	.6	.20
MAR.												
28...	1145	4.0	8.0	46	12	46	168	0	38	60	.4	.25
MAY												
08...	1200	7.0	5.5	72	20	100	181	0	120	160	.4	.37
JULY												
19...	0905	3.9	7.1	59	17	61	211	0	17	110	.4	.27
AUG.												
08...	1320	.30	9.7	69	17	89	190	0	73	140	.4	.16
16...	0855	8.0	21	82	18	140	160	0	110	230	.4	.20
31...	1300	3.0	11	79	16	110	174	0	86	190	.4	.24

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- PABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.												
22...	.010	.08	.00	.040	681	--	330	94	2.9	1180	7.8	23.0
DEC.												
01...	.019	.03	.00	.15	759	22	340	58	3.6	1280	7.5	12.0
06...	.025	.12	2.4	.36	108	--	51	21	.9	184	6.5	11.0
JAN.												
26...	.000	.06	.00	.080	787	29	370	66	3.4	1340	7.9	18.0
MAR.												
28...	.027	.12	.5	.28	296	244	170	28	1.6	562	7.1	23.5
MAY												
08...	.074	1.2	.9	.17	566	126	260	110	2.8	1000	7.1	22.0
JULY												
19...	.000	.10	.09	.050	378	77	220	43	1.8	726	7.2	27.0
AUG.												
08...	.013	.08	.01	.060	495	51	240	84	2.5	871	7.3	28.0
16...	.000	.10	.03	.090	681	--	280	150	3.5	1150	7.0	26.0
31...	.008	.06	.00	.080	572	--	260	120	2.9	1000	7.2	27.0

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT.												
22...	40	25	6.5	75	19	.6	11000	140	490	2	.00	--
DEC.												
01...	35	15	6.9	64	9	1.6	81000	650	2900	6	.00	--
06...	180	55	9.6	86	39	4.3	680000	44000	9800	8	.00	10
JAN.												
26...	40	15	8.5	89	2	1.5	35000	270	310	0	.00	20
MAR.												
28...	40	150	6.3	73	27	3.6	7000	1100	580	0	.00	--
MAY												
08...	65	60	7.1	81	30	4.8	6300	750	1800	0	.00	--
JULY												
19...	40	35	5.3	65	24	2.3	7700	400	1000	0	.02	10
AUG.												
08...	10	35	7.9	100	9	1.9	5500	550	750	0	.05	--
16...	30	30	6.1	103	17	2.0	1500	620	2000	3	.05	50
31...	30	50	6.8	84	11	2.8	1900	350	1600	0	.00	40

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

HIGHLAND BAYOU BASIN

08077680 HIGHLAND BAYOU NEAR ALTO LOMA, TEX.

LOCATION.--Lat 29°21'59", long 95°02'56", Galveston County, at bridge on road on Franks' Oil Field, 0.5 mile north of State Highway 6, and about 2.0 miles east of Alto Loma.

DRAINAGE AREA.--11.6 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.
Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT.												
22...	1020	.90	29	84	17	130	354	0	35	180	.4	.42
DEC.												
01...	1040	.85	14	85	18	140	377	0	46	180	.6	.10
06...	1100	180	9.2	27	5.5	21	86	0	20	31	.1	.14
JAN.												
26...	1325	1.1	13	95	22	140	412	0	39	180	.5	.31
FEB.												
01...	1200	53	6.8	39	9.4	31	127	0	29	49	.2	.25
MAR.												
28...	1010	.52	19	78	22	180	416	0	32	220	.6	.35
MAY												
15...	1120	41	13	36	6.9	24	132	0	16	32	.2	.31
JULY												
19...	0955	.34	20	44	13	250	354	0	10	300	.6	.43
AUG.												
08...	1235	.40	13	26	8.0	76	143	0	19	93	.4	.32
16...	0945	.50	12	32	8.3	59	158	0	25	65	.4	.20

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.												
22...	.51	3.8	.7	1.3	657	--	280	0	3.4	1260	7.3	19.5
DEC.												
01...	.24	5.5	.4	3.3	683	11	290	0	3.7	1280	7.4	12.5
06...	.015	.05	.3	.29	157	--	90	20	1.0	292	7.5	11.5
JAN.												
26...	.18	3.2	.8	6.2	701	18	330	0	3.3	1260	7.8	19.0
FEB.												
01...	.000	.15	.1	.22	227	--	140	32	1.2	443	7.3	8.5
MAR.												
28...	.086	6.0	.4	2.4	770	46	280	0	4.6	1390	7.4	24.0
MAY												
15...	.012	.18	.2	.20	194	32	120	10	1.0	354	7.1	24.0
JULY												
19...	.50	4.7	.3	5.6	823	0	160	0	8.6	1500	7.3	27.0
AUG.												
08...	.28	2.0	.3	2.8	310	70	98	0	3.3	594	7.0	28.0
16...	.13	1.7	.1	3.0	283	--	110	0	2.4	532	6.8	24.5

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUR- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT.												
22...	65	30	3.6	39	24	1.5	21000	360	1000	0	.08	--
DEC.												
01...	35	10	5.0	47	15	6.6	160000	3000	1200	5	.42	--
06...	160	30	9.3	85	38	3.7	340000	20000	13000	10	.00	10
JAN.												
26...	120	10	13.2	140	6	4.3	140000	1500	140	2	.25	20
FEB.												
01...	60	35	8.8	75	31	3.1	1200000	2100	9800	1	.00	0
MAR.												
28...	30	30	2.3	27	31	6.6	6000	1300	140	2	.05	--
MAY												
15...	130	20	5.3	62	44	5.9	2200	500	510	10	.08	--
JULY												
19...	50	15	2.8	35	40	6.3	5300	220	1100	0	.36	10
AUG.												
08...	65	50	5.1	65	31	7.4	21000	5500	4900	0	.11	--
16...	50	15	2.6	31	23	4.6	8000	700	600	3	.13	30

HIGHLAND BAYOU BASIN

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08077680 HIGHLAND BAYOU NEAR ALTO LOMA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 22...	--	--	--	--	--	--	--	--	--	--	--
DEC. 01...	--	--	--	--	--	--	--	--	--	--	--
06...	0	0	0	0	13	0	0	180	6.4	0	60
JAN. 26...	0	0	0	0	9	30	0	140	<.2	0	40
FEB. 01...	0	0	0	0	12	110	0	0	<.2	0	10
MAR. 28...	--	--	--	--	--	--	--	--	--	--	--
MAY 15...	--	--	--	--	--	--	--	--	--	--	--
JULY 19...	0	0	0	0	3	70	0	60	.9	0	60
AUG. 08...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
DEC. 06...	1100	180	.00	--	.00	--	.00	--	.00	--
JAN. 26...	1325	1.1	.00	--	.00	--	.00	--	.00	--
MAY 15...	1120	41	.00	--	.00	--	.00	--	.00	--
JULY 19...	0955	.34	--	<.2	--	<.2	--	<.2	--	<.2

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
DEC. 06...	.00	--	.00	--	.00	--	.00	--	.00	--
JAN. 26...	.01	--	.00	--	.00	--	.00	--	.00	--
MAY 15...	.00	--	.00	--	.00	--	.00	--	.00	--
JULY 19...	--	<.2	--	<.2	--	<.2	--	<.2	--	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVFX (UG/L)
DEC. 06...	.0	--	.01	.00	.00	.00	.00	.00	.00
JAN. 26...	.0	--	.05	.00	.00	.00	.00	.00	.00
MAY 15...	.0	--	.00	.00	.00	.00	.00	.01	.00
JULY 19...	--	<1.0	--	--	--	--	--	--	--

HALLS BAYOU BASIN

08077800 HALLS BAYOU NEAR ALGOA, TEX.

LOCATION.--Lat 29°21'26", long 95°10'37", Brazoria County, at wooden bridge, on private road, about 3.0 miles south of Algoa.

DRAINAGE AREA.--3.98 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.
Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 22...	1345	.10	11	54	13	44	212	0	30	56	.4	.30
NOV. 29...	1415	.08	11	99	21	96	348	0	67	130	.5	.01
AUG. 08...	1135	4.0	15	78	20	100	234	0	59	170	.4	.14
16...	1040	1.7	13	100	24	120	308	0	84	180	.4	.16

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 22...	.000	.11	.1	.030	313	--	190	14	1.4	590	8.4	25.0
NOV. 29...	.034	.07	.02	.040	598	34	330	47	2.3	1060	7.6	19.0
AUG. 08...	.000	.02	.02	.030	565	21	280	84	2.7	995	6.8	27.5
16...	.000	.10	.00	.050	673	45	350	98	2.7	1160	6.8	25.0

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUR- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT. 22...	70	45	12.1	144	21	.6	17000	1500	2100	0	.00	--
NOV. 29...	40	65	12.7	135	2	1.0	27000	400	530	3	.00	--
AUG. 08...	20	15	8.7	109	13	1.4	7300	1200	700	0	.08	--
16...	10	20	6.4	76	4	.8	3000	120	270	2	.03	10

DATE	TIME	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
AUG. 16...	1045	.00	.00	.00	.00	.01	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
AUG. 16...	.00	.0	.00	.00	.00	.00	.00	.00	.00

HALLS BAYOU BASIN

417

08077850 HALLS BAYOU NEAR ALTA LOMA, TEX.

LOCATION.--Lat 29°17'10", long 95°07'52", Brazoria County, at bridge on Farm Road 2004 and 6.7 miles southwest of Alta Loma.

DRAINAGE AREA.--40.3 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: February to September 1972.
Pesticide analyses: February to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
FEB. 01...	1010	278	5.8	22	6.1	26	67	0	26	38	.2	.24
MAY 08...	1340	88	3.9	33	11	52	88	0	30	93	.3	.27
15...	0945	50	10	23	5.5	20	89	0	16	24	.2	.36

DATE	TIME	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FEB. 01...		.000	.10	.2	.16	158	--	80	25	1.3	310	7.3	7.0
MAY 08...		.011	.25	1.6	.14	274	738	130	55	2.0	545	7.1	21.5
15...		.010	.13	.2	.090	144	38	80	7	1.0	261	7.0	25.5

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUR- STANCE (MG/L)	OIL AND GREASE (MG/L)
FEB. 01...	100	40	9.6	79	36	3.6	1400000	8800	10000	0	.00	10
MAY 08...	140	100	6.0	67	31	10	41000	11000	22000	1	.00	10
15...	130	30	5.2	63	39	3.3	44000	400	430	21	.04	-

DATE	TIME	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
FEB. 01...		0	1	0	0	10	140	0	0	<.2	0	0
MAY 08...		0	0	0	2	4	30	0	0	.5	6	60
15...		--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
MAY 08...	1340	88	.00	.00	.00	.00	.01	.00	.00	.00
15...	0945	--	.00	.00	.00	.00	.01	.00	.00	.00

DATE	TIME	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAY 08...		.00	.0	.00	.00	.00	.00	.00	.00	.00
15...		.00	.0	.00	.00	.00	.00	.00	.00	.00

MUSTANG BAYOU BASIN

08077900 MUSTANG BAYOU NEAR LIVERPOOL, TEX.

LOCATION.--Lat 29°17'36", long 95°11'11", Brazoria County, at bridge on County road, about 5.6 miles east of Liverpool.

DRAINAGE AREA.--43.1 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.

Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 22...	1235	19	20	78	14	190	235	0	28	320	.3	.34
NOV. 29...	1300	8.5	8.1	94	17	260	274	0	47	420	.5	.06
DEC. 20...	1320	33	19	84	18	200	200	0	26	370	.3	.31
MAR. 13...	1345	9.8	10	110	22	310	321	0	41	520	.5	.14
MAY 08...	1200	172	4.1	29	6.7	34	78	0	32	52	.2	.24
JULY 19...	1245	18	8.6	61	17	120	250	0	31	180	.4	.32
AUG. 08...	1035	12	15	63	18	130	280	0	34	180	.6	.17
16...	1150	6.0	.0	66	13	160	268	0	54	200	.7	.25

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SOPP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 22...	.32	.42	.3	.78	773	--	250	62	5.2	1480	8.0	22.5
NOV. 29...	.30	.32	.6	1.4	992	17	300	80	6.5	1900	7.4	17.5
DEC. 20...	.35	.29	.7	.58	819	--	280	120	5.1	1530	7.4	20.0
MAR. 13...	.041	.17	.1	1.8	1170	58	370	110	6.9	2160	7.6	24.0
MAY 08...	.029	.56	1.6	.36	204	158	100	36	1.5	387	7.2	21.5
JULY 19...	.28	.25	.3	.65	549	52	220	15	3.7	995	7.0	30.0
AUG. 08...	.10	.12	.2	1.4	580	29	230	4	3.8	1020	7.2	28.0
16...	.38	.21	1.6	1.6	641	66	220	0	4.8	1130	7.3	28.0

DATE	COLOR (PLAT- INUM- CORAL T UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT. 22...	60	40	7.0	80	22	1.2	41000	820	1000	0	.04	--
NOV. 29...	30	50	7.0	73	11	1.3	51000	150	62	9	.18	--
DEC. 20...	160	60	7.4	80	46	3.0	260000	6600	300	22	.00	--
MAR. 13...	20	25	9.0	106	17	1.3	39000	84	10	2	.00	--
MAY 08...	140	80	5.8	65	25	10	70000	13000	9700	0	.00	10
JULY 19...	40	35	5.7	75	24	2.8	7700	190	160	0	.06	10
AUG. 08...	25	15	5.9	75	14	2.2	5300	400	1100	0	.12	--
16...	10	40	5.2	66	13	3.0	1500	400	370	5	.07	10

MUSTANG BAYOU BASIN

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08077900 MUSTANG BAYOU NEAR LIVERPOOL, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 22...	--	--	--	--	--	--	--	--	--	--	--
NOV. 29...	--	--	--	--	--	--	--	--	--	--	--
DEC. 20...	--	--	--	--	--	--	--	--	--	--	--
MAR. 13...	0	0	10	0	17	0	0	140	.2	6	120
MAY 08...	0	0	0	1	4	50	0	0	.2	8	60
JULY 19...	0	0	0	0	3	0	0	90	1.0	0	70
AUG. 08...	--	--	--	--	--	--	--	--	--	--	--
16...	0	0	0	0	3	0	0	60	2.1	0	60

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
MAY 08...	1200	172	.00	--	.00	--	.00	--	.00	--
JULY 19...	1245	18	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 16...	1150	6.0	.00	--	.00	--	.00	--	.00	--

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN ROT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
MAY 08...	.02	--	.00	--	.00	--	.00	--	.01	--
JULY 19...	.02	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 16...	.02	--	.00	--	.00	--	.00	--	.00	--

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVFX (UG/L)
MAY 08...	.0	--	.03	.00	.00	.00	.00	.04	.00
JULY 19...	.0	<1.0	.03	.00	.00	.00	.00	.05	.00
AUG. 16...	.0	--	.04	.00	.00	.00	.11	.01	.00

CHOCOLATE BAYOU BASIN

08078000 CHOCOLATE BAYOU NEAR ALVIN, TEX.

LOCATION.--Lat 29°22'09", long 95°19'14", Brazoria County, at gaging station on Farm Road 1462, 5.9 miles southwest of Alvin, and 6.9 miles upstream from State Highway 35.

DRAINAGE AREA.--87.7 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.

Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 22...	0900	18	17	54	14	90	187	0	76	110
DEC. 01...	0935	2.5	5.1	90	28	340	268	0	220	450
06...	1150	1220	8.2	15	3.1	16	40	0	19	18
MAR. 15...	1040	5.3	13	90	31	220	352	0	200	230
MAY 02...	1020	25	7.4	62	24	100	155	0	120	170
08...	1015	255	7.5	41	13	45	92	0	52	79
24...	1105	13	4.9	57	10	84	192	0	79	88
JULY 19...	1055	80	8.4	55	22	70	194	0	41	130
AUG. 08...	0925	20	13	65	19	120	206	0	92	170
31...	1130	4.0	24	87	25	190	230	0	180	250
SEP. 25...	1235	120	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	VOL. NON-SETTLABLE RESIDUE (MG/L)	HARDNESS (CA, MG) (MG/L)
OCT. 22...	.5	.30	.020	.12	.2	.050	455	122	--	193
DEC. 01...	1.5	.02	.011	.06	.00	.040	1270	29	--	340
06...	.1	.15	.020	.05	1.8	.26	108	--	--	50
MAR. 15...	1.1	.06	.002	.00	.01	.060	948	98	--	350
MAY 02...	.5	.35	.017	.90	.4	.14	560	152	--	250
08...	.3	.41	.000	.54	3.6	.23	300	132	--	160
24...	.5	.31	.027	.24	.3	.13	419	--	--	180
JULY 19...	.4	.28	.019	.08	.09	.030	418	48	--	230
AUG. 08...	.7	.18	.010	.09	.00	.060	584	89	--	240
31...	1.5	.44	.011	.06	.00	.080	869	--	--	320
SEP. 25...	--	.41	.000	.09	.09	.14	--	102	24	--

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
OCT. 22...	40	2.8	828	7.8	20.5	65	65	7.2	79	21
DEC. 01...	120	8.1	2170	7.9	12.5	25	20	9.2	86	7
06...	17	1.0	196	7.2	11.0	200	100	10.0	90	28
MAR. 15...	62	5.0	1610	7.8	22.5	20	40	8.8	100	6
MAY 02...	130	2.9	1010	7.7	25.5	55	70	6.3	76	35
08...	80	1.6	554	7.5	20.5	180	230	7.7	85	39
24...	26	2.7	720	7.2	27.0	55	70	7.7	95	24
JULY 19...	67	2.0	756	7.2	28.5	40	35	7.0	90	23
AUG. 08...	72	3.4	1010	7.8	28.0	25	45	8.8	111	14
31...	130	4.6	1550	7.5	28.0	45	45	6.0	76	29
SEP. 25...	--	--	565	6.7	25.0	130	55	8.4	100	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

CHOCOLATE BAYOU BASIN

08078000 CHOCOLATE BAYOU NEAR ALVIN, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
DEC. 06...	1150	1220	.00	--	.00	--	.00	--	.00	--
MAY 02...	1020	25	.00	--	.00	--	.00	--	.00	--
08...	1015	255	.00	--	.00	--	.00	--	.00	--
24...	1105	13	--	<.2	--	<.2	--	.9	--	<.2
JULY 19...	1055	80	.00	--	.00	--	.00	--	.00	--
AUG. 31...	1130	4.0	.00	--	.00	--	.00	--	.00	--

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
DEC. 06...	.01	--	.00	--	.00	--	.00	--	.00	--
MAY 02...	.03	--	.00	--	.00	--	.00	--	.00	--
08...	.03	--	.00	--	.00	--	.00	--	.00	--
24...	--	1.1	--	<.2	--	<.2	--	<.2	--	<.2
JULY 19...	.02	--	.00	--	.00	--	.00	--	.00	--
AUG. 31...	.01	--	.00	--	.00	--	.00	--	.00	--

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 06...	.0	--	.00	.00	.00	.00	.00	.00	.00
MAY 02...	.0	--	.00	.00	.00	.00	.00	.03	.00
08...	.0	--	.00	.00	.00	.00	.00	.02	.00
24...	--	<1.0	--	--	--	--	--	--	--
JULY 19...	.0	--	.00	.00	.00	.00	.00	.00	.00
AUG. 31...	.0	--	.00	.00	.00	.00	.00	.00	.00

BASTROP BAYOU BASIN

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08078400 AUSTIN BAYOU NEAR LIVERPOOL, TEX.

LOCATION.--Lat 29°16'51", long 95°19'53", Brazoria County, at bridge on State Highway 35, 3.4 miles west-southwest of Liverpool.

DRAINAGE AREA.--37.0 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.
Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 22...	1220	22	24	34	9.5	29	103	0	38	44	.2	.43
NOV. 29...	1130	.30	5.7	80	21	160	240	0	51	280	.4	.08
DEC. 20...	1145	16	19	44	8.6	40	128	0	38	62	.3	.32
MAR. 13...	1215	.56	3.8	94	34	140	350	0	42	240	.5	.10
MAY 15...	1300	449	11	21	5.5	18	74	0	18	24	.2	.37
JULY 19...	1145	36	10	58	13	73	186	0	30	120	.4	.26
AUG. 16...	1110	1.5	7.7	75	20	120	218	0	67	210	.4	.18

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 22...	.030	.12	.2	.22	231	--	120	40	1.1	417	7.3	22.0
NOV. 29...	.005	.05	.00	.080	721	44	290	90	4.2	1390	7.4	14.0
DEC. 20...	.000	.07	.05	.12	275	--	140	40	1.4	516	7.6	18.5
MAR. 13...	.003	.03	.01	.040	730	28	380	89	3.1	1420	7.5	22.0
MAY 15...	.018	.09	.2	.12	135	30	75	14	.9	259	6.3	25.0
JULY 19...	.009	.12	.07	.050	398	57	200	48	2.2	726	7.1	28.0
AUG. 16...	.000	.09	.06	.060	608	41	270	90	3.3	1090	7.6	26.5

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GRFASE (MG/L)
OCT. 22...	120	70	7.2	82	37	.3	100000	1500	1500	0	.00	--
NOV. 29...	40	55	5.5	53	16	2.4	60000	140	820	3	.06	--
DEC. 20...	140	35	7.8	82	42	2.0	140000	390	380	22	.00	--
MAR. 13...	20	15	7.2	82	15	1.0	120000	66	30	2	.00	--
MAY 15...	110	20	3.6	43	37	3.7	5500	400	690	0	.05	--
JULY 19...	50	30	5.9	75	19	1.1	5500	270	350	0	.04	10
AUG. 16...	10	25	7.0	85	6	1.3	750	180	750	1	.04	10

BASTROP BAYOU BASIN

08078400 AUSTIN BAYOU NEAR LIVERPOOL, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 22...	--	--	--	--	--	--	--	--	--	--	--
NOV. 29...	--	--	--	--	--	--	--	--	--	--	--
DEC. 20...	--	--	--	--	--	--	--	--	--	--	--
MAR. 13...	0	1	0	0	12	10	0	0	.2	0	60
MAY 15...	0	1	0	1	5	110	0	0	.2	10	40
JULY 19...	0	0	0	0	3	130	0	0	.8	0	50
AUG. 16...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
MAY 15...	1300	449	.00	--	.00	--	.00	--	.00	--
JULY 19...	1145	36	--	<.2	--	2.4	--	<.2	--	1.8

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
MAY 15...	.02	--	.00	--	.00	--	.00	--	.00	--
JULY 19...	--	3.3	--	<.2	--	<.2	--	<.2	--	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAY 15...	.0	--	.00	.00	.00	.00	--	.00	.02	.00
JULY 19...	--	<1.0	--	--	--	--	47	--	--	--

BASTROP BAYOU BASIN

425

08078700 FLORES BAYOU NEAR DANBURY, TEX.

LOCATION.--Lat 29°12'56", long 95°21'32", Brazoria County, at bridge on county road, 1.2 miles southwest of Danbury.

DRAINAGE AREA.--23.3 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1971 to September 1972.

Pesticide analyses: May 1971 to September 1972.

WATER QUALITY DATA. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 22...	1015	.92	18	59	17	78	217	0	48	110	.3	.38
NOV. 29...	1000	.15	14	55	17	150	392	0	45	140	.5	.26
DEC. 20...	1000	3.7	17	48	12	42	160	0	40	62	.3	.38
MAR. 13...	1020	.20	10	76	30	140	440	0	30	170	.5	.39
MAY 15...	1045	135	8.9	21	4.8	19	70	0	18	26	.2	.22
AUG. 16...	1010	.19	14	50	26	170	339	0	44	190	.6	.33

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 22...	.37	1.0	.4	.65	440	--	220	38	2.3	822	7.5	20.0
NOV. 29...	.53	11	.4	11	636	21	210	0	4.6	1200	7.5	15.0
DEC. 20...	.10	.41	.3	.50	302	--	170	39	1.4	569	7.4	18.0
MAR. 13...	.24	5.5	.03	5.1	672	44	310	0	3.3	1290	7.5	22.0
MAY 15...	.018	.13	.3	.16	133	--	72	15	1.0	263	6.3	26.0
AUG. 16...	1.1	1.9	.7	6.0	667	18	230	0	4.7	1180	7.5	26.5

DATE	COLOR (PLAT- INUM- CORAL UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUR- STANCE (MG/L)	OIL AND GREASE (MG/L)
OCT. 22...	50	50	6.2	67	26	1.2	61000	2100	680	0	.08	--
NOV. 29...	50	45	4.0	39	29	7.8	1400000	29000	6700	0	1.4	--
DEC. 20...	140	35	7.3	77	45	2.7	180000	14000	800	6	.00	--
MAR. 13...	20	25	7.9	90	36	2.5	720000	310	110	5	.14	--
MAY 15...	120	30	4.4	54	41	3.8	21000	420	520	16	.03	--
AUG. 16...	15	15	5.8	71	27	6.9	20000	1500	490	1	.22	20

BASTROP BAYOU BASIN

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08078700 FLORES BAYOU NEAR DANBURY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 22...	--	--	--	--	--	--	--	--	--	--	--
NOV. 29...	--	--	--	--	--	--	--	--	--	--	--
DEC. 20...	--	--	--	--	--	--	--	--	--	--	--
MAR. 13...	0	0	0	2	32	40	0	300	1.0	9	100
MAY 15...	0	0	0	1	4	100	0	0	.2	7	60
AUG. 16...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
MAY 15...	1045	135	.00	.00	.00	.00	.02	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAY 15...	.00	.0	.00	.00	.00	.00	.00	.25	.00

BRAZOS RIVER BASIN

08080500 DOUBLE MOUNTAIN FORK BRAZOS RIVER NEAR ASPERMONT, TEX.

LOCATION (revised).--Lat 33°00'29", long 100°10'49", Stonewall County, at gaging station at bridge on U.S. Highway 83, 0.3 mile downstream from Hitson Creek, and 10 miles south of Aspermont.

DRAINAGE AREA.--7,980 sq mi, of which 6,470 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1948 to November 1951, October 1956 to September 1972.

Water temperatures: November 1949 to November 1951, October 1956 to September 1972.

Sediment records: November 1949 to September 1951.

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 6,670 mg/l Aug. 1; minimum, 852 mg/l Aug. 13-16, 27-31.

Hardness: Maximum, 3,100 mg/l Aug. 1; minimum, 380 mg/l July 7-16, 22-25.

Specific conductance: Maximum daily, 10,800 micromhos May 10; minimum daily, 1,000 micromhos Aug. 28.

Water temperatures: Maximum, 35.0°C July 29; minimum, freezing point on several days during January and February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-07	569	8.8	260	41	280	--	7.8	116	0	740
08-11	47	8.3	350	50	--	550	--	128	0	970
12-16	43	10	380	98	--	820	--	104	0	1200
17-31	278	8.8	260	41	280	--	7.8	116	0	740
NOV.										
01-03	130	8.4	320	56	--	320	--	128	0	890
04-30	28	12	500	120	--	980	--	112	0	1600
DEC.										
01-31	30	10	500	120	--	1100	--	134	0	1500
JAN.										
01-31	9.0	8.8	640	150	1400	--	13	114	0	1900
FEB.										
01-29	7.2	6.8	650	140	--	1400	--	122	0	1900
MAR.										
01-31	1.7	5.5	840	160	--	1200	--	130	0	2000
APR.										
01-28	56	9.1	900	180	1100	--	16	129	0	2000
29-30	31	6.8	460	81	--	260	--	88	0	1200
MAY										
01-06	1.8	9.0	740	170	--	1100	--	104	0	1800
07-08	217	11	310	71	--	480	--	164	0	890
09-12	13	9.0	740	170	--	1100	--	104	0	1800
13-16	203	11	310	71	--	480	--	164	0	890
17-18	69	11	180	32	--	200	--	152	0	500
19-23	15	11	310	71	--	480	--	164	0	890
24-31	1.4	9.0	740	170	--	1100	--	104	0	1800
JUNE										
01-10	07	13	900	190	--	1000	--	80	0	1800
11-22	263	10	170	33	--	280	--	122	20	500
23-30	2.8	11	340	96	--	670	--	136	0	1100
JULY										
01-06	41	12	290	46	--	400	--	124	0	850
07-16	84	13	110	24	250	--	8.6	168	10	340
17-21	29	12	290	46	--	400	--	124	0	850
22-25	40	13	110	24	250	--	8.6	168	10	340
26-28	4.2	12	290	46	--	400	--	124	0	850
29-31	4.3	15	520	90	--	720	--	130	0	1400
AUG.										
01...	10	14	960	160	--	1100	--	112	0	1900
02-06	00	--	--	--	--	--	--	--	--	--
07-12	77	13	170	29	--	280	--	151	0	510
13-16	17000	11	150	14	--	110	--	141	0	380
17-18	704	13	170	29	--	280	--	151	0	510
19-26	250	13	330	48	--	600	--	136	0	900
27-31	3280	11	150	14	--	110	--	141	0	380
SEP.										
01-15	443	11	200	32	--	340	--	138	0	580
16-30	148	14	360	71	--	810	--	124	0	1000
WTD. AVG.	313	11	177	22	--	--	--	138	1	471

BRAZOS RIVER BASIN

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08080500 DOUBLE MOUNTAIN FORK BRAZOS RIVER NEAR ASPERMONT, TEX.--Continued

EXTREMES, October 1948 to November 1951, October 1956 to September 1972.--Dissolved solids: Maximum, 6,670 mg/l Aug. 1, 1972; minimum, 567 mg/l Sept. 25-27, 1971.

Hardness: Maximum, 3,100 mg/l Aug. 1, 1972; minimum, 193 mg/l Oct. 22-28, 1957.

Specific conductance (1948-51, 1956-70, 1971-72): Maximum daily, 10,800 micromhos May 10, 1972; minimum daily, 735 micromhos Oct. 24, 1957.

Water temperatures (1949-51, 1956-67, 1969-72): Maximum, 38.0°C July 18, 1966; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DTS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AN- ION- SODIUM RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-07	420	.8	.7	1830	830	730	4.3	2710	7.2
08-11	820	--	.2	2810	1100	980	7.2	4130	8.1
12-16	1200	--	.06	3840	1400	1300	9.6	5620	7.9
17-31	420	.8	.7	1830	830	730	4.3	2710	7.2
NOV.									
01-03	480	.4	.7	2140	1000	920	4.3	3090	7.2
04-30	1500	--	.9	4760	1800	1700	10	7130	7.2
DEC.									
01-31	1700	--	.2	4960	1800	1600	11	7310	7.2
JAN.									
01-31	2200	--	--	6270	2200	2100	12	9080	7.3
FEB.									
01-29	2200	--	--	6280	2200	2100	12	9170	7.5
MAR.									
01-31	2200	--	--	6410	2800	2700	9.5	9010	6.5
APR.									
01-28	2300	.5	--	6630	3000	2900	9.1	9410	6.5
29-30	660	--	.6	2760	1500	1400	2.7	3870	6.6
MAY									
01-06	2000	--	--	5890	2600	2500	9.1	8470	7.9
07-08	740	--	.8	2590	1100	930	6.5	3790	8.3
09-12	2000	--	--	5890	2600	2500	9.1	8470	7.9
13-16	740	--	.8	2590	1100	930	6.5	3790	8.3
17-18	260	1.0	1.1	1260	570	450	3.7	1920	8.2
19-23	740	--	.8	2590	1100	930	6.5	3790	8.3
24-31	2000	--	--	5890	2600	2500	9.1	8470	7.9
JUNE									
01-10	2400	--	--	6390	3000	3000	8.2	9330	7.8
11-22	350	1.4	1.6	1430	560	420	--	2210	8.4
23-30	1000	--	.7	3300	1200	1100	8.2	4840	8.1
JULY									
01-06	550	--	.5	2200	900	800	--	3330	6.6
07-16	280	1.2	2.4	1140	380	250	5.5	1880	7.1
17-21	550	--	.5	2200	900	800	5.7	3330	6.6
22-25	280	1.2	2.4	1140	380	250	5.5	1880	7.1
26-28	550	--	.5	2200	900	800	5.7	3330	6.6
29-31	1200	--	.1	4010	1700	1600	7.7	5960	6.5
AUG.									
01...	2400	--	--	6670	3100	3000	--	9590	7.1
02-06	--	--	--	--	--	--	--	--	--
07-12	350	.9	.3	1420	550	420	--	2210	8.2
13-16	110	--	.9	852	440	330	2.2	1270	7.6
17-18	350	.9	.3	1420	550	420	5.1	2210	8.2
19-26	900	--	.2	2860	1000	910	8.0	4270	7.4
27-31	110	--	.9	852	440	330	--	1270	7.6
SEP.									
01-15	470	.9	.3	1700	640	520	5.9	2630	7.7
16-30	1200	--	.03	3610	1200	1100	--	5600	7.7
WTD. AVG.	229	--	--	1170	541	429	3.2	1750	7.6

BRAZOS RIVER BASIN

08080500 DOUBLE MOUNTAIN FORK BRAZOS RIVER NEAR ASPERMONT, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2080	2600	8110	8760	9170	9400	8630	5830	9280	1610	8620	2080
2	2370	3010	6950	8640	4330	9400	---	8060	9200	2320	---	2340
3	---	3540	7240	8640	10000	9270	---	9330	9540	2700	---	2160
4	2120	4240	7770	---	9720	9530	8930	9540	9240	3260	---	2260
5	2670	4690	7400	8150	9380	9270	9040	9540	9320	3620	---	2610
6	2980	5300	7930	8870	9380	9110	9330	9410	9370	4150	---	2060
7	3120	5920	7540	8870	9460	9030	9210	4160	9320	2430	9670	1690
8	3240	6350	6380	8760	9380	9190	9130	3610	9200	1910	2360	2080
9	4090	6620	5560	8990	9380	9110	9250	8780	9280	1890	1770	2860
10	4270	6860	5600	9320	10100	8940	9170	10800	9320	2260	2520	3010
11	4560	7130	6070	9270	10000	9020	9170	8930	---	1570	1930	2000
12	4900	7240	6180	9110	8760	8950	9160	8970	---	1290	1820	2230
13	5390	7410	6300	9190	8790	9070	9330	5540	2830	1600	1730	2870
14	5610	7520	6280	9270	8650	9070	9410	3760	5420	1630	1010	3560
15	5830	7600	6500	10000	8640	9110	9550	2560	2930	1780	1280	3560
16	6080	7720	5120	9110	8610	9070	9550	2530	2050	2150	1680	4790
17	2890	7340	6930	8790	8790	8990	9550	1880	1800	2550	2200	5370
18	---	7810	6830	8990	8610	8950	9590	1970	1660	3060	2810	4020
19	4460	7950	6940	9030	8430	8910	9550	2570	1700	3580	3440	2810
20	3230	8140	7020	9190	8470	8980	9250	3140	1850	4200	3790	3510
21	3710	8140	7340	9230	8470	8860	9540	3770	2270	2830	4180	3590
22	4710	7800	7600	9190	8860	8790	9410	4550	2670	1910	3770	4450
23	2020	8210	7780	8990	8790	8750	9720	5460	3110	1750	3990	4900
24	2100	6920	7870	9150	8400	8640	9590	6250	3550	1800	4560	5460
25	3080	6740	8000	9320	9090	8640	9500	6930	3940	2140	5150	5300
26	3690	7060	8060	9270	9290	8790	9450	7560	4330	2620	5480	5600
27	3050	7640	8250	9150	9170	8940	10200	7560	4940	3220	3470	6170
28	4150	7740	8400	9110	9250	8860	9460	7910	5700	3980	1000	6460
29	4580	7890	8430	8950	9330	9020	4610	8490	6250	4980	1110	6810
30	2570	8040	8460	9110	---	8940	3130	8780	6720	5950	---	7340
31	2890	---	8610	9320	---	8310	---	8600	---	6780	---	---
MONTH	3670	6710	7260	9060	9110	9000	8980	6350	5600	2820	---	3800

BRAZOS RIVER BASIN

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08080500 DOUBLE MOUNTAIN FORK BRAZOS RIVER NEAR ASPERMONT, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	17.0	4.0	8.0	1.0	11.0	9.0	16.5	24.5	24.5	23.0	27.0
2	21.0	13.5	3.5	5.0	1.0	5.0	---	19.0	25.5	27.0	23.5	22.0
3	---	11.5	3.0	7.0	0.5	8.0	---	19.5	34.0	24.0	---	21.0
4	19.0	11.5	3.0	---	0.0	6.5	21.0	21.0	28.0	22.0	---	25.5
5	15.5	13.5	4.0	5.0	2.0	4.5	23.5	22.0	24.0	21.5	---	22.0
6	19.0	10.5	4.5	1.0	5.0	10.5	21.5	26.0	26.5	23.0	---	24.5
7	18.5	8.0	5.0	1.5	0.5	14.5	22.0	19.0	26.0	22.0	24.5	25.0
8	19.5	10.0	5.5	6.0	4.0	8.0	16.0	19.5	23.5	25.5	24.5	25.0
9	14.5	10.0	5.0	8.5	5.0	11.5	17.0	19.5	28.0	31.0	22.0	30.5
10	11.5	9.5	4.5	6.5	5.0	11.0	23.5	21.0	29.5	27.0	21.0	26.5
11	16.5	11.5	4.0	4.5	1.5	14.0	23.5	19.0	---	27.0	23.5	26.0
12	16.5	13.0	5.5	5.0	3.5	15.5	26.5	20.0	---	26.5	23.5	26.0
13	17.0	13.0	4.5	3.5	4.5	15.0	26.5	27.0	26.0	26.5	21.0	25.5
14	14.5	16.0	10.5	0.5	8.0	13.5	25.5	19.5	25.0	28.5	23.0	24.5
15	20.0	17.0	5.5	0.0	5.0	14.0	21.5	19.0	22.0	26.5	24.5	28.5
16	19.0	16.5	8.0	0.0	7.0	11.0	25.0	22.0	25.0	28.0	24.0	29.0
17	20.0	18.5	5.0	5.0	4.5	13.0	19.0	29.0	26.0	23.5	25.0	30.0
18	---	10.0	1.0	11.0	6.5	11.5	24.5	23.0	27.0	24.0	26.0	24.5
19	18.5	8.5	5.5	5.0	4.0	15.0	27.0	23.5	28.0	24.5	29.5	28.5
20	19.0	5.5	6.0	8.0	10.0	16.0	21.5	20.5	27.0	24.0	26.0	23.5
21	15.0	9.0	6.0	5.5	13.5	14.0	22.0	21.5	24.0	24.5	28.0	20.0
22	14.5	9.5	5.5	5.0	7.0	14.5	22.0	22.0	23.5	29.0	26.5	19.0
23	14.0	9.5	9.0	7.0	9.0	16.5	32.0	23.0	29.0	29.0	26.0	18.0
24	15.0	9.0	11.5	8.0	13.5	17.0	19.0	25.5	29.5	25.0	25.5	21.0
25	15.5	9.5	9.0	3.5	10.5	11.5	16.5	28.5	30.0	23.0	24.0	21.0
26	18.5	10.0	13.0	6.0	6.0	16.0	19.5	29.0	29.5	23.5	24.5	22.0
27	18.0	5.0	11.5	1.5	6.5	13.5	16.5	28.5	30.0	24.0	20.5	20.5
28	15.0	9.5	8.0	0.0	10.0	13.5	24.5	26.5	27.0	24.0	24.5	23.0
29	16.0	6.5	9.0	1.0	12.0	9.5	21.5	23.5	29.5	35.0	25.5	23.5
30	19.0	5.0	8.5	0.0	---	5.0	21.5	26.0	24.0	28.0	---	25.5
31	14.5	---	7.0	0.0	---	9.5	---	19.5	---	22.0	---	---
MONTH	17.0	11.0	6.5	4.5	5.5	12.0	22.0	22.5	27.0	25.5	24.5	24.5

08080540 McDONALD CREEK NEAR POST, TEX.

LOCATION.--Lat 33°21'03", long 101°13'36", Garza County, at gaging station at bridge on Farm Road 651, 2.6 miles downstream from Lake Creek, 4.1 miles upstream from mouth, and 14.4 miles northeast of Post.

DRAINAGE AREA.--112 sq mi, of which 39.9 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1972.
Water temperatures: October 1966 to September 1972.

WATER QUALITY DATA. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CF5)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-24	.46	5.8	570	240	11000	--	30	196	0	1800
25-27	.00	--	--	--	--	--	--	--	--	--
28-30	2.2	5.8	570	240	11000	--	30	196	0	1800
31...	.00	--	--	--	--	--	--	--	--	--
NOV.										
01-12	.00	--	--	--	--	--	--	--	--	--
13...	.11	5.2	600	300	--	13000	--	210	0	2100
14-15	.00	--	--	--	--	--	--	--	--	--
16-19	.88	5.2	600	300	--	13000	--	210	0	2100
20...	.00	--	--	--	--	--	--	--	--	--
21-30	.61	5.2	600	300	--	13000	--	210	0	2100
DEC.										
01-06	1.9	5.1	390	190	--	9300	--	170	0	1600
07-31	.11	5.3	520	270	--	13000	--	208	0	2200
JAN.										
01-04	.97	6.2	500	260	11000	--	36	208	0	1900
05-06	.00	--	--	--	--	--	--	--	--	--
07-08	.02	6.2	500	260	11000	--	36	208	0	1900
09-31	.00	--	--	--	--	--	--	--	--	--
FEB.										
01-27	.00	--	--	--	--	--	--	--	--	--
28-29	.04	.2	620	320	--	15000	--	180	0	2300
MAR.										
01-17	.00	--	--	--	--	--	--	--	--	--
18...	.02	2.5	780	440	--	18000	--	248	0	2700
19-22	.00	--	--	--	--	--	--	--	--	--
23-24	.85	2.5	780	440	--	18000	--	248	0	2700
25-31	.00	--	--	--	--	--	--	--	--	--
APR.										
01-27	.00	--	--	--	--	--	--	--	--	--
28-29	1.6	2.5	780	440	--	18000	--	248	0	2700
30...	.00	--	--	--	--	--	--	--	--	--
MAY										
01-04	.00	--	--	--	--	--	--	--	--	--
05-09	3.3	11	97	33	--	1300	--	224	0	430
10-14	5.0	6.0	44	14	--	410	--	170	0	120
15...	.30	11	97	33	--	1300	--	224	0	430
16-24	.00	--	--	--	--	--	--	--	--	--
25-29	2.1	4.1	280	110	--	3900	--	158	0	680
30-31	.00	--	--	--	--	--	--	--	--	--
JUNE										
01-09	.00	--	--	--	--	--	--	--	--	--
10-13	.48	12	170	78	--	3300	--	206	0	700
14...	.00	--	--	--	--	--	--	--	--	--
15...	.87	10	440	190	--	9700	--	104	0	1800
16-21	.00	--	--	--	--	--	--	--	--	--
22...	1.7	12	170	78	--	3300	--	206	0	700
23-30	.00	--	--	--	--	--	--	--	--	--
JULY										
01...	1.3	14	420	100	5600	--	26	96	0	1400
02...	.00	--	--	--	--	--	--	--	--	--
03...	2.0	14	420	100	5600	--	26	96	0	1400
04...	17	10	64	21	--	730	--	170	0	200
05-07	.66	2.3	100	46	--	1600	--	132	0	330
08...	.00	--	--	--	--	--	--	--	--	--
09-10	21	10	64	21	--	730	--	170	0	200
11-31	.00	--	--	--	--	--	--	--	--	--
AUG.										
01-03	.00	--	--	--	--	--	--	--	--	--
04...	.93	6.3	320	92	--	4600	--	122	0	1000
05-06	.00	--	--	--	--	--	--	--	--	--
07...	8.6	7.3	120	41	--	1900	--	116	0	400
08-09	.00	--	--	--	--	--	--	--	--	--
10-11	1.4	6.2	320	92	--	4600	--	122	0	1000
12...	.00	--	--	--	--	--	--	--	--	--
13-15	3.7	7.3	120	41	--	1900	--	116	0	400
16-25	.00	--	--	--	--	--	--	--	--	--
26...	12	7.3	120	41	--	1900	--	116	0	400
27...	14	2.9	32	9.2	--	490	--	106	14	110
28...	1.7	7.3	120	41	--	1900	--	116	0	400
29...	.08	6.3	320	92	--	4600	--	122	0	1000
30-31	.00	--	--	--	--	--	--	--	--	--

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 49,100 mg/l Mar. 18, 23-24, Apr. 28-29; minimum, 1,240 mg/l May 10-14.
Hardness: Maximum, 3,800 mg/l Mar. 18, 23-24, Apr. 28-29; minimum, 120 mg/l Aug. 27.

EXTREMES, October 1965 to September 1967, October 1969 to September 1972.--Dissolved solids: Maximum, 49,100 mg/l Mar. 18, 23-24, Apr. 28-29, 1972; minimum, 498 mg/l Oct. 27, 1969.
Hardness: Maximum, 3,800 mg/l Mar. 18, 23-23, Apr. 28-29, 1972; minimum, 84 mg/l Sept. 23-24, 1971.
Specific conductance (1965-66): Maximum daily, 49,900 micromhos Sept. 22, 1966; minimum daily, 975 micromhos Aug. 29, 1966.
Water temperatures (1965-66): Maximum, 29.0°C Sept. 1, 1966; minimum, 10.0°C Apr. 30, 1966.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.									
01-24	17000	--	--	31400	2400	2200	97	48500	8.2
25-27	--	--	--	--	--	--	--	--	--
28-30	17000	--	--	31400	2400	2200	97	48500	8.2
31...	--	--	--	--	--	--	--	--	--
NOV.									
01-12	--	--	--	--	--	--	--	--	--
13...	20000	--	--	36400	2700	2600	--	55500	7.5
14-15	--	--	--	--	--	--	--	--	--
16-19	20000	--	--	36400	2700	2600	--	55500	7.5
20...	--	--	--	--	--	--	--	--	--
21-30	20000	--	--	36400	2700	2600	--	55500	7.5
DEC.									
01-06	14000	--	--	25900	1800	1600	97	40900	7.2
07-31	20000	--	--	35700	2400	2300	115	54500	7.5
JAN.									
01-04	18000	--	--	32200	2300	2100	99	50200	7.5
05-06	--	--	--	--	--	--	--	--	--
07-08	18000	--	--	32200	2300	2100	99	50200	7.5
09-31	--	--	--	--	--	--	--	--	--
FEB.									
01-27	--	--	--	--	--	--	--	--	--
28-29	23000	--	--	40900	2900	2700	--	61600	8.3
MAR.									
01-17	--	--	--	--	--	--	--	--	--
18...	28000	--	--	49100	3800	3600	--	72100	8.0
19-22	--	--	--	--	--	--	--	--	--
23-24	28000	--	--	49100	3800	3600	--	72100	8.0
25-31	--	--	--	--	--	--	--	--	--
APR.									
01-27	--	--	--	--	--	--	--	--	--
28-29	28000	--	--	49100	3800	3600	--	72100	8.0
30...	--	--	--	--	--	--	--	--	--
MAY									
01-04	--	--	--	--	--	--	--	--	--
05-09	1800	--	.7	3780	380	190	--	6700	8.2
10-14	550	1.0	1.3	1240	170	28	--	2280	7.9
15...	1800	--	.7	3780	380	190	29	6700	8.2
16-24	--	--	--	--	--	--	--	--	--
25-29	6200	--	--	11300	1100	1000	--	19200	7.5
30-31	--	--	--	--	--	--	--	--	--
JUNE									
01-04	--	--	--	--	--	--	--	--	--
10-13	5000	--	--	9370	750	580	--	15900	8.0
14...	--	--	--	--	--	--	--	--	--
15...	15000	--	.5	27100	1900	1800	--	44900	7.7
16-21	--	--	--	--	--	--	--	--	--
22...	5000	--	--	9370	750	580	--	15900	8.0
23-30	--	--	--	--	--	--	--	--	--
JULY									
01...	8700	--	1.0	2160	250	110	64	3730	7.6
02...	--	--	--	--	--	--	--	--	--
03...	8700	--	--	16400	1500	1400	64	25800	7.1
04...	1000	--	1.0	2160	250	110	20	3730	7.6
05-07	2400	--	--	4590	440	340	--	8100	7.3
08...	--	--	--	--	--	--	--	--	--
09-10	1000	--	1.0	2160	250	110	20	3730	7.6
11-31	--	--	--	--	--	--	--	--	--
AUG.									
01-03	--	--	--	--	--	--	--	--	--
04...	7100	--	--	13200	1200	1100	--	21400	7.4
05-06	--	--	--	--	--	--	--	--	--
07...	3000	--	--	5510	480	380	38	9530	

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible][illegible]

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WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM AND SULFATE SORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)
SFP.									
01-04	7300	--	--	13400	1100	1000	--	21500	7.1
05...	1200	--	.5	2430	250	99	23	4310	7.5
06-07	7300	--	--	13400	1100	1000	--	21500	7.1
08...	1200	--	.5	2430	250	99	--	4310	7.5
09-14	--	--	--	--	--	--	--	--	--
15-18	18000	--	--	32300	2500	2300	--	50400	7.2
19-20	--	--	--	--	--	--	--	--	--
21-23	7300	--	--	13400	1100	1000	--	21500	7.1
24-25	18000	--	--	32300	2500	2300	--	50400	7.2
26-30	--	--	--	--	--	--	--	--	--
WTD. AVG. TIME WTD. AVG.	5300	--	--	9780	--	--	--	--	--
TOT. LOAD (TONS)	4460	--	--	8240	--	--	--	--	--

[illegible]

BRAZOS RIVER BASIN

08080916 SALT FORK BRAZOS RIVER AT FARM ROAD 1081, NEAR CLAIREMONT, TEX.

LOCATION.--Lat 33°14'33", long 100°55'40", Kent County, at bridge on Farm Road 1081, and 11.7 miles northwest of Clairemont.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NESIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 28...	1130	1.3	12	220	63	970	174	0	810	1400
DEC. 08...	1215	3.5	8.8	290	100	2700	220	0	950	4100
JAN. 12...	1200	.10	13	260	100	1000	86	0	1200	1400
JULY 13...	1025	5.3	10	90	26	730	162	0	300	1000
AUG. 16...	1400	22	10	68	24	480	158	0	200	680
SEP. 19...	1730	9.6	6.9	60	25	310	214	0	230	360

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 28...	--	.00	3540	820	680	15	5830	7.8	17.0
DEC. 08...	--	--	8230	1200	970	35	13700	8.1	4.5
JAN. 12...	--	.00	4010	1000	980	14	6140	8.1	16.5
JULY 13...	--	.00	2280	330	200	17	3750	8.1	29.5
AUG. 16...	.6	.00	1540	270	140	13	2640	8.2	27.0
SEP. 19...	1.9	.00	1110	250	76	8.6	1920	8.2	27.0

BRAZOS RIVER BASIN

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08080959 SALT FORK BRAZOS RIVER AT STATE HIGHWAY 380, NEAR JAYTON, TEX.

LOCATION.--Lat 33°10'06", long 100°37'50", Kent County, at bridge on U.S. Highway 380, and 6.5 miles southwest of Jayton.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 28...	0915	22	11	400	99	2200	168	0	1100
DEC. 08...	0930	11	14	550	170	3300	222	0	1800
JAN. 12...	1030	4.9	--	580	210	--	--	--	2000
FEB. 16...	1315	5.2	11	640	200	2900	204	0	2000
MAR. 22...	0915	3.8	--	650	210	--	--	--	2100
APR. 26...	1145	1.5	--	780	260	5300	96	0	2400
MAY 31...	0910	17	--	200	54	--	--	--	600
JULY 13...	0745	23	10	100	32	640	136	0	350
SEP. 19...	1020	52	11	240	120	1200	103	0	840

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- UENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AN- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 28...	3400	--	7350	1400	1300	26	12000	7.9	14.0
DEC. 08...	5000	--	10900	2100	1900	32	17000	7.9	5.0
JAN. 12...	4800	--	--	2300	--	--	16500	--	7.5
FEB. 16...	4600	--	10500	2400	2300	26	16300	7.9	14.0
MAR. 22...	5500	--	--	2500	--	--	18400	--	13.0
APR. 26...	8400	--	17200	3000	2900	--	26000	7.9	25.0
MAY 31...	1500	--	--	720	--	--	5840	--	18.0
JULY 13...	920	.3	2110	380	270	14	3480	8.0	24.0
SEP. 19...	2000	.00	4450	1100	1000	16	7190	7.9	25.0

08081000 SALT FORK BRAZOS RIVER NEAR PEACOCK, TEX.

LOCATION.--Lat 33°12'44", long 100°25'57", Stonewall County, at gaging station at bridge on U.S. Highway 380, 2.9 miles northwest of Peacock, 6.2 miles upstream from Croton Creek, and 13.0 miles northwest of Aspermont.

DRAINAGE AREA.--4,275 sq mi, of which 2,770 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: December 1949 to September 1951, October 1964 to September 1972.
Water temperatures: December 1949 to September 1951, October 1964 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
JAN.									
24...	1630	6.2	9.6	900	180	--	128	0	2500
FEB.									
24...	1215	5.5	7.5	840	270	8800	177	0	2500
MAR.									
26...	1530	.09	8.9	710	190	5800	178	0	1600
APR.									
01...	0410	9.8	9.6	900	280	--	184	0	2600
20...	1545	2.3	8.8	1100	340	13000	172	0	3200
MAY									
15...	0835	1.3	1.7	540	130	4200	120	0	1600
28...	1545	88	3.6	140	28	970	216	0	400
29...	0800	47	4.6	110	22	610	182	0	310
JUNE									
01...	0800	.58	--	240	56	2000	142	0	710
03...	0800	.04	--	440	130	4500	96	0	1300
15...	0820	85	--	250	31	430	128	0	660
JULY									
07...	0730	14	--	110	24	740	152	0	330
08...	0400	3.5	--	120	30	1000	140	0	400
12...	0820	43	--	76	16	500	160	0	240
AUG.									
13...	1800	18030	7.5	250	15	240	72	0	640
15...	1000	601	10	180	32	1100	130	0	430
SEP.									
01...	1710	568	14	360	62	1800	156	0	740
06...	0825	326	10	94	21	710	132	0	260
25...	0750	31	14	1000	200	5000	112	0	1700

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13900	26500	39400	38500	37900	43300	44200	52000	10400	---	---	9910
2	15500	27700	31200	37200	38000	44300	45000	52200	15600	---	---	6230
3	12000	31700	35900	39200	41300	44100	44600	---	21600	---	---	6600
4	18000	33400	34600	41000	37800	44600	45100	---	34500	---	---	7450
5	21700	36300	33100	35600	39200	43900	45200	47100	34500	---	---	4650
6	24000	37300	35900	39200	34300	44400	45900	34200	37300	4500	---	3820
7	26100	37900	35700	41100	40200	43900	46900	49500	34500	4000	22000	6000
8	27800	38000	34500	36800	36800	44500	46600	39800	37600	5500	22200	9170
9	29400	38000	33100	37100	39200	44500	47300	49500	37500	4000	25300	8020
10	32600	38300	34100	37600	39100	43800	47600	43800	36800	3500	3500	5730
11	32400	39000	37300	39100	38000	44000	48300	52600	38100	2990	3200	5690
12	35700	39100	37200	38600	36600	44500	47200	31500	38200	2900	3800	7810
13	35000	39400	36500	40800	40400	44400	51300	37100	52200	4000	2000	9250
14	37800	40200	32300	40500	40400	44400	48800	35000	3500	8590	3200	11300
15	40000	40200	32400	39400	41600	45400	49300	20600	3000	10000	5900	13300
16	40400	39700	37600	38900	41300	44400	48400	11200	4000	17500	10500	11600
17	40000	39100	35100	39600	37800	45700	48800	8370	5000	19000	10000	14000
18	40400	38800	38700	39400	41400	45300	51600	13600	8770	21600	17100	14600
19	41100	39100	40300	38200	41900	47100	41800	18000	8810	17800	22400	18300
20	33200	37800	40300	39700	41800	46200	55000	29000	14300	17200	11700	19800
21	34200	37000	40700	39700	41200	46000	52700	41800	19400	21600	11700	20200
22	8000	38900	40300	39500	42800	46000	49000	42000	23800	24600	9000	10600
23	3000	39700	39900	39700	41600	40000	46000	44700	27400	23700	16600	23400
24	3500	39000	39800	40400	41900	49000	46900	49300	33900	23500	20000	26000
25	5000	39100	40000	40400	42000	44300	45600	48000	36900	24200	26000	26100
26	15000	39600	39700	40400	42300	32000	45900	---	37100	27000	5320	27300
27	20000	40300	39400	40400	42200	36000	41600	20000	34900	27200	3200	29200
28	15000	40600	40300	39800	43100	41700	51600	8000	34900	28100	3000	29800
29	6000	41100	39300	39500	42500	43300	46600	3200	---	28800	3770	34000
30	16900	39800	39100	39000	---	44100	49300	3930	---	---	6550	34700
31	14700	---	39600	38200	---	43400	---	8000	---	---	9810	---
MONTH	23820	37770	37200	39180	40370	43500	47470	31930	26020	---	11110	15150

08081000 SALT FORK BRAZOS RIVER NEAR PEACOCK, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 55,000 micromhos Apr. 20; minimum daily, 2,000 micromhos Aug. 13.

Water temperatures: Maximum, 33.0°C May 8; minimum, freezing point on several days during January and February.

EXTREMES, December 1949 to September 1951, October 1964 to September 1972.--Dissolved solids (1949-51, 1964-69):

Maximum, 34,400 mg/l Apr. 14-15, 1950; minimum, 607 mg/l Aug. 30-31, 1966.

Hardness (1949-51, 1964-69): Maximum, 4,260 mg/l Apr. 14-15, 1950; minimum, 184 mg/l Aug. 30-31, 1956.

Specific conductance: Maximum, 61,100 micromhos July 31, 1966; minimum daily, 900 micromhos Aug. 31, 1966.

Water temperatures (1949-50, 1964-69, 1971-72): Maximum, 39.0°C June 25, 1968; minimum, freezing point on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
JAN.									
24...	14000	--	--	27200	2900	2800	74	40400	7.9
FEB.									
24...	14000	--	--	26300	3200	3000	68	41900	7.3
MAR.									
26...	9500	--	--	17900	2600	2400	50	28100	7.3
APR.									
01...	16000	--	--	29300	3400	3300	73	44200	7.4
20...	20000	--	--	37400	4100	4000	88	55000	7.6
MAY									
15...	6600	--	--	13100	1900	1800	42	20600	7.2
28...	1400	--	2.5	3060	460	290	20	5060	7.3
29...	860	--	2.8	2020	360	210	14	3210	7.1
JUNE									
01...	3000	--	--	6110	840	730	30	10400	8.0
03...	7100	--	--	13600	1600	1500	48	21600	7.7
15...	640	--	--	2070	750	640	6.9	3300	7.8
JULY									
07...	1100	--	--	2360	370	250	17	4120	7.8
08...	1500	--	--	3090	440	320	21	5380	7.9
12...	680	--	--	1600	260	120	14	2900	7.9
AUG.									
13...	340	.3	.5	1530	680	620	4.0	2320	6.7
15...	1700	--	.4	3470	580	470	20	6100	6.8
SEP.									
01...	2900	--	--	5880	1200	1000	22	9910	7.0
06...	1000	--	1.2	2220	320	210	17	3820	8.1
25...	8800	--	--	16800	3400	3300	--	26100	7.5

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	7.0	4.0	10.0	4.0	9.0	6.0	13.0	17.0	21.0	22.0	27.0
2	22.0	10.0	3.0	10.0	0.0	4.0	19.0	18.0	17.0	24.0	21.0	23.0
3	19.0	10.0	6.0	5.0	0.0	6.0	10.0	11.0	19.0	21.0	20.0	20.0
4	18.0	11.0	5.0	0.0	11.0	5.0	8.0	14.0	26.0	18.0	27.0	20.0
5	9.0	22.0	6.0	2.0	2.0	15.0	12.0	15.0	18.0	19.0	21.0	26.0
6	5.0	8.0	11.0	0.0	3.0	22.0	15.0	15.0	18.0	28.0	26.0	22.0
7	7.0	11.0	5.0	0.0	13.0	13.0	15.0	19.0	19.0	20.0	22.0	23.0
8	21.0	9.0	5.0	5.0	0.0	10.0	12.0	33.0	27.0	20.0	21.0	24.0
9	6.0	8.0	4.0	5.0	2.0	6.0	12.0	22.0	19.0	20.0	22.0	25.0
10	4.0	19.0	12.0	5.0	1.0	10.0	18.0	17.0	20.0	23.0	23.0	26.0
11	4.0	20.0	12.0	13.0	---	5.0	18.0	17.0	25.0	22.0	21.0	23.0
12	5.0	17.0	5.0	4.0	15.0	8.0	20.0	28.0	21.0	23.0	22.0	30.0
13	8.0	12.0	13.0	10.0	14.0	4.0	24.0	16.0	21.0	22.0	22.0	24.0
14	23.0	23.0	12.0	0.0	8.0	6.0	16.0	27.0	22.0	24.0	21.0	24.0
15	6.0	6.0	4.0	0.0	12.0	12.0	13.0	15.0	20.0	20.0	23.0	23.0
16	7.0	7.0	6.0	6.0	2.0	7.0	16.0	18.0	23.0	23.0	23.0	23.0
17	21.0	20.0	2.0	2.0	8.0	7.0	12.0	17.0	22.0	20.0	23.0	30.0
18	14.0	5.0	1.0	6.0	5.0	9.0	15.0	17.0	24.0	22.0	24.0	23.0
19	8.0	5.0	10.0	3.0	17.0	22.0	18.0	18.0	22.0	31.0	23.0	30.0
20	21.0	5.0	5.0	5.0	23.0	27.0	24.0	17.0	21.0	21.0	27.0	22.0
21	22.0	8.0	5.0	5.0	10.0	10.0	12.0	26.0	21.0	21.0	24.0	19.0
22	22.0	10.0	2.0	5.0	4.0	10.0	13.0	19.0	22.0	21.0	22.0	13.0
23	---	12.0	7.0	19.0	20.0	12.0	13.0	18.0	22.0	28.0	23.0	13.0
24	20.0	---	8.0	8.0	17.0	15.0	13.0	16.0	22.0	23.0	30.0	28.0
25	4.0	14.0	8.0	2.0	7.0	16.0	15.0	17.0	25.0	21.0	21.0	19.0
26	10.0	7.0	9.0	4.0	9.0	24.0	16.0	19.0	22.0	30.0	22.0	25.0
27	20.0	5.0	19.0	1.0	8.0	14.0	15.0	32.0	22.0	21.0	27.0	28.0
28	21.0	14.0	7.0	3.0	23.0	24.0	13.0	27.0	23.0	21.0	24.0	20.0
29	20.0	6.0	5.0	2.0	12.0	7.0	28.0	20.0	21.0	22.0	24.0	21.0
30	19.0	5.0	4.0	10.0	---	6.0	26.0	18.0	22.0	31.0	24.0	13.0
31	19.0	---	13.0	3.0	---	21.0	---	24.0	---	22.0	24.0	---
MONTH	14.5	11.0	7.0	5.0	9.0	12.0	15.5	19.5	21.5	22.5	23.0	23.0

BRAZOS RIVER BASIN

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08081000 SALT FORK BRAZOS RIVER NEAR PEACOCK, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	1990	14600	8930	1550	48000	4550	789	24400	950	165	5100
NOV.	429.7	35500	23200	897	26900	12400	480	14400	1960	76	2270
DEC.	380.7	36100	23600	783	24300	12600	418	13000	1980	66	2040
JAN. 1972, ..	184.3	39100	25500	409	12700	13600	218	6770	2160	35	1070
FEB.	146.2	40200	27100	369	10700	14200	193	5610	2500	34	987
MAR.	172.0	42300	27600	413	12800	14800	222	6870	2230	33	1040
APR.	40.89	46400	30300	112	3350	16300	60	1800	2510	9.2	277
MAY	520.86	10200	6250	284	8790	3080	140	4330	760	34	1070
JUNE	405.09	6310	3870	141	4230	1780	65	1950	590	22	645
JULY	787.50	4570	2800	192	5950	1200	82	2550	450	31	957
AUG.	22132.8	3730	2290	4410	137000	910	1750	54400	510	983	30500
SEP.	4730	8830	5220	2220	66700	2520	1070	32200	690	294	8810
TOTAL	31902.03	--	--	--	361000	--	--	168000	--	--	54800
WTD. AVG.	87.2	6770	4190	987	--	1950	460	--	640	150	--

BRAZOS RIVER BASIN

08081200 CROTON CREEK NEAR JAYTON, TEX.

LOCATION.--Lat 33°17'21", long 100°26'00", Stonewall County, at gaging station, 460 feet upstream from county road, 1.1 miles upstream from mouth, and 8.6 miles northeast of Jayton.

DRAINAGE AREA.--302 sq mi.

PERIOD OF RECORD.--Chemical analyses: May 1959 to September 1972.

Water temperatures: October 1961 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
NOV.											
04...	1410	2.0	8.1	1100	200	--	5500	--	99	0	3000
24...	0945	1.7	6.6	1100	240	--	6600	--	143	0	3100
DEC.											
15...	1045	12	3.9	680	110	--	3500	--	88	0	1700
16...	1150	8.0	3.9	930	190	--	5400	--	104	0	2400
24...	1045	2.8	4.6	1200	280	--	7800	--	134	0	3200
JAN.											
11...	1130	.87	6.4	1300	290	8400	--	24	156	0	3400
FEB.											
01...	1000	1.2	4.2	1200	300	--	8000	--	180	0	3200
09...	1030	.24	5.1	1300	330	--	9500	--	156	0	3500
14...	1000	.90	3.1	1400	350	--	11000	--	156	0	3600
MAR.											
24...	0950	35	6.4	460	50	--	1300	--	94	0	1300
25...	1000	10	4.5	860	150	--	4500	--	82	0	2400
MAY											
02...	0930	23	10	800	80	--	1900	--	88	0	2100
08...	1000	14	4.6	890	130	--	5000	--	68	0	2400
15...	0930	2.0	4.1	1200	240	--	8000	--	106	0	3400
31...	0940	.78	--	980	130	--	3200	--	--	--	2600
JUNE											
02...	1000	.34	--	1000	170	--	4700	--	--	--	2900
12...	0945	1.2	--	1200	120	--	7200	--	--	--	3100
19...	0950	3.8	--	960	120	--	2900	--	--	--	2600
JULY											
11...	1645	9.0	10	720	50	530	--	7.9	74	0	1900
13...	1000	2.0	6.5	880	170	--	1350	--	63	0	2300
AUG.											
15...	1215	77	7.5	690	42	--	680	--	70	0	1700
16...	0950	50	11	780	62	--	1300	--	86	0	2000
22...	1130	107	8.6	780	91	--	2400	--	91	0	2000
22...	1400	45	--	--	--	--	--	--	--	--	--
22...	1420	43	--	--	--	--	--	--	--	--	--
26...	0530	518	8.2	590	63	--	1500	--	88	0	1500
26...	0545	656	--	--	--	--	--	--	--	--	--
26...	0600	738	--	--	--	--	--	--	--	--	--
26...	0615	873	--	--	--	--	--	--	--	--	--
26...	0630	1030	--	--	--	--	--	--	--	--	--
26...	0645	1540	--	--	--	--	--	--	--	--	--
SEP.											
02...	--	57	12	660	48	--	630	--	74	0	1800
06...	--	38	11	740	73	--	1200	--	106	0	2000
08...	--	15	12	980	140	--	3200	--	132	0	2600

BRAZOS RIVER BASIN

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08081200 CROTON CREEK NEAR JAYTON, TEX.--Continued

EXTREMES, October 1961 to September 1968.--Dissolved solids: Maximum, 41,400 mg/l Apr. 18, 1964; minimum, 2,480 mg/l Aug. 29-31, 1966.

Hardness: Maximum, 6,100 mg/l Apr. 18, 1964; minimum, 1,040 mg/l Oct. 21, 1963.

Specific conductance (1961-64): Maximum daily, 50,900 micromhos Apr. 18, 1964; minimum daily, 3,160 micromhos Sept. 4, 1962.

REMARKS.--Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV.										
04...	8700	--	--	18600	3600	3500	40	27200	7.7	--
24...	10000	--	--	21700	3800	3600	47	32700	7.9	--
DEC.										
15...	5600	--	--	11700	2200	2100	33	18300	6.6	--
16...	8600	--	--	17600	3100	3000	42	26500	7.1	--
24...	13000	--	--	25200	4200	4100	53	38000	7.2	--
JAN.										
11...	14000	--	--	27000	4400	4300	55	40100	7.7	--
FEB.										
01...	13000	--	--	25600	4200	4100	54	38900	7.3	--
09...	15000	--	--	30100	4700	4600	61	45000	7.3	--
14...	18000	--	--	35000	4600	4700	68	52000	7.2	--
MAR.										
24...	2000	--	--	5120	1400	1300	15	7940	6.9	--
25...	7100	--	--	15100	2800	2700	37	22400	6.7	--
MAY										
02...	3000	--	--	7960	2300	2200	--	11700	7.9	15.0
08...	7400	--	--	16300	2800	2700	--	24400	7.8	20.0
15...	13000	--	--	25600	4100	4000	--	40600	8.0	20.0
31...	5200	--	--	12100	3000	--	--	17900	--	20.0
JUNE										
02...	7400	--	--	16000	3200	--	--	23700	--	20.0
12...	11000	--	--	22800	3400	--	--	34800	--	--
19...	4600	--	--	11100	2900	--	--	16300	--	--
JULY										
11...	820	.3	.8	4060	2000	1900	5.2	5300	7.2	34.0
13...	2400	--	.3	7140	2900	2800	11	10300	7.5	--
AUG.										
15...	1100	.3	.2	4240	1900	1800	6.8	5890	6.5	26.0
16...	2000	--	--	6190	2200	2100	12	8860	6.7	--
22...	3800	--	--	9030	2300	2200	--	13400	7.8	--
22...	--	--	--	--	--	--	--	4360	--	--
22...	--	--	--	--	--	--	--	3400	--	--
26...	2400	--	--	6140	1700	1700	16	9360	7.9	--
26...	--	--	--	--	--	--	--	3070	--	--
26...	--	--	--	--	--	--	--	5930	--	--
26...	--	--	--	--	--	--	--	4520	--	--
26...	--	--	--	--	--	--	--	6360	--	--
26...	--	--	--	--	--	--	--	6410	--	--
SEP.										
02...	900	--	.2	4080	1800	1800	6.3	5300	7.5	--
06...	1800	--	.09	5980	2100	2000	12	8370	7.5	--
08...	5100	--	--	12100	3000	2900	--	17900	7.5	--

BRAZOS RIVER BASIN

08081200 CROTON CREEK NEAR JAYTON, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	547.78	13800	9290	443	13700	3880	185	5740	1990	95	2940
NOV.	62.32	26900	18500	104	3110	8670	49	1460	2990	17	503
DEC.	167.4	35500	23500	343	10600	11700	171	5290	3060	45	1380
JAN. 1972, ..	24.94	40200	27100	59	1820	13600	30	916	3400	7.4	229
FEB.	20.67	44400	29700	57	1660	15200	29	848	3380	6.5	189
MAR.	224.36	12200	8320	163	5040	3340	65	2020	2000	39	1210
APR.	30.80	35000	19500	54	1620	9500	26	790	2730	7.6	227
MAY	204.25	16400	11000	196	6070	4700	84	2590	2400	43	1320
JUNE	212.68	9070	6360	122	3650	2260	43	1300	1790	34	1030
JULY	158.33	8130	6000	83	2560	1860	26	795	2030	28	868
AUG.	3082.9	5960	4400	1180	36600	1170	314	9740	1700	456	17200
SEP.	590.8	11300	7760	413	12400	3030	161	4830	1870	99	2980
TOTAL	5327.23	--	--	--	98800	--	--	36300	--	--	27100
WTD. AVG.	14.6	9860	6880	270	--	2530	99	--	1880	74	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15400	20000	33000	40000	38900	44500	---	10000	21400	---	---	10000
2	11200	23000	35600	40000	41400	45000	---	11700	---	---	---	8000
3	14100	25000	35600	38100	50900	45000	---	14500	---	---	---	10000
4	15400	27200	36900	40300	49200	---	---	19900	---	10000	---	5000
5	17000	28000	40000	40000	47700	---	---	24600	---	7510	---	8000
6	18000	29000	46000	39700	47000	---	---	24400	---	7400	---	8370
7	19000	30000	39600	38300	46100	---	---	15000	---	7390	---	12000
8	20000	30000	39900	38800	45100	---	---	24400	---	12000	---	17900
9	22000	31000	38300	39000	45000	---	---	23700	---	15000	---	19000
10	24000	31000	34600	39600	44700	---	---	29000	---	5000	10600	20000
11	26000	31000	46500	40000	38700	---	---	35900	35000	4880	14000	22000
12	27000	32000	42000	40800	41400	---	---	35600	34800	7020	10000	18000
13	28000	32000	39500	41500	45000	---	---	40700	---	10300	4960	20000
14	30000	33000	30000	40600	52000	---	---	40700	---	5780	5000	22000
15	31000	33000	20000	45900	51200	---	---	40600	7150	13800	6000	20000
16	32000	33000	26500	40000	49900	---	---	41900	8250	15000	9350	22000
17	32000	25000	34600	39300	48800	---	---	42400	6670	17000	12000	24000
18	33000	26000	36100	40000	47800	---	---	---	10000	20000	14000	25000
19	34000	27000	37000	41000	46900	---	---	---	16300	18000	16000	25000
20	30000	28000	37500	40700	46500	---	---	---	20800	15000	17000	26000
21	32000	29000	37800	40800	46500	---	---	---	23300	17000	19500	26000
22	7000	30000	37700	40600	46600	---	---	---	24000	20000	4690	27000
23	10000	31000	37800	41000	46000	4000	---	---	25000	22000	17700	27000
24	12000	32700	38000	41300	46200	7940	---	---	25000	23000	10700	30000
25	14000	33000	38000	41700	45100	22400	---	---	25000	25000	12300	32000
26	18000	34000	38000	41600	45600	28000	---	---	25000	---	5000	33000
27	25000	35000	37900	41500	45000	33000	---	13800	25000	---	4000	34000
28	26000	35000	38500	41000	45000	35100	---	10000	25000	---	8430	35000
29	20000	36000	38400	41000	44600	34900	---	12000	---	---	12100	35000
30	17400	34000	38500	41000	---	35000	---	13500	---	---	15900	36000
31	18000	---	39100	41100	---	35000	---	17900	---	---	19000	---
MONTH	21890	30130	37060	40520	46030	---	---	---	---	---	---	21910

BRAZOS RIVER BASIN

445

08081400 SALT CROTON CREEK AT WEIR D, NEAR ASPERMONT, TEX.

LOCATION.--Lat 33°24'00", long 100°24'39", Stonewall County, upstream from Haystack Creek, 1,000 ft upstream from streamflow station Salt Croton Creek near Aspermont, and 20 miles northwest of Aspermont.

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.									
13...	1220	.58	4.4	2400	1400	110000	--	--	3800
NOV.									
03...	1600	.69	--	2200	1100	89000	--	--	3800
23...	1045	1.2	--	1800	820	66000	--	--	3100
DEC.									
17...	1150	.90	--	2000	490	70000	--	--	3600
FEB.									
01...	1145	2.3	--	2100	910	92000	--	--	3600
23...	1030	1.0	--	2200	1200	110000	--	--	3700
MAR.									
17...	1130	.60	--	2000	1500	120000	--	--	3100
MAY									
16...	1020	.70	--	2300	1200	94000	--	--	4200
AUG.									
01...	1005	.48	4.2	2200	1600	120000	--	--	3100
23...	1145	91	3.6	1000	260	19000	34	0	2100
SEPT.									
27...	1240	.90	3.2	2400	1200	100000	--	--	4300

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.								
13...	170000	--	12000	--	442	240000	6.7	25.0
NOV.								
03...	140000	232000	10000	--	--	231000	--	22.0
23...	105000	177000	7800	--	--	202000	--	9.0
DEC.								
17...	110000	188000	7000	--	--	204000	--	9.0
FEB.								
01...	150000	245000	9000	--	422	230000	--	7.0
23...	170000	241000	10000	--	469	241000	--	13.0
MAR.								
17...	190000	317000	11000	--	--	244000	--	25.0
MAY								
16...	150000	252000	11000	--	--	228000	--	26.0
AUG.								
01...	190000	320000	12000	--	--	248000	--	26.0
23...	31000	53900	3700	3700	--	78000	6.5	35.0
SEPT.								
27...	160000	272000	11000	--	--	239000	--	30.5

BRAZOS RIVER BASIN

08081450 HAYSTACK CREEK AT WEIR E, NEAR ASPERMONT, TEX.

LOCATION.--Lat 33°24'04", long 100°24'41", King County, about 400 ft upstream from Salt Croton Creek, and 20 miles northwest of Aspermont.

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 13...	1220	.17	4.9	2000	550	37000	80	0	4500
NOV. 03...	1530	.11	--	2000	1300	35000	--	--	4300
23...	1020	.33	10	1600	520	28000	102	0	3900
DEC. 17...	1120	.24	--	1500	2900	21000	--	--	4000
FEB. 01...	1115	.71	--	1600	510	31000	--	--	4000
23...	1000	.25	--	1800	530	35000	--	--	4400
MAR. 17...	1115	.15	--	1800	640	39400	--	--	4600
MAY 16...	1000	.16	--	2000	610	42000	--	--	4600
AUG. 01...	0950	.09	9.0	2200	700	55000	--	--	5000
23...	1330	.14	4.7	2000	420	30000	66	0	4300
SEP. 27...	1225	.28	4.9	1700	480	28000	82	0	4400

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 13...	59000	103000	7200	7200	189	134000	7.6	24.5
NOV. 03...	58000	99800	10000	--	--	125000	--	22.0
23...	44000	78300	6200	6200	156	107000	7.5	9.0
DEC. 17...	40000	--	16000	--	--	103000	--	9.0
FEB. 01...	49000	85900	6200	--	173	113000	--	6.0
23...	56000	98000	6800	--	186	127000	--	10.0
MAR. 17...	62000	109000	7200	--	--	136000	--	25.0
MAY 16...	68000	117000	7500	--	--	145000	--	24.0
AUG. 01...	88000	151000	8300	--	--	175000	--	26.0
23...	47000	83200	6600	6500	--	111000	7.3	36.0
SEP. 27...	45000	79700	6300	6200	--	107000	7.3	30.0

BRAZOS RIVER BASIN

447

08081500 SALT CROTON CREEK NEAR ASPERMONT, TEX.

LOCATION.--Lat 33°24'03", long 100°24'29", King County, at gaging station, 0.1 mile downstream from Haystack Creek, 2.4 miles downstream from Salt Flat Creek, 9.0 miles upstream from Salt Fork Brazos River, and 21 miles northwest of Aspermont.

DRAINAGE AREA.--64.3 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 02...	2345	63	530	130	11000	1100	17000	29500	1900	111	46700	--
FEB. 01...	1235	3.2	2000	840	84000	3600	130000	222000	8300	398	222000	7.2
23...	1100	1.2	2100	1000	94000	4100	150000	250000	9600	423	233000	7.1
MAR. 17...	1200	.87	2100	1200	100000	3800	160000	276000	10000	431	240000	7.1
MAY 16...	1055	.73	--	--	--	--	130000	--	--	--	220000	--
JULY 11...	1030	1.4	--	--	--	--	180000	--	--	--	246000	--
AUG. 01...	0915	.44	--	--	--	--	160000	--	--	--	240000	--
23...	1200	--	--	--	--	2100	29000	50600	3500	--	74400	--
SEP. 27...	1300	1.1	--	--	--	--	130000	--	--	--	219000	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS PER DAY TONS	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE PER DAY TONS	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE PER DAY TONS	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	114.98		93800	939	29100	55000	551	17100	2970	30	922
NOV.	43.45		172000	673	20200	102000	399	12000	4300	17	504
DEC.	94.92		79400	656	20300	46300	383	11900	2750	23	705
JAN. 1972, ..	21.74		250000	473	14700	149000	282	8750	4130	7.8	242
FEB.	32.56		230000	697	20200	137000	415	12000	3600	11	316
MAR.	33.74		232000	682	21100	138000	406	12600	3750	11	342
APR.	68.68		137000	847	25400	81100	501	15000	2670	17	495
MAY	293.18		36000	918	28500	20100	513	15900	2090	53	1650
JUNE	41.62		176000	660	19800	105000	393	11800	3770	14	424
JULY	41.96		270000	987	30600	161000	588	18200	3800	14	431
AUG.	1193.65		12800	1330	41300	6220	647	20100	1660	173	5350
SEP.	359.99		21300	691	20700	11300	366	11000	1800	58	1750
TOTAL	2340.47		--	--	292000	--	--	166000	--	--	13100
WTD. AVG.	6.39		46200	798	--	26300	455	--	2080	36	--

BRAZOS RIVER BASIN

08082000 SALT FORK BRAZOS RIVER NEAR ASPERMONT, TEX.

LOCATION (revised).--Lat 33°20'02", long 100°14'24", Stonewall County, at gaging station at bridge on U.S. Highway 83, 5.4 miles downstream from Salt Croton Creek, 13.2 miles north of Aspermont, and 27.4 miles upstream from Double Mountain Fork Brazos River.

DRAINAGE AREA.--4,830 sq mi, of which 2,770 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1948 to September 1951, October 1956 to September 1972.
Water temperatures: October 1948 to September 1951, October 1956 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
JAN.									
01...	1345	13	4.9	990	290	--	150	0	2500
24...	0725	13	5.5	1100	330	15000	166	0	2700
FEB.									
01...	0730	15	9.1	1000	300	13000	127	0	2500
02...	0730	18	8.6	1200	380	22000	142	0	2800
28...	0745	7.6	6.2	1100	330	15000	147	0	2900
MAR.									
02...	0730	24	7.3	1200	360	16000	136	0	3000
13...	0800	25	5.2	1200	390	18000	140	0	3000
14...	0730	28	6.5	1300	460	25000	144	0	3100
24...	0730	320	14	840	150	6200	218	0	2000
APR.									
20...	0725	49	--	1400	600	43000	--	--	3400
21...	0725	21	--	1400	430	30000	--	--	3400
23...	1500	11	--	1500	440	24000	--	--	3700
28...	0720	20	--	1600	630	48000	--	--	3300
29...	0800	70	--	1400	430	33000	--	--	2900
MAY									
01...	0720	20	7.9	1300	370	25000	116	0	3000
18...	0725	38	9.5	410	97	3300	158	0	1200
31...	0815	132	9.4	180	32	1100	124	0	520
JUNE									
07...	1725	116	--	960	230	9900	84	0	2500
13...	1845	116	--	1400	400	26000	112	0	3200
18...	1715	514	--	250	35	1000	100	0	700
JULY									
05...	1945	157	--	1400	310	24000	--	--	2800
21...	1900	149	--	870	180	12000	--	--	2100
31...	1910	106	--	1900	420	22000	--	--	4400
AUG.									
06...	1930	93	--	2000	430	24000	--	--	4600
14...	0950	12100	8.0	230	17	390	66	0	620
15...	1800	2290	10	270	33	1000	115	0	670
SEPT.									
03...	1500	340	12	120	44	1300	108	0	840
17...	1805	106	10	440	100	3100	136	0	1200
28...	1135	48	13	780	210	6800	140	0	2000

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	2652	18600	11800	2730	84500	5970	1380	42700	1320	305	9450
NOV.	732	38200	24400	1610	48200	13100	863	25900	1980	130	3910
DEC.	766	48000	31500	2100	65100	17200	1150	35600	2270	151	4690
JAN. 1972, ..	333.8	57700	38600	1120	34800	21200	616	19100	2650	77	2390
FEB.	256.6	64200	43400	1040	30100	23900	571	16600	2920	70	2020
MAR.	273.9	52100	34500	823	25500	18900	451	14000	2580	62	1910
APR.	83.68	87000	61400	462	13900	34200	258	7730	3800	29	859
MAY	930.40	23600	15200	1230	38200	7900	640	19800	1510	122	3790
JUNE	665.36	19500	12400	743	22300	6310	378	11300	1360	81	2440
JULY	1281.12	12500	7670	856	26500	3620	404	12500	1160	129	4010
AUG.	32688.5	5310	3240	9220	286000	1430	4070	126000	590	1680	52100
SEP.	7125	12000	7330	4700	141000	3430	2200	66000	1130	725	21700
TOTAL	47788.36	--	--	--	816000	--	--	397000	--	--	109000
WTD. AVG.	131	10100	6320	2230	--	3080	1090	--	850	299	--

BRAZOS RIVER BASIN

451

08082000 SALT FORK BRAZOS RIVER NEAR ASPERMONT, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 161,000 micromhos Apr. 28; minimum daily, 3,000 micromhos Aug. 14, 27.
Water temperatures: Maximum, 33.0°C June 24; minimum, freezing point on several days during January and February.

EXTREMES, October 1948 to September 1951, October 1956 to September 1972.--Dissolved solids (1948-51, 1956-68):
Maximum, 148,000 mg/l July 2, 1964; minimum, 1,230 mg/l Oct. 19-20, 1960.
Hardness (1948-51, 1956-68): Maximum, 7,400 mg/l May 31, 1964; minimum, 334 mg/l July 7-9, 1960.
Specific conductance: Maximum daily, 161,000 micromhos Apr. 28, 1972; minimum daily, 1,690 micromhos July 8, 1960.
Water temperatures: Maximum, 36.0°C July 13, 1962, July 20, 1966; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	DIS- SOLVED FLUOR- IDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
JAN.									
01...	19000	--	--	34000	3600	3500	79	52200	7.0
24...	24000	--	--	42600	4000	3900	102	63000	6.9
FEB.									
01...	21000	--	--	34400	3700	3600	93	57700	7.3
02...	34000	--	--	60500	4400	4300	142	86400	7.4
28...	23000	--	--	42500	4200	4000	102	62900	7.5
MAR.									
02...	26000	--	--	46100	4400	4200	104	66500	7.2
13...	30000	--	--	52700	4600	4500	116	75700	7.4
14...	40000	--	--	70800	5100	5000	152	99500	7.0
24...	9800	--	--	19100	2700	2600	52	28600	7.3
APR.									
20...	68000	--	--	116000	5900	--	242	147000	6.7
21...	48000	--	--	83500	5300	--	180	113000	7.2
23...	39000	--	--	68700	5700	--	140	96400	7.3
28...	76000	--	--	130000	6600	--	257	161000	7.3
29...	53000	--	--	91100	5200	--	198	123000	7.2
MAY									
01...	39000	--	--	68700	4800	4700	158	99000	7.1
18...	5100	--	--	10200	1400	1300	38	16400	7.1
31...	1600	--	1.2	3560	570	470	20	6120	7.2
JUNE									
07...	16000	--	--	29300	3400	3300	75	46400	7.7
13...	42000	--	--	73500	5200	5200	158	104000	7.7
18...	1500	--	--	3570	770	690	16	5980	7.6
JULY									
05...	39000	--	--	67500	4600	--	--	96000	--
21...	20000	--	--	35100	2900	--	--	54000	--
31...	36000	--	--	64400	6400	--	--	89700	--
AUG.									
06...	38000	--	--	68800	6700	--	--	94500	--
14...	560	.3	.5	1850	640	590	6.6	2890	7.9
15...	1600	--	.8	3720	810	720	16	6270	7.7
SEPT.									
03...	1600	--	.7	--	480	390	26	6390	7.7
17...	4900	--	--	9750	1500	1400	--	15600	7.9
28...	11000	--	--	20900	2800	2700	--	33000	7.6

BRAZOS RIVER BASIN

08082000 SALT FORK BRAZOS RIVER NEAR ASPERMONT, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14000	17100	63300	52200	57700	68400	62400	99000	8700	64800	---	12000
2	13400	20700	61000	53300	86400	66500	70400	92900	12700	67800	---	10000
3	17300	27700	69500	52600	73000	67900	69100	35400	20800	72600	---	6390
4	13800	29400	45200	53900	69600	67300	73600	38500	60000	65000	---	9670
5	23600	32600	41700	71400	59300	74700	81200	49800	84500	96000	---	9810
6	23400	34800	52200	57500	54400	68400	72400	30000	38700	17500	94500	5980
7	22500	36700	47900	50400	60800	67100	81900	35000	46400	6740	74800	8250
8	25500	36900	46300	51700	59800	69200	86900	21100	49100	7890	80300	11500
9	26500	39000	46300	54000	58400	76100	89500	27400	61000	12300	8420	13000
10	28300	40700	47000	57000	60800	72000	78100	40100	73000	7000	18900	8000
11	29200	41400	54400	54900	63900	71100	74900	41400	71100	6020	10000	8960
12	31400	42200	46700	53700	83100	80000	76500	35000	49500	4570	6470	10300
13	33300	43000	45300	57500	64800	75700	86200	66800	100000	4680	4000	13300
14	34600	44600	44700	54900	61600	99500	88000	53900	60000	9860	3000	14800
15	35400	47400	42700	52500	60600	89200	86000	55800	16400	15000	5800	14200
16	37000	48300	31200	51900	55800	75200	84000	55800	11000	22300	8000	13000
17	38600	49200	31800	59200	56100	72600	80000	25000	9570	20500	12000	15600
18	42300	47000	38900	59000	57200	74100	78200	16400	6530	25600	12300	18500
19	53300	55200	39200	64600	58000	69100	50000	16300	7290	87100	18000	17300
20	63700	47400	41700	63000	59000	76900	147000	23900	12300	66800	23500	18900
21	39200	43200	43500	60100	60200	72200	113000	34900	17000	54000	20000	23300
22	38700	41700	45100	60200	65200	73000	104000	38500	22200	59800	16000	24500
23	10000	47800	46100	62300	67000	77700	96400	40600	29000	62700	15300	19100
24	8000	55600	48300	63000	60500	35000	90600	47000	57200	72300	18100	27400
25	7000	50900	49300	59900	65200	36400	87200	59500	58300	75000	21200	28400
26	11000	51200	49900	57200	68600	42300	80500	70800	65000	79800	8000	29700
27	28300	50700	49900	57200	68900	47600	100000	33000	68000	83500	3000	32700
28	24500	48400	52600	63400	62900	51400	161000	17300	69300	84100	3500	33000
29	11000	48700	51700	62700	66200	51800	100000	6900	73500	85100	4500	35200
30	17000	47900	54400	64600	---	58600	93000	5320	75700	86500	7000	36300
31	22800	---	55500	62200	---	58200	---	6360	---	---	10000	---
MONTH	26600	42250	47850	58000	63620	67260	88070	39340	44460	47430	19480	17640

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.5	15.5	4.0	13.5	0.0	7.0	---	13.0	21.0	28.0	29.5	24.0
2	21.0	10.0	1.5	7.0	1.5	1.0	16.0	12.0	24.0	26.5	26.5	19.5
3	18.5	9.5	1.5	4.5	6.0	3.0	11.5	11.0	25.0	26.0	25.0	18.5
4	15.5	14.5	1.0	0.0	0.0	4.5	5.5	13.0	24.0	20.5	25.5	18.0
5	15.5	10.5	4.5	0.0	1.5	14.0	10.0	15.5	26.5	20.5	29.5	24.0
6	15.5	9.5	1.5	0.0	7.0	4.5	15.0	13.5	24.0	24.0	26.5	25.5
7	15.0	11.5	2.0	0.0	---	10.5	17.0	12.0	24.0	26.5	25.5	26.5
8	20.0	4.0	3.5	4.5	0.0	4.5	15.5	21.0	16.5	20.5	25.5	26.0
9	19.0	7.0	3.0	10.0	1.5	4.5	21.0	15.0	24.0	26.5	24.0	23.0
10	20.0	7.0	3.5	11.0	5.0	9.0	24.0	15.0	24.0	24.0	24.0	26.5
11	15.0	9.0	3.0	2.0	5.5	10.0	16.0	14.5	24.0	26.5	25.5	26.0
12	19.0	10.0	10.0	2.0	10.5	21.0	18.0	13.5	24.0	24.0	24.5	24.5
13	18.5	---	2.0	2.0	13.0	12.0	16.5	---	25.5	24.0	20.5	24.0
14	13.0	14.5	7.0	4.5	5.5	10.0	14.5	19.5	20.0	21.5	23.5	26.0
15	15.5	13.5	4.0	0.0	2.0	10.0	---	13.0	24.0	---	24.0	24.0
16	24.0	15.5	2.0	1.5	3.0	6.0	---	15.5	24.0	24.0	24.0	26.5
17	24.0	16.0	1.5	1.5	5.0	16.0	18.5	15.0	23.0	24.0	26.5	26.0
18	18.5	7.0	8.0	4.5	4.0	9.5	15.0	15.0	26.5	23.0	25.0	24.0
19	13.0	3.5	10.5	4.0	---	18.0	18.5	15.0	---	24.0	---	24.0
20	10.5	4.0	5.0	4.5	---	20.0	17.5	19.0	32.0	30.5	26.5	24.0
21	13.0	---	4.5	4.5	8.0	9.5	11.5	23.0	26.5	24.0	26.5	18.5
22	13.0	9.0	11.0	4.5	7.0	21.0	11.5	18.5	29.5	26.5	24.0	18.0
23	13.0	4.5	11.0	13.0	5.5	15.5	21.0	16.5	29.5	28.0	19.0	15.5
24	16.5	7.0	8.0	5.0	8.5	14.5	10.5	15.5	33.0	26.5	26.5	24.0
25	11.0	10.0	10.5	2.0	7.0	9.5	11.5	15.5	32.0	---	24.0	25.5
26	15.5	7.0	18.0	3.0	4.5	18.5	15.5	19.0	32.0	27.0	21.0	24.5
27	18.5	4.5	16.5	2.0	15.5	19.0	9.5	18.5	26.5	29.5	21.0	21.0
28	20.5	10.0	7.0	0.0	5.5	10.0	13.0	---	26.5	26.5	26.5	24.0
29	15.5	4.5	10.0	4.0	13.0	13.0	15.0	---	26.5	29.0	27.0	23.0
30	16.5	5.5	10.5	5.5	---	2.5	20.0	17.0	26.5	31.0	25.0	20.0
31	13.0	---	11.5	0.0	---	13.0	---	14.5	---	26.5	28.0	---
MONTH	17.0	9.5	5.5	4.0	5.5	11.0	15.0	15.5	26.0	25.5	25.0	23.0

BRAZOS RIVER BASIN

453

08082100 STINKING CREEK NEAR ASPERMONT, TEX.

LOCATION.--Lat 33°14'00", long 100°12'47", Stonewall County, at gaging station at bridge on Farm Road 1263, 4.9 miles (revised) upstream from Salt Fork Brazos River, and 6.8 miles north of Aspermont.

DRAINAGE AREA.--92.4 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1972.

Water temperatures: October 1965 to September 1969.

EXTREMES, 1965-69.--Dissolved solids: Maximum, 10,600 mg/l June 1-16, 1966; minimum, 406 mg/l Oct. 5, 1968.

Hardness: Maximum, 4,130 mg/l June 1-16, 1966; minimum, 259 mg/l Oct. 5, 1968.

Specific conductance: Maximum daily, 15,300 micromhos May 25, 26, 1966; minimum daily, 591 micromhos Oct. 18, 1965.

Water temperatures: Maximum, 32.0°C July 8, 26, 1968, June 23, 1969; minimum, freezing point on Jan. 29, 1966.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NES- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 27...	1730	4.1	7.3	270	78	410	176	0	770	670
DEC. 07...	1615	1.9	3.8	580	240	1200	256	0	1800	2000
JAN. 11...	1700	1.2	1.5	700	380	1600	96	0	2500	3000
FEB. 15...	1620	.96	.0	720	320	1600	88	0	2500	2800
MAR. 22...	1630	.40	.0	780	380	1600	104	0	2700	2800
APR. 26...	0830	.67	.0	800	390	1400	56	0	2700	2700
MAY 30...	1110	.26	1.0	600	270	820	56	0	1900	1600
JULY 11...	1100	.02	5.6	260	71	360	41	0	780	610
AUG. 13...	2130	529	6.0	92	8.1	27	74	0	210	33
18...	1315	106	10	120	15	99	93	0	260	160
SEP. 18...	1540	1.9	4.8	720	310	1800	203	0	2300	3100

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 27...	--	.7	2300	990	850	5.7	3600	7.9	--
DEC. 07...	--	--	5970	2400	2200	10	8660	8.1	7.5
JAN. 11...	--	--	8260	3300	3200	--	11800	7.9	7.5
FEB. 15...	--	--	7860	3100	3000	--	11100	7.9	10.0
MAR. 22...	--	--	8270	3500	3400	--	11600	8.0	21.0
APR. 26...	--	--	8060	3600	3600	--	11100	7.8	19.0
MAY 30...	--	.3	5300	2600	2600	7.0	7550	7.8	24.0
JULY 11...	--	.00	2100	930	900	5.1	3090	7.5	28.5
AUG. 13...	.2	.2	409	260	200	.7	653	7.8	22.0
18...	.2	.3	708	360	280	2.3	1200	7.8	27.5
SEP. 18...	--	.2	8350	3100	2900	--	11700	7.7	27.0

BRAZOS RIVER BASIN

08082180 NORTH CROTON CREEK NEAR KNOX CITY, TEX.

LOCATION.--Lat 33°22'59", long 100°04'51", Stonewall County, at gaging station on left bank about 150 feet upstream from concrete low-water crossing in Stonewall County, and 15 miles southwest of Knox City.

DRAINAGE AREA.--251 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1972.

Water temperatures: October 1965 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
01-02	16	4.7	780	180	2500	--	22	125	0	2000
03-04	112	7.3	380	31	--	420	--	98	0	980
05-07	7.3	6.9	540	100	--	960	--	122	0	1400
08-15	2.1	4.7	780	180	2500	--	22	125	0	2000
16-28	67	6.9	540	100	--	960	--	122	0	1400
29-31	54	7.3	380	31	--	420	--	98	0	980
NOV.										
01-03	9.7	7.5	550	130	--	860	--	87	0	1600
04-30	2.2	6.1	670	220	--	1200	--	109	0	2200
DEC.										
01-06	4.0	6.1	620	220	--	1000	--	106	0	2100
07-09	10	4.8	880	240	--	5600	--	148	0	2300
10-31	4.7	4.6	740	230	--	2400	--	154	0	2200
JAN.										
01-31	1.6	4.7	780	280	2800	--	26	153	0	2300
FEB.										
01-29	1.4	4.0	850	290	--	3400	--	136	0	2400
MAR.										
01-23	.61	1.8	900	300	--	3100	--	143	0	2600
24-26	2.6	4.1	610	160	--	1200	--	128	0	1800
27-31	.54	1.8	900	300	--	3100	--	143	0	2600
APR.										
01-28	.34	4.3	920	370	2400	--	28	197	0	2900
29...	5.5	5.4	600	170	--	490	--	129	0	1900
30...	1.3	4.3	920	370	2400	--	28	197	0	2900
MAY										
01-06	2.0	5.2	1300	480	--	7000	--	142	0	3400
07-08	20	3.5	650	140	--	1400	--	85	0	1700
09-11	2.0	3.4	770	170	--	2600	--	104	0	2100
12...	18	3.5	650	140	--	1400	--	85	0	1700
13-31	.45	6.0	980	320	--	4700	--	140	0	2800
JUNE										
01-14	.11	.9	1200	450	--	5300	--	118	0	3400
15-17	50	9.3	390	47	--	660	--	106	0	980
18-30	2.3	4.6	700	140	--	2200	--	100	0	1800
JULY										
01...	809	10	310	22	140	--	9.0	70	0	780
02-07	3.7	6.5	660	91	--	850	--	98	0	1700
08-14	.64	2.9	820	170	--	2000	--	124	0	2200
15-31	.41	3.2	1100	310	--	5000	--	116	0	2800
AUG.										
01-10	.47	2.8	920	280	--	3400	--	76	0	2300
11-12	.75	7.8	400	50	--	490	--	76	0	1000
13-14	2580	7.3	210	12	--	110	--	72	0	480
15...	126	7.8	280	22	--	220	--	66	0	680
16-26	32	8.1	590	100	--	1400	--	118	0	1400
27...	908	7.3	210	12	--	110	--	72	0	480
28-31	30	7.8	400	50	--	490	--	76	0	1000
SEP.										
01-06	118	9.4	380	37	--	350	--	88	0	950
07-12	17	9.4	500	67	--	830	--	130	0	1200
13-30	4.8	8.8	700	150	--	2100	--	136	0	1900
WTD. AVG.	28	7.4	321	42	--	428	--	86	0	793

BRAZOS RIVER BASIN

455

08082180 NORTH CROTON CREEK NEAR KNOX CITY, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 24,200 mg/l May 1-6; minimum, 1,020 mg/l Aug. 13-14, 27.

Hardness: Maximum, 5,300 mg/l May 1-6; minimum, 570 mg/l Aug. 13-14, 27.

Specific conductance: Maximum daily, 46,300 micromhos May 5; minimum daily, 1,470 micromhos Aug. 27.

Water temperatures: Maximum, 35.0°C June 14; minimum, freezing point Jan. 5, 6, 15, 31, Feb. 3.

EXTREMES, October 1965 to September 1972.--Dissolved solids: Maximum, 26,200 mg/l Mar. 18-31, 1969; minimum, 936 mg/l Aug. 30-31, 1966.

Hardness: Maximum, 5,440 mg/l July 1-8, 1969; minimum, 570 mg/l Aug. 13-14, 27, 1972.

Specific conductance: Maximum daily, 47,400 micromhos Oct. 23, 1969; minimum daily, 1,060 micromhos Aug. 30, 1966.

Water temperatures: Maximum, 35.0°C June 14, 1972; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-02	4300	--	--	9840	2700	2600	21	14900	7.2
03-04	620	--	.5	2480	1100	980	5.6	3530	7.2
05-07	1600	--	.2	4680	1800	1700	9.9	6990	7.2
08-15	4300	--	--	9840	2700	2600	21	14900	7.2
16-24	1600	--	.2	4680	1800	1700	--	6990	7.2
29-31	620	--	.5	2480	1100	980	5.6	3530	7.2
NOV.									
01-03	1400	--	.2	4670	1900	1800	8.5	6800	7.0
04-30	2100	--	--	6440	2600	2500	10	9060	7.0
DEC.									
01-06	1700	--	.2	5640	2400	2400	8.8	7730	7.0
07-09	9200	--	--	13200	3200	3100	43	27900	7.1
10-31	4000	--	--	9540	2800	2700	20	14100	7.2
JAN.									
01-31	4800	--	--	11000	3100	3000	22	16300	7.2
FEB.									
01-29	5800	--	--	12800	3300	3200	--	19400	7.8
MAR.									
01-23	5200	--	--	12200	3500	3400	--	17900	7.9
24-26	2000	--	--	5410	2200	2000	11	8340	7.9
27-31	5200	--	--	12200	3500	3400	--	17900	7.9
APR.									
01-28	4300	--	--	11000	3800	3700	17	15700	7.9
29...	860	--	.4	4070	2200	2100	4.5	5320	7.6
30...	4300	--	--	11000	3800	3700	17	15700	7.9
MAY									
01-06	12000	--	--	24200	5300	5200	--	38900	7.5
07-08	2400	--	--	6350	2200	2100	13	9400	7.3
09-11	4200	--	--	9860	2600	2500	--	14500	7.5
12...	2400	--	--	6350	2200	2100	13	9400	7.3
13-31	7800	--	--	16700	3800	3700	--	23700	7.4
JUNE									
01-14	9000	--	.4	19500	4800	4700	--	27900	7.2
15-17	1100	--	1.0	3230	1200	1100	--	4840	7.7
18-30	3600	--	.3	8430	2300	2200	--	12900	7.2
JULY									
01...	240	.2	1.5	1540	860	810	2.1	2100	7.5
02-07	1400	--	.2	4790	2000	1900	8.2	6780	7.6
08-14	3400	--	--	8660	2800	2600	--	12500	7.6
15-31	8400	--	--	17700	4100	4000	--	25300	7.3
AUG.									
01-10	5900	--	--	12900	3400	3400	--	19300	7.6
11-12	790	--	.8	2830	1200	1200	6.0	4040	7.5
13-14	160	.3	.9	1020	570	510	--	1510	7.2
15...	370	--	1.2	1620	800	740	--	2400	7.4
16-26	2400	--	--	6090	1900	1800	14	9290	7.3
27...	160	.3	.9	1020	570	510	1.9	1510	7.2
28-31	790	--	.8	2830	1200	1200	--	4040	7.5
SEP.									
01-06	560	--	.3	2320	1100	1000	--	3300	6.8
07-12	1400	--	.07	4080	1500	1400	9.3	6170	7.2
13-30	3400	--	--	8260	2400	2200	--	12400	7.0
WTD. AVG.	730	--	--	2390	976	902	--	3540	7.2

BRAZOS RIVER BASIN

08082180 NORTH CROTON CREEK NEAR KNOX CITY, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14300	5560	8660	14700	16900	18800	14200	22800	23700	2100	---	7120
2	16900	6700	---	14600	16800	19100	15200	35100	24400	4500	---	2890
3	2890	8020	7350	15400	19300	18900	15200	40300	25000	4770	---	4480
4	3670	8490	7620	---	19200	18700	15600	43100	25700	5930	---	2810
5	6260	9190	7710	17500	19500	18700	15500	46300	26700	7680	---	2710
6	8230	10100	7410	16600	19500	18700	15400	40600	28100	8670	---	3610
7	9710	10600	32000	16200	20300	18500	15600	12400	28700	8710	---	5380
8	12400	10100	31500	15800	19900	18500	15300	8910	28700	9240	---	5400
9	12400	9620	21300	16800	19700	19000	15200	10200	---	10900	---	5700
10	13800	9530	15400	16600	19500	18800	15300	13700	---	10900	19300	5800
11	14500	9660	16800	16200	---	17900	15500	19400	---	11900	4240	6080
12	16300	8750	16500	16800	16900	17800	15600	6810	---	12700	3730	7700
13	16200	8570	16600	17000	18400	18200	15900	15900	34700	13100	1550	9450
14	17000	8640	16300	16500	18700	18600	16400	18100	34800	17400	1800	11300
15	17700	8640	11800	16500	19400	18600	17500	21200	4880	24300	3000	8090
16	17900	8840	16300	16700	20200	18400	17400	21400	3290	26400	---	12200
17	7700	8540	19800	---	20200	18600	17600	22900	6440	26200	7610	17000
18	5220	8790	12100	---	20400	18600	17700	23800	9370	26400	7720	15600
19	5930	8900	11500	---	20400	18700	13600	24100	11900	13100	8960	14300
20	6750	4940	11700	---	20100	18700	15000	24800	14400	18700	10100	17600
21	6500	8900	12100	---	19900	18900	15500	24100	15800	25400	10400	13000
22	7790	8640	12700	---	20100	18700	14900	24200	16200	25400	9240	12800
23	3340	8420	12600	---	19500	18600	15400	24400	36200	24600	10100	10700
24	4000	8640	12800	---	19500	5410	15600	24800	8380	24300	9450	10300
25	5620	8900	13100	17600	19300	9720	14600	27800	9580	23800	11800	11000
26	6720	8940	13100	17600	19600	9720	13800	27300	11100	24600	9500	11700
27	6930	9140	13200	17400	19300	13600	16400	26100	12600	25600	1470	10500
28	11300	9350	13900	17700	18900	13600	17800	25300	14100	28000	3350	12000
29	14470	9440	13900	17100	18600	14100	5320	23900	14700	26400	4810	12400
30	2930	9060	13700	17200	---	14400	16000	23900	15900	27900	6440	12900
31	4420	---	14900	17500	---	14100	---	23600	---	---	---	---
MONTH	9250	8830	14480	---	19290	16860	15330	24100	18670	17320	---	9420

BRAZOS RIVER BASIN

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08082180 NORTH CROTON CREEK NEAR KNOX CITY, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	16.5	5.5	13.0	1.5	13.0	13.0	20.0	20.0	20.0	---	25.0
2	23.0	13.0	---	9.0	2.0	13.0	17.0	24.0	26.0	27.0	---	23.0
3	19.5	15.5	4.5	5.5	0.0	11.0	16.0	26.0	23.0	29.0	---	20.0
4	18.5	9.0	5.5	---	5.0	15.0	20.0	24.5	25.5	27.0	---	24.0
5	24.0	12.0	4.5	0.0	9.0	11.0	18.0	22.0	25.0	27.0	---	24.0
6	23.0	12.0	5.5	0.0	7.0	16.0	16.5	17.0	30.0	28.0	---	23.5
7	16.0	11.0	6.0	1.0	7.0	16.0	25.0	15.0	27.0	22.0	---	24.0
8	17.0	10.0	6.5	4.5	4.0	12.0	14.0	17.0	26.0	32.0	---	25.0
9	16.5	14.0	5.5	8.5	10.0	13.5	19.0	19.0	---	25.0	---	25.0
10	21.5	14.0	4.5	5.5	4.5	22.0	24.0	19.5	---	24.0	26.0	25.0
11	14.0	11.0	4.5	3.5	---	24.0	30.0	20.5	---	33.0	24.0	22.0
12	15.5	13.0	7.0	---	10.0	20.0	24.0	17.0	---	32.0	27.0	26.0
13	16.5	14.0	4.5	1.5	11.5	19.0	21.0	19.0	24.0	28.0	21.5	25.0
14	17.0	20.0	9.0	---	8.5	24.0	23.0	20.0	35.0	30.0	24.0	26.0
15	24.0	16.5	5.5	0.0	7.0	15.0	22.0	28.0	26.0	31.0	26.0	29.0
16	22.0	16.5	6.0	3.5	6.0	16.0	17.5	19.0	22.0	26.0	---	30.5
17	22.0	19.0	4.5	3.5	10.0	11.0	20.0	19.0	25.0	25.0	25.0	27.0
18	24.0	12.0	7.0	6.0	6.0	21.5	29.0	21.0	24.0	25.0	29.0	25.0
19	18.0	7.0	8.0	4.0	13.0	21.0	28.0	21.0	24.0	25.0	24.0	25.0
20	14.5	10.0	6.5	4.0	15.0	17.0	23.0	29.0	34.0	31.0	31.0	25.0
21	21.0	10.0	4.5	5.5	17.0	23.5	20.0	27.0	30.0	26.0	25.0	20.0
22	19.0	10.5	3.0	5.0	10.0	23.0	18.0	22.0	32.0	27.0	25.0	21.5
23	18.0	9.0	7.0	6.0	17.0	17.5	17.0	27.0	27.0	29.0	30.0	19.0
24	16.0	10.0	9.0	7.0	12.0	13.0	18.0	29.0	25.0	30.0	24.0	23.0
25	16.5	8.0	7.0	6.0	11.0	20.0	19.0	28.0	26.0	26.0	23.5	23.0
26	18.0	9.0	10.0	6.0	14.0	19.0	17.5	25.0	25.0	31.0	24.5	26.0
27	13.5	5.5	11.0	2.0	17.0	20.0	24.0	24.0	25.0	32.0	23.0	27.0
28	20.0	9.0	7.0	1.0	19.0	14.0	20.0	25.0	32.0	28.0	25.0	29.0
29	19.5	5.5	10.0	1.5	21.0	11.0	20.0	27.0	26.0	29.0	25.0	23.0
30	17.0	5.0	6.5	1.0	---	9.0	21.0	21.0	29.0	28.0	25.0	15.0
31	16.5	---	6.5	0.0	---	7.0	---	21.0	---	---	---	---
MONTH	19.0	11.5	6.5	4.0	10.0	16.5	20.5	22.5	26.5	28.0	---	24.0

BRAZOS RIVER BASIN

08082500 BRAZOS RIVER AT SEYMOUR, TEX.

LOCATION.--Lat 33°34'51", long 99°16'02", Baylor County, at gaging station at bridge on U.S. Highways 277 and 283, 0.8 mile upstream from Wichita Valley Railway bridge, and 1 mile southwest of courthouse in Seymour.

DRAINAGE AREA.--14,490 sq mi, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: August 1959 to September 1972.

Specific conductance: August 1959 to October 1972.

Water temperatures: August 1959 to October 1972.

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 14,500 mg/l Apr. 1-27; minimum, 967 mg/l July 4-5.

Hardness: Maximum, 2,700 mg/l Apr. 1-27; minimum, 280 mg/l June 15.

Specific conductance: Maximum daily, 37,000 micromhos Mar. 29; minimum daily, 1,310 micromhos July 4.

Water temperatures: Maximum, 30.5°C Sept. 19; minimum, freezing point on several days during December, January, and February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
01-05	1110	9.0	160	24	390	--	6.4	104	0	450
06-16	356	9.2	340	61	--	1300	--	116	0	930
17-23	1360	9.0	160	24	390	--	6.4	104	0	450
24-25	1280	9.2	340	61	--	1300	--	116	0	930
26-31	654	8.6	220	36	--	630	--	112	0	480
NOV.										
01-06	410	8.6	360	66	--	1200	--	126	0	1000
07-10	174	8.7	432	97	--	1700	--	144	0	1200
11-30	102	10	530	140	--	2600	--	111	0	1500
DEC.										
01-31	113	8.8	530	140	--	3000	--	175	0	1500
JAN.										
01-31	40	8.3	620	180	3500	--	16	120	0	1900
FEB.										
01-29	38	6.5	720	180	--	3700	--	140	0	1900
MAR.										
01-31	33	5.2	650	200	--	4200	--	146	0	2100
APR.										
01-27	18	5.7	740	220	4300	--	23	156	0	2300
28-30	23	3.4	340	110	--	1600	--	140	0	1100
MAY										
01-06	19	2.3	740	200	--	3900	--	120	0	2200
07-09	571	9.4	190	37	--	690	--	112	0	480
10-11	232	10	450	110	--	2000	--	120	0	1300
12-16	354	9.4	190	37	--	690	--	112	0	480
17-30	84	10	450	110	--	2000	--	120	0	1300
31...	116	2.3	740	200	--	3900	--	120	0	2200
JUNE										
01-13	38	7.1	450	97	--	2600	--	124	0	1300
14...	51	9.3	320	78	--	1400	--	120	0	940
15...	133	7.5	92	12	--	380	--	138	0	210
16-25	383	11	220	43	--	740	--	160	0	600
26-30	26	9.3	320	78	--	1400	--	120	0	940
JULY										
01-03	411	11	200	31	--	520	--	128	0	570
04-05	541	10	140	18	--	160	--	100	0	380
06-08	92	11	200	31	--	520	--	128	0	570
09-14	224	13	310	60	1200	--	13	122	0	900
15-21	114	11	200	31	--	520	--	128	0	570
22-26	22	11	430	94	--	2200	--	114	0	1200
27-31	6.6	13	310	60	1200	--	13	122	0	900
AUG.										
01-12	..00	--	--	--	--	--	--	--	--	--
13...	136	10	280	50	--	860	--	132	5	680
14...	14500	8.7	260	33	--	470	--	124	0	620
15-17	18800	9.2	200	31	--	320	--	128	4	540
18-20	1810	10	280	50	--	860	--	132	5	680
21-24	1050	8.2	390	99	--	1900	--	108	0	1200
25-27	1880	10	280	50	--	860	--	132	5	680
28-31	4550	9.2	200	31	--	320	--	128	4	540
SEP.										
01-02	1280	9.5	210	33	--	620	--	140	0	520
03-15	1960	10	260	57	--	800	--	154	0	670
16-20	572	11	390	88	--	1800	--	130	0	1100
21...	1370	9.5	210	33	--	620	--	140	0	520
22-30	344	11	390	88	--	1800	--	130	0	1100
WTD. AVG.										
TIME WTD.	--	9.4	255	48	--	--	--	130	2	686
AVG.										
TOT. LOAD	527	8.4	471	121	--	--	--	134	0	1370
(TONS)	--	4870	133000	25100	--	--	--	67500	957	357000

BRAZOS RIVER BASIN

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08082500 BRAZOS RIVER AT SEYMOUR, TEX.--Continued

EXTREMES, August 1959 to September 1972.--Dissolved solids: Maximum, 44,800 mg/l May 24-27, 1971; minimum, 442 mg/l Apr. 12, 1967.
 Hardness: Maximum, 6,600 mg/l May 24-27, 1971; minimum, 184 mg/l July 19-20, 1967.
 Specific conductance: Maximum daily, 80,400 micromhos May 24, 1971; minimum daily, 776 micromhos July 20, 1967.
 Water temperatures: Maximum, 37.0°C Aug. 6, 1959, Sept. 3, 1963; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-05	600	.4	1.0	1700	510	420	7.6	2830	7.4
06-16	2000	--	--	4760	1100	990	17	7810	7.6
17-23	600	.4	1.0	1700	510	420	7.6	2830	7.4
24-25	2000	--	--	4760	1100	990	17	7810	7.6
26-31	1000	--	.5	2470	700	600	10	4230	7.3
NOV.									
01-06	1800	--	.5	4460	1200	1100	15	7260	7.2
07-10	2800	--	--	6310	1500	1400	19	10100	7.2
11-30	4200	--	--	9040	1900	1800	26	14300	7.0
DEC.									
01-31	4700	--	--	9970	1900	1760	30	15700	6.9
JAN.									
01-31	5400	--	--	11700	2300	2200	32	17800	7.2
FEB.									
01-29	6000	--	--	12600	2500	2400	--	19600	7.8
MAR.									
01-31	6600	--	--	13800	2400	2300	--	21100	7.9
APR.									
01-27	6800	--	--	14500	2700	2600	36	21900	7.8
28-30	2600	--	--	5860	1300	1200	20	9440	7.7
MAY									
01-06	6200	--	--	13200	2600	2600	--	19800	7.6
07-09	1100	--	1.0	2550	620	530	12	4280	7.7
10-11	3200	--	--	7100	1600	1500	--	11200	7.7
12-16	1100	--	1.0	2550	620	530	12	4280	7.7
17-30	3200	--	--	7100	1600	1500	--	11200	7.7
31...	6200	--	--	13200	2600	2600	--	19800	7.6
JUNE									
01-13	4100	--	--	8710	1500	1400	--	14000	8.0
14...	2100	--	--	4870	1100	1000	18	8030	8.1
15...	540	.5	1.3	1310	280	170	9.8	2200	8.0
16-25	1100	--	1.6	2830	740	610	12	4650	8.3
26-30	2100	--	--	4870	1100	1000	18	8030	8.1
JULY									
01-03	760	--	.9	2160	630	530	9.1	3260	6.5
04-05	210	.4	.8	967	430	350	3.3	1500	6.5
06-08	760	--	.9	2160	630	530	9.1	3260	6.5
09-14	1800	--	.8	4260	1000	920	16	6880	6.7
15-21	760	--	.9	2160	630	530	9.1	3260	6.5
22-26	3400	--	.5	7380	1500	1400	--	11900	6.2
27-31	1800	--	.8	4260	1000	920	16	6880	6.7
AUG.									
01-12	--	--	--	--	--	--	--	--	--
13...	1400	--	.4	3350	910	790	12	5510	8.5
14...	750	--	1.7	2210	790	690	7.3	3540	8.3
15-17	450	.5	.3	1610	620	500	5.6	2510	8.5
18-20	1400	--	.4	3350	910	790	12	5510	8.5
21-24	2900	--	.07	6510	1400	1300	--	10300	8.3
25-27	1400	--	.4	3350	910	790	12	5510	8.5
28-31	450	.5	.3	1610	620	500	5.6	2510	8.5
SEP.									
01-02	950	--	.3	2410	660	540	11	3940	8.1
03-15	1300	--	.3	3170	900	770	12	5230	8.3
16-20	2900	--	.01	6340	1300	1200	--	10000	8.2
21...	950	--	.3	2410	660	540	11	3940	8.1
22-30	2900	--	.01	6340	1300	1200	--	10000	8.2
WTD. AVG.	1190	--	--	3020	836	723	--	4830	8.1
TIME WTD.									
AVG.	3790	--	--	8240	1660	1560	--	12800	7.6
TOT. LOAD									
(TONS)	619000	--	--	1572000	--	--	--	--	--

BRAZOS RIVER BASIN

08082500 BRAZOS RIVER AT SEYMOUR, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2810	6810	13100	16700	18400	19500	22800	12700	18200	8330	---	2900
2	3630	8520	13000	16900	18500	19500	22800	16500	12600	2810	---	4190
3	2600	5810	12200	17200	18500	19700	23200	20700	11000	2230	---	7890
4	2720	7170	11700	17500	17700	20100	23200	19200	11000	1310	---	5290
5	3500	7460	13200	18100	17900	20100	22800	25200	10600	1690	---	4390
6	6200	7790	12400	17100	18500	20100	22500	21000	10900	2320	---	4280
7	6090	8630	18700	16900	18800	20100	22500	3150	12300	3990	---	5140
8	5850	9900	21000	17400	19500	20500	22400	6010	13500	3830	---	4090
9	6560	10600	20900	18300	20100	20100	21600	3540	14600	7870	---	4060
10	7550	11100	13900	18500	20900	20100	21600	8290	15700	7840	---	5210
11	8100	11600	15300	17400	19600	20100	21400	13500	16400	9210	---	6350
12	8840	12000	18600	16900	19000	20100	21600	4260	16700	5120	---	7890
13	9310	12600	16500	17800	18600	20300	21600	2890	17900	5590	7150	5990
14	10000	12600	12100	18300	18000	20300	22100	5230	9540	5100	3540	6180
15	10400	13000	12900	18500	18300	20100	22700	4170	2200	3960	2260	6180
16	10900	13300	17200	19300	19000	20300	22300	5170	4320	3630	1660	8530
17	2070	13000	13000	18100	19200	20300	22700	11000	6040	3650	2550	8570
18	2310	13600	14000	17800	19900	19900	22600	7460	6060	3650	3820	9540
19	2810	13800	16700	18100	21400	20500	22200	7180	4870	4130	4840	9630
20	2330	14300	21000	18100	23500	20500	20300	7390	5700	6470	6640	9420
21	3000	14400	19100	19200	23300	20700	20500	10800	4820	2540	7120	4670
22	3180	14100	15500	17800	21900	20700	21600	10700	3230	6420	7700	7230
23	3940	14800	15500	17100	20600	20700	21500	13200	3420	8810	8760	8820
24	6190	17500	15300	17400	19800	20300	21700	12400	2900	11500	10000	9370
25	6940	17800	15700	18000	19100	19900	21900	11700	4920	12500	6680	10600
26	4660	16000	15900	18100	19100	19900	21700	12200	5110	11900	3730	12600
27	4600	15500	15900	18100	18900	23900	16900	12200	6750	6690	9720	12200
28	4090	15500	16200	18500	19100	16200	9770	12900	9950	6710	3900	11500
29	3820	15200	16000	18300	19200	37000	9290	13300	8710	6890	2210	13200
30	4220	15000	16200	18100	---	27000	9290	14000	8130	7210	2440	13300
31	6390	---	16500	18300	---	24000	---	23200	---	7630	2540	---
MONTH	5340	12310	15650	17860	19530	21050	20640	11330	9270	5860	7410	7640

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	13.0	1.5	6.5	5.5	9.5	15.0	18.5	24.0	24.5	---	23.0
2	22.0	13.0	0.0	8.0	0.0	10.0	16.5	18.5	26.0	24.0	---	18.5
3	15.0	12.0	3.0	7.0	1.0	13.0	15.0	24.0	22.0	24.0	---	18.0
4	22.0	13.0	3.0	0.0	4.0	7.0	17.0	18.5	24.0	18.5	---	17.0
5	18.5	15.5	2.0	0.0	4.0	13.0	21.0	13.0	25.0	21.0	---	25.0
6	19.0	7.0	4.5	0.5	1.5	14.5	24.0	23.5	18.5	23.5	---	18.5
7	21.0	8.0	7.0	5.5	4.5	15.0	21.0	13.0	24.0	25.0	---	25.5
8	18.5	10.0	1.5	7.0	9.0	11.0	18.5	17.0	24.0	24.0	---	26.5
9	15.0	13.0	4.5	9.0	8.5	16.5	18.5	21.0	26.5	21.0	---	26.5
10	19.0	13.5	4.5	8.0	1.5	18.5	23.0	18.5	24.0	25.0	---	26.5
11	19.5	15.5	1.5	7.0	1.0	9.5	24.0	19.0	25.5	26.0	---	26.5
12	18.5	16.5	6.5	8.5	8.5	19.0	24.0	18.5	26.5	21.0	---	26.5
13	18.0	15.5	7.0	1.0	10.0	18.0	21.0	15.5	24.0	26.5	21.0	29.5
14	19.0	16.5	12.0	0.0	7.0	18.0	21.0	21.0	26.5	26.0	20.5	21.0
15	21.0	17.0	8.5	0.0	7.0	15.0	16.5	24.0	24.0	24.0	20.0	24.0
16	22.0	15.5	6.0	0.0	11.0	12.0	23.0	24.0	24.0	25.0	19.5	21.0
17	18.5	17.0	4.5	8.0	9.0	18.5	19.5	24.5	24.0	24.5	21.5	29.5
18	18.5	9.5	4.5	10.5	10.5	7.0	23.5	24.0	26.5	22.0	26.0	29.5
19	13.5	9.0	15.5	10.5	7.0	15.5	21.0	21.0	29.0	20.0	26.5	30.5
20	13.0	10.0	7.0	10.0	15.0	19.5	18.5	24.5	26.5	26.0	26.5	24.0
21	16.5	9.5	7.0	4.5	14.0	18.5	15.5	21.0	24.0	26.0	26.0	21.0
22	15.5	4.5	4.5	4.5	7.0	7.0	21.0	24.0	26.5	24.0	26.5	21.0
23	13.0	7.0	10.0	11.0	15.0	22.0	16.5	24.5	25.5	26.5	26.5	24.0
24	15.5	8.0	12.0	6.5	15.5	15.0	15.5	26.5	29.5	26.0	24.5	26.5
25	15.5	7.0	13.0	6.0	12.0	18.5	15.5	24.0	26.5	26.5	21.0	26.5
26	14.5	9.5	14.0	9.5	10.0	21.0	13.0	26.5	29.5	26.5	19.0	25.0
27	15.5	10.0	13.0	0.0	14.0	20.0	18.5	28.5	24.0	25.5	24.0	29.5
28	16.5	7.0	5.0	0.0	15.5	16.5	15.5	26.5	29.5	26.5	26.0	29.5
29	18.5	4.5	9.0	0.5	18.5	14.5	15.5	21.0	24.0	23.5	21.0	21.0
30	15.5	1.0	9.0	4.0	---	11.0	18.5	18.5	20.0	26.5	21.0	23.0
31	13.0	---	9.0	0.5	---	13.5	---	24.0	---	28.5	21.0	---
MONTH	17.5	11.0	7.0	5.0	8.5	15.0	19.0	21.5	25.0	24.5	24.0	24.5

BRAZOS RIVER BASIN

461

08083000 BRAZOS RIVER NEAR GRAHAM, TEX.

LOCATION.--Lat 33°04'55", long 98°43'36", Young County, at bridge on Farm Road 209 and about 8 miles southwest of Graham.

DRAINAGE AREA.--15,730 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 02...	1345	891	8.8	290	48	780	132	0	720	1200
DEC. 06...	1405	197	8.4	390	89	1700	204	0	1000	2700
FEB. 15...	1420	67	2.6	520	150	2800	192	0	1500	4400
MAR. 20...	1230	30	7.9	520	150	2600	146	0	1600	4100
APR. 24...	1150	18	3.9	530	150	2600	156	0	1600	4100
MAY 30...	1355	51	12	380	86	1600	173	0	1100	2400
JULY 05...	1410	385	12	220	30	300	132	0	620	420
AUG. 08...	0840	9.3	11	350	88	1400	149	0	1100	2200
SEP. 13...	1815	863	11	280	48	930	163	0	720	1400

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 02...	.4	.5	3160	920	810	11	5170	7.7	20.5
DEC. 06...	.4	--	6000	1300	1200	20	9850	7.9	7.0
FEB. 15...	--	--	9450	1900	1800	28	15000	7.9	13.5
MAR. 20...	--	--	8970	1900	1800	--	14100	7.7	20.0
APR. 24...	--	--	9060	1900	1800	--	14100	8.1	24.0
MAY 30...	--	--	5680	1300	1200	19	9110	7.7	26.0
JULY 05...	.3	1.7	1680	680	580	5.0	2590	7.5	26.7
AUG. 08...	--	.7	5290	1200	1100	18	8310	7.9	24.0
SEP. 13...	--	.4	3520	900	770	14	5770	8.1	29.5

BRAZOS RIVER BASIN

08083240 CLEAR FORK BRAZOS RIVER AT HAWLEY, TEX.

LOCATION.--Lat 32°35'53", long 99°48'53", Jones County, at gaging station at bridge on U.S. Highways 83 and 277, 0.8 mile south of Hawley, and 7.4 miles upstream from Mulberry Creek.

DRAINAGE AREA.--1,390 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

Water temperatures: October 1967 to September 1972.

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 4,250 mg/l Jan. 1-31; minimum, 321 mg/l Aug. 13-17.

Hardness: Maximum, 2,000 mg/l Mar. 1-31; minimum, 150 mg/l Aug. 13-17.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-04	147	14	320	120	460	--	8.6	252	0	1200
05-04	162	12	200	66	--	230	--	220	0	620
09-31	82	14	320	120	460	--	8.6	252	0	1200
NOV.										
01-30	46	15	410	170	--	610	--	264	0	1600
DEC.										
01-31	45	13	440	180	--	700	--	220	0	1800
JAN.										
01-31	37	11	440	190	700	--	6.1	220	0	1800
FEB.										
01-29	33	7.7	420	180	--	740	--	112	0	1800
MAR.										
01-31	22	7.8	460	190	--	280	--	232	0	940
APR.										
01-30	17	13	460	170	690	--	7.0	194	0	1800
MAY										
01-09	26	13	410	150	--	670	--	246	0	1600
10-13	22	12	320	110	--	490	--	176	0	1200
14-19	31	10	180	65	--	240	--	156	0	550
20-31	9.8	13	410	150	--	670	--	246	0	1600
JUNE										
01-30	12	13	360	160	--	560	--	172	0	1400
JULY										
01-10	96	12	150	41	170	--	8.0	170	0	440
11-31	4.1	13	270	110	--	400	--	136	0	1100
AUG.										
01-12	4.8	17	350	130	--	480	--	210	0	1300
13-17	455	8.8	44	8.6	--	55	--	112	0	98
18-31	16	15	190	50	--	190	--	192	0	550
SEP.										
01-04	155	11	140	32	--	94	--	144	0	340
09-23	26	12	200	64	--	260	--	212	0	630
24-28	27	11	140	32	--	94	--	144	0	340
29-30	15	12	200	64	--	260	--	212	0	630
WTD. AVG.	--	12	289	111	--	--	--	194	0	1050
TIME WTD.										
AVG.	43	12	357	141	--	--	--	200	0	1310
TOT. LOAD (TONS)	--	493	12100	4650	--	--	--	8150	0	44200

BRAZOS RIVER BASIN

463

08083240 CLEAR FORK BRAZOS RIVER AT HAWLEY, TEX.--Continued

EXTREMES, October 1967 to September 1972.--Dissolved solids: Maximum, 4,980 mg/l Jan. 1-31, 1971; minimum, 254 mg/l Sept. 9-13, 20-21, 1969.

Hardness: Maximum, 2,000 mg/l Dec. 1-31, 1970, Jan. 1-31, Feb. 1-28, 1971, Mar. 1-31, 1972; minimum, 160 mg/l Sept. 25, 1971.

Specific conductance (1967-70): Maximum daily, 11,500 micromhos Oct. 5, 1969; minimum daily, 163 micromhos Sept. 11, 1969.

Water temperatures (1967-69): Maximum, 30.0°C June 14, 1968, June 22, 1969; minimum, freezing point on Dec. 16, 1967.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLORIDE (CL) (MG/L)	DIS- SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-04	610	--	3.8	2820	1300	1100	5.6	3940	8.0
05-08	310	.3	2.5	1560	770	590	3.6	2330	7.9
09-31	610	--	3.8	2820	1300	1100	5.6	3940	8.0
NOV.									
01-30	830	.4	.2	3740	1700	1500	6.4	5340	7.7
DEC.									
01-31	930	--	7.0	4160	1800	1600	7.1	5710	7.5
JAN.									
01-31	950	--	7.7	4250	1900	1700	7.0	5850	7.4
FEB.									
01-29	960	--	6.7	4240	1800	1700	7.6	5840	7.9
MAR.									
01-31	970	.5	4.6	2980	2000	1800	2.7	5920	7.7
APR.									
01-30	950	--	3.7	4230	1800	1700	7.0	5800	8.0
MAY									
01-09	860	.5	2.7	3830	1600	1400	7.1	5310	7.4
10-13	640	--	2.4	2900	1300	1100	6.0	4060	7.5
14-19	380	--	3.3	1520	720	590	3.9	2310	7.5
20-31	860	.5	2.7	3830	1600	1400	7.1	5310	7.4
JUNE									
01-30	810	--	1.9	3410	1600	1400	6.1	4720	8.0
JULY									
01-10	210	.3	2.4	1120	530	390	3.1	1630	6.8
11-31	510	--	2.2	2490	1100	1000	5.1	3510	6.4
AUG.									
01-12	620	--	2.0	3010	1400	1200	5.6	4110	7.5
13-17	48	.4	.7	321	150	54	2.0	556	7.3
18-31	260	--	.7	1350	670	510	3.3	2020	7.8
SEP.									
01-08	150	--	1.2	838	480	360	--	1310	7.4
09-23	340	.3	2.1	1620	760	590	4.1	2420	7.7
24-28	150	--	1.2	838	480	360	1.9	1310	7.4
29-30	340	.3	2.1	1620	760	590	4.1	2420	7.7
WTD. AVG.	567	--	3.3	2540	1170	1010	5.1	3650	7.6
TIME WTD.									
AVG.	728	--	3.6	3170	1470	1300	5.7	4570	7.6
TOT. LOAD (TONS)	23800	--	137	107000	--	--	--	--	--

08083240 CLEAR FORK BRAZOS RIVER AT HAWLEY, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

BRAZOS RIVER BASIN

465

08083245 MULBERRY CREEK NEAR HAWLEY, TEX.

LOCATION.--Lat 32°34'04", long 99°47'32", Jones County, at gaging station on U.S. Highways 83 and 277, 3.3 miles south of Hawley, and 7.0 miles upstream from Clear Fork Brazos River.

DRAINAGE AREA.--205 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 27...	1315	2.4	3.5	160	120	320	258	0	580	540
DEC. 06...	1600	2.6	2.8	320	260	670	176	0	1000	1500
FEB. 15...	0915	.36	2.3	230	250	810	432	0	1200	1200
MAR. 20...	1700	.13	.0	180	290	870	310	12	1700	1000
APR. 25...	0830	.16	.0	230	240	710	188	0	1700	820

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 27...	.4	.7	1860	880	670	4.8	2830	8.0	15.5
DEC. 06...	--	2.0	3840	1800	1700	6.8	6160	8.0	7.0
FEB. 15...	--	1.9	3950	1600	1200	8.8	5930	8.1	--
MAR. 20...	--	.6	4270	1600	1400	9.3	6090	8.5	19.0
APR. 25...	--	.4	3810	1600	1400	7.8	4430	8.2	17.0

BRAZOS RIVER BASIN

467

08084000 CLEAR FORK BRAZOS RIVER AT NUGENT, TEX.

LOCATION.--Lat 32°41'24", long 99°40'09", Jones County, at gaging station at bridge on Farm Road 600 at Nugent, 2 miles downstream from Elm Creek, and 4 miles upstream from Deadman Creek.

DRAINAGE AREA.--2,220 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1948 to September 1953.
Chemical and biochemical analyses: February 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
NOV. 16...	0745	52	13	390	160	--	520	--	286	0
JAN. 17...	--	37	14	440	170	--	620	--	292	0
MAR. 20...	1800	26	6.5	400	160	--	640	--	254	0
MAY 23...	0905	11	11	170	74	--	250	--	204	0
JULY 11...	0900	7.9	12	110	39	--	140	--	168	0
SEP. 19...	0845	16	10	240	79	290	--	9.9	216	0

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- TENTS) (MG/L)
NOV. 16...	1400	770	.5	--	.020	.04	5.4	.050	3400
JAN. 17...	1600	860	.5	--	.035	.06	5.8	.040	3860
MAR. 20...	1600	840	.6	--	.021	.08	3.4	.036	3770
MAY 23...	580	360	.4	--	.017	.10	1.8	.045	1550
JULY 11...	300	210	.3	--	.000	.38	.8	.12	899
SEP. 19...	750	420	.3	.31	.007	.02	1.5	.092	1910

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
NOV. 16...	1600	1400	5.6	4740	7.9	17.5	7.9	83	.9
JAN. 17...	1800	1600	6.3	5390	7.8	6.5	11.7	95	.7
MAR. 20...	1700	1500	6.8	5360	7.8	20.0	9.7	107	2.6
MAY 23...	730	570	4.0	2380	7.7	23.5	6.6	77	1.7
JULY 11...	440	300	2.9	1460	7.6	26.0	6.1	74	2.7
SEP. 19...	910	740	4.2	2790	7.9	25.5	6.6	80	2.3

BRAZOS RIVER BASIN

08084100 DEADMAN CREEK NEAR NUGENT, TEX.

LOCATION.--Lat 32°40'36", long 99°37'00", Jones County, at gaging station at low-water crossing on county road, 3.2 miles east of Nugent, and 4.4 miles upstream from Clear Fork Brazos River.

DRAINAGE AREA.--168 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1970.

Chemical and biochemical analyses: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT.										
28...	1010	23	14	69	46	--	200	--	228	0
NOV.										
16...	0710	26	15	68	34	200	--	12	196	0
DEC.										
07...	1700	19	14	64	44	--	240	--	216	0
JAN.										
17...	1645	10	14	98	49	280	--	15	292	0
FEB.										
14...	1130	9.2	13	78	50	--	280	--	264	0
MAR.										
20...	1715	8.5	13	77	40	280	--	17	260	0
MAY										
01...	1240	6.6	5.5	60	50	--	300	--	230	8
23...	0930	15	15	52	37	250	--	16	180	0
JUNE										
06...	1030	7.5	8.5	--	--	--	--	--	162	--
JULY										
11...	0815	5.2	17	70	36	--	240	--	200	6
18...	1050	5.4	14	56	30	--	250	--	202	0
AUG.										
21...	1720	4.4	12	58	29	--	190	--	176	0
SEP.										
19...	0745	10	14	42	26	--	180	--	163	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
28...	170	280	.7	--	--	--	6.5	--	925
NOV.									
16...	190	270	.8	--	.64	3.9	4.0	5.9	915
DEC.									
07...	230	310	.7	--	--	--	4.1	--	1030
JAN.									
17...	250	390	.7	--	.24	4.5	2.9	8.2	1260
FEB.									
14...	240	340	.6	--	--	--	12	--	1190
MAR.									
20...	280	340	.7	--	.38	11	1.6	9.1	1190
MAY									
01...	260	370	.6	--	--	--	1.6	--	1170
23...	260	280	.8	--	.59	9.0	.6	12	1020
JUNE									
06...	--	--	.9	--	--	--	2.8	--	--
JULY									
11...	200	320	.8	--	.19	.45	2.0	6.7	1010
18...	240	260	.9	--	--	--	3.9	--	961
AUG.									
21...	170	260	.8	--	--	--	1.0	--	810
SEP.									
19...	150	220	.5	1.0	.26	.22	2.7	4.8	732

BRAZOS RIVER BASIN

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08084100 DEADMAN CREEK NEAR NUGENT, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 28...	360	170	4.5	1590	7.8	18.0	--	--	--
NOV. 16...	310	150	5.0	1590	7.4	18.0	4.2	44	25
DEC. 07...	340	160	5.8	1790	7.6	10.5	--	--	--
JAN. 17...	450	210	5.8	2170	7.8	8.5	9.9	84	14
FEB. 14...	400	180	6.0	1990	7.6	10.0	--	--	--
MAR. 20...	360	140	6.4	2060	7.7	22.0	7.9	90	40
MAY 01...	350	150	7.0	1890	8.4	22.0	--	--	--
23...	280	130	6.4	1780	7.6	24.0	3.4	40	13
JUNE 06...	--	--	--	1640	--	26.0	--	--	--
JULY 11...	320	150	5.9	1730	7.5	25.0	3.6	43	14
18...	260	96	6.6	1630	7.7	27.0	--	--	--
AUG. 21...	260	120	5.2	1420	7.7	27.0	--	--	--
SEP. 19...	210	78	5.5	1290	7.3	25.5	2.7	33	7.2

BRAZOS RIVER BASIN

08084800 CALIFORNIA CREEK NEAR STAMFORD, TEX.

LOCATION.--Lat 32°55'51", long 99°38'32", Jones County, at gaging station at downstream side of bridge on Farm Road 142, 9 miles east of Stamford, and 17 miles upstream from Paint Creek.

DRAINAGE AREA.--465 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1962 to September 1972.

Water temperatures: October 1962 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-05	47	11	260	170	440	--	8.9	258	0	1100
06-19	19	12	400	310	--	840	--	300	0	2000
20-23	41	11	250	170	440	--	8.9	258	0	1100
24-31	94	9.0	150	85	--	240	--	192	0	530
NOV.										
01-04	33	9.4	260	170	--	520	--	194	0	1100
05-30	12	5.5	380	320	--	910	--	206	0	2200
DEC.										
01-31	15	3.4	380	294	--	800	--	258	0	1800
JAN.										
01-31	7.0	2.6	410	360	940	--	7.9	284	0	2300
FEB.										
01-29	6.4	1.2	430	380	--	980	--	232	0	2500
MAR.										
01-31	3.6	4.1	450	430	--	1100	--	258	0	2800
APR.										
01-19	3.2	6.3	460	440	1100	--	9.5	282	0	3000
20-22	8.0	5.4	240	210	--	620	--	206	0	1400
23-26	1.7	6.3	460	440	1100	--	9.5	282	0	3000
27-30	6.0	5.4	240	210	--	620	--	206	0	1400
MAY										
01-06	3.4	4.1	360	390	--	880	--	198	0	2300
07...	894	8.4	72	38	--	120	--	140	0	230
08-09	7.0	6.5	190	180	--	380	--	184	0	940
10-11	5.1	4.1	360	390	--	880	--	198	0	2300
12...	33	8.4	72	38	--	120	--	140	0	230
13-14	8.4	6.5	190	180	--	380	--	184	0	940
15-31	3.2	4.1	360	390	--	880	--	198	0	2300
JUNE										
01-30	1.5	1.6	400	320	--	1500	--	188	0	2900
JULY										
01...	7.5	2.3	330	310	910	--	18	200	0	2200
02-06	8.5	7.0	150	110	--	400	--	162	0	860
07-31	.78	2.3	330	310	910	--	18	200	0	2200
AUG.										
01-13	1.2	6.8	220	280	--	820	--	298	0	1900
14-16	138	10	64	23	--	61	--	128	0	170
17-21	3.2	10	99	62	--	200	--	148	0	440
22-31	2.0	7.8	150	130	--	400	--	180	0	870
SEP.										
01-03	153	12	52	16	--	46	--	127	0	94
04-06	41	12	80	40	--	120	--	148	0	260
07-10	4.2	11	110	69	--	200	--	183	0	440
11-20	4.8	7.5	160	130	--	360	--	192	0	880
21...	294	12	52	16	--	46	--	127	0	94
22...	1050	11	40	7.2	--	12	--	120	0	30
23-24	218	12	52	16	--	46	--	127	0	94
25-26	24	12	80	40	--	120	--	148	0	260
27-30	130	12	52	16	--	46	--	127	0	94
WTD. AVG.	--	9.1	164	116	--	281	--	174	0	747
TIME WTD.										
AVG.	21	5.2	335	294	--	806	--	226	0	1990
TOT. LOAD (TONS)	--	186	3350	2370	--	5830	--	3560	0	15300

BRAZOS RIVER BASIN

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08084800 CALIFORNIA CREEK NEAR STAMFORD, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 6,850 mg/l June 1-30; minimum, 180 mg/l Sept. 22.
 Hardness: Maximum, 2,900 mg/l Mar. 1-31, Apr. 1-19, 23-26; minimum, 130 mg/l Sept. 22.
 Specific conductance: Maximum daily, 9,410 micromhos June 15; minimum daily, 317 micromhos Sept. 22.
 Water temperatures: Maximum, 33.5°C June 20; minimum, 1.0°C Jan. 5.

EXTREMES, October 1962 to September 1972.--Dissolved solids: Maximum, 22,200 mg/l Sept. 14-30, 1970; minimum, 147 mg/l May 6-7, 1969.
 Hardness: Maximum, 4,990 mg/l Sept. 14-30, 1970; minimum, 96 mg/l May 6-7, 1969.
 Specific conductance: Maximum daily, 46,400 micromhos Sept. 16, 1970; minimum daily, 227 micromhos Aug. 25, 1971.
 Water temperatures: Maximum, 37.0°C July 4, 6, 16, 1965, July 5, 1968; minimum, freezing point on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED FLUORIDE (MG/L)	TOTAL NITRATE (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.									
01-05	720	--	2.4	2830	1300	1100	5.2	4120	8.2
06-19	1200	--	4.1	4950	2300	2000	7.7	6890	7.9
20-23	720	--	2.4	2830	1300	1100	5.3	4120	8.2
24-31	380	.2	1.6	1500	730	570	3.9	2350	7.6
NOV.									
01-04	810	--	2.2	3010	1400	1200	6.2	4410	7.4
05-30	1300	--	3.9	5170	2300	2100	8.4	7020	7.4
DEC.									
01-31	1200	--	2.7	4710	2200	1900	7.5	6600	7.8
JAN.									
01-31	1300	--	2.7	5520	2500	2300	8.1	7460	7.7
FEB.									
01-29	1400	--	3.2	5810	2600	2400	8.3	7780	8.0
MAR.									
01-31	1500	--	4.8	6420	2900	2700	8.9	8370	8.1
APR.									
01-19	1500	--	2.8	6620	2900	2800	8.8	8590	8.1
20-22	820	--	2.6	3430	1500	1300	7.0	4760	8.1
23-26	1500	--	2.8	6620	2900	2800	8.8	8590	8.1
27-30	820	--	2.6	3430	1500	1300	7.0	4760	8.1
MAY									
01-06	1300	--	2.4	5370	2500	2300	7.7	7360	8.3
07...	160	.3	1.3	700	340	220	2.8	1170	7.7
08-09	620	--	1.7	2410	1200	1000	4.7	3820	8.3
10-11	1300	--	2.4	5370	2500	2300	7.7	7360	8.3
12...	160	.3	1.3	700	340	220	2.8	1170	7.7
13-14	620	--	1.7	2410	1200	1000	4.7	3820	8.3
15-31	1300	--	2.4	5370	2500	2300	7.7	7360	8.3
JUNE									
01-30	1700	--	.9	6850	2300	2200	13	8670	8.0
JULY									
01...	1200	.5	2.3	5100	2100	2000	8.6	6970	7.6
02-06	470	--	3.1	2080	840	710	5.9	3060	7.4
07-31	1200	.5	2.3	5100	2100	2000	8.6	6970	7.6
AUG.									
01-13	900	.6	2.6	4290	1700	1500	8.6	5900	8.3
14-16	74	.3	.9	466	250	150	1.7	782	8.1
17-21	250	--	1.0	1130	500	380	3.8	1780	8.3
22-31	500	--	.9	2140	890	750	5.7	3190	8.0
SEP.									
01-03	64	.2	1.0	351	200	92	--	608	7.2
04-06	160	--	.8	742	360	240	2.6	1210	7.5
07-10	260	--	1.0	1180	550	400	3.6	1870	7.5
11-20	480	--	1.8	2130	960	800	5.1	3130	7.8
21...	64	.2	1.0	351	200	92	1.4	608	7.2
22...	16	--	1.0	180	130	31	.5	317	7.8
23-24	64	.2	1.0	351	200	92	1.4	608	7.2
25-26	160	--	.8	742	360	240	2.6	1210	7.5
27-30	64	.2	1.0	351	200	92	--	608	7.2
WTD. AVG.	457	--	1.7	1910	889	738	4.1	2730	7.7
TIME WTD. AVG.	1130	--	2.6	4710	2050	1870	7.8	6380	7.9
TOT. LOAD (TONS)	9340	--	36	39000	--	--	--	--	--

BRAZOS RIVER BASIN

08084800 CALIFORNIA CREEK NEAR STAMFORD, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3760	3540	7070	6820	8050	8090	8590	6360	8460	7650	6070	464
2	4320	4310	7460	7390	8140	8050	8630	7210	8640	2470	5990	1000
3	4910	4800	6630	7850	8050	7860	8740	7680	8740	3640	5960	579
4	2780	4840	7130	6820	7980	8140	8850	7850	8990	2420	5890	889
5	4550	5630	6610	7410	7980	8240	---	8580	9050	2220	5780	1300
6	5540	5940	---	7850	8050	8270	8730	8690	9010	4370	5700	1450
7	5620	6210	6550	7910	7860	8270	8810	841	9010	5860	5640	1610
8	6250	6150	6220	7460	7950	8280	8700	3620	9090	6600	5710	1810
9	6510	6040	6150	7110	8270	8150	---	3820	9010	6790	5700	1910
10	6730	6550	5890	7940	7900	8180	8810	6640	8970	6880	5670	2110
11	7070	7330	5500	7770	7040	8370	8850	7930	8970	6860	5690	2200
12	6940	7450	6230	7390	6400	7920	8930	1450	8990	6840	5910	2410
13	7340	6860	5100	8090	7100	7770	8890	3690	9010	6840	6820	2530
14	7450	7670	5970	6880	7920	8370	8850	4180	9130	6910	675	2770
15	7530	7360	6020	7090	7980	8440	---	5380	9410	7030	747	2900
16	7610	7440	6580	7650	7400	8050	8850	6220	7230	---	925	3050
17	7450	6710	6140	8030	---	7950	8810	7090	8390	7280	1370	3200
18	7820	6630	5380	7240	7720	8340	8810	7190	7570	7430	1530	3680
19	6490	7220	5830	6760	7800	8770	8890	6970	8820	7490	1800	4050
20	4120	6940	7070	7800	7800	8770	4830	---	7680	7740	2000	4490
21	4460	7000	7400	8190	7500	8590	4610	6710	7940	9330	2250	638
22	3320	7120	7410	7210	7660	8280	5620	6860	8100	7630	2320	317
23	3480	---	6760	6140	7800	8380	7210	6930	8290	6890	2580	452
24	1840	7950	6170	6140	7950	8520	---	7020	8330	6710	2820	824
25	1460	---	6470	6870	7980	8730	8210	7110	8530	6580	3140	1140
26	2170	7930	6940	7630	8050	8590	7190	7360	8600	6460	3280	1500
27	2850	7940	7800	7890	7570	8620	4270	7650	8640	6410	3340	659
28	2790	7630	7280	8010	7920	8960	3050	7940	8640	6310	3500	477
29	1900	7840	7260	8040	7980	9000	5210	8150	8570	6220	3560	772
30	---	7710	7770	8040	---	9850	6150	8000	8570	6150	3760	1170
31	2910	---	7170	---	---	8880	---	8350	---	6110	3680	---
MONTH	4930	6670	6600	7450	7780	8380	7580	6160	8610	6270	3860	1750

BRAZOS RIVER BASIN

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08084800 CALIFORNIA CREEK NEAR STAMFORD, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	20.0	6.5	10.5	7.0	12.5	18.5	25.5	27.0	23.0	31.0	20.5
2	23.0	19.0	5.5	8.0	3.5	14.0	19.0	19.0	29.0	21.5	29.5	22.0
3	20.5	13.5	5.0	8.5	2.0	18.0	21.0	25.0	28.0	23.5	28.0	21.5
4	21.0	12.0	6.0	3.5	7.0	16.5	20.0	27.0	29.0	22.0	26.0	21.0
5	19.0	13.5	6.0	1.0	5.5	13.5	---	23.0	29.0	21.0	29.5	21.5
6	18.0	13.0	---	6.0	8.5	19.0	21.0	20.5	24.5	23.5	24.5	29.5
7	18.5	11.0	9.0	5.5	3.0	19.5	25.5	16.5	23.5	21.5	28.5	30.0
8	20.0	13.0	6.5	5.0	11.0	16.5	19.5	24.0	26.5	29.5	28.0	29.0
9	19.5	12.0	8.0	8.0	8.5	19.0	---	24.0	24.5	28.5	27.0	24.5
10	15.5	10.0	9.0	8.5	6.5	20.0	21.0	24.0	26.5	31.0	25.5	31.0
11	18.0	11.0	8.0	6.5	5.0	23.0	28.0	21.0	25.0	25.5	23.5	24.5
12	20.0	13.5	6.0	7.0	6.5	24.5	30.0	19.5	29.0	28.5	24.5	26.5
13	19.0	15.0	8.5	6.0	4.5	24.0	28.5	24.0	26.0	29.5	23.5	24.5
14	22.0	18.0	13.5	5.0	13.5	22.0	26.5	19.5	27.0	29.5	26.0	29.5
15	19.0	18.5	12.0	1.5	9.0	21.0	---	24.5	29.0	29.0	25.0	27.0
16	20.0	19.0	9.5	4.5	9.0	18.0	23.0	22.0	29.5	---	23.5	24.5
17	21.5	19.5	9.0	3.5	---	21.0	25.0	29.0	29.5	28.5	28.0	25.5
18	20.5	16.0	6.5	8.5	8.0	15.5	27.0	29.5	29.5	26.5	24.5	30.5
19	18.0	13.0	8.0	12.0	13.0	20.0	28.5	28.0	31.5	28.0	31.0	28.0
20	17.0	9.0	8.0	12.0	11.0	23.0	23.5	29.5	33.5	30.0	30.5	27.0
21	21.5	13.5	6.5	4.5	15.0	18.0	24.5	26.5	30.5	27.0	30.0	18.5
22	16.5	10.5	17.0	6.5	14.0	23.5	26.0	24.0	26.5	26.5	31.0	21.0
23	11.5	---	8.0	5.5	16.0	23.0	26.5	29.0	29.5	24.5	27.0	20.0
24	15.0	11.0	10.0	14.0	18.0	19.0	---	30.5	31.0	25.5	29.5	21.0
25	15.5	---	14.0	11.0	18.0	23.5	18.0	29.5	32.0	31.5	25.0	22.0
26	19.0	11.0	11.0	8.0	14.5	17.0	20.0	29.5	31.0	30.0	28.5	21.0
27	15.0	9.0	14.0	5.0	11.0	23.5	16.0	30.5	30.5	30.5	24.5	20.0
28	16.5	11.0	11.0	3.5	19.5	22.0	21.0	24.5	31.5	30.0	28.5	23.5
29	18.5	9.0	13.0	4.5	21.5	18.5	22.0	25.0	29.5	30.5	28.0	24.5
30	---	8.5	11.5	6.0	---	11.0	23.5	26.5	26.5	30.0	30.0	18.0
31	19.0	---	9.0	---	---	8.5	---	25.5	---	27.0	31.0	---
MONTH	18.5	13.5	9.0	6.5	10.5	19.0	23.0	25.0	28.5	27.0	27.5	24.5

BRAZOS RIVER BASIN

08085500 CLEAR FORK BRAZOS RIVER AT FORT GRIFFIN, TEX.

LOCATION.--Lat 32°56'04", long 99°13'27", Shackelford County, at gaging station at bridge on old Fort Griffin-Throckmorton Road, 0.5 mile northeast of Fort Griffin, 5,100 ft upstream from bridge on U.S. Highway 283, and 1.3 miles upstream from Mill Creek.

DRAINAGE AREA.--3,974 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1949 to September 1951, November 1967 to September 1972.
 Water temperatures: November 1949 to September 1951, November 1967 to September 1972.
 Sediment records: November 1949 to September 1951.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
01-09	527	7.0	120	46	160	--	7.9	204	0	310
10-15	289	6.6	200	94	--	300	--	216	12	680
16-19	214	7.0	120	46	160	--	7.9	204	0	310
20-31	199	6.6	200	94	--	300	--	216	12	680
NOV.										
01-15	168	8.1	180	74	--	260	--	236	0	540
16-30	100	12	250	110	--	360	--	284	0	840
DEC.										
01-31	112	9.6	310	140	--	500	--	292	0	1100
JAN.										
01...	93	4.7	240	61	240	--	3.6	204	0	690
02...	92	11	320	130	--	540	--	306	0	1100
03...	88	4.7	240	61	240	--	3.6	204	0	690
04-31	75	11	320	130	--	540	--	306	0	1100
FEB.										
01-29	71	6.9	350	150	--	600	--	286	0	1300
MAR.										
01-31	53	6.2	340	150	--	560	--	276	0	1200
APR.										
01-30	39	7.1	320	160	590	--	9.5	134	0	1400
MAY										
01-11	70	5.6	260	140	--	540	--	182	0	1100
12-21	138	4.1	170	87	--	360	--	136	0	670
22-31	22	5.6	260	140	--	540	--	182	0	1100
JUNE										
01-30	15	5.6	280	140	--	560	--	220	0	1100
JULY										
01-03	130	10	200	100	410	--	11	190	0	860
04-07	164	11	160	69	--	330	--	210	0	600
08-31	10	10	200	100	410	--	11	190	0	860
AUG.										
01-03	.03	7.4	180	100	--	400	--	116	0	770
10-14	2.8	7.4	180	100	--	400	--	116	0	770
15-18	711	9.5	74	33	--	120	--	132	0	210
19-22	84	9.1	54	23	--	86	--	114	0	150
23-24	40	7.4	180	100	--	400	--	116	0	770
25-31	33	9.5	74	33	--	120	--	132	0	210
SEP.										
01-22	181	9.8	70	21	--	110	--	120	0	160
23...	988	11	100	48	--	210	--	128	0	310
24-30	247	10	54	16	--	53	--	132	0	100
WTD. AVG.	106	8.3	190	83	--	326	--	206	1	648

BRAZOS RIVER BASIN

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08085500 CLEAR FORK BRAZOS RIVER AT FORT GRIFFIN, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 3,440 mg/l Feb. 1-29; minimum, 373 mg/l Sept. 24-30.

Hardness: Maximum, 1,500 mg/l Feb. 1-29, Mar. 1-31, Apr. 1-30; minimum, 200 mg/l Sept. 24-30.

Specific conductance: Maximum daily, 6,680 micromhos May 11; minimum daily, 518 micromhos Sept. 24.

Water temperatures: Maximum, 34.0°C June 28; minimum, 1.0°C Feb. 3.

EXTREMES, November 1949 to September 1951, November 1967 to September 1972.--Dissolved solids: Maximum, 3,610 mg/l May 1-27, 1971; minimum, 160 mg/l Nov. 9-20, 1949.

Hardness: Maximum, 1,700 mg/l May 1-27, 1971; minimum, 94 mg/l Apr. 18-19, 1950.

Specific conductance (1949-51, 1967-70, 1971-72): Maximum daily, 6,680 micromhos May 11, 1972; minimum daily, 204 micromhos July 27, 1950.

Water temperatures (1967-70, 1971-72): Maximum, 34.0°C June 14, 1969, June 28, 1972; minimum, freezing point Jan. 9, 10, 1969.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	DIS- SOLVED FLUOR- IDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- UENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAP- RONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-04	250	.4	1.0	1000	490	320	3.1	1650	7.8
10-15	440	.4	1.9	1840	880	680	4.4	2760	8.4
16-19	250	.4	1.0	1000	490	320	3.1	1650	7.8
20-31	440	.4	1.9	1840	880	680	4.4	2760	8.4
NOV.									
01-15	380	.3	1.4	1560	740	550	4.1	2470	7.8
16-30	540	--	1.6	2260	1100	840	4.8	3400	8.1
DEC.									
01-31	740	--	4.0	2960	1300	1100	6.0	4200	7.7
JAN.									
01...	360	.2	1.8	1710	860	690	3.6	2550	7.8
02...	760	--	3.1	3060	1300	1100	6.4	4390	7.6
03...	360	.2	1.8	1710	860	690	3.6	2550	7.8
04-31	760	--	3.1	3060	1300	1100	6.4	4390	7.6
FEB.									
01-29	840	--	4.0	3440	1500	1300	6.8	4780	8.1
MAR.									
01-31	810	.4	3.1	3260	1500	1200	6.3	4650	7.7
APR.									
01-30	870	--	2.1	3390	1500	1400	6.7	4840	8.0
MAY									
01-11	750	.4	1.0	2920	1200	1100	6.8	4180	8.2
12-21	540	--	.8	1900	780	670	5.6	2940	8.1
22-31	750	.4	1.0	2920	1200	1100	6.8	4180	8.2
JUNE									
01-30	830	--	1.3	3020	1300	1100	6.8	4290	8.2
JULY									
01-03	570	--	.7	2260	920	760	5.8	3340	7.8
04-07	440	.4	.6	1720	690	520	5.5	2690	7.1
08-31	570	--	.7	2260	920	760	5.8	3340	7.8
AUG.									
01-03	590	--	.6	2110	870	780	5.8	3240	8.1
10-14	590	--	.6	2110	870	780	5.8	3240	8.1
15-18	180	.4	.9	696	320	210	2.9	1190	8.3
19-22	120	--	.6	497	230	140	2.5	864	7.7
23-24	590	--	.6	2110	870	780	5.8	3240	8.1
25-31	180	.4	.9	696	320	210	2.9	1190	8.3
SEP.									
01-22	160	.3	.7	587	260	160	2.9	1000	7.7
23...	340	--	1.3	1100	450	350	4.4	1840	7.8
24-30	72	--	.7	373	200	92	1.6	631	7.8
WTD. AVG.	454	--	1.8	1810	814	648	4.5	2710	7.9

BRAZOS RIVER BASIN

08085500 CLEAR FORK BRAZOS RIVER AT FORT GRIFFIN, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	917	2300	3430	2390	4660	4750	4910	3850	4020	4120	3420	---
2	---	---	3520	4170	4700	4790	4850	3850	4030	3410	3520	---
3	---	2190	3540	2720	4680	4840	4750	---	4280	4190	3540	---
4	---	---	3850	---	4650	4900	4710	4470	4150	3480	---	---
5	1340	1970	3870	---	4640	4900	5140	4450	4020	2360	---	---
6	---	2430	4020	4140	4700	4870	5270	4210	4170	2830	---	---
7	1530	2440	4040	3960	4760	4870	5230	3980	4050	2890	---	---
8	1740	2420	---	3860	4800	4850	5230	4160	4070	3000	---	---
9	1940	2430	---	3970	4890	4850	---	4280	4080	---	---	---
10	2230	2640	4450	4060	4890	4850	5270	4930	4190	3220	3040	---
11	---	2640	4530	4080	4840	4840	5230	6680	4200	3620	2970	1290
12	2920	2570	4150	4320	4800	4810	5260	2810	4130	3630	2760	---
13	2400	2530	4480	4350	4760	4810	5280	3380	4180	3050	2780	1040
14	2410	2540	4480	4350	4830	4800	5180	3020	4180	3050	2820	950
15	2010	2570	---	4410	4930	4840	---	2630	4180	3050	1270	916
16	1760	---	4530	4400	4910	4850	5270	2170	4190	3080	1640	908
17	1760	---	4530	4560	4870	4860	5270	2860	4250	3100	1230	1210
18	1820	---	4480	4580	4830	4920	5490	3270	4440	3170	---	1210
19	1900	3150	4270	4600	4830	---	---	3100	4460	3160	838	983
20	---	3270	4270	4470	---	4930	5060	3160	4560	3600	807	1010
21	---	3370	4270	4540	4810	4240	---	---	4500	3230	953	763
22	2610	---	---	4470	4820	4880	4730	3560	4460	3230	1090	754
23	2960	---	---	4480	4790	4250	5130	3690	4470	3280	2980	1840
24	2980	3430	---	4530	4810	4220	5130	3730	4510	3280	3090	518
25	3210	3520	---	4580	4790	4240	5160	3770	4470	3270	1090	550
26	3440	3500	4380	4620	4770	4220	5160	3840	4470	3300	1080	649
27	3520	3510	4370	4590	4780	4270	3140	3920	4500	3310	937	---
28	3520	3410	4410	4580	4760	4240	3070	4090	4510	3340	---	---
29	2280	3380	4310	4600	4790	4240	4250	4010	4520	3340	---	772
30	2280	3410	4320	4620	---	4240	4100	4040	4520	3480	---	686
31	2310	---	4320	4630	---	4260	---	4040	---	3440	---	---
MONTH	---	---	---	4260	4790	4650	4900	3790	4290	3280	---	---

BRAZOS RIVER BASIN

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08085500 CLEAR FORK BRAZOS RIVER AT FORT GRIFFIN, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	19.5	8.5	10.5	5.0	14.5	---	23.0	26.5	26.5	26.5	---
2	---	---	8.0	10.0	4.0	14.0	17.0	23.0	26.0	28.5	25.5	---
3	---	18.5	6.5	9.0	1.0	15.0	17.0	---	27.0	27.0	28.0	---
4	---	---	6.0	---	4.5	14.5	18.0	23.5	28.5	27.0	---	---
5	22.0	18.0	6.5	---	5.0	14.5	19.0	21.5	27.0	26.5	---	---
6	---	18.0	7.0	5.5	6.0	15.0	20.0	22.0	29.5	27.0	---	---
7	23.0	14.0	8.0	5.5	5.5	17.0	20.0	20.5	28.5	27.0	---	---
8	21.5	17.0	---	6.5	6.0	15.0	20.0	21.5	26.5	28.0	---	---
9	20.5	14.5	---	8.0	6.5	15.5	---	22.0	25.5	---	---	---
10	20.5	16.5	8.5	9.0	5.5	17.0	20.5	22.0	26.5	29.5	25.5	---
11	---	15.0	5.0	8.0	4.5	18.0	24.5	22.0	26.5	30.0	25.5	---
12	19.0	15.0	6.5	6.0	5.5	19.0	25.0	22.0	28.0	31.0	26.5	---
13	18.5	16.0	6.0	7.0	7.0	19.5	25.5	23.0	28.0	30.0	25.5	29.0
14	19.5	16.0	11.0	5.0	10.0	20.0	26.0	23.5	26.5	31.0	26.0	30.0
15	20.0	16.0	---	4.0	5.5	16.5	---	23.5	26.0	32.0	26.5	29.5
16	22.0	---	10.0	4.5	8.5	17.0	24.5	24.0	27.0	29.5	28.0	29.0
17	23.0	---	9.0	6.5	10.5	18.5	23.5	25.0	26.5	29.5	26.0	28.5
18	22.0	---	8.5	8.5	10.0	19.5	25.0	24.5	28.0	26.5	---	28.5
19	21.0	14.0	9.5	11.0	9.5	---	---	24.5	28.5	29.5	26.5	27.0
20	---	14.0	9.5	8.0	---	20.0	24.5	26.5	30.5	31.0	29.0	27.0
21	---	13.0	9.5	8.5	14.0	16.0	---	---	30.0	30.0	29.5	26.5
22	20.0	---	---	7.0	12.0	19.0	30.5	26.0	29.0	30.5	28.5	26.0
23	20.5	---	---	9.0	13.5	16.5	25.5	26.5	30.5	29.5	26.5	15.5
24	19.0	15.0	---	9.5	14.5	15.5	23.5	28.5	31.0	33.0	27.0	23.5
25	19.0	15.5	---	8.0	15.0	16.0	23.5	28.5	31.5	32.0	27.0	23.0
26	19.5	12.0	9.5	9.0	13.5	15.5	23.0	26.5	31.0	32.0	26.5	24.0
27	19.5	---	11.5	5.0	14.0	16.0	19.0	28.0	32.0	28.5	26.5	---
28	19.0	11.0	11.5	4.5	15.0	16.5	18.0	29.5	34.0	31.0	---	---
29	19.5	9.5	10.5	4.0	15.5	15.5	20.5	26.0	33.0	31.5	---	23.5
30	20.0	9.5	11.5	5.5	---	15.5	22.0	25.5	29.5	31.5	---	23.0
31	19.5	---	11.0	8.0	---	15.5	---	26.0	---	30.5	---	---
MONTH	---	---	---	7.5	9.0	16.5	22.0	24.5	28.5	29.5	---	---

BRAZOS RIVER BASIN

08086050 DEEP CREEK AT MORAN, TEX.

LOCATION.--Lat 32°33'33", long 99°10'11", Shackelford County, at gaging station at bridge on U.S. Highway 380, 0.8 mile north of Moran, 2.3 miles upstream from Post Oak Creek, and 10.8 miles upstream from Hubbard Creek.

DRAINAGE AREA.--235 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1962 to September 1972.
Water temperatures: October 1962 to September 1972.

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 9,200 micromhos Apr. 21; minimum daily, 456 micromhos Sept. 3.
Water temperatures: Minimum, 2.0°C Jan. 4.

WATER QUALITY DATA. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM POTAS- SIUM (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
29...	5.2	5.7	50	14	50	--	3.7	124	0	49
NOV.										
08...	1.6	4.3	74	20	--	98	--	142	0	78
30...	3.9	1.4	140	46	--	270	--	150	0	160
DEC.										
02...	5.0	1.6	180	58	--	390	--	152	0	220
03...	15	4.5	320	100	--	700	--	190	0	520
25...	3.2	3.0	130	43	--	200	--	197	0	180
JAN.										
11...	1.1	1.0	190	70	340	--	4.4	224	0	310
FEB.										
01...	.48	.9	260	100	--	560	--	188	0	460
15...	.45	1.8	290	120	--	630	--	170	0	570
26...	.21	.8	340	140	--	760	--	168	0	670
MAR.										
01...	.18	.2	340	140	--	780	--	164	0	670
29...	.10	.2	410	180	--	990	--	119	0	800
APR.										
14...	.07	.8	460	200	1200	--	6.7	112	0	900
27...	11	2.0	73	24	--	130	--	66	0	140
30...	1.2	1.0	140	51	--	280	--	120	0	210
MAY										
02...	.69	2.1	150	52	--	280	--	120	0	210
18...	.48	2.5	70	24	--	130	--	112	0	80
JUNE										
01...	.10	4.9	88	33	180	--	5.2	134	0	100
09...	.03	4.8	100	38	--	240	--	140	0	110
JULY										
12...	.52	5.1	170	70	330	--	7.2	126	0	220
SEP.										
22...	2.2	7.1	60	19	--	110	--	128	0	54

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS
OCT. 1971, ..	128.24	860	470	5.2	161	170	1.9	58
NOV.	80.40	1510	820	5.9	178	350	2.5	75
DEC.	195.8	2010	1080	18	571	440	7.4	230
JAN. 1972, ..	29.41	2690	1500	3.8	119	610	1.6	49
FEB.	9.46	5140	3020	2.7	77	1340	1.2	34
MAR.	3.41	6800	4050	1.2	37	1850	.5	17
APR.	121.93	2170	1260	14	414	540	6.0	179
MAY	202.88	1300	690	12	379	290	5.2	161
JUNE	.86	2020	1080	.08	2.5	500	.04	1.2
JULY	40.98	2610	1420	5.1	157	670	2.4	74
AUG.	0	--	--	--	0	--	--	0
SEP.	66.6	910	490	2.9	88	190	1.2	35
TOTAL	879.97	--	--	--	2180	--	--	913
WTD. AVG.	2.4	1670	920	6.0	--	380	2.5	--

08086050 DEEP CREEK AT MORAN, TEX.--Continued

EXTREMES, October 1962 to September 1972.--Dissolved solids (1962-68): Maximum, 6,930 mg/l May 1, 1967; minimum, 130 mg/l Nov. 19-21, 1964, July 22-27, 1967.
 Hardness (1962-68): Maximum, 2,530 mg/l May 1, 1967; minimum, 85 mg/l Aug. 25-28, 1966.
 Specific conductance: Maximum daily, 12,900 micromhos Apr. 15, 1971; minimum daily, 219 micromhos July 22, 1967.
 Water temperatures (1964-69): Maximum, 30.0°C July 23, 1968; minimum, freezing point Dec. 26, 1966.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
29...	100	.3	.3	338	180	81	1.6	628	7.5
NOV.									
08...	200	.3	.1	545	270	150	2.6	1010	7.6
30...	600	--	.00	1300	540	420	5.1	2380	7.6
DEC.									
02...	840	--	.5	1770	690	570	6.4	3130	7.6
03...	1400	--	.6	3190	1200	1100	8.7	5450	7.6
25...	420	.3	.4	1080	500	340	4.0	2040	7.8
JAN.									
11...	720	--	.3	1750	770	590	5.3	3060	7.2
FEB.									
01...	1200	--	.3	2660	1100	920	7.5	4510	7.4
15...	1300	--	.6	3010	1200	1100	7.9	5170	6.9
26...	1600	--	.5	3570	1400	1300	8.9	6000	6.9
MAR.									
01...	1600	--	.4	3650	1400	1300	8.8	6150	7.1
29...	2100	--	--	4550	1800	1600	10	7600	7.0
APR.									
14...	2500	.3	--	5290	2000	1900	11	8710	6.8
27...	260	.2	.9	661	280	230	3.4	1200	6.6
30...	610	--	.5	1360	570	470	5.1	2430	6.7
MAY									
02...	620	.2	.2	1370	580	480	5.1	2490	6.6
18...	270	--	.2	633	270	180	3.4	1200	6.7
JUNE									
01...	400	.3	.6	886	360	240	4.2	1700	8.2
09...	490	--	.6	1060	410	290	5.1	1990	8.3
JULY									
12...	800	.3	.8	1660	720	610	5.3	3040	8.0
SEP.									
22...	210	.3	.4	519	230	120	3.1	974	7.6

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	560	800	3090	2750	4510	6150	7850	2490	1700	---	---	1120
2	550	890	3130	2090	4550	6300	7820	2490	1730	---	---	478
3	550	880	3000	2700	4570	6280	8060	2590	1800	---	---	456
4	640	920	1420	1400	4670	6300	8060	2580	1810	---	---	461
5	1040	950	2000	1660	4640	6360	8060	2600	1850	2150	---	480
6	1040	980	2480	1460	4740	6380	8160	2000	1880	2500	---	490
7	890	980	2490	2200	4740	6430	8250	1020	1920	2900	---	503
8	890	1010	2600	1800	4780	6500	8250	750	1930	3230	---	507
9	990	1030	2850	1570	4800	6540	8460	730	1990	2920	---	518
10	990	1130	2000	1550	4800	6540	8450	730	2010	2970	---	527
11	1020	1130	1560	2000	4800	6620	8520	760	2000	2990	---	528
12	1020	1140	1460	2050	4900	6600	8670	1500	2050	3040	---	540
13	1030	1200	1420	2210	4970	6650	8640	850	2150	3050	---	575
14	1030	1200	1390	3420	5100	6750	8710	950	2130	3040	---	---
15	1060	1240	1810	3390	5250	6780	8780	1050	2130	3460	---	---
16	1060	1240	1810	3400	5320	6870	8780	1150	2480	3370	---	---
17	1060	1310	1420	3510	5500	6930	8780	1170	2520	3390	---	---
18	1100	1330	1420	3560	5470	6980	8970	1200	2510	3380	---	---
19	1140	1410	1450	3570	5570	7080	8970	1220	2570	3370	---	---
20	890	1410	1550	3700	5650	7050	6000	1290	2690	3360	---	---
21	900	1520	1650	3690	5720	7050	9200	1280	2700	3410	---	996
22	1070	1510	1720	3830	5800	7180	8780	1320	---	3360	---	974
23	900	1700	1850	3780	5820	7250	8700	1310	---	3390	---	1320
24	760	1800	1850	3850	5930	7280	8780	1390	---	3410	---	1200
25	760	1940	1940	3900	6000	7330	8740	1400	---	---	---	1250
26	880	2060	1940	3920	6000	7490	8740	1470	---	---	---	1300
27	730	2180	2080	4340	6050	7490	1000	1490	---	---	---	1350
28	730	2250	2160	4330	6070	7570	1900	1490	---	---	---	1400
29	620	2300	2380	4390	6140	7600	2200	1550	---	---	---	1350
30	750	2380	2610	4400	---	7630	2430	1610	---	---	---	1400
31	750	---	2740	4470	---	7660	---	1610	---	---	---	---
MONTH	884	1390	2040	3060	5270	6890	7560	1450	---	---	---	---

BRAZOS RIVER BASIN

08086050 DEEP CREEK AT MORAN, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	22.0	10.0	15.0	6.0	18.0	15.0	21.0	27.0	---	---	25.0
2	29.0	22.0	8.0	14.0	5.0	15.0	18.0	23.0	29.0	---	---	26.0
3	22.0	18.0	6.0	10.0	4.0	15.0	21.0	25.0	29.0	---	---	28.0
4	26.0	18.0	6.0	2.0	5.0	---	19.0	25.0	28.0	---	---	24.0
5	25.0	17.0	---	6.0	7.0	13.0	19.0	21.0	29.0	---	---	26.0
6	25.0	17.0	7.0	8.0	6.0	11.0	25.0	23.0	30.0	---	---	28.0
7	26.0	14.0	6.0	9.0	6.0	18.0	24.0	19.0	28.0	---	---	28.0
8	22.0	13.0	---	---	7.0	16.0	20.0	22.0	27.0	30.0	---	28.0
9	25.0	12.0	5.0	11.0	9.0	19.0	25.0	---	30.0	31.0	---	30.0
10	24.0	14.0	8.0	---	7.0	15.0	24.0	27.0	28.0	29.0	---	30.0
11	27.0	---	9.0	9.0	5.0	17.0	26.0	25.0	---	30.0	---	29.0
12	19.0	17.0	11.0	14.0	10.0	19.0	27.0	19.0	28.0	29.0	---	---
13	23.0	17.0	12.0	9.0	11.0	19.0	---	25.0	28.0	25.0	---	---
14	---	19.0	12.0	8.0	12.0	22.0	26.0	24.0	28.0	29.0	---	---
15	25.0	18.0	11.0	5.0	10.0	19.0	27.0	25.0	25.0	28.0	---	---
16	25.0	18.0	9.0	5.0	12.0	20.0	---	25.0	---	29.0	---	---
17	26.0	19.0	9.0	9.0	11.0	---	23.0	23.0	30.0	29.0	---	---
18	23.0	17.0	10.0	13.0	11.0	20.0	26.0	26.0	27.0	---	---	---
19	22.0	17.0	12.0	14.0	12.0	19.0	25.0	28.0	28.0	30.0	---	---
20	21.0	14.0	---	14.0	15.0	21.0	23.0	28.0	37.0	29.0	---	---
21	---	14.0	12.0	12.0	18.0	23.0	22.0	30.0	---	28.0	---	24.0
22	21.0	11.0	7.0	15.0	15.0	20.0	24.0	29.0	---	28.0	---	24.0
23	19.0	---	9.0	14.0	14.0	22.0	24.0	25.0	---	---	---	24.0
24	21.0	13.0	14.0	---	18.0	22.0	25.0	28.0	---	---	---	---
25	20.0	13.0	15.0	12.0	---	18.0	24.0	29.0	---	---	---	---
26	20.0	14.0	17.0	10.0	14.0	21.0	20.0	27.0	---	---	---	---
27	20.0	12.0	18.0	9.0	16.0	21.0	19.0	29.0	---	---	---	---
28	21.0	12.0	13.0	7.0	13.0	19.0	20.0	26.0	---	---	---	---
29	19.5	12.0	16.0	5.0	17.0	17.0	---	---	---	---	---	---
30	22.0	9.0	14.0	---	---	---	23.0	29.0	---	---	---	---
31	24.0	---	14.0	5.0	---	13.0	---	27.0	---	---	---	---
MONTH	23.0	15.5	10.5	10.0	10.5	18.5	22.5	25.5	---	---	---	---

BRAZOS RIVER BASIN

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08086100 HUBBARD CREEK NEAR ALBANY, TEX.

LOCATION.--Lat 32°41'21", long 99°09'52", Shackelford County, at gaging station, 348 feet upstream from bridge on Farm Road 601, 1.8 miles downstream from Deep Creek, 5.1 miles upstream from Salt Prong Hubbard Creek, and 8.1 miles southeast of Albany.

DRAINAGE AREA.--461 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1962 to September 1972.

Water temperatures: February 1962 to September 1972.

Sediment records: January 1966 to September 1972.

EXTREMES, February 1962 to September 1970.--Dissolved solids (January 1962 to September 1968): Maximum, 2,310 mg/l Apr. 5-6, 1962; minimum, 118 mg/l Sept. 7-13, 1967.

Hardness (January 1962 to September 1968): Maximum, 842 mg/l Apr. 5-6, 1962; minimum, 80 mg/l Sept. 18-21, 1964.

Specific conductance: Maximum daily, 4,410 micromhos Apr. 6, 1962; minimum daily, 204 micromhos Sept. 8-9, 1967.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 29...	10	1.8	83	24	120	--	4.4	140	0	92
NOV. 05...	.03	5.6	100	28	--	160	--	147	0	120
DEC. 03...	10	1.6	84	22	--	120	--	148	0	84
15...	9.8	1.3	160	53	--	280	--	148	0	160
JAN. 15...	.80	3.2	140	48	230	--	5.2	164	0	130
FEB. 15...	.50	2.5	130	44	--	220	--	178	0	130
APR. 21...	6.9	4.3	140	47	240	--	5.4	188	0	170
27...	109	2.6	68	18	--	150	--	61	0	64
SEP. 02...	44	5.0	76	24	--	230	--	75	0	99
04...	3.6	4.6	100	35	--	250	--	86	0	140

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 29...	250	.3	.00	642	310	190	2.9	1200	7.5
NOV. 05...	330	.3	.8	815	360	240	3.6	1480	8.2
DEC. 03...	250	.2	.4	638	300	180	3.0	1190	7.6
15...	660	--	.4	1390	620	500	4.9	2540	7.5
JAN. 15...	570	.2	.3	1210	550	410	4.3	2200	8.0
FEB. 15...	510	.3	.2	1140	520	370	4.3	2120	7.4
APR. 21...	540	.3	.2	1240	540	380	4.6	2230	7.5
27...	320	--	.8	657	240	190	4.2	1250	6.9
SEP. 02...	440	--	1.0	912	290	230	5.9	1720	7.6
04...	510	--	.7	1080	390	320	5.5	2010	7.7

BRAZOS RIVER BASIN

08086100 HUBBARD CREEK NEAR ALBANY, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS
OCT. 1971, ..	224.22	880	470	9.3	287	190	3.6	113
NOV.	3.48	1270	700	.2	6.6	260	.08	2.4
DEC.	269.0	2050	1120	26	811	510	12	372
JAN. 1972, ..	25.42	2220	1220	2.7	84	580	1.3	40
FEB.	4.97	2120	1140	.5	15	510	.2	7
MAR.	.01	2130	1150	.00	.03	520	.00	.01
APR.	401.86	1320	700	25	755	340	12	364
MAY	1040.79	640	330	30	935	120	11	336
JUNE	0	--	--	--	0	--	--	0
JULY	3.99	950	500	.2	5.4	210	.07	2.2
AUG.	0	--	--	--	0	--	--	0
SEP.	216.03	1550	830	16	483	380	7.3	219
TOTAL	2189.77	--	--	--	3380	--	--	1460
WTD. AVG.	5.98	1080	570	9.2	--	250	4.0	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	460	1210	---	2280	2100	---	---	1460	---	---	---	1200
2	460	1260	1390	2280	2100	---	---	1380	---	---	---	1720
3	460	1410	1190	2280	2130	---	---	1380	---	---	---	1730
4	450	1450	1150	2280	2130	---	---	1380	---	---	---	2010
5	460	1480	1350	2290	2150	---	---	1390	---	---	---	1970
6	470	1500	1380	2270	2090	---	---	1250	---	---	---	1930
7	490	---	1470	2290	2150	---	---	500	---	934	---	1960
8	500	---	1550	2250	2090	---	---	619	---	954	---	1980
9	510	---	1580	2200	2150	---	---	639	---	983	---	2010
10	520	---	2220	2220	2120	---	---	642	---	987	---	2050
11	520	---	2460	2210	2130	---	---	649	---	990	---	---
12	510	---	2520	2210	2120	---	---	500	---	---	---	---
13	520	---	2580	2210	2120	---	---	634	---	---	---	---
14	520	---	2530	2210	2120	---	---	725	---	---	---	---
15	530	---	2540	2200	2120	---	---	901	---	---	---	---
16	540	---	2490	2200	2100	---	---	866	---	---	---	---
17	550	---	2380	2200	2120	---	---	841	---	---	---	---
18	560	---	2430	2200	2130	---	---	841	---	---	---	---
19	510	---	2500	2180	2110	---	---	846	---	---	---	---
20	500	---	2500	2160	2130	---	2270	834	---	---	---	---
21	610	---	2520	2170	2130	---	2230	835	---	---	---	2050
22	580	---	2520	2150	2110	---	2330	837	---	---	---	1230
23	790	---	2410	2150	2110	---	2340	838	---	---	---	1510
24	1240	---	2380	2160	2140	---	2370	840	---	---	---	1710
25	1620	---	2360	2160	2130	---	---	845	---	---	---	1760
26	1570	---	2350	2160	2130	---	---	840	---	---	---	1800
27	1630	---	2310	2160	---	---	1250	830	---	---	---	1820
28	1410	---	2310	2160	---	---	1450	840	---	---	---	---
29	1200	---	2280	2170	2130	---	1550	850	---	---	---	---
30	1230	---	2260	2130	---	---	1380	---	---	---	---	---
31	1220	---	2270	2200	---	---	---	---	---	---	---	---
MONTH	746	---	2140	2210	2120	---	---	891	---	---	---	---

BRAZOS RIVER BASIN

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08086100 HUBBARD CREEK NEAR ALBANY, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	19.5	---	11.5	6.5	---	---	21.0	---	---	---	26.0
2	24.0	---	9.0	11.0	4.5	---	---	22.0	---	---	---	24.0
3	23.0	17.0	7.0	9.5	5.0	---	---	23.5	---	---	---	24.0
4	22.0	16.5	6.5	0.5	6.0	---	---	23.0	---	---	---	24.5
5	23.0	19.0	6.0	6.0	8.0	---	---	---	---	---	---	25.5
6	22.0	---	7.0	6.0	6.0	---	---	20.5	---	---	---	28.5
7	23.5	---	9.0	8.5	6.5	---	---	18.5	---	28.0	---	---
8	21.5	---	7.0	9.5	8.0	---	---	19.5	---	29.0	---	---
9	20.5	---	7.0	9.5	10.5	---	---	23.0	---	29.5	---	---
10	20.5	---	8.0	9.0	6.5	---	---	22.0	---	29.5	---	---
11	22.0	---	8.5	9.0	5.5	---	---	22.0	---	---	---	---
12	21.0	---	8.5	10.0	9.0	---	---	21.0	---	---	---	---
13	20.5	---	9.0	8.0	10.0	---	---	21.5	---	---	---	---
14	---	---	10.0	6.5	12.0	---	---	21.5	---	---	---	---
15	---	---	10.0	5.5	9.0	---	---	24.5	---	---	---	---
16	---	---	9.0	6.0	10.5	---	---	26.0	---	---	---	---
17	---	---	8.5	9.0	11.0	---	---	27.0	---	---	---	---
18	---	---	10.5	10.0	10.5	---	---	27.0	---	---	---	---
19	20.5	---	10.5	11.0	11.5	---	---	27.0	---	---	---	---
20	21.0	---	10.0	11.5	13.5	---	23.0	28.0	---	---	---	---
21	20.0	---	10.0	9.0	17.0	---	22.0	28.5	---	---	---	24.0
22	19.5	---	10.5	9.5	13.5	---	23.5	---	---	---	---	21.5
23	18.5	---	11.5	12.0	15.5	---	24.0	26.0	---	---	---	23.5
24	19.0	---	11.5	10.0	17.0	---	24.0	28.5	---	---	---	24.5
25	19.0	---	13.5	10.0	16.0	---	---	---	---	---	---	26.5
26	19.0	---	14.0	10.5	14.5	---	---	---	---	---	---	---
27	19.0	---	14.5	6.5	---	---	15.5	---	---	---	---	---
28	19.5	---	11.0	6.0	---	---	17.0	---	---	---	---	---
29	18.5	---	13.5	6.5	---	---	20.5	---	---	---	---	---
30	19.5	---	11.5	8.5	---	---	22.0	---	---	---	---	---
31	19.0	---	11.5	5.0	---	---	---	---	---	---	---	---
MONTH	21.0	---	10.0	8.5	10.0	---	---	---	---	---	---	---

08086150 NORTH FORK HUBBARD CREEK NEAR ALBANY, TEX.

LOCATION.--Lat 32°42'27", long 99°16'29", Shackelford County, at gaging station at bridge on U.S. Highway 380, 1.7 miles southeast of Albany, and 2.0 miles upstream from Salt Prong Hubbard Creek.

DRAINAGE AREA.--38.4 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1962 to September 1972.

Water temperatures: November 1962 to September 1972.

Sediment records: October 1967 to September 1969.

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 4,860 micromhos Apr. 20; minimum daily, 470 micromhos Sept. 22.

Water temperatures: Minimum, 5.0°C on several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 29...	.18	7.3	170	52	380	--	3.5	198	0	96
NOV. 02...	.15	9.2	170	58	--	420	--	152	0	140
30...	.27	9.9	210	83	--	540	--	94	0	130
DEC. 01...	.27	5.8	230	78	--	530	--	162	0	120
08...	.31	3.9	140	38	--	280	--	176	0	71
JAN. 01...	.27	4.2	220	70	460	--	3.7	212	0	120
28...	.11	5.3	250	85	--	590	--	196	0	140
FEB. 16...	.57	3.2	220	80	--	570	--	140	0	140
MAR. 20...	.19	1.8	230	85	--	600	--	180	0	150
APR. 27...	215	4.9	160	38	340	--	5.3	128	0	46
29...	.35	3.2	100	27	--	210	--	104	0	30
MAY 02...	.10	2.9	120	34	--	270	--	128	0	51
JUNE 15...	.11	11	140	58	430	--	2.3	132	0	110
JULY 01...	.40	8.0	72	23	160	--	5.6	112	0	49
08...	.07	10	140	62	--	470	--	88	0	100
AUG. 17...	.11	9.2	98	31	--	230	--	152	0	64
22...	.04	12	130	43	--	300	--	212	0	78
SEP. 19...	.01	14	120	44	--	320	--	240	0	76
21...	.29	6.6	40	6.4	--	47	--	102	0	14

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS
OCT. 1971, ..	14.45	3140	1700	2.1	66	870	1.1	34
NOV.	6.07	3820	2100	1.1	34	1140	.6	19
DEC.	18.19	3620	1910	3.0	94	1030	1.6	51
JAN. 1972, ..	5.27	4330	2330	1.1	33	1250	.6	18
FEB.	15.12	4510	2460	3.5	101	1350	1.9	56
MAR.	7.46	4500	2490	1.6	50	1370	.9	28
APR.	49.88	2350	1220	5.5	164	670	3.0	90
MAY	24.38	2520	1310	2.8	86	710	1.5	47
JUNE	3.44	3250	1720	.5	16	910	.3	8.5
JULY	6.49	2620	1380	.8	24	740	.4	13
AUG.	8.99	2350	1260	1.0	31	620	.5	15
SEP.	25.55	930	500	1.2	35	220	.5	15
TOTAL	185.29	--	-	--	730	--	--	390
WTD. AVG.	0.51	2760	1470	2.0	--	780	1.1	--

BRAZOS RIVER BASIN

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08086150 NORTH FORK HUBBARD CREEK NEAR ALBANY, TEX.--Continued

EXTREMES, November 1962 to September 1972.--Dissolved solids (1962-68): Maximum, 5,110 mg/l Aug. 22-25, 27-31, Sept. 1, 1964; minimum, 309 mg/l Jan. 21, 1968.

Hardness (1962-68): Maximum, 2,360 mg/l Apr. 1-26, 1963; minimum, 164 mg/l Jan. 21, 1968.

Specific conductance: Maximum daily, 9,750 micromhos Sept. 23-30, 1968; minimum daily, 470 micromhos Sept. 22, 1972.

Water temperatures (1962-69): Maximum, 33.0°C July 11, 1964; minimum, freezing point Jan. 12, 1963, Jan. 29, 1966.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
29...	830	.3	.00	1630	630	470	6.5	3020	7.8
NOV.									
02...	920	--	.9	1790	660	540	7.0	3200	7.6
30...	1300	--	.03	2320	860	780	8.1	4270	7.4
DEC.									
01...	1300	--	.02	2300	880	750	7.7	4350	7.2
08...	620	.2	.3	1240	500	350	5.4	2350	7.2
JAN.									
01...	1100	--	.04	2100	830	650	7.0	3940	7.1
28...	1400	--	.1	2530	960	800	8.2	4680	7.1
FEB.									
16...	1300	.3	.4	2410	880	760	8.4	4410	6.7
MAR.									
20...	1400	.3	.3	2530	920	780	8.6	4580	6.9
APR.									
27...	820	.3	1.0	1480	570	460	6.1	2860	7.3
29...	500	--	.3	932	370	290	4.8	1850	6.7
MAY									
02...	610	.2	.05	1150	440	340	5.5	2220	7.4
JUNE									
15...	920	.4	.00	1720	580	470	7.7	3250	8.0
JULY									
01...	350	.2	1.0	724	270	180	4.2	1410	8.2
08...	1000	--	.6	1850	600	530	8.3	3480	8.0
AUG.									
17...	480	--	.4	980	370	250	5.1	1850	6.8
22...	630	.4	.00	1290	500	320	5.8	2410	6.9
SEP.									
19...	640	.4	.08	1330	490	300	6.2	2470	8.1
21...	90	--	.9	258	130	42	1.8	490	7.7

BRAZOS RIVER BASIN

08086150 NORTH FORK HUBBARD CREEK NEAR ALBANY, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2460	3200	4350	3940	4590	4420	4640	2130	3110	1410	---	2300
2	2480	3200	4400	4020	4680	4360	4660	2220	3180	3230	---	2150
3	2500	3150	2740	4000	4650	4400	4580	2410	3240	3250	---	1550
4	2600	3250	2720	4070	4590	4400	4590	2540	3200	1590	---	1650
5	2660	3250	2550	3900	4680	4400	4600	2630	3160	3380	---	1700
6	2700	3310	2690	4000	4660	4400	4610	2390	3310	3470	---	1830
7	2800	3400	2750	4100	4710	4460	4600	2320	3200	3540	---	1920
8	2840	3390	2350	4200	4800	4470	4590	2020	3220	3480	---	1970
9	2990	3470	2580	4310	4750	4470	4600	2260	3320	3610	---	2040
10	3080	3490	2640	4340	4640	4470	4620	2360	3340	3640	---	2100
11	3150	3520	3110	4370	4590	4470	4590	2410	3350	3660	---	2130
12	3240	3680	3120	4380	4480	4500	4570	2330	3340	3670	---	2150
13	3300	3700	3170	4420	4500	4510	4600	2210	3360	3680	2500	2170
14	3420	3740	3330	4380	4500	4500	4590	2330	3340	3700	1320	2340
15	3530	3820	3350	4520	4500	4540	4620	2290	3260	3730	1440	2280
16	3600	3770	3400	4550	4380	4540	4670	2400	3260	3760	1790	2340
17	3640	3950	3420	4450	4430	4550	4710	2490	3320	3780	1850	2330
18	3660	3970	3480	4510	4410	4580	4710	2490	3330	3810	1970	2320
19	2900	3990	3500	4560	4390	4580	4720	2550	3340	3830	2120	2470
20	4050	3910	3540	4620	4270	4580	4860	2540	3360	3850	2240	2160
21	4020	4060	3570	4620	4280	4610	4800	2610	3390	3870	2330	490
22	3840	4130	3600	4540	4280	4610	4700	2600	3430	---	2420	470
23	3370	4050	3590	4600	4270	4610	4770	2600	3440	---	2490	714
24	3250	4090	3510	4590	4260	4520	4810	2940	3450	---	2570	900
25	2870	4220	3570	4600	4280	4600	4820	3050	---	---	2660	1000
26	3100	4200	3630	4610	4360	4630	4820	3100	---	---	2650	1050
27	2880	4200	3640	4620	4350	4630	2000	3140	---	---	2400	1150
28	3030	4170	3660	4680	4400	4640	1530	3080	---	---	2280	1230
29	3020	4350	3680	4630	4400	4630	1850	3170	---	---	2270	1320
30	3030	4270	3750	4620	---	4390	1980	3170	---	---	2410	1490
31	3030	---	3900	4620	---	4610	---	3160	---	---	2490	---
MONTH	3130	3760	3330	4400	4490	4520	4290	2580	3300	---	---	1720

BRAZOS RIVER BASIN

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08086150 NORTH FORK HUBBARD CREEK NEAR ALBANY, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.0	---	8.0	14.0	7.0	17.0	17.0	23.0	25.0	26.0	---	---
2	26.0	18.0	7.0	12.0	5.0	15.0	17.0	26.0	27.0	28.0	---	---
3	---	16.0	5.0	10.0	7.0	15.0	19.0	24.0	26.0	28.0	---	---
4	---	16.0	6.0	5.0	5.0	15.0	---	22.0	26.0	24.0	---	---
5	26.0	16.0	5.0	8.0	8.0	---	---	19.0	27.0	27.0	---	---
6	---	16.0	9.0	---	8.0	17.0	---	19.0	25.0	25.0	---	---
7	25.0	14.0	11.0	14.0	7.0	19.0	---	20.0	26.0	26.0	---	---
8	26.0	14.0	9.0	10.0	8.0	15.0	---	25.0	25.0	27.0	---	---
9	22.0	15.0	7.0	12.0	9.0	16.0	---	24.0	24.0	27.0	---	---
10	24.0	16.0	8.0	11.0	9.0	20.0	---	22.0	---	28.0	---	---
11	24.0	17.0	10.0	10.0	6.0	18.0	---	22.0	---	---	---	---
12	20.0	15.0	12.0	12.0	10.0	---	---	24.0	---	---	---	---
13	---	---	10.0	11.0	11.0	22.0	---	23.0	---	---	24.0	---
14	18.0	18.0	12.0	9.0	---	22.0	25.0	25.0	---	---	25.0	---
15	23.0	18.0	---	7.0	13.0	20.0	23.0	26.0	25.0	---	25.0	---
16	---	18.0	---	---	11.0	---	---	26.0	27.0	---	24.0	---
17	25.0	19.0	11.0	11.0	14.0	19.0	22.0	26.0	27.0	---	27.0	---
18	20.0	---	10.0	14.0	11.0	20.0	23.0	26.0	---	---	27.0	27.0
19	20.0	11.0	---	---	14.0	20.0	---	25.0	---	25.0	27.0	29.0
20	20.0	15.0	13.0	14.0	19.0	22.0	22.0	26.0	29.0	---	27.0	25.0
21	20.0	14.0	---	12.0	11.0	20.0	22.0	27.0	27.0	---	---	21.0
22	21.0	11.0	15.0	13.0	---	20.0	22.0	---	28.0	---	28.0	24.0
23	20.0	12.0	14.0	16.0	17.0	19.0	24.0	24.0	---	---	25.0	23.0
24	19.0	12.0	14.0	15.0	18.0	20.0	22.0	28.0	---	---	27.0	---
25	18.0	11.0	---	---	17.0	---	---	25.0	---	---	26.0	26.0
26	20.0	---	18.0	---	15.0	19.0	---	---	---	---	---	26.0
27	20.0	---	17.0	9.0	16.0	20.0	16.0	27.0	---	---	26.0	---
28	21.0	14.0	13.0	6.0	---	19.0	18.0	28.0	---	---	26.0	26.0
29	19.5	12.0	15.0	11.0	18.0	16.0	22.0	26.0	---	---	27.0	25.0
30	19.0	10.0	14.0	---	---	14.0	23.0	---	---	---	---	24.0
31	---	---	13.0	5.0	---	15.0	---	25.0	---	---	---	---
MONTH	21.5	14.5	11.0	11.0	11.5	18.5	---	24.5	---	---	---	---

BRAZOS RIVER BASIN

08086212 HUBBARD CREEK BELOW ALBANY, TEX.

LOCATION.--Lat 32°43'58", long 99°08'25", Shackelford County, at gaging station 4.5 miles upstream from U.S. Highway 180, 2.8 miles upstream from Newcomb Creek, and 9.1 miles east of Albany.

DRAINAGE AREA.--621 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1972.
Water temperatures: October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT. 12...	2.4	3.6	56	12	70	--	3.9	134	0	28
NOV. 01...	4.1	4.2	110	29	--	200	--	144	0	120
28...	.67	2.2	150	40	--	330	--	148	0	130
DEC. 06...	8.6	4.4	93	24	--	140	--	152	0	91
12...	24	3.8	120	34	--	220	--	160	0	120
25...	3.1	3.4	160	51	--	290	--	150	0	150
JAN. 01...	2.4	2.7	170	52	310	--	5.0	140	0	130
30...	.82	2.2	210	65	--	400	--	164	0	150
FEB. 14...	1.2	.9	200	61	--	410	--	140	0	160
MAR. 05...	.07	1.0	220	73	--	500	--	100	0	170
APR. 27...	1020	3.6	130	44	260	--	6.1	156	0	200
29...	16	2.6	82	22	--	180	--	76	0	76
MAY 08...	89	17	64	18	--	110	--	85	0	42
13...	74	7.5	40	9.0	--	52	--	86	0	26
JULY 16...	.01	6.2	180	54	480	--	7.3	88	0	92
SEP. 02...	54	7.3	110	28	--	200	--	164	0	70

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS
OCT. 1971, ..	236.06	800	420	8.6	268	160	3.3	101
NOV.	26.65	1920	1050	2.5	76	460	1.1	33
DEC.	276.25	2030	1110	27	824	510	12	381
JAN. 1972, ..	42.02	3070	1650	6.1	188	840	3.1	95
FEB.	20.35	3540	1950	3.7	107	1010	1.9	56
MAR.	.76	4060	2220	.1	4.5	1200	.08	2.5
APR.	414.36	1960	1080	40	1210	590	22	660
MAY	1006.67	1170	620	54	1680	290	25	778
JUNE	.16	1510	800	.01	.3	380	.01	.2
JULY	22.01	3170	1740	3.3	103	970	1.9	58
AUG.	1.87	4030	2230	.4	11	1230	.2	6.2
SEP.	203.95	1930	1030	19	568	600	11	329
TOTAL	2251.11	--	--	--	5040	--	--	2500
WTD. AVG.	6.2	1540	830	14	--	410	6.8	--

08086212 HUBBARD CREEK BELOW ALBANY, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Water temperatures: Minimum, 2.0°C Jan. 4, 6.

EXTREMES, October 1966 to September 1970.--Dissolved solids (1966-68): Maximum, 4,470 mg/l Apr. 1-4, 1967; minimum, 149 mg/l Sept. 8-17, 1967.

Hardness (1966-68): Maximum, 1,720 mg/l Apr. 1-4, 1967; minimum, 99 mg/l Sept. 8-17, 1967.

Specific conductance: Maximum daily, 11,800 micromhos Nov. 27, 1968; minimum daily, 253 micromhos Sept. 8, 1967.

Water temperatures: Maximum, 37.0°C July 11, 1969; minimum, 1.5°C Dec. 29, 1969.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AND SORP- TION RATIO	SPE- CIFIC CON- DUCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
12...	150	.2	.00	388	190	79	2.2	737	7.6
NOV.									
01...	400	.3	.5	939	390	280	4.3	1720	7.7
28...	700	--	.7	1430	540	420	6.1	2600	7.7
DEC.									
06...	290	.3	.3	717	330	210	3.3	1320	8.0
12...	480	--	.6	1060	450	320	4.5	1920	7.5
25...	680	--	.4	1400	610	490	5.1	2570	7.9
JAN.									
01...	740	.1	.00	1480	640	520	5.3	2740	7.9
30...	960	--	.00	1860	780	650	6.2	3450	7.9
FEB.									
14...	970	--	.02	1870	750	640	6.5	3400	7.7
MAR.									
05...	1200	.2	.07	2200	850	770	7.4	4030	6.8
APR.									
27...	530	.3	.9	1250	510	380	5.0	2270	6.9
29...	380	--	.7	777	300	230	4.5	1500	6.7
MAY									
08...	250	.1	1.2	550	230	160	3.1	1060	6.5
13...	110	--	.6	285	140	66	1.9	553	6.8
JULY									
16...	1100	--	.6	1990	670	600	8.1	3600	6.4
SEP.									
02...	420	.3	.9	915	380	240	4.4	1720	7.9

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	620	1720	2700	2740	3390	3980	4200	1890	1500	3120	---	2390
2	660	1750	2000	2840	3410	4020	4200	2100	1520	3060	---	1990
3	670	1770	1760	2840	3480	4020	4200	2160	1550	3140	---	2030
4	690	1820	1670	2910	3460	4060	---	2160	---	3170	---	2900
5	630	1850	1790	3030	3480	4030	---	2180	---	3200	---	3090
6	670	1880	1320	3010	3420	4010	---	1700	---	3280	---	3090
7	660	1870	1450	2960	3420	4140	---	1360	---	3310	---	3090
8	680	1920	1450	2940	3430	4210	---	1060	---	3320	---	3110
9	680	1940	1650	2970	3530	4120	---	962	---	3370	---	3110
10	700	1980	1600	2950	3510	4240	---	979	---	3390	---	3130
11	700	1990	1460	2980	3520	4100	---	979	---	3430	---	3120
12	740	2020	1920	3020	3480	4190	---	600	---	3490	---	3150
13	750	2030	2480	3010	3590	4180	---	553	---	3500	---	3170
14	760	2060	2510	3160	3400	4190	---	744	---	3520	---	3200
15	800	2060	2590	3160	3480	4200	---	851	---	3600	---	3220
16	850	2080	2590	3170	3550	4200	---	842	---	3600	---	3210
17	830	2100	2570	3170	3550	4200	---	888	---	---	---	3200
18	860	2150	2610	3170	3560	---	---	996	---	---	---	3230
19	900	2130	2620	3250	3610	---	4200	1030	---	---	---	---
20	670	2110	2610	3230	3620	---	3800	1030	---	---	---	---
21	720	2010	2590	3250	3680	---	2500	1170	---	---	---	1430
22	710	2010	2620	3250	3710	---	2300	1170	---	---	---	1500
23	750	2100	2590	3260	3770	---	2800	1220	---	---	---	1920
24	600	2100	2570	3280	3800	---	3200	1220	---	---	---	1680
25	700	2110	2570	3260	3770	---	3600	1370	---	---	---	1670
26	780	2210	2620	3280	3740	---	3800	1390	---	---	---	1680
27	950	2510	2660	3250	3820	---	2000	1390	---	---	---	1710
28	1100	2600	2750	3300	3930	---	1800	1400	---	---	4200	1750
29	1200	2590	2740	3260	3960	---	1500	1420	---	---	4400	1850
30	1500	2320	2800	3450	---	---	1810	1430	---	---	---	1880
31	1600	---	2810	3440	---	---	---	1450	---	---	4000	---
MONTH	811	2060	2280	3120	3590	---	---	1280	---	---	---	2520

BRAZOS RIVER BASIN

08086212 HUBBARD CREEK BELOW ALBANY, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	21.0	8.0	12.0	6.0	19.0	---	25.0	---	---	---	25.0
2	24.0	16.0	6.0	12.0	5.0	15.0	---	24.0	---	---	---	25.0
3	23.0	17.0	6.0	9.0	3.0	13.0	---	23.0	---	---	---	23.0
4	23.0	15.0	7.0	2.0	3.0	12.0	---	21.0	---	---	---	23.0
5	25.0	15.0	7.0	4.0	5.0	12.0	---	22.0	---	25.0	---	28.0
6	24.0	14.0	6.0	2.0	4.0	17.0	---	22.0	---	28.0	---	28.0
7	24.0	13.0	7.0	4.0	8.0	17.0	---	18.0	---	27.0	---	30.0
8	22.0	13.0	8.5	5.0	7.0	17.0	---	19.0	---	28.0	---	33.0
9	21.0	12.0	7.0	14.0	8.0	23.0	---	22.0	---	27.0	---	30.0
10	23.0	15.0	10.0	12.0	7.0	22.0	---	22.0	---	32.0	---	33.0
11	21.0	13.0	8.0	6.0	5.0	20.0	---	23.0	---	29.0	---	32.0
12	21.5	17.0	8.0	7.0	5.0	22.0	---	22.0	---	29.0	---	---
13	22.0	14.0	9.0	9.0	8.0	24.0	---	21.0	---	28.0	---	---
14	22.0	19.0	12.0	8.0	14.0	---	---	21.0	---	26.0	---	---
15	23.0	19.0	10.0	4.0	9.0	---	---	22.0	---	27.0	---	---
16	22.0	18.0	10.0	6.0	11.0	---	---	26.0	---	30.0	---	---
17	24.0	20.0	10.0	6.0	12.0	---	---	27.0	---	---	---	---
18	22.0	16.0	7.0	7.0	13.0	---	---	24.0	---	---	---	---
19	22.0	17.0	10.0	11.0	10.0	---	---	25.0	---	---	---	---
20	19.0	13.0	10.0	12.0	10.0	---	---	23.0	---	---	---	---
21	19.0	---	11.0	11.0	17.0	---	---	24.0	---	---	---	20.0
22	20.0	10.0	8.0	11.0	17.0	---	---	25.0	---	---	---	22.0
23	20.0	13.0	9.0	10.0	14.0	---	---	32.0	---	---	---	24.0
24	20.0	14.0	10.0	10.0	15.0	---	---	31.0	---	---	---	24.0
25	10.0	---	9.0	8.0	18.0	---	---	31.0	---	---	---	26.0
26	18.0	17.0	13.0	9.0	14.0	---	---	30.0	---	---	---	27.0
27	17.0	11.0	14.0	7.0	11.0	---	19.0	26.0	---	---	---	25.0
28	18.0	14.0	11.0	5.0	18.0	---	16.0	---	---	---	---	---
29	19.0	13.0	13.0	5.0	19.0	---	21.0	---	---	---	---	---
30	22.0	8.0	12.0	3.0	---	---	23.0	---	---	---	---	---
31	20.0	---	11.0	4.0	---	---	---	---	---	---	---	---
MONTH	21.0	15.0	9.5	7.5	10.0	---	---	24.0	---	---	---	---

BRAZOS RIVER BASIN

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08086260 PECAN CREEK NEAR EOLIAN, TEX.

LOCATION.--Lat 32°35'01", long 99°01'57", Stephens County, at gaging station at county road crossing, 1.4 miles east of Farm Road 1853, 3.3 miles upstream from Battle Creek, and 5.8 miles south of Eolian.

DRAINAGE AREA.--25.4 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1972.

Water temperatures: October 1966 to September 1972.

EXTREMES, October 1966 to September 1969.--Dissolved solids (1966-68): Maximum, 13,900 mg/l May 1-12, 1968; minimum, 171 mg/l Jan. 21, 1968.

Hardness (1966-68): Maximum, 5,020 mg/l May 1-12, 1968; minimum, 92 mg/l Sept. 15-17, 22, 1967.

Specific conductance (1966-69): Maximum daily, 34,000 micromhos July 4, 1968; minimum daily, 238 micromhos Sept. 15, 1967.

Water temperatures (1966-69): Maximum, 34.0°C June 21; minimum, 1.0°C Dec. 8.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
29...	.31	.3	330	84	840	--	4.4	56	0	62
DEC.										
11...	1.5	3.9	91	18	--	220	--	64	0	22
12...	.12	3.1	110	24	--	300	--	52	0	21
16...	.12	2.4	280	62	--	790	--	78	0	31
APR.										
21...	24	3.4	60	12	120	--	3.3	69	0	19
27...	240	4.9	65	7.0	--	54	--	179	0	17
30...	.96	3.6	110	23	--	240	--	77	0	25
MAY										
08...	9.4	4.4	44	6.4	--	63	--	82	0	20
12...	38	4.0	42	3.8	--	24	--	118	0	11
17...	.27	3.1	72	12	--	150	--	84	0	25
AUG.										
15...	273	7.4	21	5.0	--	72	--	120	0	12
18...	.01	6.3	40	7.2	--	81	--	64	0	12
SEP.										
01...	14	5.7	44	7.3	--	88	--	64	0	13

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
29...	2000	--	--	3340	1200	1100	11	6340	7.2
DEC.									
11...	500	.2	.1	884	300	250	5.5	1730	7.0
12...	690	--	.08	1180	380	340	6.8	2270	6.9
16...	1800	--	.2	3020	940	880	11	5710	7.1
APR.									
21...	270	.4	1.4	522	200	140	3.6	1040	6.4
27...	100	--	1.3	342	190	44	1.7	592	7.0
30...	580	--	.7	1030	380	320	5.4	2050	6.5
MAY									
08...	130	.3	.6	310	140	70	2.3	610	6.6
12...	43	--	.8	189	120	24	1.0	352	6.5
17...	320	--	.2	620	230	160	4.2	1230	6.4
AUG.									
15...	78	.4	1.9	263	73	0	3.7	498	6.8
18...	170	--	.4	349	130	77	3.1	703	6.5
SEP.									
01...	180	.4	2.7	381	140	88	3.2	740	7.4

Brazos River Basin

08086260 PECAN CREEK NEAR EOLIAN, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS
OCT. 1971, ..	0.92	5170	2710	0.2	6.7	1610	0.1	4.0
NOV.	.03	7000	3700	.01	.30	2220	.01	.18
DEC.	13.62	2060	1060	1.3	39	610	.7	22
JAN. 1972, ..	0	--	--	--	0	--	--	0
FEB.	0	--	--	--	0	--	--	0
MAR.	0	--	--	--	0	--	--	0
APR.	127.38	700	380	4.4	132	140	1.6	48
MAY	261.80	410	210	4.8	149	61	1.4	43
JUNE	0	--	--	--	0	--	--	0
JULY	24.67	1400	660	1.4	44	370	.8	25
AUG.	63.96	510	260	1.5	45	83	.5	14
SEP.	3.10	800	410	.1	3.4	200	.06	1.7
TOTAL	495.48	--	--	--	420	--	--	160
WTD. AVG.	1.35	600	310	1.1	--	120	0.4	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

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08086260 PECAN CREEK NEAR EOLIAN, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

BRAZOS RIVER BASIN

08086300 BIG SANDY CREEK NEAR BRECKENRIDGE, TEX.

LOCATION.--Lat 32°39'52", long 99°00'01", Stephens County, at gaging station at bridge on Farm Road 576, 1.5 miles downstream from Battle Creek, and 8.2 miles southwest of Breckenridge.

DRAINAGE AREA.--298 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1962 to September 1972.

Water temperatures: February 1962 to September 1972.

Sediment records: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT. 28...	.05	5.6	80	17	150	--	3.4	134	0	71
NOV. 26...	.02	4.4	200	46	--	350	--	160	0	130
DEC. 01...	.06	5.2	240	59	--	440	--	168	0	150
06...	.38	6.0	160	35	--	270	--	130	0	100
11...	5.3	5.7	360	78	--	1000	--	134	0	300
13...	1.6	6.6	83	14	--	130	--	130	0	48
JAN. 01...	.03	3.7	210	57	440	--	5.0	150	0	160
05...	.02	4.2	330	72	--	520	--	170	0	200
APR. 21...	3.6	3.0	840	160	2200	--	11	80	0	590
27...	1280	4.6	120	19	--	210	--	156	0	62
29...	27	4.4	45	5.8	--	51	--	100	0	22
MAY 08...	57	9.0	33	3.2	--	17	--	100	0	13
11...	3.2	8.2	41	5.5	--	49	--	95	0	20
19...	.13	8.7	70	11	--	110	--	112	0	43
JUNE 16...	.01	5.0	170	40	340	--	4.8	64	0	150
JULY 05...	18	5.3	360	78	1100	--	13	100	0	320
AUG. 14...	.02	3.5	100	20	--	230	--	84	0	96
30...	.13	3.8	48	7.5	--	84	--	72	0	18
SEP. 21...	57	2.6	41	6.6	--	53	--	90	0	49

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS
OCT. 1971, ..	84.28	650	380	2.8	88	120	0.9	28
NOV.	.19	3060	1690	.03	.9	860	.01	.4
DEC.	33.96	2440	1340	4.0	123	680	2.0	62
JAN. 1972, ..	.19	4160	2290	.04	1.2	1200	.02	.6
FEB.	0	--	--	--	0	--	--	0
MAR.	0	--	--	--	0	--	--	0
APR.	574.39	930	500	26	779	220	11	343
MAY	1755.7	340	180	28	859	46	7.1	219
JUNE	.13	2740	1470	.02	.5	750	.01	.3
JULY	20.16	2890	1600	2.8	87	840	1.5	46
AUG.	89.08	1320	710	5.5	170	330	2.5	79
SEP.	9.53	750	400	.3	10	150	.1	3.9
TOTAL	2567.61	--	--	--	2120	--	--	780
WTD. AVG.	7.0	570	300	5.8	--	110	2.1	--

BRAZOS RIVER BASIN

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08086300 BIG SANDY CREEK NEAR BRECKENRIDGE, TEX.--Continued

EXTREMES, February 1962 to September 1970.--Dissolved solids (1962-68): Maximum, 11,300 mg/l Apr. 5, 6, 10, 1964; minimum, 42 mg/l Nov. 21, 1963.
 Hardness (1962-68): Maximum, 3,700 mg/l Apr. 5, 6, 10, 1964; minimum, 28 mg/l Nov. 21, 1963.
 Specific conductance (1962-66, 1967-70): Maximum daily, 17,200 micromhos Mar. 27, 1964; minimum daily, 59 micromhos Nov. 21, 1963.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
28...	300	.4	.3	687	270	160	3.9	1210	7.1
NOV.									
26...	840	--	.2	1650	680	550	5.9	3000	7.8
DEC.									
01...	1100	--	.7	2040	840	700	6.6	3700	7.9
06...	640	.3	.9	1280	530	420	5.1	2410	7.8
11...	2200	--	--	3980	1200	1100	13	7080	7.7
13...	280	--	.5	623	260	160	3.5	1200	7.7
JAN.									
01...	1000	--	.00	1970	770	650	6.9	3610	7.6
05...	1400	--	.4	2560	1100	980	6.7	4610	7.8
APR.									
21...	5000	.2	--	8800	2800	2700	18	14900	6.7
27...	460	.2	1.6	957	380	260	4.6	1790	6.9
29...	98	--	1.0	280	140	54	1.9	532	7.0
MAY									
08...	24	.1	.9	152	96	14	.8	279	6.7
11...	92	--	.6	265	120	47	1.9	502	6.6
19...	220	--	.3	517	220	130	3.1	1010	6.9
JUNE									
16...	800	.6	.5	1550	580	530	6.1	2900	7.8
JULY									
05...	2400	--	--	4340	1200	1200	14	7650	6.6
AUG.									
14...	460	.7	.8	954	330	270	5.4	1770	6.5
30...	180	--	1.6	381	150	92	3.0	759	6.4
SEPT.									
21...	80	1.2	1.2	283	130	56	2.0	520	7.5

BRAZOS RIVER BASIN

08086300 BIG SANDY CREEK NEAR BRECKENRIDGE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	690	---	3700	3610	---	---	---	626	---	---	---	927
2	700	---	1380	3600	---	---	---	743	---	---	---	1300
3	900	---	1720	3160	---	---	---	850	---	---	---	1390
4	330	---	1970	4280	---	---	---	958	---	---	---	1390
5	340	---	1870	4610	---	---	---	987	---	4000	---	1400
6	400	---	2410	5000	---	---	---	702	---	1250	---	1410
7	450	---	2510	5000	---	---	---	219	---	971	---	1450
8	520	---	2500	5140	---	---	---	279	---	959	2000	---
9	580	---	2780	4790	---	---	---	346	---	975	1900	---
10	690	---	2130	---	---	---	---	499	---	1000	1800	---
11	690	---	4000	---	---	---	---	502	---	---	1700	---
12	700	---	1500	---	---	---	---	387	---	---	---	---
13	730	---	1200	---	---	---	---	330	---	1400	---	---
14	---	---	1270	---	---	---	---	420	---	1300	1770	1400
15	---	---	1360	---	---	---	---	545	2730	1330	1690	1100
16	---	---	1540	---	---	---	---	646	2900	---	1060	1150
17	---	---	1650	---	---	---	---	786	---	---	1180	1200
18	680	---	1730	---	---	---	---	851	---	---	1210	---
19	1560	---	1850	---	---	---	---	1010	---	---	1210	---
20	2460	---	1940	---	---	---	5000	1020	---	---	1250	1100
21	2500	---	1970	---	---	---	12000	1240	---	---	1270	520
22	---	2320	2010	---	---	---	8000	1340	---	---	---	624
23	---	2500	2120	---	---	---	6490	1460	---	---	---	674
24	---	2670	2120	---	---	---	6470	1650	---	---	---	750
25	---	2980	2120	---	---	---	6440	1750	---	---	---	800
26	860	3000	2350	---	---	---	6870	1820	---	---	---	---
27	1220	2680	2470	---	---	---	670	---	---	---	---	---
28	1250	3390	2760	---	---	---	420	---	---	---	818	---
29	1390	3360	2760	---	---	---	470	---	---	---	890	---
30	1430	3680	3170	---	---	---	530	---	---	---	759	---
31	---	---	3180	---	---	---	---	---	---	---	1150	---
MONTH	---	---	2190	---	---	---	---	845	---	---	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.0	---	7.0	15.0	---	---	---	22.0	---	---	---	24.0
2	28.0	---	6.0	14.0	---	---	---	24.0	---	---	---	24.0
3	22.0	---	6.0	10.0	---	---	---	28.0	---	---	---	23.0
4	22.0	---	7.0	2.0	---	---	---	27.0	---	---	---	24.0
5	24.0	---	7.0	6.0	---	---	---	23.0	---	25.0	---	31.0
6	25.0	---	4.0	6.0	---	---	---	19.0	---	20.0	---	34.0
7	26.0	---	7.0	9.0	---	---	---	18.0	---	26.0	---	---
8	21.0	---	9.0	8.0	---	---	---	22.0	---	25.0	---	---
9	22.0	---	9.5	14.0	---	---	---	23.0	---	27.0	---	---
10	22.0	---	9.0	---	---	---	---	23.0	---	29.0	---	---
11	23.0	---	9.0	---	---	---	---	24.0	---	---	---	---
12	17.0	---	9.0	---	---	---	---	21.0	---	---	---	---
13	21.0	---	9.0	---	---	---	---	22.0	---	28.0	---	---
14	---	---	12.0	---	---	---	---	22.0	---	34.0	27.0	---
15	---	---	10.0	---	---	---	---	26.0	24.0	29.0	27.0	---
16	---	---	10.0	---	---	---	---	26.0	35.0	---	24.0	---
17	---	---	10.0	---	---	---	---	27.0	---	---	27.0	---
18	20.0	---	---	---	---	---	---	27.0	---	---	30.0	---
19	22.0	---	13.0	---	---	---	---	26.0	---	---	29.0	---
20	18.0	---	12.0	---	---	---	23.0	25.0	---	---	29.0	---
21	19.0	---	11.0	---	---	---	25.0	27.0	---	---	32.0	20.0
22	---	16.0	12.0	---	---	---	22.0	25.0	---	---	---	19.0
23	---	10.0	10.0	---	---	---	23.0	29.0	---	---	---	24.0
24	---	10.0	11.0	---	---	---	25.0	29.0	---	---	---	---
25	---	12.0	10.0	---	---	---	25.0	30.0	---	---	---	---
26	18.0	15.0	16.0	---	---	---	22.0	30.0	---	---	---	---
27	20.0	12.0	18.0	---	---	---	16.0	---	---	---	---	---
28	21.0	14.0	12.0	---	---	---	17.0	---	---	---	---	---
29	22.0	13.0	16.0	---	---	---	22.0	---	---	---	---	---
30	22.0	8.0	14.0	---	---	---	22.0	---	---	---	28.0	---
31	---	---	14.0	---	---	---	---	---	---	---	32.0	---
MONTH	---	---	10.5	---	---	---	---	25.0	---	---	---	---

BRAZOS RIVER BASIN

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08086500 HUBBARD CREEK NEAR BRECKENRIDGE, TEX.

LOCATION.--Lat 32°50'13", long 98°56'52", Stephens County, at gaging station at bridge on U.S. Highway 183, 1.4 miles downstream from Hubbard Creek Reservoir, 6.8 miles northwest of Breckenridge, 8.2 miles upstream from Gonzales Creek, and 11.2 miles upstream from Clear Fork Brazos River.

DRAINAGE AREA.--1,111 sq mi, of which 1,107 sq mi is above Hubbard Creek Dam.

PERIOD OF RECORD.--Chemical analyses: April 1955 to September 1972.
Water temperatures: April 1955 to September 1972.

EXTREMES, April 1955 to September 1968.--Dissolved solids: Maximum, 5,350 mg/l July 1-5, 1960; minimum, 95 mg/l Sept. 9, 1966.

Hardness: Maximum, 1,820 mg/l July 1-5, 1960; minimum, 66 mg/l Sept. 9, 1966.

Specific conductance (1955-66): Maximum daily, 9,270 micromhos July 4, 1960; minimum daily, 121 micromhos Apr. 27, 1957.

Water temperatures (1962-65): Maximum, 33.0°C July 15, 1965; minimum, freezing point Jan. 12, 16, 20, 1963.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT. 28...	.27	5.5	56	7.8	22	--	4.6	106	0	92
NOV. 01...	.01	6.4	87	13	--	47	--	142	0	150
DEC. 10...	11	2.9	53	9.2	--	24	--	68	0	110
FEB. 15...	.08	1.7	190	42	--	210	--	176	0	490
MAR. 29...	.04	2.7	280	64	--	320	--	252	0	700
APR. 27...	1.8	3.2	190	41	--	200	--	160	0	450
MAY 10...	.04	6.2	120	27	--	110	--	100	0	290

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AND SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 28...	32	.3	.1	273	170	85	.7	457	7.6
NOV. 01...	67	.3	1.1	447	270	150	1.2	739	7.8
DEC. 10...	38	.2	.7	269	170	110	.8	466	7.1
FEB. 15...	320	.2	.2	1340	660	510	3.5	2120	7.2
MAR. 29...	510	.3	.2	2000	950	750	4.6	3000	7.5
APR. 27...	320	.3	1.1	1280	630	500	3.4	2020	6.8
MAY 10...	190	.1	.3	792	420	340	2.2	1310	7.2

BRAZOS RIVER BASIN

08086500 HUBBARD CREEK NEAR BRECKENRIDGE, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS
OCT. 1971, ..	44.05	430	260	1.0	31	37	0.1	4.4
NOV.	.27	1100	690	.02	.5	120	.00	.08
DEC.	21.95	690	410	.8	25	73	.1	4.4
JAN. 1972, ..	.01	2170	1230	.00	.03	230	.00	.01
FEB.	1.74	2410	1520	.2	7.2	370	.06	1.7
MAR.	3.45	2820	1890	.6	18	480	.1	4.5
APR.	3.65	2470	1580	.5	16	410	.1	4.1
MAY	6.33	1660	1020	.6	17	260	.1	4.4
JUNE	0	--	--	--	0	--	--	0
JULY	0	--	--	--	0	--	--	0
AUG.	0	--	--	--	0	--	--	0
SEP.	0	--	--	--	0	--	--	0
TOTAL	81.45	--	--	--	110	--	--	24
WTD. AVG.	0.22	830	520	0.3	--	110	0.06	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	740	1300	---	2220	2620	3010	2680	---	---	---	---
2	---	---	1260	---	2310	2650	2900	2660	---	---	---	---
3	520	---	790	---	2340	2710	3010	2600	---	---	---	---
4	530	---	770	---	2270	2690	3010	---	---	---	---	---
5	530	---	760	---	2300	2710	3010	---	---	---	---	---
6	560	---	800	---	2180	2720	3080	2780	---	---	---	---
7	570	---	830	---	2250	2780	3070	1500	---	---	---	---
8	590	---	---	---	2300	2750	3070	2250	---	---	---	---
9	---	---	840	---	2340	2860	3060	2560	---	---	---	---
10	---	---	470	---	2300	2960	3030	1310	---	---	---	---
11	---	---	590	---	2330	2870	3100	1310	---	---	---	---
12	---	---	550	---	2350	2810	---	1290	---	---	---	---
13	---	---	860	---	2310	2810	---	2010	---	---	---	---
14	---	---	---	---	2390	2820	---	1970	---	---	---	---
15	---	---	---	---	2120	2850	3100	2130	---	---	---	---
16	---	---	---	---	2480	2910	---	2150	---	---	---	---
17	---	---	---	---	2480	2890	---	2290	---	---	---	---
18	---	---	---	---	2510	2940	---	---	---	---	---	---
19	700	---	---	---	2480	2920	---	---	---	---	---	---
20	300	---	---	---	2530	2970	2900	---	---	---	---	---
21	290	---	---	---	2430	2910	2970	---	---	---	---	---
22	300	1040	---	---	2520	---	3020	---	---	---	---	---
23	370	1060	---	---	2560	---	---	---	---	---	---	---
24	370	1090	---	---	2590	2950	---	---	---	---	---	---
25	450	1180	---	---	2630	2950	---	---	---	---	---	---
26	500	1190	---	---	2630	2950	---	---	---	---	---	---
27	530	1280	---	---	2620	2970	2020	---	---	---	---	---
28	600	1280	---	---	2600	2990	2420	---	---	---	---	---
29	620	---	---	---	2630	3000	2500	---	---	---	---	---
30	650	---	---	---	---	3000	2600	---	---	---	---	---
31	680	---	---	2170	---	3010	---	---	---	---	---	---
MONTH	---	---	---	---	2410	2860	---	---	---	---	---	---

BRAZOS RIVER BASIN

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08086500 HUBBARD CREEK NEAR BRECKENRIDGE, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	21.0	7.0	---	5.0	19.0	18.0	24.0	---	---	---	---
2	---	---	7.0	---	4.0	14.0	19.0	26.0	---	---	---	---
3	23.0	---	7.0	---	2.0	17.0	19.0	25.0	---	---	---	---
4	23.0	---	7.0	---	5.0	17.0	19.0	---	---	---	---	---
5	25.0	---	7.0	---	6.0	13.0	18.0	---	---	---	---	---
6	27.0	---	4.0	---	5.0	15.0	20.0	21.0	---	---	---	---
7	23.0	---	6.0	---	10.0	16.0	21.0	21.0	---	---	---	---
8	20.0	---	---	---	11.0	16.0	20.0	26.0	---	---	---	---
9	---	---	8.0	---	10.0	17.0	21.0	27.0	---	---	---	---
10	---	---	9.0	---	8.0	18.0	21.0	25.0	---	---	---	---
11	---	---	9.0	---	5.0	16.0	22.0	24.0	---	---	---	---
12	---	---	7.0	---	5.0	22.0	---	24.0	---	---	---	---
13	---	---	8.0	---	12.0	---	---	26.0	---	---	---	---
14	---	---	---	---	14.0	21.0	---	21.0	---	---	---	---
15	---	---	---	---	9.5	22.0	---	29.0	---	---	---	---
16	---	---	---	---	14.0	19.0	---	27.0	---	---	---	---
17	---	---	---	---	15.0	23.0	---	28.0	---	---	---	---
18	---	---	---	---	14.0	22.0	---	---	---	---	---	---
19	22.0	---	---	---	9.0	23.0	---	---	---	---	---	---
20	17.0	---	---	---	14.0	20.0	26.0	---	---	---	---	---
21	16.0	---	---	---	17.0	19.0	25.0	---	---	---	---	---
22	17.0	11.0	---	---	16.0	---	22.0	---	---	---	---	---
23	20.0	10.0	---	---	18.0	---	---	---	---	---	---	---
24	19.0	13.0	---	---	19.0	22.0	---	---	---	---	---	---
25	16.0	12.0	---	---	20.0	21.0	---	---	---	---	---	---
26	19.0	11.0	---	---	12.0	20.0	---	---	---	---	---	---
27	16.0	10.0	---	---	10.0	---	21.0	---	---	---	---	---
28	21.5	13.0	---	---	18.0	20.0	17.0	---	---	---	---	---
29	21.0	---	---	---	20.0	21.0	23.0	---	---	---	---	---
30	21.0	---	---	---	---	19.0	24.0	---	---	---	---	---
31	21.0	---	---	5.0	---	20.0	---	---	---	---	---	---
MONTH	---	---	---	---	11.5	19.0	---	---	---	---	---	---

BRAZOS RIVER BASIN

08087300 CLEAR FORK BRAZOS RIVER AT ELIASVILLE, TEX.

LOCATION.--Lat 32°57'36", long 98°45'59", Young County, at bridge on Farm Road 1974, 180 feet downstream from gaging station at Eliasville.

DRAINAGE AREA.--5,721 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1972.

Pesticide analyses: January 1968 to September 1972.

Water temperatures: October 1961 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-08	711	7.2	76	24	88	--	7.9	160	0	130
09-17	270	4.9	120	44	--	200	--	188	0	330
18-19	224	8.3	200	93	--	320	--	224	0	680
20-26	378	4.9	120	44	--	200	--	188	0	330
27-31	296	8.3	200	93	--	320	--	224	0	680
NOV.										
01-05	216	4.3	200	110	--	390	--	182	0	830
06-30	126	3.6	170	72	--	260	--	228	0	500
DEC.										
01-31	127	6.5	260	110	--	440	--	260	0	880
JAN.										
01-31	74	5.4	310	140	510	--	7.8	294	0	1100
FEB.										
01-29	57	5.5	340	140	--	590	--	290	0	1200
MAR.										
01-31	52	1.3	330	160	--	600	--	228	0	1200
APR.										
01-30	103	1.5	320	150	610	--	9.7	212	0	1200
MAY										
01-13	145	4.3	100	39	--	210	--	100	0	300
14-20	129	5.4	250	150	--	530	--	164	0	1100
21-31	30	5.3	160	96	--	380	--	134	0	700
JUNE										
01-30	16	3.2	180	110	--	410	--	142	0	720
JULY										
01-06	156	3.6	190	94	400	--	8.5	140	0	860
07-10	79	3.7	160	69	--	320	--	134	0	620
11-31	4.5	3.6	190	94	400	--	8.5	140	0	860
AUG.										
01-15	.23	6.3	200	98	--	420	--	136	0	810
16-31	220	7.4	84	35	--	150	--	108	0	270
SEPT.										
01-05	320	8.9	89	32	--	160	--	136	0	250
06-07	474	9.1	58	18	--	66	--	124	0	120
08-23	122	8.9	89	32	--	160	--	136	0	250
24-26	549	9.1	58	18	--	66	--	124	0	120
27-29	116	8.9	89	32	--	160	--	136	0	250
30...	232	9.1	58	18	--	66	--	124	0	120
WTD. AVG.										
TIME WTD.	--	5.8	170	74	--	--	--	186	0	566
AVG.										
TOT. LOAD	122	4.8	217	101	--	--	--	196	0	784
(TONS)	--	700	20500	8920	--	--	--	22400	0	68300

BRAZOS RIVER BASIN

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08087300 CLEAR FORK BRAZOS RIVER AT ELIASVILLE, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 3,390 mg/l Mar. 1-31; minimum, 430 mg/l Sept. 6-7, 24-26, 30.
 Hardness: Maximum, 1,500 mg/l Mar. 1-31; minimum, 220 mg/l Sept. 6-7, 24-26, 30.
 Specific conductance: Maximum daily, 5,720 micromhos May 19; minimum daily, 676 micromhos Sept. 25.
 Water temperatures: Maximum, 30.5°C June 25; minimum, 4.5°C Jan. 16, Feb. 3, 4, 7, 11.

EXTREMES, October 1961 to September 1972.--Dissolved solids: Maximum, 3,630 mg/l Dec. 1-31, 1970; minimum, 180 mg/l Sept. 10-11, 1966.
 Hardness: Maximum, 1,500 mg/l Mar. 1-31, 1972; minimum, 110 mg/l Sept. 10-11, 1966.
 Specific conductance: Maximum daily, 7,400 micromhos Jan. 9, 1971; minimum daily, 300 micromhos Sept. 10, 1962.
 Water temperatures: Maximum, 38.0°C Aug. 6, 1964; minimum, freezing point on several days in January 1963 and January 1964.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-03	150	.3	.8	570	290	160	2.3	1030	7.4
09-17	290	--	1.0	1080	480	330	3.9	1770	8.1
18-19	480	--	1.9	1900	890	700	4.6	2950	8.0
20-26	290	--	1.0	1080	480	330	3.9	1770	8.1
27-31	480	--	1.9	1900	890	700	4.6	2950	8.0
NOV.									
01-05	570	.4	1.1	2210	980	830	5.4	3410	7.3
06-30	410	--	.9	1530	720	540	4.2	2470	7.2
DEC.									
01-31	660	.4	2.3	2500	1100	900	5.7	3680	7.4
JAN.									
01-31	780	.3	2.4	3000	1300	1100	6.1	4340	8.0
FEB.									
01-29	840	--	2.7	3260	1400	1200	6.8	4600	8.2
MAR.									
01-31	920	.4	3.3	3390	1500	1300	6.7	4910	8.0
APR.									
01-30	930	--	.7	3370	1400	1200	7.0	4880	8.0
MAY									
01-13	350	.2	.9	1060	420	340	4.6	1770	7.8
14-20	770	--	.9	2940	1200	1100	6.6	4250	8.1
21-31	560	--	.6	1970	810	700	5.8	3070	8.1
JUNE									
01-30	660	--	.9	2160	920	800	5.8	3340	7.9
JULY									
01-06	590	--	1.0	2220	870	760	5.9	3310	8.0
07-10	430	.3	1.1	1670	670	560	5.4	2520	8.1
11-31	590	--	1.0	2220	870	760	5.9	3310	8.0
AUG.									
01-15	620	--	.8	2220	910	800	6.0	3390	8.1
16-31	220	.3	.9	827	350	260	3.5	1390	8.2
SEP.									
01-05	230	.3	.9	840	350	240	3.7	1400	7.7
06-07	94	--	1.0	430	220	120	1.9	742	7.7
08-23	230	.3	.9	840	350	240	3.7	1400	7.7
24-26	94	--	1.0	430	220	120	1.9	742	7.7
27-29	230	.3	.9	840	350	240	3.7	1400	7.7
30...	94	--	1.0	430	220	120	1.9	742	7.7
WTD. AVG.	444	--	1.3	1660	725	577	4.5	2540	7.8
TIME WTD.									
AVG.	602	--	1.5	2220	951	796	5.5	3320	7.9
TOT. LOAD (TONS)	53500	--	156	200000	--	--	--	--	--

BRAZOS RIVER BASIN

08087300 CLEAR FORK BRAZOS RIVER AT ELIASVILLE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
OCT. 26...	1410	.00	<.2	.00	1.5	.00	2.2	.00	<.2	.00
FEB. 01...	1430	.00	<.2	.00	.5	.00	.6	.00	<.2	.00
APR. 17...	1100	.00	<.2	.00	1.1	.00	2.2	.00	1.5	.00
AUG. 08...	1120	.00	<.2	.00	<.2	.00	1.2	.00	<.2	.00

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
OCT. 26...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 01...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 17...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 08...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT. 26...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
FEB. 01...	.0	<1.0	.02	.00	.00	.00	.00	.00	.00
APR. 17...	.0	<1.0	.01	.00	.00	.00	.05	.04	.00
AUG. 08...	.0	<1.0	.00	.00	.00	.00	.00	.04	.00

BRAZOS RIVER BASIN

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08087300 CLEAR FORK BRAZOS RIVER AT ELIASVILLE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	931	3530	2780	4500	4350	4860	4870	2280	3310	3080	3310	1430
2	896	3430	2860	4540	4410	4850	4880	1810	3290	3460	3310	1370
3	928	3410	2650	4480	4460	4900	4890	1180	3260	3500	3330	1360
4	975	3390	3180	4340	4440	4910	4900	1160	3270	3530	3320	1330
5	975	3310	3130	4340	4490	4890	4900	1250	3270	3770	3340	1150
6	1020	2540	3150	4360	4540	4900	4920	1350	3290	3550	3350	714
7	1180	2440	3430	4300	4600	4880	4950	1480	3320	2550	3350	728
8	1280	2490	3260	4290	4640	4890	4920	1810	3320	2370	3340	1800
9	1970	2390	3330	4270	4640	4890	4910	1540	3340	2380	3350	1500
10	1480	2400	2820	4320	4590	4910	4900	2380	3390	2800	3360	1310
11	1400	2350	2990	4340	4520	4900	4900	2110	3400	3280	3360	1280
12	1510	2360	2950	4370	4530	4910	4970	2070	3380	3390	3350	1360
13	1570	2360	2860	4420	4540	4900	4980	2590	3390	3310	3330	1390
14	1690	2390	2860	4390	4600	4900	4950	3770	3350	3260	3350	1390
15	1970	2340	3260	4340	4650	---	4940	3760	2800	3210	---	1380
16	1790	2190	3470	4310	4650	4920	4970	4040	2960	3230	4080	1350
17	2190	2070	3760	4360	4640	4960	4980	4250	3140	3240	1580	1360
18	2710	2190	3920	4380	4760	4930	5150	4610	3260	3240	1830	1340
19	3030	2430	4060	4390	4640	4950	5190	5720	3230	3240	1480	1310
20	2150	2570	4150	4430	4670	4970	5180	3590	3300	3260	1200	1290
21	1450	2550	4340	4400	4640	4950	5110	3170	3450	3240	1000	1470
22	1400	2530	4400	4420	4710	4980	5150	2890	3580	3250	1030	1420
23	1770	2600	4430	4370	4740	4990	5150	2860	3680	3240	1140	1430
24	1810	2630	4420	4290	4740	4960	5190	2860	3620	3260	1400	868
25	1930	2630	4410	4220	4730	4910	5260	2970	3530	3250	1450	676
26	2160	2620	4440	4120	4750	4900	5180	3040	3480	3260	1300	752
27	2640	2590	4500	4070	4730	4830	4780	3120	3470	3270	1370	1310
28	2880	2610	4540	4080	4770	4900	4220	3170	3480	3290	1560	1730
29	2940	2630	4550	4140	4790	4900	3710	3200	3400	3290	1490	1420
30	3170	2670	4550	4200	---	4900	3760	3220	3250	3300	1460	728
31	3190	---	4540	4270	---	4900	---	3290	---	3300	1450	---
MONTH	1840	2620	3680	4320	4620	4910	4890	2790	3340	3210	2390	1260

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.5	19.0	11.0	11.5	5.5	---	15.5	19.5	24.0	28.0	28.0	26.0
2	24.0	19.0	10.0	10.0	5.5	14.0	16.5	20.5	25.5	28.0	28.0	26.0
3	24.0	18.5	10.0	16.5	4.5	13.5	21.0	18.5	25.5	28.0	26.5	25.5
4	24.0	18.0	8.5	8.0	4.5	13.5	---	21.0	26.5	28.0	26.5	23.5
5	23.0	17.0	8.5	7.0	5.0	13.0	16.5	21.0	28.0	26.5	28.0	24.0
6	23.0	16.0	7.0	6.5	6.0	10.5	21.0	20.5	25.5	26.5	27.0	24.0
7	20.5	15.5	7.0	6.5	4.5	14.5	20.5	20.0	26.5	28.0	28.5	24.5
8	20.0	14.5	8.5	7.0	6.0	14.5	20.0	20.0	26.5	25.5	27.0	26.0
9	22.0	13.5	8.5	7.0	10.0	14.5	20.0	22.0	29.0	26.5	23.5	26.5
10	15.5	14.5	7.0	7.0	10.0	15.5	20.0	22.0	28.0	26.0	28.0	26.5
11	21.0	14.5	7.0	8.0	4.5	15.5	22.0	22.0	26.5	26.5	26.5	26.5
12	15.5	14.5	8.0	9.0	6.0	18.5	24.0	22.0	26.5	28.0	26.5	28.0
13	21.0	15.5	7.0	8.5	6.5	19.5	25.0	22.0	26.5	28.0	27.0	28.0
14	21.0	18.0	9.0	5.0	13.0	19.0	25.5	20.5	25.5	28.0	26.5	26.5
15	21.0	---	9.0	5.0	8.0	---	22.0	24.0	25.5	28.0	---	26.5
16	21.0	20.0	9.0	4.5	6.5	18.5	22.0	22.0	25.5	28.0	26.5	28.0
17	23.0	17.0	9.0	5.5	9.0	20.0	24.0	22.0	26.5	28.0	26.5	26.5
18	21.0	16.5	8.0	7.0	12.0	19.0	22.0	21.0	26.5	28.0	26.0	28.0
19	21.0	14.0	8.5	7.0	9.5	18.0	24.0	25.5	29.0	28.0	26.5	26.5
20	20.0	13.5	10.0	10.0	10.0	18.5	24.0	29.5	28.0	28.0	25.5	28.0
21	19.5	13.5	9.5	7.0	9.5	18.5	22.0	25.0	28.0	28.0	26.5	26.5
22	20.0	13.0	9.0	8.5	11.0	18.5	22.0	25.5	26.5	26.5	26.5	24.0
23	20.0	13.0	9.5	8.5	13.5	19.5	22.0	25.5	29.5	26.5	26.5	24.0
24	19.0	13.0	10.0	9.0	13.5	20.0	21.0	26.5	29.5	29.0	26.5	24.5
25	20.0	12.0	10.5	8.0	13.0	18.0	21.0	26.5	30.5	28.0	25.5	23.0
26	19.0	13.0	11.5	9.0	13.0	20.0	20.0	28.0	29.5	28.0	24.5	21.0
27	18.0	14.0	13.0	8.5	12.0	20.5	20.0	28.0	29.5	29.0	26.5	20.5
28	18.5	13.0	11.5	7.0	13.0	18.5	18.0	28.0	29.5	29.0	27.0	24.0
29	19.5	10.0	11.0	6.5	14.5	19.0	19.5	26.5	29.5	29.5	27.0	22.0
30	20.0	11.0	11.0	9.0	---	18.5	21.0	25.5	29.0	28.5	26.5	22.0
31	20.0	---	11.0	5.5	---	15.5	---	26.5	---	28.0	26.5	---
MONTH	20.5	15.0	9.5	8.0	9.0	17.0	21.0	23.5	27.5	27.5	26.5	25.0

BRAZOS RIVER BASIN

08088000 BRAZOS RIVER NEAR SOUTH BEND, TEX.

LOCATION.--Lat 33°01'30", long 98°38'50", Young County, at gaging station on State Highway 67, 0.3 mile upstream from Chicago, Rock Island and Pacific Railroad bridge, 1.6 miles downstream from Clear Fork Brazos River, and 2.0 miles northeast of South Bend.

DRAINAGE AREA.--21,600 sq mi, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: January 1942 to March 1948, October 1968 to September 1969.
Pesticide analyses: March 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
OCT. 26...	1245	.00	<.2	.00	.9	.00	1.7	.01	<.2	.00
FEB. 01...	1345	.00	<.2	.00	.3	.00	.9	.00	<.2	.00
APR. 17...	1200	.00	<.2	.00	<.2	.00	.5	.00	<.2	.00
AUG. 08...	0915	.00	<.2	.00	<.2	.00	.6	.00	<.2	.00

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
OCT. 26...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 01...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 17...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 08...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT. 26...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
FEB. 01...	.0	<1.0	.03	.00	.00	.00	.00	.00	.00
APR. 17...	.0	<1.0	.00	.00	.00	.00	.04	.03	.00
AUG. 08...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00

BRAZOS RIVER BASIN

505

08088420 BRAZOS RIVER AT FARM ROAD 1287, NEAR GRAHAM, TEX.

LOCATION.--Lat 33°03'20", long 98°34'54", Young County, at Gooseneck Bridge on Farm Road 1287 about 3.5 miles south of Graham.

DRAINAGE AREA.--21,955 sq mi, of which 9,240 sq mi is noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 02...	1700	932	8.2	240	64	480	176	0	670	740
DEC. 06...	1455	300	6.1	300	84	1100	208	0	780	1700
JAN. 10...	1535	113	17	410	130	1500	241	0	1200	2300
FEB. 16...	1210	146	6.0	330	96	1100	200	0	880	1700
APR. 22...	1355	103	5.0	330	130	1000	158	0	1100	1600
MAY 30...	1450	121	9.5	320	91	1100	132	0	1000	1600
JULY 05...	0910	824	12	250	58	710	153	0	730	1100

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 02...	.4	1.0	2280	850	710	7.1	3700	8.2	23.0
DEC. 06...	.3	1.5	4030	1100	910	14	6760	7.9	7.0
JAN. 10...	--	--	5660	1600	1400	16	9080	8.0	13.0
FEB. 16...	--	9.4	4240	1200	1100	13	7000	7.8	13.0
APR. 22...	--	3.4	4260	1400	1200	12	6700	7.9	27.0
MAY 30...	--	.9	4210	1200	1000	14	6720	7.8	26.5
JULY 05...	--	1.5	2920	860	740	11	4380	7.6	24.5

BRAZOS RIVER BASIN

08088600 BRAZOS RIVER AT POSSUM KINGDOM DAM, NEAR GRAFORD, TEX.

LOCATION.--Lat 32°52'00", long 98°26'00", Palo Pinto County, immediately below Possum Kingdom Dam, 2.6 miles upstream from Loving Creek, 11.3 miles southwest of Grafard, and 20 miles upstream from gaging station near Palo Pinto.

DRAINAGE AREA.--22,550 sq mi, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: January 1942 to September 1972.

Water temperatures: October 1949 to September 1955, October 1965 to September 1972.

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 2,130 mg/l Mar. 1-31; minimum, 1,410 mg/l Nov. 1-30.

Hardness: Maximum, 630 mg/l Mar. 1-31; minimum, 460 mg/l Nov. 1-30.

Specific conductance: Maximum daily, 4,430 micromhos Sept. 30; minimum daily, 2,320 micromhos Nov. 10.

Water temperatures: Maximum, 26.0°C Sept. 20, 21, 22, 27; minimum, 11.0°C on several days during February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT. 01-31	1340	7.4	140	28	360	--	7.2	116	0	350
NOV. 01-30	458	7.3	140	30	--	330	--	116	0	330
DEC. 01-31	170	7.2	140	31	--	380	--	122	0	380
JAN. 01-31	336	6.8	160	38	450	--	8.4	134	0	400
FEB. 01-29	96	6.9	170	35	--	500	--	134	0	450
MAR. 01-31	48	7.0	180	45	--	530	--	144	0	460
APR. 01-30	224	6.5	170	42	480	--	7.3	140	0	460
MAY 01-31	526	6.4	170	38	--	460	--	136	0	440
JUNE 01-30	163	5.2	160	43	--	440	--	140	0	410
JULY 01-31	84	6.5	160	37	410	--	6.8	136	0	410
AUG. 01-31	2330	7.2	160	36	--	410	--	132	0	410
SEP. 01-30	2170	7.6	190	38	--	490	--	124	0	490
WTD. AVG. TIME WTD. AVG.	--	7.2	164	35	--	430	--	127	0	420
TOT. LOAD (TONS)	664	6.8	162	37	--	--	--	131	0	416
	--	4730	108000	23200	--	282000	--	83300	0	275000

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2820	2460	2810	3050	3080	3350	3540	3410	3190	3060	2930	2980
2	2810	2410	---	3080	3080	3480	3460	3180	3210	3040	2930	2980
3	2710	2420	2670	3050	2840	3690	3550	3300	3180	3060	2960	2980
4	2840	2420	2620	2730	2910	3720	3230	3330	3260	3040	3180	2940
5	2800	2420	2630	2770	2820	3760	3080	3480	3240	3000	2830	3000
6	2760	2570	2530	3040	2950	3800	3210	3460	3030	3010	2890	3050
7	2730	2530	2510	2810	3090	3820	3130	3420	3070	3010	2920	3060
8	2720	2440	2460	2650	3120	3800	---	3390	3110	3020	2940	3070
9	2690	2410	2430	2810	3190	3820	3570	3420	3150	3020	3190	3090
10	2740	2320	2380	2810	3090	3510	3650	3420	3190	3000	2930	3100
11	2720	2370	2380	2860	3170	3560	3530	3430	3200	3030	2950	3150
12	2670	2330	2370	3070	3290	3560	3150	3370	3150	3030	2930	3200
13	2990	2350	2360	---	3320	3700	3160	2960	3190	2980	2950	3160
14	2630	2350	2350	3070	3230	3650	3430	2960	3160	3020	2810	3250
15	2650	2340	2350	2860	3090	3650	3490	2980	2900	3040	2790	3350
16	2640	2420	2360	2890	3030	3740	3450	2910	2860	3010	2780	3430
17	2480	2360	2410	2890	2950	3780	3540	2990	3020	3010	2790	3420
18	2630	2340	2500	3000	2950	3790	3560	2960	3110	2990	2800	3490
19	2600	2330	2640	3090	3020	3740	3510	2910	3120	3010	2820	3570
20	2530	2360	2650	3150	---	3800	3100	2900	2760	2870	2830	3610
21	2520	2420	---	3240	3060	3650	3490	2850	2870	2850	2820	3690
22	2530	2470	2670	3630	3650	3640	3400	2840	2870	2840	2840	3730
23	2500	2530	2890	3640	3740	3780	3500	2970	3010	2910	2850	3750
24	2480	2510	2980	3690	3730	3760	3410	2960	3060	2940	2860	3630
25	2480	2490	3040	3530	3650	3650	3410	2950	3080	2850	2870	3670
26	2500	2640	3030	3610	3660	3520	3440	2910	3070	2830	2870	3710
27	2420	2650	3040	3630	3700	3530	3420	2930	3060	2920	2880	3670
28	2440	2780	3080	3700	3800	3660	3410	3050	3070	2940	2890	3740
29	2420	2760	3060	3700	3760	3760	3340	3090	3050	2940	2910	3780
30	2430	2750	3060	3660	---	3650	3340	3110	3050	2940	2930	4430
31	2450	---	3060	3360	---	3490	---	3230	---	2940	2940	---
MONTH	2620	2470	2670	3170	3250	3670	3400	3130	3080	2970	2900	3390

08088600 BRAZOS RIVER AT POSSUM KINGDOM DAM, NEAR GRAFORD, TEX.--Continued

EXTREMES, January 1942 to September 1972.--Dissolved solids: Maximum, 3,770 mg/l Feb. 18-20, 1961; minimum, 331 mg/l Apr. 26-30, May 1-10, 1957.
 Hardness: Maximum, 928 mg/l Feb. 18-20, 1961; minimum, 135 mg/l Apr. 26-30, May 1-10, 1957.
 Specific conductance: Maximum daily, 6,110 micromhos Feb. 20, 1961; minimum daily, 494 micromhos May 4, 1957.
 Water temperatures (1949-55, 1965-72): Maximum, 26.5°C on several days during September 1971; minimum, 7.0°C on several days in February 1951.

REMARKS.--Records of discharge are given for gaging station near Palo Pinto. No appreciable inflow between dam and gaging station except during periods of heavy local rains.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	DIS- SOLVED FLUOR- IDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AN- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	580	.4	.4	1530	470	370	7.2	2630	7.4
NOV. 01-30	520	.4	.3	1410	460	370	6.6	2470	7.1
DEC. 01-31	580	.3	.3	1580	490	390	7.4	2660	7.0
JAN. 01-31	710	.5	2.0	1850	560	450	8.3	3170	7.1
FEB. 01-29	750	--	.2	1970	560	450	9.1	3260	7.5
MAR. 01-31	840	.3	.2	2130	630	520	9.1	3660	7.8
APR. 01-30	780	--	.3	2020	610	490	8.5	3390	7.7
MAY 01-31	720	--	.2	1900	570	460	8.5	3130	7.1
JUNE 01-30	700	--	.2	1830	580	470	7.9	3080	8.0
JULY 01-31	660	.3	.2	1770	560	440	7.6	2970	7.8
AUG. 01-31	640	.3	.1	1720	540	430	7.7	2900	7.6
SEP. 01-30	760	--	.1	2030	620	520	8.5	3390	7.8
WTD. AVG. TIME WTD. AVG.	670	--	.2	1780	550	446	7.9	3010	7.5
TOT. LOAD (TONS)	440000	--	.3	1810	554	446	8.0	3060	7.5
		--	174	1171000	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.5	23.5	16.5	15.5	14.5	14.5	13.5	15.5	14.5	14.5	15.0	21.0
2	23.5	23.5	---	15.5	11.0	14.5	15.0	15.5	14.5	14.5	15.0	21.0
3	23.5	23.0	16.5	15.5	11.0	14.5	13.5	16.0	14.5	14.5	15.0	21.0
4	23.5	23.0	16.5	15.5	11.0	14.5	13.5	16.0	14.5	14.5	23.5	21.0
5	23.5	23.0	16.5	14.5	11.0	14.5	18.5	16.0	14.5	15.5	15.0	21.0
6	23.5	23.0	16.5	14.5	11.0	14.5	18.5	16.0	14.5	15.5	15.0	23.5
7	23.5	23.0	16.5	14.5	11.0	14.5	18.5	16.0	14.5	15.5	15.0	23.5
8	23.5	23.0	16.5	14.5	11.0	13.5	---	16.0	14.5	15.5	15.0	23.5
9	23.5	23.0	16.5	14.5	13.5	13.5	18.5	16.0	14.5	15.5	23.5	23.5
10	23.5	18.5	16.5	14.5	13.5	---	18.5	15.0	14.5	15.5	15.0	23.5
11	23.5	18.5	16.5	14.5	13.5	13.5	18.5	15.0	14.5	15.5	15.0	23.5
12	23.5	18.5	16.5	14.5	13.5	13.5	16.5	15.0	14.5	15.0	15.0	23.5
13	22.0	18.5	16.5	---	13.5	13.5	16.5	15.0	14.5	15.0	15.0	23.5
14	22.0	18.5	16.5	14.5	13.5	13.5	16.5	15.0	14.5	15.0	15.0	23.5
15	22.0	18.5	16.0	14.5	13.5	18.0	16.5	15.0	14.5	15.0	15.0	23.5
16	22.0	18.5	16.0	14.5	14.0	18.0	16.5	15.0	14.5	15.0	15.0	23.5
17	22.0	22.0	16.0	14.5	14.0	18.0	16.5	15.0	14.5	15.0	15.0	23.5
18	22.0	22.0	16.0	14.5	14.0	18.0	16.5	15.0	14.5	15.0	15.0	23.5
19	22.0	22.0	16.0	14.5	14.0	18.0	16.5	15.0	14.5	14.5	15.0	23.5
20	23.5	22.0	16.0	14.5	---	18.0	16.5	15.0	14.5	14.5	15.0	26.0
21	23.5	22.0	---	14.5	14.0	18.0	16.5	15.0	16.5	14.5	15.0	26.0
22	23.5	22.0	15.5	14.5	14.0	15.5	16.5	15.0	16.5	14.5	15.0	26.0
23	23.5	22.0	15.5	14.5	14.5	15.5	16.5	15.0	16.5	14.5	20.5	---
24	23.5	19.0	15.5	14.5	25.5	15.5	16.5	15.5	16.5	14.5	20.5	---
25	23.5	19.0	15.5	14.5	25.5	15.5	16.5	15.5	16.5	14.5	20.5	23.5
26	23.5	19.0	15.5	15.5	14.0	15.5	15.5	15.5	16.5	15.0	20.5	23.5
27	23.0	19.0	15.5	15.5	25.5	18.0	15.5	15.0	16.5	15.0	20.5	26.0
28	23.0	19.0	15.5	15.5	25.5	15.5	15.5	15.0	14.5	15.0	20.5	23.5
29	23.0	19.0	15.5	15.5	25.5	13.5	15.5	15.0	14.5	15.0	20.5	23.5
30	23.5	19.0	15.5	14.5	---	13.5	15.5	15.0	14.5	15.0	21.0	25.5
31	23.5	---	15.5	14.5	---	13.5	---	14.5	---	15.0	21.0	---
MONTH	23.0	21.0	16.0	15.0	15.0	15.5	16.5	15.5	15.0	15.0	17.0	23.5

BRAZOS RIVER BASIN

08090800 BRAZOS RIVER NEAR DENNIS, TEX.

LOCATION.--Lat 32°36'56", long 97°55'32", Parker County, at gaging station at bridge on Farm Road 1543, 0.2 mile south of Dennis, and 1.0 mile upstream from Patrick Creek.

DRAINAGE AREA.--24,160 sq mi, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1970 to September 1972.

Water temperatures: October 1970 to September 1972.

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 3,650 micromhos Sept. 30; minimum daily, 490 micromhos Dec. 10.

Water temperatures: Maximum, 35.0°C June 25; minimum, 2.5°C Jan. 4, Feb. 3.

EXTREMES, October 1970 to September 1972.--Specific conductance: Maximum daily, 3,650 micromhos Sept. 30, 1972; minimum daily, 490 micromhos Dec. 10, 1971.

Water temperatures: Maximum, 35.5°C Aug. 23, 1971; minimum, 1.0°C Jan. 8, 1971.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
JAN.										
01...	146	3.2	66	13	120	--	2.9	100	0	140
05...	143	3.5	119	25	--	240	--	152	0	240
19...	1240	5.7	150	34	--	460	--	136	0	500
FEB.										
24...	36	.3	150	33	--	390	--	140	0	370
MAR.										
17...	40	1.9	120	29	--	280	--	164	0	270
27...	65	1.3	160	39	--	450	--	150	0	420
APR.										
05...	31	1.8	110	27	260	--	6.3	168	0	260
12...	194	3.1	170	40	--	490	--	148	0	450
29...	188	2.8	78	18	--	180	--	126	0	190
MAY										
06...	116	1.2	85	18	--	190	--	138	0	180
15...	2580	1.6	120	26	--	330	--	140	0	330
16...	2680	2.1	150	33	--	410	--	134	0	390
JUNE										
01...	91	2.7	160	31	310	--	7.1	132	0	330
06...	36	1.7	140	34	--	390	--	128	0	370
11...	129	1.0	160	38	--	450	--	--	126	420
JULY										
21...	16	1.6	83	20	200	--	5.5	122	0	190
25...	142	2.2	160	36	--	490	--	104	0	450
AUG.										
05...	26	2.2	110	29	--	280	--	116	0	280
SEP.										
01...	3130	5.1	150	34	--	410	--	121	0	390
27...	475	5.1	100	17	--	220	--	117	0	220
30...	400	7.2	200	38	--	560	--	120	0	540

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- TUENTS) (MG/L)	HARD- NESS (CA.MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
JAN.									
01...	180	.2	.1	581	220	140	3.6	1010	7.5
05...	360	--	.1	1050	370	250	5.3	1790	7.8
19...	620	--	.3	1840	510	400	8.9	2800	7.8
FEB.									
24...	610	.3	.08	1620	510	390	7.6	2780	6.9
MAR.									
17...	430	.4	.1	1210	410	270	6.0	2080	7.5
27...	690	--	.3	1840	560	430	8.3	3090	7.0
APR.									
05...	410	.3	.07	1160	400	260	5.8	2060	7.6
12...	740	--	.03	1960	580	460	8.8	3280	7.2
29...	260	--	.6	786	270	170	4.8	1400	7.1
MAY									
06...	280	.3	.1	829	290	170	4.9	1470	7.1
15...	480	--	.6	1360	420	300	7.0	2240	6.8
16...	620	--	.2	1670	510	400	7.8	2820	6.6
JUNE									
01...	530	.4	.00	1440	530	420	5.9	2480	8.2
06...	600	--	.03	1600	490	380	7.6	2730	8.0
11...	700	--	.01	1830	550	450	8.3	3120	8.1
JULY									
21...	310	.2	.3	876	290	190	5.2	1560	7.8
25...	740	--	.3	1920	540	450	9.1	3210	7.5
AUG.									
05...	440	.4	.3	1200	390	290	6.2	2150	7.9
SEP.									
01...	630	.4	.1	1680	510	410	7.9	2800	7.9
27...	340	--	.8	958	320	220	5.3	1660	7.4
30...	850	--	.1	2250	650	550	9.6	3650	7.6

BRAZOS RIVER BASIN

509

08090800 BRAZOS RIVER NEAR DENNIS, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	63220	2520	1460	8040	249000	560	3080	95600	300	1650	51200
NOV.	25067	2370	1370	3090	92700	520	1170	35200	280	632	19000
DEC.	15849	1250	720	994	30800	240	331	10300	150	207	6420
JAN. 1972, ..	14637	2590	1500	1910	59300	580	739	22900	310	395	12300
FEB.	2264	2720	1570	331	9600	610	129	3730	330	70	2020
MAR.	1006	2620	1510	132	4100	580	51	1580	320	28	869
APR.	7479	3160	1830	1230	37000	730	491	14700	400	269	8080
MAY	18956	2650	1530	2530	78300	590	974	30200	320	528	16400
JUNE	6192	2590	1500	836	25100	580	323	9700	310	173	5180
JULY	2888	2700	1560	392	12200	610	153	4760	320	80	2500
AUG.	61356	2810	1620	8660	268000	630	3370	104000	350	1870	58000
SEP.	65259	3070	1770	10400	312000	700	4410	123000	390	2290	68700
TOTAL	284173	--	--	--	1180000	--	--	456000	--	--	251000
WTD. AVG.	776	2660	1540	3220	--	590	1240	--	330	685	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2490	2400	1990	1010	2520	2740	2960	2580	2480	2910	2520	2800
2	2680	2460	1990	1690	2550	2780	3100	2000	2410	2930	2410	2840
3	2590	2450	1390	1330	2550	2790	3140	1850	2410	2920	2300	2910
4	2570	2450	1220	1770	2540	2760	2980	2040	2450	2860	2170	2960
5	2520	2450	1120	1790	2530	2760	2060	1850	2660	2810	2150	2960
6	2700	2470	1650	2320	2720	2710	1990	1470	2730	2840	2190	2960
7	2760	2440	1620	2720	2710	2370	3150	1470	2790	2840	2210	2910
8	2750	2360	2040	2580	2750	2460	3480	1560	2820	2820	2250	2910
9	2730	2410	897	2710	2770	2430	3630	1570	3110	2820	3050	2940
10	2720	2400	490	2630	2790	2340	---	1680	3130	2830	3210	3030
11	2670	2400	1180	2610	2720	2210	3300	1810	3120	2850	3200	3050
12	2680	2430	1220	2570	2660	2160	3280	1950	3020	2830	3080	3080
13	2700	2420	967	2540	2640	2120	3280	1410	2960	2710	3030	3080
14	2700	2420	942	2550	2620	2120	3270	1360	2120	2360	3030	3120
15	2700	2410	1100	2500	2590	2140	3160	2240	2780	2670	2960	3120
16	2680	---	1180	2500	2550	2140	3140	2820	2680	2670	2910	3210
17	2700	2420	1240	2590	---	2080	3130	2890	2330	1920	2740	3250
18	2670	1750	1260	2730	2530	2160	3160	2830	2160	1610	2750	3250
19	2560	1920	1300	2800	2840	2410	3160	2830	2180	1920	2770	3380
20	1380	2350	1150	2810	2970	2550	3160	2880	2330	1500	2820	3430
21	1770	---	1110	2770	2940	2650	2830	2920	2470	1560	2820	3470
22	2380	2210	1200	2700	2860	2780	3090	2920	2450	1620	2830	3420
23	2490	1840	1290	2640	2840	2780	3000	2900	2630	1480	2830	3430
24	2500	1810	1340	---	2780	2730	2910	2890	2780	3240	---	3370
25	2500	2290	1970	2590	2760	2560	3140	2880	2850	3210	2820	3360
26	2450	2330	1970	2550	2760	2970	3150	2920	2870	3230	2770	3340
27	2460	2260	2040	2510	2760	3090	2690	2930	2880	3250	2820	1660
28	2440	2260	2100	2490	2710	3090	2560	2910	---	3170	2810	3450
29	2460	2320	2060	2610	2700	3020	1400	2740	2900	2980	2820	3550
30	2470	2350	2020	2570	---	2960	1900	2650	2910	2730	2840	3650
31	2440	---	2010	2550	---	2940	---	2550	---	2650	2920	---
MONTH	2530	2300	1460	2420	2700	2570	2940	2330	2670	2600	2730	3130

BRAZOS RIVER BASIN

08090800 BRAZOS RIVER NEAR DENNIS, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.5	23.0	8.0	14.0	7.5	20.0	21.5	23.0	26.0	29.0	27.5	25.0
2	25.5	21.0	7.5	12.0	7.5	17.0	22.0	24.0	28.0	29.0	26.5	24.5
3	25.0	19.0	6.5	10.5	2.5	13.0	22.0	24.5	34.0	26.5	26.0	24.5
4	27.0	17.5	7.0	2.5	3.5	13.5	17.5	26.0	25.0	27.0	25.5	23.5
5	24.5	18.0	7.5	3.5	7.0	15.0	24.0	22.0	25.0	25.5	32.5	23.5
6	24.0	16.5	9.0	3.0	9.5	14.5	29.0	25.5	28.5	26.0	31.5	25.5
7	24.0	15.0	11.0	4.5	8.5	21.0	25.0	21.0	29.0	27.0	29.0	27.0
8	22.0	13.5	10.5	8.0	6.5	17.0	23.5	22.0	27.5	33.0	29.0	26.0
9	22.0	14.0	10.0	11.0	9.0	15.0	23.0	25.0	26.5	25.5	26.0	28.0
10	22.0	14.0	7.5	11.0	9.5	19.5	---	21.5	27.0	28.5	26.0	26.5
11	21.0	13.5	10.5	8.0	6.0	19.5	24.5	21.0	25.5	28.5	27.5	26.0
12	21.0	17.0	12.0	12.0	7.0	21.5	27.0	24.5	30.0	27.5	28.0	27.0
13	21.5	15.0	8.5	10.5	---	21.5	28.0	27.0	28.5	29.0	28.0	26.5
14	21.5	21.0	13.0	8.0	16.5	23.5	26.5	28.0	31.5	29.5	29.0	27.5
15	25.5	19.5	12.5	5.0	15.5	21.0	24.5	26.5	28.5	29.5	29.5	28.0
16	24.0	---	12.0	7.0	12.0	17.5	27.0	22.5	30.5	26.5	26.0	26.0
17	25.0	19.0	11.0	7.0	---	23.0	23.5	27.0	30.0	28.0	24.5	25.0
18	24.5	16.5	9.0	10.0	14.5	23.0	25.0	28.5	27.0	28.0	25.0	26.5
19	22.0	13.5	13.0	15.0	10.5	23.0	26.0	26.5	29.5	30.0	27.5	23.0
20	21.5	13.5	10.0	24.5	14.0	21.5	26.0	---	31.0	28.5	27.5	26.5
21	20.0	---	11.0	11.5	20.5	21.5	23.5	---	29.5	27.0	27.0	26.0
22	20.0	12.0	10.5	10.0	17.5	20.5	24.5	---	29.5	29.0	25.5	22.0
23	21.5	9.5	14.5	13.5	17.0	22.0	22.0	---	33.5	27.0	25.5	23.5
24	22.0	10.0	13.5	---	10.5	24.0	24.0	28.5	31.0	29.5	---	27.0
25	21.5	13.0	13.5	9.5	20.5	21.0	25.0	28.0	35.0	32.0	25.0	25.0
26	20.5	14.0	13.0	9.5	19.0	24.0	20.0	29.5	32.0	30.5	28.5	27.0
27	18.0	15.0	19.5	7.5	18.5	25.0	18.5	28.5	31.5	32.0	28.0	26.5
28	20.0	12.0	14.0	6.0	16.5	24.0	19.5	26.0	---	33.0	27.0	27.0
29	21.5	9.5	14.0	5.5	23.0	20.5	22.0	29.0	32.0	30.5	26.0	27.5
30	22.0	9.5	14.0	6.5	---	14.0	23.0	27.0	28.0	33.0	26.0	23.0
31	21.5	---	14.0	5.5	---	14.5	---	25.0	---	27.5	24.0	---
MONTH	22.5	15.0	11.0	9.0	12.0	19.5	23.5	25.5	29.5	29.0	27.0	25.5

BRAZOS RIVER BASIN

511

08092000 NOLAN RIVER AT BLUM, TEX.

LOCATION.--Lat 32°09'02", long 97°24'10", Hill County, at gaging station at bridge on Farm Road 933, 0.6 mile north-west of Blum, 2.8 miles downstream from Mustang Creek, 3.0 miles downstream from Gulf, Colorado and Santa Fe Railway Co. bridge.

DRAINAGE AREA.--276 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 21...	1510	880	7.0	40	4.4	17	146	0	17
DEC. 05...	1415	805	8.2	52	3.5	17	160	0	24
JAN. 31...	0640	63	5.2	83	6.6	34	270	0	41
MAR. 29...	0835	13	10	88	11	54	320	0	54
JUNE 08...	1335	.19	15	60	15	67	308	4	38
AUG. 17...	1700	1.7	16	60	5.5	80	264	20	29

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 21...	9.9	.3	.010	.03	.5	.16	170	120	0
DEC. 05...	16	.2	.027	.12	.8	.45	203	140	13
JAN. 31...	27	.3	.052	.19	1.6	.34	338	230	12
MAR. 29...	41	.5	.015	.16	1.2	1.4	421	260	2
JUNE 08...	42	.5	.000	.46	.06	1.2	393	210	0
AUG. 17...	48	.7	.004	.82	.02	5.0	390	170	0

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT. 21...	.7	281	7.5	2.5	8.7	104	1.5	--
DEC. 05...	.6	347	7.7	7.5	10.9	91	5.5	--
JAN. 31...	1.0	566	8.0	6.0	11.7	94	2.9	--
MAR. 29...	1.4	696	7.6	14.5	9.1	88	4.4	--
JUNE 08...	2.0	644	8.4	31.0	10.6	141	6.5	.20
AUG. 17...	2.7	606	8.7	32.5	13.4	182	5.8	--

BRAZOS RIVER BASIN

08092600 BRAZOS RIVER AT WHITNEY DAM, NEAR WHITNEY, TEX.

LOCATION.--Lat 31°52'00", long 97°22'00", Hill County, immediately below Whitney Dam, 4.0 miles upstream from Iron Creek, 3.4 miles upstream from gaging station near Whitney, and 7.4 miles southwest of Whitney.

DRAINAGE AREA.--26,190 sq mi, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1947 to May 1948, October 1948 to September 1972.

Water temperatures: October 1947 to May 1948, October 1948 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-31	2650	6.1	85	21	230	--	5.9	136	0	180
NOV.										
01-30	2750	6.2	85	20	--	210	--	130	0	170
DEC.										
01-31	3570	6.5	88	19	--	210	--	132	0	170
JAN.										
01-31	2600	6.2	83	17	180	--	4.8	138	0	150
FEB.										
01-29	508	5.0	83	16	--	160	--	141	0	140
MAR.										
01-31	449	4.9	86	16	--	160	--	153	0	140
APR.										
01-30	452	5.1	87	16	140	--	4.5	160	0	140
MAY										
01-31	608	5.2	82	15	--	150	--	150	0	140
JUNE										
01-30	701	5.5	84	17	--	150	--	168	0	130
JULY										
01-31	1420	6.6	86	16	150	--	4.7	156	0	140
AUG.										
01-31	922	7.0	83	17	--	160	--	146	0	150
SEPT.										
01-10	1170	7.0	94	20	--	200	--	150	0	180
11-15	1010	5.8	120	27	--	290	--	132	0	270
16-17	303	7.0	94	20	--	200	--	150	0	180
18-21	558	5.8	120	27	--	290	--	132	0	270
22-30	646	7.0	94	20	--	200	--	150	0	180
WTD. AVG.	--	6.2	86	18	--	186	--	140	0	162
TIME WTD.										
AVG.	1460	5.9	86	18	--	--	--	146	0	155
TOT. LOAD (TONS)	--	8950	124000	26800	--	268000	--	203000	0	234000

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1610	1640	1600	1520	1370	1310	1300	1260	1260	1250	1310	1440
2	1510	1650	1600	1530	1370	1310	1300	1260	1260	1260	1310	1270
3	1530	1640	1590	1510	1350	1310	1290	1260	1270	1260	1320	1270
4	1500	1640	1590	1490	1350	1320	1280	1260	1270	1280	1310	1270
5	1510	1620	1580	1460	1360	1310	1280	1260	1260	1300	1270	1430
6	1510	1660	1600	1460	1350	1300	1280	1260	1260	1280	1260	1480
7	1510	1660	1590	1460	1340	1310	1280	1200	1260	---	1330	1680
8	1510	1620	1600	1460	1350	1310	1290	1250	1260	1260	1330	1690
9	1610	1620	1580	1460	1330	1310	1290	1250	1260	1260	1330	1280
10	1630	1620	1590	1460	1330	1300	1280	1260	1270	1270	1330	1280
11	1630	1610	1560	1460	1330	1300	1280	1250	1270	1270	1340	1990
12	1580	1600	1570	1460	1330	1300	1270	1250	1270	1270	1270	2080
13	1590	1610	1570	1440	1330	1300	1270	1260	1220	1280	1270	2120
14	1650	1600	1580	1420	1330	1300	1280	1260	1260	1280	1330	2160
15	1760	1600	1550	1440	1330	1300	1270	1260	1260	1260	1330	2200
16	1970	1620	1570	1440	1320	1300	1280	1260	1260	1260	1330	1330
17	2010	1640	1570	1420	---	1300	1270	1260	1260	1290	1330	1330
18	1940	1630	1580	1420	---	1310	1270	1260	1260	1280	1330	2220
19	2110	1600	1580	1400	---	1310	1280	1250	1260	1290	1270	2200
20	1750	1610	1580	1400	---	1290	1270	1270	1260	1290	1270	2250
21	1710	1610	1560	1400	---	1290	1270	1270	1260	1300	1340	2120
22	1690	1610	1560	1400	---	1290	1270	1250	1280	1260	1330	1860
23	2110	1600	1550	1410	---	1280	1270	1250	1260	1260	1330	1560
24	2160	1610	1550	1400	---	1290	1270	1260	1260	1310	1340	1530
25	2170	1600	1560	1390	1320	1300	1270	1260	1260	1310	1330	1850
26	1720	1600	1550	1390	1320	1300	1270	1250	1270	---	1280	1960
27	1720	1600	1530	1390	1320	1290	1290	1270	1270	1310	1280	1890
28	1680	1620	1530	1370	1310	1280	1270	1270	1270	---	1340	1890
29	1660	1600	1520	1370	1310	1280	1260	1260	1260	1270	1340	1990
30	1900	1600	1520	1370	---	1280	1270	1260	1260	1260	1350	1700
31	1870	---	1530	1370	---	1280	---	1250	---	1320	1360	---
MONTH	1730	1620	1570	1430	---	1300	1280	1260	1260	1280	1320	1740

08092600 BRAZOS RIVER AT WHITNEY DAM, NEAR WHITNEY, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 1,240 mg/l Sept. 11-15, 18-21; minimum, 700 mg/l May 1-31.

Hardness: Maximum, 410 mg/l Sept. 11-15, 18-21; minimum, 270 mg/l Feb. 1-29, May 1-31.

Specific conductance: Maximum daily, 2,250 micromhos Sept. 20; minimum daily, 1,200 micromhos May 7.

Water temperatures: Maximum, 28.0°C on many days during August and September; minimum, 8.0°C Feb. 9, 10, 11, 12, 13.

EXTREMES, October 1947 to May 1948, October 1948 to September 1972.--Dissolved solids: Maximum, 1,560 mg/l Oct. 1-10, 1948; minimum, 183 mg/l June 11-20, 1952.

Hardness: Maximum, 542 mg/l Oct. 1-10, 1948; minimum, 96 mg/l June 11-20, 1952.

Specific conductance: Maximum daily, 2,660 micromhos Oct. 1, 1948; minimum daily, 203 micromhos May 23, 1952.

Water temperatures: Maximum, 33.0°C July 21, 28, 29, 1957; minimum, freezing point Jan. 28, 29, 1948.

REMARKS.--Records of discharge are given for gaging station near Whitney. No appreciable inflow between dam and gaging station except during periods of heavy local rains.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AN- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	370	.3	1.2	973	300	190	5.9	1730	7.4
NOV.									
01-30	340	.3	.2	899	290	190	5.5	1620	6.9
DEC.									
01-31	330	.3	.2	886	300	190	5.2	1570	7.0
JAN.									
01-31	290	.4	.3	798	280	160	4.6	1430	7.1
FEB.									
01-29	260	.2	.3	728	270	160	4.2	1340	7.2
MAR.									
01-31	250	.3	.2	731	280	160	4.1	1300	8.0
APR.									
01-30	240	.2	.3	718	280	150	3.7	1280	6.9
MAY									
01-31	240	.3	.2	700	270	140	4.1	1250	6.8
JUNE									
01-30	240	.3	.1	716	280	140	4.0	1260	8.1
JULY									
01-31	240	.3	.4	719	280	150	3.9	1280	8.1
AUG.									
01-31	250	.2	.2	737	280	160	4.2	1310	7.3
SEP.									
01-10	320	.2	.5	893	320	190	4.9	1570	7.4
11-15	460	--	.2	1240	410	300	6.3	2150	7.6
16-17	320	.2	.5	893	320	190	4.9	1570	7.4
18-21	460	--	.2	1240	410	300	6.3	2150	7.6
22-30	320	.2	.5	893	320	190	4.9	1570	7.4
WTD. AVG.	308	.3	.4	846	291	176	4.9	1510	7.3
TIME WTD.									
AVG.	284	.3	.3	800	288	168	4.6	1430	7.4
TOT. LOAD									
(TONS)	446000	430	573	1224000	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	23.0	16.0	16.0	10.0	14.0	---	20.5	24.0	21.5	27.0	---
2	25.0	23.0	16.0	16.0	10.0	14.0	---	20.5	24.0	21.5	27.0	27.0
3	25.0	22.0	15.5	13.5	9.0	11.5	15.5	20.5	24.0	23.0	27.0	---
4	25.0	22.0	15.5	13.0	8.5	14.0	16.0	20.5	24.0	23.0	26.5	26.5
5	25.0	21.5	15.5	13.0	10.0	---	16.0	20.5	24.0	23.0	27.0	28.0
6	25.0	21.5	15.5	11.5	10.0	15.0	16.0	20.5	24.0	23.0	27.0	28.0
7	25.0	21.5	15.5	11.0	9.0	15.0	16.5	20.5	21.5	---	27.0	28.0
8	24.5	21.5	15.5	13.0	9.0	15.0	---	20.5	21.5	23.0	27.0	28.0
9	25.0	20.5	13.5	14.0	8.0	15.0	15.0	21.0	24.0	23.0	27.0	27.0
10	25.0	19.5	12.0	12.0	8.0	15.0	17.0	21.5	---	23.0	27.0	27.0
11	---	19.5	12.0	11.0	8.0	---	17.0	21.5	---	23.5	27.0	28.0
12	24.5	19.5	12.0	11.0	8.0	13.5	18.0	21.5	24.0	23.5	27.0	28.0
13	25.0	20.5	12.0	11.0	8.0	13.5	18.0	21.5	21.5	23.5	---	28.0
14	24.5	20.5	12.0	11.0	8.5	13.5	18.0	21.5	21.5	23.5	28.0	28.0
15	25.0	19.5	12.0	11.0	8.5	13.5	17.0	21.5	21.5	23.0	---	28.0
16	24.5	19.5	12.0	11.0	8.5	13.5	17.0	21.5	22.0	23.0	28.0	27.0
17	24.5	24.5	12.0	11.0	8.5	13.5	18.0	21.5	24.0	23.5	29.0	27.0
18	24.5	19.5	12.0	11.0	8.5	13.5	19.0	21.0	24.0	23.5	28.0	28.0
19	24.5	19.5	12.0	9.5	8.5	---	18.0	21.5	21.5	23.5	28.0	28.0
20	24.5	19.0	12.0	9.5	8.5	13.5	19.0	21.5	21.5	23.5	---	28.0
21	23.5	19.0	12.0	9.5	8.5	14.0	19.0	21.5	21.5	23.5	28.0	28.0
22	23.5	19.0	13.0	9.5	8.5	14.0	18.0	21.0	21.5	23.5	28.0	28.0
23	23.5	18.0	12.0	9.5	10.0	15.0	18.0	21.5	23.5	23.5	28.0	28.0
24	23.5	18.0	---	9.5	10.0	15.0	19.0	23.5	21.5	23.5	28.0	28.0
25	23.5	17.0	12.0	9.5	10.0	---	21.0	23.5	21.5	23.5	28.0	28.0
26	23.5	18.0	12.0	10.0	8.5	---	21.0	23.5	21.5	---	27.0	27.0
27	23.0	18.0	12.0	10.0	8.5	15.0	20.5	23.5	22.0	23.5	27.0	27.0
28	23.0	18.0	12.0	10.0	13.5	15.0	20.5	23.5	22.0	---	28.0	27.0
29	23.0	16.0	16.0	10.0	14.0	15.5	18.0	23.5	22.0	23.5	28.0	27.0
30	22.0	16.0	13.5	10.0	---	15.5	18.0	23.5	22.0	---	28.0	27.0
31	22.0	---	16.0	10.0	---	15.5	---	24.0	---	23.5	28.0	---
MONTH	24.0	20.0	13.5	11.0	9.0	14.5	18.0	21.5	22.5	23.5	27.5	27.5

BRAZOS RIVER BASIN

08093500 AQUILLA CREEK NEAR AQUILLA, TEX.

LOCATION.--Lat 31°50'40", long 97°12'06", Hill County, at gaging station at bridge on Farm Road 1304, 1.0 mile southeast of Aquilla, and 1.2 miles downstream from Cobb Creek.

DRAINAGE AREA.--306 sq mi.

PERIOD OF RECORD.--Chemical analyses: May 1965 to June 1966, October 1967 to September 1972.

Chemical and biochemical analyses: January 1968 to September 1972.

Water temperatures: May 1965 to June 1966, October 1967 to September 1972.

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 952 mg/l Apr. 1-27; minimum, 135 mg/l Oct. 19-21.

Hardness: Maximum, 450 mg/l Apr. 1-27; minimum, 100 mg/l Oct. 19-21.

Water temperatures: Minimum, 2.0°C Jan. 5.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-03	28	12	70	4.4	45	--	4.3	174	0	120
04-05	127	9.6	44	2.2	--	27	--	114	0	59
06-13	70	12	70	4.4	45	--	4.3	174	0	120
14-18	116	14	110	7.6	--	83	--	258	6	200
19-21	7320	10	38	1.5	--	6.0	--	102	0	22
22-23	64	12	70	4.4	45	--	4.3	174	0	120
24-31	18	14	110	7.6	--	83	--	258	6	200
NOV.										
01-17	7.9	14	150	13	--	98	--	336	0	260
18-25	104	10	100	6.0	--	63	--	228	0	170
26-31	26	14	150	13	--	98	--	336	0	260
DEC.										
01-05	216	6.0	120	7.3	--	57	--	248	0	170
06-08	553	5.2	74	3.1	--	23	--	148	0	92
09-11	3360	4.9	60	2.1	--	12	--	140	0	50
12-31	124	6.0	120	7.3	--	57	--	248	0	170
JAN.										
01-02	362	9.2	140	8.9	70	--	3.2	280	16	210
03-06	596	11	78	4.1	--	30	--	178	0	94
07-31	63	9.2	140	8.9	70	--	3.2	280	16	210
FEB.										
01-29	47	3.4	150	11	--	97	--	312	0	280
MAR.										
01-27	42	7.7	150	13	--	140	--	340	0	330
28-31	31	8.7	94	7.2	--	82	--	200	0	200
APR.										
01-27	15	12	160	15	150	--	5.0	416	0	320
28-30	87	9.9	98	7.0	--	74	--	170	0	210
MAY										
01-11	174	2.1	110	6.2	--	73	--	224	0	190
12...	1270	5.5	48	2.0	--	9.8	--	107	0	37
13-31	15	2.1	110	6.2	--	73	--	224	0	190
JUNE										
01-30	3.2	2.1	110	6.2	--	73	--	224	0	190
JULY										
01-05	755	9.6	46	1.5	9.9	--	3.7	104	0	40
06-09	23	11	76	4.2	--	41	--	174	0	110
10-31	5.2	10	120	9.3	--	110	--	312	0	240
AUG.										
01-31	2.9	5.2	88	10	--	210	--	328	0	330
SEP.										
01-30	13	10	55	2.9	--	37	--	148	0	85
WTD. AVG.										
TIME WTD.	--	8.1	67	3.5	--	26	--	155	1	81
AVG.										
TOT. LOAD	154	7.8	114	8.4	--	93	--	267	1	217
(TONS)	--	1210	10000	523	--	3370	--	23100	111	12200

BRAZOS RIVER BASIN

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08093500 AQUILLA CREEK NEAR AQUILLA, TEX.--Continued

EXTREMES, October 1965 to June 1966, October 1967 to September 1972.--Dissolved solids: Maximum, 996 mg/l Apr. 1-16, 1971; minimum, 135 mg/l Oct. 19-21, 1971.
Hardness: Maximum, 450 mg/l Apr. 1-27, 1972; minimum, 69 mg/l Mar. 21, 1968.
Specific conductance (1965-66, 1967-71): Maximum daily, 1,990 micromhos Aug. 30, 1968; minimum daily, 219 micromhos Oct. 9, 1968, May 30, 1971.
Water temperatures: Maximum, 30.0°C Aug. 18, 1968, July 23, 1969, Aug. 9, 12, 1970; minimum, 1.0°C Jan. 30, 1966, Jan. 8, 1968, Jan. 9, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DTS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-03	17	.6	1.6	362	190	50	1.4	569	7.9
04-05	9.4	--	2.4	218	120	25	1.1	356	7.6
06-13	17	.6	1.6	362	190	50	1.4	569	7.9
14-18	35	--	3.4	594	310	84	2.1	887	8.3
19-21	2.8	--	1.0	135	100	17	.3	226	7.5
22-23	17	.6	1.6	362	190	50	1.4	569	7.9
24-31	35	--	3.4	594	310	84	2.1	887	8.3
NOV.									
01-17	60	.6	.9	768	430	150	2.1	1160	8.2
18-25	32	--	.6	502	280	92	1.6	784	8.1
26-31	60	.6	.9	768	430	150	2.1	1160	8.2
DEC.									
01-05	39	.4	2.0	527	320	120	1.4	827	7.6
06-08	16	--	2.2	296	200	76	.7	498	7.4
09-11	8.6	--	1.6	214	160	44	.4	368	7.3
12-31	39	.4	2.0	527	320	120	1.4	827	7.6
JAN.									
01-02	50	.4	1.4	655	390	130	1.5	991	8.3
03-06	20	--	1.6	332	210	66	.9	535	7.8
07-31	50	.4	1.4	655	390	130	1.5	991	8.3
FEB.									
01-29	64	.6	1.8	766	430	170	2.0	1150	8.1
MAR.									
01-27	80	.7	2.5	911	440	160	3.0	1320	8.1
28-31	47	--	1.5	542	260	100	2.2	838	7.7
APR.									
01-27	84	.8	1.0	952	450	110	3.1	1410	8.1
28-31	44	--	2.8	543	270	130	1.9	836	7.3
MAY									
01-11	37	.6	4.1	549	300	110	1.8	855	8.1
12...	4.8	--	3.0	177	130	40	.4	325	6.6
13-31	37	.6	4.1	549	300	110	--	855	8.1
JUNE									
01-30	37	6.0	4.1	549	300	100	--	855	8.1
JULY									
01-05	5.6	.4	3.4	183	120	36	.4	295	6.5
06-09	20	--	2.2	362	210	64	1.2	581	6.7
10-31	45	--	1.0	682	340	80	2.5	1030	8.0
AUG.									
01-31	70	.7	.8	883	260	0	--	1350	7.3
SEP.									
01-30	11	.7	1.0	279	150	28	--	456	7.5
WTD. AVG.									
TIME WTD.	16	.5	1.7	289	182	54	--	462	7.5
AVG.									
TOT. LOAD	47	1.2	2.0	630	320	97	--	959	7.9
(TONS)	2450	22	252	43200	--	--	--	--	--

BRAZOS RIVER BASIN

08093500 AQUILLA CREEK NEAR AQUILLA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 21...	1400	1210	10	46	1.0	15	128	0	35
DEC. 05...	1235	318	9.4	84	3.5	31	194	0	96
JAN. 31...	0520	54	7.5	140	6.9	81	280	0	220
MAR. 29...	0935	28	8.0	91	5.6	74	188	0	180
JUNE 08...	1020	2.8	9.0	120	10	170	388	0	310
AUG. 17...	1600	1.5	5.6	120	18	270	548	0	370

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 21...	5.4	.3	.010	.04	.4	.41	195	120	14
DEC. 05...	19	.3	.031	.07	1.6	.82	345	220	65
JAN. 31...	56	.5	.027	.27	2.0	.30	654	370	140
MAR. 29...	45	.5	.066	.20	1.2	.28	503	250	96
JUNE 08...	62	.8	.000	.02	.03	.72	884	350	36
AUG. 17...	80	1.0	.012	.11	.2	.23	1130	380	0

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT. 21...	.6	282	7.3	21.0	6.8	76	2.0	--
DEC. 05...	.9	548	7.7	6.5	12.3	99	3.9	--
JAN. 31...	1.8	986	7.9	4.5	12.5	96	3.2	--
MAR. 29...	2.0	786	7.1	16.5	7.0	71	7.6	--
JUNE 08...	4.0	1300	8.1	24.5	11.8	140	9.1	.22
AUG. 17...	6.0	1550	7.9	29.0	9.1	117	2.5	--

BRAZOS RIVER BASIN

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08093500 AQUILLA CREEK NEAR AQUILLA, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	526	1100	836	---	1080	1190	---	856	---	---	1280	---
2	531	1120	818	791	1000	1220	1140	564	---	---	1080	---
3	543	1100	674	525	1080	1250	1120	862	---	---	1050	---
4	312	1070	613	---	1100	1280	1250	928	---	319	1140	---
5	396	1190	613	432	---	1290	1200	955	---	274	1390	---
6	440	1100	421	649	1070	1300	1340	924	---	453	1380	---
7	591	1140	522	839	1090	1320	1340	723	---	542	1280	---
8	591	1080	552	781	1120	1300	---	720	---	659	1300	---
9	486	---	440	889	1130	1270	---	773	---	669	1300	---
10	588	1240	296	899	1120	1280	1430	844	---	816	1270	---
11	618	1220	557	930	1120	1320	1430	856	---	813	1340	---
12	638	1270	558	1030	1150	---	1470	325	---	819	1360	---
13	677	1320	680	---	---	1350	1470	630	---	881	---	---
14	738	1330	767	1060	1170	1350	1520	---	---	881	1510	---
15	742	1330	607	972	1170	1360	1480	686	---	916	1660	---
16	793	1330	663	1040	---	1350	1410	---	---	954	1650	---
17	793	1320	746	1060	1160	1370	---	826	---	905	1660	---
18	1040	743	---	1060	1180	---	---	856	---	970	---	496
19	242	813	---	1090	---	1400	1460	892	---	935	---	471
20	203	875	853	1090	---	1390	1510	947	---	1040	---	515
21	233	---	891	1070	1190	1400	1450	---	---	1040	---	499
22	508	916	899	---	1190	1400	1500	1070	---	1060	---	375
23	630	663	949	1080	---	1420	1500	1070	---	1130	1420	446
24	759	605	987	1080	1210	1370	1540	---	---	1080	---	405
25	---	878	987	1100	1210	---	1520	1120	---	1130	---	360
26	917	996	969	---	1230	1430	1540	---	---	1240	---	407
27	953	1040	996	1100	1220	1100	1460	---	---	1250	---	428
28	957	1050	953	1060	1270	762	971	---	---	1240	---	466
29	991	1050	987	1000	1260	804	704	---	---	---	---	506
30	1050	1060	982	876	---	875	---	---	---	1250	---	553
31	---	---	948	1010	---	924	---	---	---	1240	---	---
MONTH	637	1070	750	943	1150	1250	1360	---	---	908	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	20.0	10.0	---	7.0	17.0	---	20.0	---	---	24.0	---
2	24.0	20.0	10.0	12.0	8.0	12.0	17.0	21.0	---	---	24.0	---
3	25.0	18.0	8.0	12.0	4.0	11.0	18.0	20.0	---	---	23.0	---
4	20.0	18.0	8.0	---	5.0	14.0	15.0	20.0	---	23.0	24.0	---
5	20.0	16.0	7.0	2.0	---	14.0	17.0	21.0	---	23.0	24.0	---
6	21.0	16.0	8.0	3.0	7.0	13.0	18.0	20.0	---	22.0	24.0	---
7	20.0	15.0	8.0	5.0	6.0	15.0	20.0	20.0	---	23.0	24.0	---
8	20.0	14.0	10.0	5.0	7.0	15.0	---	19.0	---	23.0	24.0	---
9	21.0	---	11.0	9.0	8.0	15.0	---	20.0	---	23.0	24.0	---
10	22.0	14.0	9.0	10.0	10.0	15.0	19.0	20.0	---	24.0	24.0	---
11	20.0	14.0	10.0	9.0	8.0	16.0	20.0	20.0	---	23.0	24.0	---
12	18.0	13.0	10.0	9.0	9.0	---	22.0	19.0	---	23.0	24.0	---
13	18.0	15.0	10.0	---	---	17.0	22.0	21.0	---	23.0	---	---
14	19.0	16.0	12.0	5.0	10.0	18.0	22.0	---	---	23.0	24.0	---
15	20.0	17.0	12.0	12.0	10.0	18.0	22.0	21.0	---	23.0	25.0	---
16	21.0	18.0	12.0	5.0	---	18.0	21.5	---	---	23.0	25.0	---
17	21.0	18.0	11.0	5.0	10.0	17.0	---	22.0	---	23.0	26.0	---
18	22.0	16.0	---	8.0	11.0	---	---	22.0	---	23.0	---	26.0
19	20.0	14.0	---	9.0	---	18.0	22.0	22.0	---	23.0	---	26.0
20	20.0	13.0	11.0	13.0	---	17.0	22.0	22.0	---	23.0	---	26.0
21	20.0	---	11.0	12.0	13.0	18.0	21.0	---	---	23.0	---	25.0
22	19.0	12.0	10.0	---	14.0	18.0	22.0	22.0	---	23.0	---	22.0
23	19.0	10.0	11.0	15.0	---	19.0	22.0	21.0	---	24.0	24.0	23.0
24	18.0	9.0	12.0	13.0	16.0	19.0	21.0	---	---	23.0	---	22.0
25	---	9.0	13.0	10.0	16.0	---	20.0	24.0	---	23.0	---	22.0
26	19.0	11.0	14.0	---	14.0	18.0	20.0	---	---	24.0	---	24.0
27	18.0	11.0	15.0	10.0	16.0	20.0	18.0	---	---	23.0	---	24.0
28	20.0	12.0	14.0	7.0	16.0	20.0	18.0	---	---	24.0	---	25.0
29	20.0	10.0	15.0	5.0	16.0	18.0	18.0	---	---	---	---	25.0
30	20.0	10.0	15.0	5.0	---	15.0	---	---	---	24.0	---	21.0
31	---	---	14.0	5.0	---	15.0	---	---	---	24.0	---	---
MONTH	20.5	14.5	11.0	8.5	10.5	16.5	20.0	---	---	23.0	---	---

BRAZOS RIVER BASIN

08096500 BRAZOS RIVER AT WACO, TEX.

LOCATION.--Lat 31°32'06", long 97°04'22", McLennan County, at gaging station on downstream side of pier of Washington Avenue bridge in Waco.

DRAINAGE AREA.--28,530 sq mi, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical and biochemical analyses: March 1968 to September 1972.
Pesticide analyses: March 1968 to September 1972.

REMARKS.--See Part 1 of this reprot for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 21...	1200	14500	7.8	54	6.2	73	116	0	70
DEC. 05...	1140	2450	5.3	82	18	180	140	0	150
JAN. 31...	0355	1260	5.9	84	13	110	180	0	120
MAR. 29...	1035	270	3.2	82	14	120	180	0	110
JUNE 08...	0850	424	4.8	84	15	150	166	0	130
AUG. 17...	1500	171	5.6	87	16	160	156	0	150

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 21...	100	.3	.010	.07	.5	.68	376	160	65
DEC. 05...	290	.3	.013	.02	.3	.12	796	280	170
JAN. 31...	170	.3	.010	.14	.6	.050	588	260	110
MAR. 29...	170	.3	.012	.03	.2	.030	591	260	120
JUNE 08...	230	.3	.006	.05	.5	.070	698	270	130
AUG. 17...	250	.3	.003	.08	.05	.020	753	280	160

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT. 21...	2.5	651	7.1	22.0	6.6	75	2.2	--
DEC. 05...	4.8	1410	7.7	10.5	10.8	96	2.3	--
JAN. 31...	3.0	1010	8.0	8.0	10.8	91	2.4	--
MAR. 29...	3.1	1040	7.8	19.5	8.7	94	2.2	--
JUNE 08...	4.0	1220	7.6	27.0	6.4	79	1.0	.02
AUG. 17...	4.3	1240	7.6	31.0	6.9	92	1.9	--

BRAZOS RIVER BASIN

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08096500 BRAZOS RIVER AT WACO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
OCT. 21...	1200	14500	.00	.00	.03	.03	.02	.00	.00	.00
JAN. 31...	0355	1260	.00	.00	.00	.00	.00	.00	.00	.00
MAR. 29...	1035	270	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 08...	0850	--	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 17...	1500	171	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT. 21...	.00	.0	.00	.00	.00	.00	.00	.00	.00
JAN. 31...	.00	.0	.01	.00	.00	.00	.00	.00	.00
MAR. 29...	.00	.0	.00	.00	.00	.00	.00	.00	.00
JUNE 08...	.00	.0	.00	.00	.00	.00	.00	.00	.00
AUG. 17...	.00	.0	.01	.00	.00	.00	.00	.00	.00

BRAZOS RIVER BASIN

08098290 BRAZOS RIVER NEAR HIGHBANK, TEX.

LOCATION.--Lat 31°08'02", long 96°49'29", Falls County, at gaging station at bridge on Farm Road 413, 1.4 miles downstream from Highbank Slough and Spring Branch, and 2.6 miles south of Highbank.

DRAINAGE AREA.--29,421 sq mi, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1972.

Chemical and biochemical analyses: January 1968 to September 1972.

Water temperatures: November 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-08	613	6.1	63	12	120	--	4.5	135	0	100
09-20	2430	6.9	82	19	--	210	--	140	0	160
21-31	10200	6.1	63	12	120	--	4.5	135	0	100
NOV.										
01-18	4400	6.9	72	17	--	190	--	138	0	140
19-23	2770	9.1	57	7.4	--	72	--	138	0	73
24-30	2380	6.9	72	17	--	190	--	138	0	140
DEC.										
01-07	3550	6.9	79	14	--	150	--	142	0	130
08-18	11000	7.5	62	8.0	--	70	--	142	0	71
19-31	5240	6.9	79	14	--	150	--	142	0	130
JAN.										
01-21	5210	7.0	78	14	130	--	4.4	156	0	120
22-31	1580	6.9	77	10	--	86	--	186	0	90
FEB.										
01-29	1150	5.5	79	10	--	86	--	197	0	93
MAR.										
01-31	559	3.0	84	15	--	130	--	186	0	130
APR.										
01-30	598	4.8	84	16	130	--	4.5	188	0	120
MAY										
01-11	1110	6.1	78	11	--	100	--	164	0	110
12-20	1270	7.0	59	5.5	--	37	--	142	0	63
21-31	1300	6.1	78	11	--	100	--	164	0	110
JUNE										
01-30	853	5.8	81	18	--	150	--	172	0	130
JULY										
01-04	555	6.1	82	16	140	--	4.7	158	0	130
05-06	3140	6.9	66	11	--	93	--	148	0	91
07-14	868	7.4	52	5.6	--	40	--	144	0	57
15...	691	6.9	66	11	--	93	--	148	0	91
16-31	1840	6.1	82	16	140	--	4.7	158	0	130
AUG.										
01-31	878	7.8	82	18	--	160	--	160	0	150
SEPT.										
01-30	797	6.4	94	20	--	200	--	152	0	190
WTD. AVG.	--	6.7	73	13	--	130	--	150	0	114
TIME WTD.										
AVG.	2250	6.2	78	14	--	135	--	162	0	124
TOT. LOAD										
(TONS)	--	14800	163000	29500	--	290000	--	335000	0	255000

BRAZOS RIVER BASIN

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08098290 BRAZOS RIVER NEAR HIGHBANK, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 887 mg/l Sept. 1-30; minimum, 279 mg/l July 7-14.
 Hardness: Maximum, 320 mg/l Sept. 1-30; minimum, 150 mg/l July 7-14.
 Specific conductance: Maximum daily, 1,820 micromhos Sept. 26; minimum daily, 371 micromhos July 7.
 Water temperatures: Maximum, 29.0°C on several days during summer months; minimum, 5.0°C Feb. 4.

EXTREMES, November 1967 to September 1972.--Dissolved solids: Maximum, 1,040 mg/l Dec. 10-14, 1967; minimum, 178 mg/l July 30-31, 1971.
 Hardness: Maximum, 350 mg/l Dec. 10-14, 1967; minimum, 120 mg/l July 30-31, 1971.
 Specific conductance: Maximum daily, 1,870 micromhos Dec. 13, 1967; minimum daily, 298 micromhos May 11, 1968, July 31, 1971.
 Water temperatures: Maximum, 30.0°C on several days during July and August; minimum, 1.0°C Jan. 9, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-08	180	.4	.3	546	210	96	3.5	1000	7.2
09-20	320	--	.7	871	280	170	5.4	1560	7.2
21-31	180	.4	.3	546	210	96	3.5	1000	7.2
NOV.									
01-18	280	.3	.3	776	250	140	5.2	1400	7.1
19-23	98	--	.8	388	170	60	2.4	694	7.2
24-30	280	.3	.3	776	250	140	5.2	1400	7.1
DEC.									
01-07	240	.3	.5	686	250	140	4.1	1200	7.1
08-18	100	--	.9	396	190	71	2.2	704	7.0
19-31	240	.3	.5	686	250	140	4.1	1200	7.1
JAN.									
01-21	200	.3	.5	632	250	120	3.5	1120	8.2
22-31	120	--	1.1	487	230	80	2.5	857	8.1
FEB.									
01-29	120	.3	.9	490	240	76	2.4	859	7.9
MAR.									
01-31	190	.3	.5	642	270	120	3.4	1130	8.1
APR.									
01-30	200	.2	.6	664	280	120	3.4	1190	7.5
MAY									
01-11	150	.3	.7	544	240	100	2.9	957	6.9
12-20	45	--	1.5	293	170	53	1.2	505	7.1
21-31	150	.3	.7	544	240	100	2.9	957	6.9
JUNE									
01-30	220	.3	.5	691	280	140	3.8	1220	8.2
JULY									
01-04	230	.3	.2	692	270	140	3.8	1250	7.6
05-06	140	--	.6	482	210	88	2.8	858	6.7
07-14	43	--	.7	279	150	35	1.4	484	7.0
15...	140	--	.6	482	210	88	2.8	858	6.7
16-31	230	.3	.2	692	270	140	3.8	1250	7.6
AUG.									
01-31	240	.3	.3	729	280	150	4.1	1300	7.6
SEP.									
01-30	300	.3	.3	887	320	190	4.9	1560	7.5
WTD. AVG.	194	.3	.5	608	238	114	3.6	1080	7.4
TIME WTD.									
AVG.	201	.3	.5	641	256	122	3.6	1140	7.6
TOT. LOAD (TONS)	432000	528	1220	1352000	--	--	--	--	--

BRAZOS RIVER BASIN

08098290 BRAZOS RIVER NEAR Highbank, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT. 22...	1335	12400	8.7	60	7.2	67	126	0
DEC. 06...	1025	4040	7.7	67	12	110	128	0
FEB. 07...	1320	1220	6.5	82	11	88	186	0
APR. 11...	1200	850	4.5	80	15	140	168	0
JUNE 19...	1130	650	5.7	80	15	140	156	0
AUG. 21...	1145	145	7.7	78	19	170	168	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT. 22...	70	100	.3	.010	.00	.4	.72	381	180
DEC. 06...	100	170	.3	.020	.00	.7	.33	539	220
FEB. 07...	91	140	.3	.027	.00	.6	.13	508	250
APR. 11...	130	210	.5	.000	.00	.00	--	664	260
JUNE 19...	130	220	.4	.012	.00	.09	.16	667	260
AUG. 21...	140	240	.4	.000	.00	.00	.12	745	270

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 22...	76	2.2	696	7.5	21.0	7.0	78	3.0
DEC. 06...	110	3.3	971	7.7	9.0	10.0	86	2.6
FEB. 07...	97	2.4	946	8.2	8.0	11.9	100	1.3
APR. 11...	120	3.8	1180	8.2	23.0	11.6	133	--
JUNE 19...	130	3.8	1190	8.0	29.0	9.4	121	2.8
AUG. 21...	140	4.4	1320	7.8	31.5	9.2	124	3.6

BRAZOS RIVER BASIN

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08098290 BRAZOS RIVER NEAR HIGHBANK, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	933	1110	1310	1360	866	1110	1010	1060	1220	1270	1320	1240
2	1060	1150	1390	1330	873	1100	1110	814	1230	1260	1330	1370
3	1250	1220	1230	1270	816	1140	1150	883	1240	1200	1330	1370
4	1240	1300	1160	1170	834	1170	1120	701	1230	1160	1310	1380
5	1250	1350	1040	889	1160	1160	1120	723	---	906	1310	1380
6	1240	1450	1000	978	1100	1150	1130	883	1220	685	1310	1410
7	1090	1540	929	1000	996	1140	1190	930	1220	371	1310	1420
8	1350	1570	835	1040	926	1110	1220	835	1220	384	1320	1410
9	1470	1580	857	1090	799	1100	1210	718	1110	424	1330	1470
10	1500	1570	636	1100	683	1140	1200	904	1220	484	1310	1460
11	1510	1570	574	1100	890	830	1190	716	1240	532	1300	1490
12	1520	1500	527	1250	799	1210	1220	558	1250	596	1280	1530
13	1510	1570	699	1150	796	1220	1230	478	1240	550	1240	1550
14	1510	1560	772	974	656	1230	1250	559	1220	536	1240	1540
15	1540	1560	703	1160	1060	1230	1250	518	1160	983	1280	1560
16	1540	1560	717	1150	1080	1230	1260	743	1210	1060	1290	1610
17	1610	1550	695	1120	1000	1210	1260	751	1190	1200	1250	1720
18	1760	1220	722	1230	934	1150	1260	550	1160	1230	1190	1800
19	1760	648	878	1150	857	1150	1250	417	1190	1250	1240	1770
20	1480	589	892	1030	814	1140	1250	464	1200	1260	1290	1740
21	731	748	895	1000	788	1110	1210	828	1200	1220	1320	1740
22	640	693	1130	907	775	1130	1220	970	1160	1190	1340	1660
23	914	796	1270	833	752	1150	1240	1080	1240	1290	1340	1630
24	914	1000	1370	872	735	1110	1190	1120	1260	1300	1320	1700
25	929	1200	1370	953	703	1170	1230	1080	1260	1300	1310	1790
26	929	1220	1370	849	670	1160	1190	1150	1260	1300	1170	1820
27	941	1250	1370	945	721	1150	1200	1220	1270	1320	1300	1440
28	953	1380	1360	852	870	1100	1170	1230	1260	1320	1340	1310
29	953	1350	1360	879	996	1030	1070	1220	1240	1320	1340	1700
30	945	1310	1330	684	---	1010	1090	1210	1270	1310	1350	1800
31	819	---	1340	775	---	1050	---	1220	---	1320	1350	---
MONTH	1220	1200	1020	1040	860	1130	1190	856	1220	1020	1300	1560

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	22.0	12.0	14.0	8.0	18.0	17.0	24.0	26.0	28.0	28.0	27.0
2	25.0	22.0	12.0	13.0	9.0	12.0	18.0	22.0	25.0	27.0	28.0	28.0
3	25.0	21.0	9.0	13.0	6.0	13.0	19.0	23.0	25.0	27.0	27.0	27.0
4	24.0	19.0	10.0	10.0	5.0	15.0	17.0	23.0	25.0	29.0	27.0	28.0
5	24.0	18.0	9.0	8.0	7.0	15.0	19.0	23.0	---	15.0	27.0	28.0
6	24.0	19.0	10.0	7.0	11.0	15.0	21.0	22.0	26.0	25.0	26.0	27.0
7	23.0	17.0	9.0	9.0	8.0	18.0	22.0	22.0	26.0	25.0	27.0	28.0
8	23.0	17.0	12.0	11.0	8.0	19.0	21.0	21.0	26.0	25.0	28.0	28.0
9	23.0	18.0	14.0	12.0	8.0	15.0	19.0	22.0	27.0	---	28.0	28.0
10	21.0	17.0	13.0	13.0	10.0	16.0	21.0	23.0	27.0	---	28.0	29.0
11	20.0	18.0	12.0	11.0	11.0	17.0	22.0	21.0	26.0	---	27.0	29.0
12	20.0	18.0	12.0	10.0	10.0	18.0	23.0	22.0	27.0	---	26.0	28.0
13	21.0	19.0	12.0	12.0	10.0	19.0	24.0	23.0	27.0	---	27.0	28.0
14	21.0	19.0	14.0	10.0	11.0	19.0	24.0	24.0	27.0	---	28.0	28.0
15	22.0	20.0	14.0	8.0	8.0	20.0	24.0	24.0	28.0	---	27.0	28.0
16	24.0	20.0	13.0	7.0	13.0	17.0	21.0	25.0	27.0	---	27.0	28.0
17	---	20.0	13.0	8.0	13.0	17.0	21.0	23.0	27.0	28.0	29.0	28.0
18	25.0	19.0	12.0	9.0	14.0	17.0	21.0	25.0	26.0	28.0	28.0	28.0
19	25.0	12.0	12.0	12.0	13.0	17.0	23.0	25.0	28.0	28.0	28.0	27.0
20	24.0	15.0	13.0	14.0	13.0	19.0	23.0	25.0	28.0	28.0	28.0	26.0
21	22.0	15.0	13.0	15.0	16.0	19.0	23.0	25.0	29.0	27.0	29.0	27.0
22	21.0	15.0	12.0	15.0	17.0	19.0	21.0	25.0	29.0	28.0	29.0	25.0
23	21.0	13.0	13.0	13.0	17.0	20.0	21.0	25.0	28.0	28.0	27.0	24.0
24	22.0	12.0	13.0	15.0	17.0	22.0	22.0	26.0	28.0	28.0	25.0	25.0
25	21.0	12.0	14.0	13.0	19.0	19.0	23.0	26.0	28.0	29.0	27.0	25.0
26	22.0	14.0	15.0	13.0	17.0	20.0	20.0	28.0	28.0	29.0	28.0	26.0
27	21.0	14.0	16.0	15.0	16.0	22.0	21.0	27.0	28.0	29.0	28.0	25.0
28	22.0	15.0	16.0	10.0	15.0	21.0	19.0	27.0	29.0	29.0	29.0	26.0
29	23.0	15.0	15.0	8.0	18.0	18.0	21.0	27.0	29.0	29.0	29.0	26.0
30	22.0	13.0	15.0	7.0	---	17.0	23.0	27.0	28.0	28.0	28.0	20.0
31	22.0	---	15.0	7.0	---	15.0	---	25.0	---	29.0	28.0	---
MONTH	22.5	17.0	12.5	11.0	12.0	17.5	21.0	24.0	27.0	---	27.5	27.0

BRAZOS RIVER BASIN

08102500 LEON RIVER NEAR BELTON, TEX.

LOCATION.--Lat 31°04'12", long 97°26'28", Bell County, at gaging station, 1,400 feet upstream from bridge on Farm Road 817, 1 mile upstream from bridge on U.S. Highway 81, 2 miles northeast of Belton, and 3.2 miles downstream from Belton Dam.

DRAINAGE AREA.--3,572 sq mi.

PERIOD OF RECORD.--Water temperatures: March 1957 to September 1970.

EXTREMES, October 1971 to September 1972.--Water temperatures: Maximum, 34.5°C on several days during August; minimum, 10.5°C on several days during February.

EXTREMES, March 1957 to September 1972.--Water temperatures: Maximum, 36.0°C June 17, 1967; minimum, 7.0°C Feb. 25, March 8-11, 1960.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

MAXIMUM TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972
(RECORDER WITH TEMPERATURE ATTACHMENT, CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.5	22.5	17.0	13.5	11.0	13.0	15.5	20.0	22.0	32.5	34.0	31.5
2	23.5	22.5	17.0	13.5	11.0	13.0	16.0	20.0	22.0	32.5	34.0	31.5
3	23.5	22.5	16.5	13.5	11.0	13.0	16.0	20.5	22.0	32.5	34.0	31.5
4	23.5	22.5	15.5	13.0	10.5	13.0	16.0	21.0	22.5	32.5	34.0	31.5
5	23.5	22.0	15.5	13.0	10.5	13.0	16.0	21.0	24.0	32.5	34.0	31.5
6	23.5	21.5	15.5	12.5	10.5	13.0	16.5	21.0	24.0	32.0	34.0	31.5
7	23.5	21.5	15.5	12.5	10.5	12.0	16.5	21.0	24.0	32.0	34.0	31.0
8	23.5	21.0	15.0	12.0	10.5	12.0	16.5	21.0	24.0	31.5	34.0	31.0
9	23.5	21.0	15.0	12.0	10.5	12.0	16.5	21.0	24.0	32.0	34.0	31.0
10	23.0	21.0	15.0	12.0	10.5	12.5	17.5	19.5	24.0	32.0	34.0	31.0
11	22.5	20.5	15.0	12.0	10.5	12.5	17.5	19.0	24.0	32.0	34.0	31.5
12	22.5	20.5	15.0	12.0	10.5	12.5	17.5	19.0	25.5	32.5	34.0	31.5
13	22.5	20.0	15.0	12.0	10.5	12.5	17.5	19.5	26.0	32.5	34.0	31.5
14	22.5	20.0	15.0	12.0	11.0	12.5	18.0	20.0	27.0	33.0	34.0	31.5
15	22.5	20.0	15.0	12.0	11.0	13.0	19.0	20.5	27.0	32.5	34.0	32.0
16	22.5	20.0	14.5	12.0	11.0	13.0	19.5	21.0	26.5	32.5	34.5	32.0
17	22.5	20.0	14.5	11.5	11.0	13.0	19.5	21.0	25.0	32.5	34.5	31.5
18	22.5	20.0	14.5	11.5	11.0	14.0	19.5	20.0	25.5	32.5	34.5	31.5
19	22.5	19.5	14.5	11.5	11.0	14.0	20.0	20.0	26.0	33.0	34.5	31.0
20	22.5	19.0	14.0	11.5	11.5	13.5	20.0	20.0	27.0	33.0	34.5	31.5
21	22.5	18.5	14.0	11.5	12.0	13.0	19.5	20.5	27.0	33.0	34.5	31.5
22	22.5	18.5	14.0	11.5	12.0	13.0	20.0	20.5	28.0	33.0	34.5	31.0
23	22.5	18.5	14.0	11.5	12.0	13.0	20.0	20.5	28.5	33.0	34.5	30.5
24	22.5	18.5	14.0	11.5	12.5	13.0	20.5	20.5	29.0	33.5	34.5	30.0
25	22.5	18.5	14.0	11.5	13.0	13.0	20.5	21.0	29.0	33.5	34.5	30.0
26	22.5	18.0	14.0	11.5	13.0	14.0	19.0	21.0	30.0	34.0	34.5	30.0
27	22.5	17.5	14.0	11.5	13.0	14.5	20.0	21.5	30.5	34.0	34.5	27.5
28	22.5	17.5	14.0	11.5	13.0	14.5	20.0	21.5	30.5	34.0	33.5	27.0
29	22.5	17.5	13.5	11.0	12.5	15.5	20.0	22.0	31.5	34.0	32.0	26.5
30	22.5	17.0	13.5	11.0	---	15.5	20.0	22.0	32.0	34.0	31.5	26.5
31	22.5	---	13.5	11.0	---	15.0	---	22.0	---	34.0	31.5	---
MONTH	23.0	20.0	14.5	12.0	11.5	13.5	18.5	20.5	26.5	33.0	34.0	30.5

BRAZOS RIVER BASIN

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08102500 LEON RIVER NEAR BELTON, TEX.--Continued

MINIMUM TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972
 (RECORDER WITH TEMPERATURE ATTACHMENT, CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.5	22.5	17.0	13.5	11.0	12.0	15.0	20.0	22.0	31.5	34.0	31.5
2	23.5	22.5	16.5	13.5	11.0	13.0	15.5	20.0	22.0	31.5	34.0	31.5
3	23.5	22.0	15.5	13.0	10.5	13.0	16.0	20.0	22.5	32.0	33.5	31.5
4	23.5	22.0	15.5	13.0	10.5	13.0	16.0	20.5	23.0	32.0	33.5	31.5
5	23.5	21.5	15.5	12.5	10.5	13.0	15.5	21.0	23.0	32.0	33.5	31.5
6	23.5	21.5	15.5	12.5	10.5	12.0	15.5	21.0	24.0	32.0	33.5	31.0
7	23.5	21.0	15.5	12.0	10.5	12.0	16.5	21.0	24.0	31.5	33.5	31.0
8	23.5	21.0	15.5	12.0	10.5	12.0	16.5	21.0	24.0	31.5	34.0	31.0
9	23.0	21.0	15.5	12.0	10.5	12.0	16.5	19.0	24.0	31.5	34.0	31.0
10	22.5	20.5	15.5	12.0	10.5	12.0	16.5	19.0	24.0	32.0	34.0	31.0
11	22.5	20.5	15.5	12.0	10.5	12.5	17.5	19.0	24.0	32.0	34.0	31.0
12	22.5	20.0	15.5	12.0	10.5	12.5	17.5	19.0	24.0	32.0	34.0	31.0
13	22.5	20.0	15.5	12.0	10.5	12.5	17.5	19.0	25.0	32.5	34.0	31.0
14	22.5	20.0	15.0	12.0	10.5	12.5	17.5	19.5	25.0	32.5	34.0	31.5
15	22.5	20.0	14.5	12.0	11.0	12.5	18.0	20.0	26.0	32.0	34.0	31.5
16	22.5	20.0	14.5	11.5	11.0	12.5	19.0	20.5	25.0	32.5	34.0	31.5
17	22.5	20.0	14.5	11.5	10.5	13.0	19.5	20.0	25.0	32.5	34.5	31.0
18	22.5	19.5	14.5	11.5	11.0	13.0	19.5	20.0	25.0	32.5	34.5	31.0
19	22.5	19.0	14.0	11.5	11.0	13.5	19.5	20.0	25.5	32.5	34.5	31.0
20	22.5	18.5	14.0	11.5	11.0	13.0	19.5	20.0	25.5	33.0	34.5	31.0
21	22.5	18.5	14.0	11.5	11.5	13.0	19.5	20.0	26.0	33.0	34.5	31.0
22	22.5	18.5	14.0	11.5	11.5	13.0	19.5	20.0	26.0	33.0	34.5	30.0
23	22.5	18.5	14.0	11.0	11.5	13.0	20.0	20.5	26.5	33.0	34.0	30.0
24	22.5	18.5	14.0	11.0	12.0	13.0	20.0	20.5	27.0	33.0	34.0	29.5
25	22.5	18.0	14.0	11.5	12.0	13.0	18.5	20.5	27.5	33.5	34.0	30.0
26	22.5	17.5	14.0	11.5	12.0	13.0	18.5	21.0	28.0	33.5	34.5	27.5
27	22.5	17.5	14.0	11.5	13.0	14.0	19.0	21.0	28.0	34.0	33.5	27.0
28	22.5	17.5	13.5	11.0	12.5	14.5	20.0	21.5	28.0	34.0	32.0	26.5
29	22.5	17.0	13.5	11.0	12.0	14.5	20.0	21.5	30.5	34.0	30.0	26.5
30	22.5	17.0	13.5	11.0	---	15.0	20.0	22.0	31.5	34.0	31.0	26.0
31	22.5	---	13.5	11.0	---	15.0	---	22.0	---	34.0	31.5	---
MONTH	23.0	19.5	14.5	12.0	11.0	13.0	18.0	20.5	25.5	32.5	33.5	30.5

BRAZOS RIVER BASIN

08103900 SOUTH FORK ROCKY CREEK NEAR BRIGGS, TEX.

LOCATION.--Lat 30°54'41", long 98°02'12", Burnet County, at gaging station at bridge on Ranch Road 963, 6 miles above confluence with North Fork Rocky Creek and 7 miles west of Briggs.

DRAINAGE AREA.--34.2 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1961 to January 1964.

Chemical and biochemical analyses: January 1968 to September 1972.

Pesticide analyses: January 1968 to September 1972.

Sediment records: February 1968 to September 1971.

REMARKS.--Radiochemical analyses available from U.S. Geological Survey, Denver, Colorado.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
FEB. 04...	1200	.86	7.5	60	24	7.6	--	1.5	276	0	22	14
MAY 19...	1440	11	8.0	56	25	--	11	--	276	0	19	13

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
FEB. 04...	.3	.000	.00	.06	.000	40	286	273	5	250	22
MAY 19...	.4	.000	.07	.02	.000	120	254	269	2	240	16

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
FEB. 04...	.2	486	7.9	4.0	12.0	92	.6	190	10	0	0
MAY 19...	.3	474	8.1	27.5	8.4	105	1.2	7500	10	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
FEB. 04...	0	0	3	0	0	0	0	.2	0	1700	40
MAY 19...	0	0	8	70	0	0	0	.2	0	2200	90

BRAZOS RIVER BASIN

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08103900 SOUTH FORK ROCKY CREEK NEAR BRIGGS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
OCT. 20...	1100	.00	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
FEB. 04...	1200	.86	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOT- TOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)
OCT. 20...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.0	<1.0
FEB. 04...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.0	<1.0

DATE	DI- AZINON (UG/L)	MALA- THION (UG/L)	MALA- THION IN BOTTOM DE- POSITS (UG/KG)	METHYL PARA- THION (UG/L)	METHYL PARA- THION IN BOT- TOM DE- POSITS (UG/KG)	PARA- THION (UG/L)	PARA- THION IN BOT- TOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	PCB IN BOTTOM DE- POSITS (UG/KG)
OCT. 20...	.00	.00	<.2	.00	<.2	.00	<.2	.00	.00	.00	--
FEB. 04...	.00	.00	<.2	.00	<.2	.00	<.2	.00	.00	.00	5.0

08104500 LITTLE RIVER NEAR LITTLE RIVER, TEX.

LOCATION.--Lat 30°57'59", long 97°20'45", Bell County, at gaging station at bridge on State Highway 95, 2.4 miles southeast of Little River, and 5 miles downstream from confluence of Leon and Lampasas Rivers.

DRAINAGE AREA.--5,274 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1964 to September 1972.
Water temperatures: October 1964 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
01-18	64	9.1	56	9.7	32	--	4.0	198	0	31
19-31	1670	6.5	46	7.6	--	21	--	160	0	21
NOV.										
01-30	602	8.2	47	12	--	30	--	184	0	23
DEC.										
01-31	1180	8.3	53	13	--	26	--	190	0	25
JAN.										
01-31	913	8.2	52	12	27	--	3.3	191	0	26
FEB.										
01-29	283	6.2	60	15	--	34	--	222	0	29
MAR.										
01-31	247	6.4	61	14	--	33	--	220	0	31
APR.										
01-30	132	8.6	63	12	32	--	3.9	220	0	32
MAY										
01-31	847	7.9	56	15	--	32	--	210	0	26
JUNE										
01-14	63	8.3	61	15	--	37	--	225	0	32
15-19	386	10	50	5.8	--	15	--	159	0	20
20-30	233	8.3	61	15	--	37	--	225	0	32
JULY										
01-31	85	8.6	60	12	34	--	3.7	215	0	32
AUG.										
01-31	81	9.9	56	12	--	47	--	216	0	36
SEP.										
01-30	41	6.8	58	13	--	43	--	218	0	35
WTD. AVG.	--	7.8	53	12	--	--	--	194	0	26
TIME WTD.										
AVG.	447	8.0	56	13	--	--	--	207	0	29
TOT. LOAD (TONS)	--	3460	23400	5450	--	--	--	85700	0	11400

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	480	401	461	495	541	579	---	504	---	603	594	552
2	501	441	449	494	557	583	583	400	568	549	574	564
3	---	438	470	485	551	583	570	441	568	595	575	576
4	---	444	---	456	557	583	567	420	579	595	552	580
5	---	444	427	442	550	589	568	---	587	364	---	555
6	431	440	---	443	551	---	---	---	590	502	556	564
7	503	438	445	444	564	484	---	546	621	418	---	564
8	540	441	493	452	556	488	583	465	590	465	558	553
9	523	446	499	469	553	487	584	---	---	499	532	563
10	501	443	420	447	551	486	583	---	615	515	532	579
11	471	445	482	450	553	499	567	480	617	531	432	600
12	522	---	524	437	555	547	---	499	---	536	536	622
13	520	482	426	452	560	504	589	533	617	558	520	603
14	519	482	462	---	---	547	---	566	637	---	541	593
15	522	473	436	---	546	570	---	563	364	---	585	586
16	433	466	470	469	552	567	560	563	386	567	540	584
17	533	458	462	480	---	571	547	551	341	521	526	593
18	531	413	472	507	557	574	545	533	324	565	612	593
19	337	416	483	487	563	576	570	535	380	564	597	586
20	442	---	---	502	561	553	553	---	548	566	538	581
21	312	459	513	504	568	555	563	---	554	567	508	551
22	---	466	505	---	559	569	559	557	554	565	513	538
23	---	462	476	---	578	565	577	559	554	---	512	---
24	393	---	506	504	581	562	541	546	568	568	532	573
25	390	---	510	499	---	565	491	563	565	575	534	591
26	380	---	507	501	---	568	538	563	571	547	---	524
27	361	469	513	501	---	570	---	523	563	569	601	536
28	365	463	459	501	572	---	475	555	572	559	557	523
29	361	466	511	497	564	568	413	564	571	571	553	544
30	399	464	515	554	---	---	491	559	574	---	525	543
31	405	---	511	497	---	565	---	555	---	563	522	---
MONTH	449	450	479	480	559	551	548	527	540	540	545	569

08104500 LITTLE RIVER NEAR LITTLE RIVER, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 329 mg/l Aug. 1-31; minimum, 202 mg/l June 15-19.
 Hardness: Maximum, 210 mg/l Feb. 1-29, Mar. 1-31, Apr. 1-30, June 1-14, 20-30; minimum, 150 mg/l Oct. 19-31, June 15-19.
 Specific conductance: Maximum daily, 637 micromhos June 14; minimum daily, 312 micromhos Oct. 21.
 Water temperatures: Maximum, 38.0°C Sept. 15; minimum, 9.0°C Feb. 1, 2, 3, 7.

EXTREMES, October 1964 to September 1972.--Dissolved solids: Maximum, 591 mg/l Oct. 28, 1964; minimum, 161 mg/l Aug. 31, 1966.

Hardness: Maximum, 270 mg/l May 20-27, Sept. 11-22, 1965; minimum, 129 mg/l Aug. 13-14, 1966.

Specific conductance: Maximum daily, 1,140 micromhos Oct. 28, 1964; minimum daily, 245 micromhos May 16, 1965.

Water temperatures: Maximum, 38.0°C July 7, 1969, Sept. 15, 1972; minimum, 5.0°C Jan. 30, Feb. 24, 1966, Jan. 5, 1971.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-18	38	.4	1.7	285	180	17	1.0	502	7.5
19-31	25	.2	.8	210	150	15	.8	376	7.9
NOV.									
01-30	38	.3	.7	252	170	16	1.0	449	7.7
DEC.									
01-31	41	.3	.8	263	190	30	.8	479	7.4
JAN.									
01-31	41	.3	.6	266	180	23	.9	480	7.9
FEB.									
01-29	48	.3	1.0	306	210	29	1.0	558	7.9
MAR.									
01-31	46	.3	.8	303	210	29	1.0	549	7.7
APR.									
01-30	41	.3	1.8	309	210	26	1.0	546	7.4
MAY									
01-31	47	.3	1.0	292	200	29	1.0	526	7.5
JUNE									
01-14	51	.4	1.1	321	210	29	1.1	579	7.6
15-19	18	--	1.1	202	150	18	.5	357	7.3
20-30	51	.4	1.1	321	210	29	1.1	579	7.6
JULY									
01-31	43	.3	1.3	305	200	23	1.0	540	7.9
AUG.									
01-31	42	.3	4.5	329	190	12	1.5	544	7.4
SEP.									
01-30	48	.4	2.0	320	200	18	1.3	569	8.2
WTD. AVG.	40	.3	.9	268	185	24	.9	482	7.7
TIME WTD. AVG.	43	.3	1.4	292	194	23	1.0	519	7.7
TOT. LOAD (TONS)	17700	127	402	118000	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	21.0	14.0	14.0	12.0	16.0	---	21.0	---	29.0	30.5	29.0
2	24.0	20.0	14.0	13.0	9.0	15.0	16.0	26.0	27.0	29.0	31.0	29.0
3	---	20.0	11.0	13.0	9.0	15.0	15.0	26.0	23.0	28.0	30.0	30.0
4	---	16.0	---	10.5	9.0	17.0	16.0	27.0	24.0	29.0	30.0	30.0
5	---	17.0	12.0	10.0	14.0	17.0	13.0	---	26.0	26.0	---	29.0
6	---	19.0	---	10.0	14.0	---	---	---	26.0	28.0	31.0	30.0
7	---	16.0	14.0	11.0	9.0	18.0	---	20.0	26.0	28.0	---	30.0
8	---	16.0	15.0	14.0	12.0	17.0	18.0	25.0	26.0	29.5	31.0	30.0
9	---	18.0	14.0	13.0	14.0	15.0	21.0	---	---	30.0	31.0	31.0
10	---	16.0	13.0	12.0	14.0	15.0	23.0	---	26.0	29.0	30.5	31.0
11	---	15.0	13.0	13.0	13.0	18.0	20.0	24.0	29.0	29.5	31.0	31.0
12	21.0	---	13.0	13.0	13.0	17.0	---	24.0	---	30.0	30.0	30.0
13	22.0	19.0	16.0	12.0	14.0	15.0	17.0	23.0	27.0	30.0	30.0	30.0
14	22.0	19.0	15.0	---	---	18.0	---	19.0	27.0	---	31.0	31.0
15	25.0	19.0	15.0	---	13.0	18.0	---	17.0	27.0	---	31.0	38.0
16	26.0	18.0	15.0	12.0	14.0	18.0	24.0	15.0	26.0	30.0	31.0	30.0
17	27.0	17.0	15.0	12.0	---	18.0	26.0	16.0	26.0	30.0	31.0	30.0
18	25.0	16.0	17.0	12.0	15.0	16.0	24.0	16.0	28.0	30.0	31.0	29.0
19	24.0	15.0	18.0	12.0	14.0	18.0	24.0	17.0	28.0	30.0	31.0	30.0
20	21.0	---	---	14.0	15.0	14.0	25.0	---	28.0	30.0	30.0	29.0
21	23.5	18.0	16.0	13.0	17.0	16.0	23.0	---	26.0	30.0	30.0	29.0
22	---	15.0	16.0	---	17.0	18.0	25.0	19.0	28.0	30.0	28.0	29.0
23	---	12.0	16.0	---	17.0	20.0	25.0	19.0	28.0	---	29.0	---
24	22.0	---	15.0	13.0	18.0	18.0	25.0	19.0	28.0	25.0	30.0	24.5
25	20.0	---	16.0	13.0	---	19.0	25.0	20.0	29.0	25.0	30.0	28.0
26	21.0	---	17.0	---	---	19.0	25.0	21.0	28.0	27.0	---	27.0
27	21.0	16.0	16.0	11.0	18.0	---	23.0	21.0	29.0	27.0	26.0	27.0
28	21.0	16.0	16.0	14.0	12.0	---	23.0	26.0	28.0	30.0	25.0	28.0
29	21.0	15.0	16.0	11.0	14.0	18.0	25.0	24.0	28.0	31.0	27.0	29.0
30	22.0	14.0	16.0	10.0	---	---	26.0	25.0	27.0	---	29.0	28.0
31	21.0	---	15.0	10.0	---	17.0	---	24.0	---	30.5	30.0	---
MONTH	---	17.0	15.0	12.0	14.0	17.0	22.0	21.5	27.0	29.0	30.0	29.5

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LOCATION.--Lat 30°41'40", long 97°16'43", Williamson County, at gaging station on county road bridge, 0.2 mile north of Laneport, 3.4 miles downstream from Willis Creek, 7.5 miles northwest of Thrall.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESEUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
JULY 21...	1530	10	56	12	--	19	--	201	0	26
AUG. 21...	0900	11	51	12	--	18	--	192	0	22
SEP. 18...	1100	9.6	54	12	18	--	2.7	200	0	23

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)
JULY 21...	24	.3	.27	.008	.00	.8	.063	250	28	19
AUG. 21...	23	.3	.22	.000	.06	.5	.065	234	31	6
SEP. 18...	24	.2	.03	.000	.06	.3	.040	243	23	1

DATE	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
JULY 21...	190	24	.6	449	7.6	28.0	5	25	7.8	99
AUG. 21...	180	19	.6	418	7.3	27.5	0	15	6.6	82
SFP. 18...	180	20	.6	441	7.6	29.0	0	15	6.6	85

DATE	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	HEXA- VALENT CHROMIUM (CR6) (UG/L)
JULY 21...	9	1.6	0	.00	--	20	0	0	40	10
AUG. 21...	14	1.2	0	.00	--	--	--	--	--	--
SEP. 18...	--	1.6	0	.00	10	--	--	--	--	--

[illegible]

BRAZOS RIVER BASIN

08106500 LITTLE RIVER AT CAMERON, TEX.

LOCATION.--Lat 30°49'53", long 96°57'01", Milam County, at bridge on U.S. Highway 77, 2,020 feet downstream from gaging station, 0.7 mile upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, and 2 miles southeast of Cameron.

DRAINAGE AREA.--7,088 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1959 to September 1972.

Chemical and biochemical analyses: January 1968 to September 1972.

Water temperatures: October 1959 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-20	92	9.0	64	12	39	--	3.7	228	0	46
21-31	1710	7.2	44	8.3	--	20	--	160	0	22
NOV.										
01-30	961	8.6	48	11	--	29	--	180	0	26
DEC.										
01-31	1760	8.6	53	10	--	27	--	179	0	29
JAN.										
01-31	1140	6.9	58	12	29	--	3.1	196	0	32
FEB.										
01-29	468	4.3	65	14	--	37	--	226	0	39
MAR.										
01-31	345	5.5	65	14	--	37	--	229	0	39
APR.										
01-30	163	6.1	72	15	39	--	3.3	256	0	42
MAY										
01-02	944	9.1	56	13	--	32	--	196	0	32
03-06	1570	9.2	46	4.5	--	18	--	133	0	32
07-31	1170	9.1	56	13	--	32	--	196	0	32
JUNE										
01-16	167	8.5	59	14	--	41	--	228	0	38
17-21	2800	11	44	4.1	--	17	--	148	0	22
22-30	349	8.5	59	14	--	41	--	228	0	38
JULY										
01-31	140	9.0	62	13	37	--	3.4	216	0	44
AUG.										
01-31	112	7.8	64	14	--	46	--	236	0	46
SEP.										
01-28	84	7.5	61	15	--	46	--	225	6	40
29...	75	6.5	38	4.7	--	27	--	134	0	30
30...	68	7.5	61	15	--	46	--	225	6	40
WTD. AVG.	--	8.0	54	11	--	--	--	189	0	31
TIME WTD.										
AVG.	645	7.6	60	13	--	--	--	212	0	37
TOT. LOAD (TONS)	--	5100	34700	7000	--	--	--	121000	39	19700

BRAZOS RIVER BASIN

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08106500 LITTLE RIVER AT CAMERON, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 356 mg/l Apr. 1-30; minimum, 187 mg/l June 17-21.
 Hardness: Maximum, 240 mg/l Apr. 1-30; minimum, 110 mg/l Sept. 29.
 Specific conductance: Maximum daily, 765 micromhos Sept. 25; minimum daily, 274 micromhos Oct. 23, June 18.
 Water temperatures: Maximum, 30.0°C on several days during summer months; minimum, 7.0°C Feb. 4.

EXTREMES, October 1959 to September 1972.--Dissolved solids: Maximum, 621 mg/l Nov. 16, 1968; minimum, 130 mg/l June 25-26, 1960.
 Hardness: Maximum, 292 mg/l Feb. 1-17, 1963; minimum, 92 mg/l June 25-26, 1960.
 Specific conductance: Maximum daily, 1,280 micromhos Sept. 25, 26, 1963; minimum daily, 191 micromhos June 26, 1960.
 Water temperatures: Maximum, 33.0°C Aug. 6, 1964, Aug. 1, 1969; minimum, 4.0°C Jan. 11, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-20	42	.4	1.2	333	210	22	1.2	566	7.9
21-31	21	.3	.8	205	140	13	.7	364	8.0
NOV.									
01-30	36	.3	.7	251	160	18	1.0	441	7.8
DEC.									
01-31	36	.3	1.1	257	170	27	.9	457	7.3
JAN.									
01-31	42	.3	.7	282	190	34	.9	508	7.3
FEB.									
01-29	49	.3	1.4	326	220	34	1.1	584	7.8
MAR.									
01-31	48	.3	.8	325	220	32	1.1	586	8.3
APR.									
01-30	48	.3	.9	356	240	31	1.1	624	7.3
MAY									
01-02	46	.3	.8	288	190	32	1.0	517	7.2
03-06	18	--	1.3	198	130	24	.7	352	6.9
07-31	46	.3	.8	288	190	32	1.0	517	7.2
JUNE									
01-16	45	.3	.7	321	200	18	1.2	561	7.5
17-21	11	--	1.1	187	130	5	.7	312	6.9
22-30	45	.3	.7	321	200	18	1.2	561	7.5
JULY									
01-31	44	.4	.8	322	210	31	1.1	553	8.2
AUG.									
01-31	50	.4	.9	348	220	24	1.4	605	7.4
SEP.									
01-28	52	.4	.5	341	210	18	1.4	603	8.5
29...	21	.3	.6	196	110	4	1.1	344	8.2
30...	52	.4	.5	341	210	18	1.4	603	8.5
WTD. AVG.	37	.3	.9	269	178	25	.9	477	7.5
TIME WTD.									
AVG.	43	.3	.8	305	199	26	1.1	538	7.7
TOT. LOAD (TONS)	23800	178	579	171000	--	--	--	--	--

BRAZOS RIVER BASIN

08106500 LITTLE RIVER AT CAMERON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT. 22...	1530	545	9.8	44	5.7	6.0	135	0
DEC. 06...	0900	6360	8.8	42	4.5	14	122	0
FEB. 07...	1105	680	5.7	62	15	37	221	0
APR. 11...	1100	100	3.7	62	15	47	244	0
JUNE 19...	1015	1980	12	49	3.5	11	147	0
AUG. 21...	1035	55	6.8	61	14	47	244	0

DATE	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT. 22...	16	11	.2	.020	.00	.8	.66	162	130
DEC. 06...	24	17	.3	.022	.00	1.0	1.2	175	120
FEB. 07...	35	53	.3	.018	.00	.9	.21	321	220
APR. 11...	45	50	.6	.000	.00	.00	--	343	220
JUNE 19...	22	9.5	.4	.048	.01	.9	1.6	184	140
AUG. 21...	44	46	.4	.000	.12	.04	.50	340	210

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 22...	23	.2	299	7.5	22.0	7.4	84	3.3
DEC. 06...	23	.5	311	7.0	8.0	9.6	81	4.6
FEB. 07...	39	1.1	570	8.3	8.5	11.5	97	.9
APR. 11...	16	1.4	614	8.4	23.5	11.8	137	--
JUNE 19...	16	.4	317	7.5	26.0	6.2	76	3.1
AUG. 21...	10	1.4	610	7.7	29.5	6.1	79	3.5

08106500 LITTLE RIVER AT CAMERON, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	544	407	474	504	571	604	616	524	565	569	630	560
2	555	409	478	515	580	618	627	406	567	575	643	570
3	560	415	441	517	577	614	631	313	585	576	645	579
4	563	449	419	524	574	601	631	360	564	594	656	585
5	593	446	342	477	573	599	636	346	561	573	634	584
6	558	442	320	462	567	615	631	392	556	568	575	670
7	552	455	346	469	574	610	652	431	561	495	582	478
8	569	450	403	469	576	618	641	419	561	654	579	465
9	549	452	398	476	570	561	634	491	595	605	701	524
10	551	453	411	497	588	509	645	452	602	506	704	566
11	559	448	424	497	592	505	641	487	604	453	707	594
12	565	455	393	499	595	509	641	485	636	496	677	585
13	572	460	435	473	589	512	643	475	556	563	618	588
14	593	456	446	469	607	532	652	478	606	498	611	592
15	592	476	443	479	596	540	660	515	609	497	582	626
16	579	479	450	476	590	558	668	552	580	507	602	638
17	575	486	481	496	602	567	660	550	295	496	610	643
18	559	462	480	493	571	581	660	550	274	522	637	643
19	603	418	484	509	567	596	651	537	314	534	604	664
20	549	329	484	524	555	626	650	538	328	558	619	648
21	368	387	488	534	570	624	652	547	357	589	589	649
22	281	422	519	535	576	578	649	555	412	577	537	654
23	274	450	527	533	576	657	636	555	507	559	559	654
24	422	422	510	533	588	707	629	553	520	537	591	665
25	406	411	520	535	586	593	619	552	540	535	460	765
26	396	436	520	530	598	590	622	554	541	579	589	676
27	386	455	514	530	603	602	595	538	545	606	619	551
28	366	458	525	528	606	586	543	564	560	614	523	604
29	369	467	524	530	611	594	508	597	560	619	533	344
30	360	468	526	636	---	601	510	583	571	609	556	524
31	364	---	521	534	---	610	---	561	---	606	571	---
MONTH	495	441	460	509	584	588	628	499	521	557	605	596

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	23.0	14.0	15.0	11.0	19.0	18.0	23.0	25.0	30.0	29.0	28.0
2	28.0	23.0	13.0	14.0	10.0	18.0	17.0	23.0	26.0	29.0	29.0	28.0
3	27.0	22.0	13.0	12.0	8.0	18.0	18.0	21.0	26.0	30.0	29.0	27.0
4	26.0	22.0	11.0	9.0	7.0	16.0	19.0	22.0	25.0	30.0	28.0	27.0
5	24.0	20.0	10.0	9.0	8.0	15.0	20.0	23.0	26.0	27.0	28.0	28.0
6	24.0	20.0	10.0	10.0	9.0	16.0	20.0	22.0	27.0	26.0	28.0	26.0
7	24.0	18.0	11.0	11.0	10.0	18.0	22.0	21.0	27.0	27.0	29.0	27.0
8	24.0	18.0	11.0	12.0	10.0	18.0	23.0	22.0	27.0	27.0	29.0	28.0
9	24.0	19.0	11.0	12.0	10.0	17.0	21.0	22.0	27.0	26.0	30.0	29.0
10	23.0	18.0	11.0	14.0	11.0	17.0	22.0	22.0	27.0	27.0	29.0	28.0
11	22.0	18.0	9.0	14.0	10.0	18.0	23.0	21.0	26.0	28.0	28.0	29.0
12	23.0	18.0	9.0	13.0	11.0	17.0	23.0	19.0	27.0	28.0	27.0	29.0
13	22.0	19.0	10.0	13.0	10.0	18.0	25.0	19.0	28.0	28.0	27.0	29.0
14	22.0	19.0	11.0	12.0	12.0	19.0	25.0	20.0	28.0	28.0	28.0	28.0
15	23.0	20.0	11.0	9.0	13.0	19.0	25.0	22.0	28.0	29.0	29.0	28.0
16	23.0	21.0	11.0	9.0	14.0	20.0	23.0	21.0	27.0	28.0	29.0	28.0
17	24.0	21.0	10.0	12.0	16.0	20.0	23.0	19.0	24.0	29.0	29.0	27.0
18	24.0	20.0	9.0	13.0	15.0	20.0	23.0	19.0	24.0	28.0	29.0	28.0
19	25.0	18.0	9.0	14.0	15.0	18.0	24.0	20.0	26.0	28.0	29.0	29.0
20	25.0	18.0	10.0	16.0	13.0	19.0	25.0	20.0	27.0	28.0	30.0	28.0
21	24.0	16.0	10.0	15.0	15.0	20.0	24.0	19.0	28.0	28.0	29.0	28.0
22	23.0	16.0	9.0	16.0	16.0	19.0	24.0	20.0	30.0	28.0	30.0	28.0
23	22.0	16.0	9.0	14.0	16.0	21.0	23.0	20.0	29.0	27.0	29.0	27.0
24	21.0	13.0	9.0	15.0	18.0	22.0	23.0	20.0	29.0	29.0	29.0	26.0
25	23.0	13.0	10.0	14.0	19.0	21.0	24.0	21.0	28.0	29.0	28.0	25.0
26	23.0	15.0	10.0	13.0	18.0	20.0	24.0	24.0	29.0	29.0	26.0	26.0
27	23.0	15.0	14.0	14.0	18.0	22.0	23.0	21.0	29.0	29.0	28.0	26.0
28	23.0	15.0	16.0	14.0	18.0	22.0	21.0	22.0	30.0	30.0	29.0	26.0
29	23.0	16.0	16.0	14.0	18.0	20.0	21.0	24.0	30.0	29.0	29.0	26.0
30	24.0	15.0	17.0	10.0	---	20.0	20.0	25.0	30.0	28.0	28.0	24.0
31	23.0	---	16.0	11.0	---	18.0	---	25.0	---	29.0	28.0	---
MONTH	24.0	18.0	11.5	12.5	13.0	19.0	22.0	21.5	27.5	28.5	28.5	27.5

BRAZOS RIVER BASIN

08109500 BRAZOS RIVER NEAR COLLEGE STATION, TEX.

LOCATION.--Lat 30°33'32", long 96°25'23", Brazos County, at bridge on Farm Road 60, 6.5 miles south of College Station, and 9 miles downstream from gaging station near Bryan.

DRAINAGE AREA.--38,400 sq mi, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: August 1961 to September 1972.

Water temperatures: August 1961 to September 1972.

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 837 mg/l Oct. 9-20; minimum, 254 mg/l Nov. 20-24.

Hardness: Maximum, 300 mg/l Oct. 9-20; minimum, 140 mg/l Nov. 20-24.

Water temperatures: Minimum, 5.5°C Feb. 8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-08	635	7.5	62	11	85	--	3.9	152	0	83
09-20	1780	4.8	84	22	--	190	--	152	0	160
21-31	12100	7.5	62	11	85	--	3.9	152	0	83
NOV.										
01...	5410	8.2	47	7.6	--	61	--	132	0	57
02-17	5030	6.9	72	16	--	150	--	144	0	120
18-19	8550	8.2	47	7.6	--	61	--	132	0	57
20-24	5590	8.7	46	5.8	--	37	--	134	0	42
25-30	3330	6.9	72	16	--	150	--	144	0	120
DEC.										
01-05	4140	6.0	70	14	--	130	--	148	0	110
06-13	15400	9.4	50	5.9	--	44	--	132	0	48
14-23	9840	8.3	58	9.6	--	67	--	154	0	58
24-31	6680	6.0	70	14	--	130	--	148	0	110
JAN.										
01-31	5460	7.6	73	13	91	--	4.0	176	0	92
FEB.										
01-29	1930	3.6	74	11	--	77	--	212	0	80
MAR.										
01-31	971	2.9	66	13	--	100	--	232	0	86
APR.										
01-30	686	4.4	82	17	120	--	3.9	228	0	110
MAY										
01-31	2940	8.1	62	8.1	--	33	--	160	0	56
JUNE										
01-17	1010	8.1	74	14	--	100	--	185	0	97
18-23	3540	9.3	57	7.7	--	54	--	150	0	56
24-30	1080	8.1	74	14	--	100	--	185	0	97
JULY										
01-31	1640	6.6	81	16	--	150	--	164	0	130
AUG.										
01-31	1150	6.6	81	16	--	150	--	164	0	130
SEP.										
01-30	983	6.6	76	17	--	160	--	140	0	150
WTD. AVG.	--	7.3	66	12	--	93	--	160	0	87
TIME WTD.										
AVG.	3100	6.4	72	14	--	111	--	174	0	101
TOT. LOAD (TONS)	--	22300	203000	36000	--	285000	--	491000	0	266000

BRAZOS RIVER BASIN

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08109500 BRAZOS RIVER NEAR COLLEGE STATION, TEX.--Continued

EXTREMES, August 1961 to September 1972.--Dissolved solids: Maximum, 1,200 mg/l Apr. 11, 1963; minimum, 168 mg/l Aug. 1, 1971.

Hardness: Maximum, 488 mg/l Apr. 11, 1963; minimum, 110 mg/l Nov. 28-29, 1962.

Specific conductance (1961-1971): Maximum daily, 2,030 micromhos Oct. 1, 1963; minimum daily, 263 micromhos Jan. 24, 1965.

Water temperatures: Maximum, 34.5°C June 16, 1971; minimum, 2.0°C on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Sampling at this site began in September 1966. From August 1961 to September 1965 samples were collected at State Highway 21 near Bryan, 17 miles upstream, and from October 1965 to September 1966 at the gaging station near Bryan, 9 miles upstream.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-08	130	.3	.4	458	200	75	2.6	812	7.3
09-20	300	.3	.5	837	300	180	4.8	1490	8.0
21-31	130	.3	.4	458	200	75	2.6	812	7.3
NOV.									
01...	78	.4	.8	328	150	41	22	581	7.6
02-17	240	--	.4	678	250	130	4.2	1220	7.5
18-19	78	.4	.8	328	150	41	22	581	7.6
20-24	44	--	1.0	254	140	29	1.4	446	7.5
25-30	240	--	.4	678	250	130	4.2	1220	7.5
DEC.									
01-05	200	.3	.7	611	230	110	3.8	1080	7.3
06-13	60	--	.6	285	150	41	1.6	517	7.2
14-23	100	--	.8	380	180	58	2.2	696	7.4
24-31	200	.3	.7	611	230	110	3.8	1080	7.3
JAN.									
01-31	150	.3	.6	517	240	92	2.6	911	8.0
FEB.									
01-29	97	.3	.6	450	230	56	--	794	8.1
MAR.									
01-31	120	.3	.4	505	220	28	--	892	8.2
APR.									
01-30	170	.4	--	616	270	88	3.2	1080	7.9
MAY									
01-31	36	.3	1.5	297	190	44	--	504	8.5
JUNE									
01-17	150	.3	.4	543	240	90	--	958	7.5
18-23	76	--	.8	338	170	50	1.8	610	6.8
24-30	150	.3	.4	543	240	90	2.9	958	7.5
JULY									
01-31	220	--	.7	697	270	130	--	1230	6.9
AUG.									
01-31	220	--	.7	697	270	130	--	1230	6.9
SEP.									
01-30	240	.3	.5	717	260	140	4.3	1270	7.8
WTD. AVG.	138	--	.6	486	214	81	--	862	7.6
TIME WTD.									
AVG.	159	--	.6	552	236	90	--	976	7.7
TOT. LOAD (TONS)	422000	--	2010	1488000	--	--	--	--	--

08109500 BRAZOS RIVER NEAR COLLEGE STATION, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C). WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	937	694	1160	1140	---	885	---	---	---	418	---	---
2	952	996	874	1140	---	672	---	---	---	1130	---	---
3	682	912	854	1130	---	940	---	---	---	1270	---	---
4	676	912	871	953	---	917	---	---	---	---	---	---
5	730	1040	857	945	---	913	---	---	---	---	---	---
6	859	1310	486	830	---	932	---	---	---	---	---	---
7	944	1320	565	830	1030	913	---	---	---	---	---	---
8	1010	1310	431	830	996	667	---	---	---	---	---	---
9	1460	1410	577	889	910	1200	---	---	---	---	---	---
10	1460	1410	443	996	840	869	---	---	---	---	---	---
11	1460	1430	515	1010	840	868	---	---	---	---	---	---
12	1480	1440	520	1000	745	1050	---	---	---	---	---	---
13	1460	1440	583	878	690	747	---	---	1020	---	---	---
14	1470	1430	639	882	822	---	---	---	1060	---	---	---
15	1490	1450	635	882	783	---	---	---	1000	---	---	---
16	1530	1450	625	978	733	---	---	---	923	---	---	---
17	1530	1430	656	1070	696	---	1180	504	1050	---	---	---
18	1530	531	654	1090	847	---	1160	---	753	---	---	---
19	1600	520	658	1060	826	---	1140	---	541	---	---	---
20	1690	380	758	1070	935	---	1130	---	433	---	---	---
21	736	383	774	949	840	---	1080	---	556	---	---	---
22	725	488	768	759	802	---	1080	---	612	---	---	---
23	853	489	768	896	760	---	1070	---	763	---	---	---
24	734	489	1170	757	743	---	1070	---	806	---	---	---
25	806	962	1170	784	781	---	1070	---	946	---	---	---
26	843	966	1170	781	682	---	1110	---	923	---	---	---
27	843	891	1170	784	693	---	1010	---	877	1260	---	---
28	908	1100	1170	779	676	---	1010	---	858	---	---	---
29	725	1100	1180	768	650	---	996	---	---	---	---	---
30	840	1130	1180	769	---	---	905	---	1080	---	---	---
31	724	---	1130	757	---	---	---	---	---	1270	---	---
MONTH	1090	1030	807	916	797	---	---	---	---	---	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.5	24.5	15.0	12.0	---	10.5	---	---	---	29.5	---	---
2	24.0	21.0	9.5	15.5	---	10.5	---	---	---	---	---	---
3	25.0	20.0	9.5	13.0	---	10.5	---	---	---	28.5	---	---
4	24.5	20.0	10.0	---	---	10.5	---	---	---	---	---	---
5	25.0	24.5	10.0	---	---	10.5	---	---	---	---	---	---
6	26.5	16.5	15.0	10.5	---	10.5	---	---	---	---	---	---
7	25.5	16.5	15.0	11.0	---	10.5	---	---	---	---	---	---
8	26.5	16.5	13.5	11.0	5.5	10.5	---	---	---	---	---	---
9	23.5	16.5	16.5	14.5	6.0	11.0	---	---	---	---	---	---
10	23.5	19.5	14.0	11.5	6.0	10.5	---	---	---	---	---	---
11	23.5	21.5	13.5	15.0	10.5	11.0	---	---	---	---	---	---
12	22.0	21.5	13.5	15.0	10.0	10.5	---	---	---	---	---	---
13	25.0	16.0	15.0	9.0	10.0	10.5	---	---	29.0	---	---	---
14	24.0	20.5	20.0	10.0	10.5	---	---	---	28.5	---	---	---
15	24.5	18.0	20.5	9.0	10.5	---	---	---	20.5	---	---	---
16	26.5	18.5	15.0	10.5	10.5	---	---	---	27.5	---	---	---
17	26.5	16.5	14.0	10.5	10.5	---	26.0	25.0	21.0	---	---	---
18	26.5	16.0	14.5	10.0	10.5	---	24.0	---	27.5	---	---	---
19	28.0	16.0	14.5	12.0	10.5	---	23.0	---	28.0	---	---	---
20	25.5	16.0	15.0	13.0	10.5	---	24.0	---	27.5	---	---	---
21	22.0	16.5	---	13.0	10.5	---	24.0	---	29.5	---	---	---
22	22.0	14.0	13.5	14.5	11.0	---	21.0	---	27.0	---	---	---
23	22.0	14.0	14.0	13.5	10.5	---	23.0	---	26.5	---	---	---
24	22.0	13.5	14.0	11.5	10.5	---	29.0	---	30.0	---	---	---
25	22.0	14.0	14.5	10.5	10.5	---	27.0	---	29.0	---	---	---
26	22.0	14.0	15.0	11.0	11.0	---	25.0	---	29.5	---	---	---
27	24.5	14.0	14.5	10.5	11.0	---	22.0	---	29.0	35.0	---	---
28	24.0	19.5	16.5	9.0	11.0	---	23.0	---	28.5	---	---	---
29	24.0	19.0	13.5	7.0	11.0	---	21.0	---	---	---	---	---
30	26.5	13.5	18.0	7.0	---	---	24.0	---	30.0	---	---	---
31	22.0	---	13.0	6.5	---	---	---	---	---	30.0	---	---
MONTH	24.5	17.5	14.5	11.5	---	---	---	---	---	---	---	---

BRAZOS RIVER BASIN

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08110000 YEGUA CREEK NEAR SOMERVILLE, TEX.

LOCATION.--Lat 30°19'18", long 96°30'26", at gaging station at bridge on State Highway 36, 760 ft downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 1 mile downstream from Somerville Reservoir, 2 miles south of Somerville, Burleson County, and 5 miles upstream from Davidson Creek.

DRAINAGE AREA.--1,008 sq mi.

PERIOD OF RECORD.--Chemical analyses: September 1961 to September 1967, October 1968 to September 1972.
Water temperatures: September 1961 to September 1967.

EXTREMES, September 1961 to September 1967.--Dissolved solids: Maximum, 884 mg/l Apr. 1-15, 1962; minimum, 43 mg/l Sept. 13-14, 1961.
Hardness: Maximum, 430 mg/l Apr. 1-4, 1963; minimum, 18 mg/l Sept. 13-14, 1961.
Specific conductance: Maximum daily, 1,380 micromhos Apr. 14, 1962; minimum daily, 53 micromhos Sept. 13, 1961.
Water temperatures (1962-67): Maximum, 33.0°C June 11, July 31, 1965, June 15, 1966; minimum, 1.5°C Jan. 14, 1964.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 10...	1445	.34	12	100	17	110	83	0	220	180
FEB. 09...	1720	.22	5.9	120	21	140	63	0	280	240
MAR. 15...	1130	.36	12	150	26	160	95	0	330	290
APR. 19...	1505	.28	11	180	30	180	99	0	360	350
MAY 18...	0900	.30	16	110	18	120	80	0	240	200
JUNE 26...	1050	.67	10	43	9.4	30	104	0	47	53
JULY 31...	1200	.04	14	56	10	52	132	0	68	80
SEP. 08...	0840	.01	16	68	15	66	142	0	95	110

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JAN. 10...	.5	.2	685	330	260	2.5	1130	7.3	15.5
FEB. 09...	.2	.1	834	390	330	3.0	1390	8.2	11.0
MAR. 15...	.3	.02	1020	490	410	3.1	1680	7.6	22.0
APR. 19...	.3	.02	1160	560	480	3.3	1920	7.9	29.5
MAY 18...	.3	.5	744	340	280	2.8	1230	7.0	24.0
JUNE 26...	.3	.4	246	150	61	1.1	473	7.9	28.0
JULY 31...	.4	.4	347	180	74	1.7	630	8.0	30.0
SEP. 08...	.4	.5	443	230	110	1.9	776	8.0	26.5

BRAZOS RIVER BASIN

08110400 NAVASOTA RIVER NEAR GROESBECK, TEX.

LOCATION.--Lat 31°30'45", long 96°27'03", Limestone County, at gaging station on State Highway 164, 0.4 mile downstream from Pin Oak Creek, and 5 miles east of Groesbeck.

DRAINAGE AREA.--313 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1972.

Water temperatures: November 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
01-06	1.6	9.2	46	7.4	82	--	4.9	134	0	45
07-19	2.4	8.0	72	9.8	--	150	--	192	0	75
20-22	123	7.0	--	--	--	37	--	71	0	16
23-25	3.2	7.8	31	4.5	--	57	--	104	0	28
26-31	1.2	9.2	46	7.4	82	--	4.9	134	0	45
NOV.										
01-17	1.1	11	80	14	--	150	--	232	0	72
18-20	2330	5.6	17	2.6	--	19	--	64	0	10
21-30	79	6.8	28	3.2	--	26	--	98	0	15
DEC.										
01-05	379	9.4	33	3.9	--	33	--	102	0	25
06-09	1920	9.1	21	2.5	--	13	--	73	0	13
10-12	5810	8.3	14	1.8	--	4.1	--	48	0	5.2
13-15	151	9.1	21	2.5	--	13	--	73	0	13
16-24	30	9.4	33	3.9	--	33	--	102	0	25
25-31	8.0	12	57	7.4	--	73	--	156	0	48
JAN.										
01-02	302	10	44	5.3	40	--	3.8	122	0	30
03-12	669	9.3	29	3.2	--	17	--	92	0	16
13-15	28	10	44	5.3	40	--	3.8	122	0	30
16-22	13	11	69	9.6	--	87	--	178	0	64
23-29	43	9.4	82	12	--	130	--	192	0	76
30-31	1680	9.3	29	3.2	--	17	--	92	0	16
FEB.										
01-08	115	8.8	36	4.1	--	27	--	107	0	24
09-20	14	7.8	68	8.6	--	77	--	168	0	60
21-29	5.1	3.4	110	15	--	160	--	230	0	110
MAR.										
01-31	3.0	7.2	140	22	--	220	--	272	0	150
APR.										
01-30	1.9	9.0	160	25	270	--	6.4	308	0	170
MAY										
01-31	1.0	9.9	140	22	--	300	--	260	0	130
JUNE										
01-14	.54	9.6	220	39	--	560	--	198	0	170
15...	51	7.7	100	17	--	340	--	140	0	110
16...	181	12	12	2.5	--	31	--	43	0	25
17...	23	8.6	26	5.0	--	73	--	73	0	28
18-30	13	10	66	10	--	130	--	160	0	51
JULY										
01-15	336	5.1	29	3.4	23	--	4.3	92	0	17
16-23	5.2	6.6	52	6.3	--	59	--	148	0	33
24-31	1.1	9.8	61	10	--	140	--	174	0	61
AUG.										
01-10	2.1	12	100	15	--	180	--	208	0	110
11...	16	11	43	7.2	--	97	--	132	0	67
12-23	1.6	12	100	15	--	180	--	208	0	110
24-31	1.3	11	43	7.2	--	97	--	132	0	67
SEP.										
01-30	.23	11	87	14	--	160	--	204	0	96
WTD. AVG.										
TIME WTD.	--	8.0	23	2.9	--	16	--	74	0	14
AVG.										
TOT. LOAD	148	9.1	89	14	--	157	--	188	0	85
(TONS)	--	1170	3350	416	--	2120	--	10900	0	1990

BRAZOS RIVER BASIN

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08110400 NAVASOTA RIVER NEAR GROESBECK, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 2,220 mg/l June 1-14; minimum, 63 mg/l Dec. 10-12.
 Hardness: Maximum, 710 mg/l June 1-14; minimum, 40 mg/l June 16.
 Specific conductance: Maximum daily, 4,270 micromhos June 13; minimum daily, 84 micromhos Dec. 10.
 Water temperatures: Maximum, 32.0°C on several days during summer months; minimum, 4.5°C on several days during January and February.

EXTREMES, November 1967 to September 1972.--Dissolved solids: Maximum, 3,490 mg/l Oct. 1-28, 1969; minimum, 63 mg/l Dec. 10-12, 1971.
 Hardness: Maximum, 1,040 mg/l Oct. 1-28, 1969; minimum, 40 mg/l June 16, 1972.
 Specific conductance: Maximum daily, 6,590 micromhos Oct. 8, 9, 1969; minimum daily, 84 micromhos Dec. 10, 1971.
 Water temperatures: Maximum, 35.0°C Aug. 6, 1968; minimum, 2.0°C Jan. 9, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-06	120	.3	1.2	389	150	36	3.0	713	7.1
07-19	210	.3	1.3	621	220	62	4.3	1120	8.1
20-22	39	.2	1.6	--	56	0	2.1	277	7.4
23-25	72	.2	1.2	257	96	11	2.5	463	7.5
26-31	120	.3	1.2	389	150	36	3.0	713	7.1
NOV.									
01-17	220	.3	.03	666	260	67	4.1	1210	7.9
18-20	21	--	.8	110	53	1	1.1	205	6.8
21-30	29	--	.8	160	83	3	1.2	289	6.9
DEC.									
01-05	40	.2	1.0	199	98	15	1.4	340	7.1
06-09	10	--	.7	108	63	3	.7	196	6.9
10-12	3.6	--	.4	63	42	3	.3	111	6.9
13-15	10	--	.7	108	63	3	.7	196	6.9
16-24	40	.2	1.0	199	98	15	1.4	340	7.1
25-31	110	--	1.0	385	170	44	2.4	686	7.5
JAN.									
01-02	64	.2	1.2	263	130	32	1.5	473	7.5
03-12	20	--	.8	143	86	10	.8	259	7.2
13-15	64	.2	1.2	263	130	32	1.5	473	7.5
16-22	130	--	.9	465	210	66	2.6	828	7.8
23-29	210	--	1.3	613	250	96	3.5	1110	7.8
30-31	20	--	.8	143	86	10	.8	259	7.2
FEB.									
01-08	33	.2	1.3	192	110	19	1.1	337	7.5
09-20	120	--	2.0	431	200	68	2.3	767	7.6
21-29	260	--	1.2	771	330	140	3.8	1370	7.9
MAR.									
01-31	380	.3	.3	1050	430	200	4.7	1860	8.0
APR.									
01-30	460	.4	.3	1260	500	250	5.2	2200	8.0
MAY									
01-31	520	.4	.7	1250	440	230	6.1	2230	7.9
JUNE									
01-14	1100	--	.6	2220	710	550	9.0	4040	8.0
15...	590	.3	.9	1230	330	220	8.0	2270	8.1
16...	29	--	1.5	139	40	5	2.1	220	6.8
17...	110	--	1.6	290	85	26	3.4	529	7.7
18-30	220	--	.8	570	210	74	4.0	1060	8.0
JULY									
01-15	32	.3	.8	163	86	11	1.1	303	7.1
16-23	89	--	.7	322	160	34	2.1	595	6.8
24-31	210	--	.5	580	190	50	4.4	1020	7.0
AUG.									
01-10	300	.3	.5	816	320	150	4.4	1470	7.7
11...	120	--	.5	412	140	29	3.6	746	7.5
12-23	300	.3	.5	816	320	150	4.4	1470	7.7
24-31	120	--	.5	412	140	29	3.6	746	7.5
SEP.									
01-30	240	.4	.5	708	270	110	4.1	1280	7.7
WTD. AVG.	21	--	.6	127	69	8	.8	229	7.0
TIME WTD.									
AVG.	261	--	.7	714	274	120	3.7	1270	7.6
TOT. LOAD (TONS)	3140	--	101	18400	--	--	--	--	--

BRAZOS RIVER BASIN

08110400 NAVASOTA RIVER NEAR GROESBECK, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	602	928	343	---	242	---	2060	2050	3700	236	1330	---
2	689	---	374	502	264	1570	---	1960	3730	---	1360	946
3	---	975	244	205	270	1660	2080	1940	---	880	1380	---
4	737	1000	247	169	---	---	1210	---	---	901	1430	1010
5	780	1050	---	185	378	---	1990	1960	3990	101	1470	1030
6	821	1090	193	210	---	1210	1990	1930	3920	308	---	1060
7	900	---	202	229	418	1430	2030	1940	4070	262	1560	1080
8	896	1180	186	282	451	1650	2310	1990	4120	287	1660	---
9	1000	1350	187	---	528	1660	2080	1950	4150	---	1670	1140
10	---	1230	84	330	580	1730	2220	1920	4190	332	1760	---
11	1040	1250	118	364	654	1870	2220	1820	---	344	665	1180
12	738	1280	134	395	716	---	2230	1680	4260	336	1390	1200
13	1160	1330	---	441	---	1970	2210	1600	4270	353	---	1220
14	1260	---	193	432	753	1970	2230	---	3920	370	---	1250
15	---	1350	228	500	844	1950	2250	1640	2270	389	1400	1300
16	1290	1390	248	---	892	2000	---	1640	220	---	1370	---
17	---	1450	280	---	866	1950	---	1700	529	470	1400	---
18	1410	158	288	747	921	2050	---	1770	---	510	1440	---
19	1120	261	---	817	924	---	2300	1870	811	554	1380	1380
20	299	192	348	835	---	2050	2330	2000	857	602	---	1380
21	260	289	371	857	1030	1820	2360	---	930	681	1530	1410
22	---	---	421	883	1220	1790	2380	2330	---	745	1560	1410
23	423	324	452	---	1380	1860	---	2480	1050	---	1390	1040
24	501	---	502	970	1430	1840	2400	2650	1110	860	879	1350
25	---	283	567	987	1480	2110	2440	2810	---	934	599	---
26	620	269	---	1030	1490	---	2460	2990	1210	1000	655	1340
27	661	270	655	1040	---	2150	2360	3120	1260	1070	---	1520
28	714	---	---	1110	1520	2090	2370	---	1320	1120	753	1590
29	770	272	695	1510	1420	2090	2270	3450	1370	1160	792	1500
30	809	317	732	233	---	2050	---	3530	629	---	---	1640
31	---	---	775	237	---	2040	---	3630	---	1300	879	---
MONTH	---	812	349	596	861	1860	2200	2240	2410	619	1270	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.5	21.0	10.0	---	7.0	---	18.5	18.5	24.0	25.5	28.0	---
2	29.5	---	7.0	15.5	10.0	10.0	---	25.5	26.5	---	26.5	29.5
3	---	21.0	7.0	15.5	10.0	10.0	15.5	21.0	---	26.5	29.5	---
4	24.0	15.5	13.0	7.0	---	---	21.0	---	---	26.5	26.5	32.0
5	21.0	21.0	---	4.5	13.0	---	18.5	24.0	25.5	24.0	29.5	26.5
6	24.0	21.0	15.5	4.5	---	13.0	21.0	21.0	26.5	26.5	---	26.5
7	26.5	---	13.0	7.0	4.5	18.5	24.0	24.0	28.0	26.5	29.5	26.5
8	24.0	15.5	13.0	10.0	7.0	15.5	21.0	18.5	31.0	26.5	26.5	---
9	21.0	18.5	15.5	---	7.0	15.5	21.0	21.0	28.0	---	27.0	26.5
10	---	15.5	15.5	10.0	7.0	21.0	21.0	21.0	29.5	26.5	26.5	---
11	24.0	18.5	10.0	10.0	10.0	21.0	24.0	21.0	---	26.5	25.5	26.5
12	26.5	21.0	15.5	13.0	4.5	---	24.0	25.5	32.0	26.5	29.5	26.5
13	26.5	21.0	---	10.0	---	21.0	26.5	26.5	26.5	26.5	---	26.5
14	26.5	---	18.5	7.0	13.0	21.0	25.5	---	26.5	26.5	---	29.5
15	---	15.5	15.5	4.5	14.5	20.0	21.0	26.5	26.5	26.5	29.5	26.5
16	24.0	18.5	15.5	---	13.0	21.0	---	29.5	25.5	---	28.0	---
17	---	18.5	13.0	---	15.5	15.5	---	21.0	26.5	26.5	29.5	---
18	26.5	15.5	10.0	13.0	13.0	21.0	---	28.0	---	29.5	26.5	---
19	26.5	15.5	---	15.5	15.5	---	26.5	26.5	28.0	28.0	29.5	29.5
20	24.0	13.0	13.0	15.5	---	21.0	26.5	32.0	29.5	26.5	---	29.5
21	21.0	10.0	15.5	15.5	15.5	24.0	26.5	---	32.0	29.5	32.0	30.0
22	---	---	13.0	15.5	21.0	21.0	24.0	29.5	---	28.0	28.0	24.0
23	21.0	15.5	15.5	---	15.5	20.0	---	26.5	29.5	---	29.5	24.0
24	21.0	---	15.5	15.5	21.0	21.0	26.5	26.5	29.5	29.5	26.5	25.5
25	---	18.5	15.5	13.0	21.0	21.0	25.5	26.5	---	29.5	28.0	---
26	24.0	15.5	---	10.0	15.5	---	24.0	29.5	28.0	29.5	29.5	26.5
27	24.0	15.5	15.5	15.5	---	15.5	18.5	32.0	29.5	29.5	---	24.5
28	21.0	---	---	7.0	21.0	25.0	16.5	---	30.5	29.5	29.5	24.0
29	24.0	15.5	21.0	4.5	21.0	18.5	24.0	31.5	32.0	26.5	29.5	26.5
30	21.0	10.0	15.5	4.5	---	10.0	---	26.5	29.5	---	---	18.5
31	---	---	15.5	5.5	---	18.5	---	26.5	---	29.5	29.5	---
MONTH	---	17.0	14.0	10.5	13.0	18.5	22.5	25.5	28.5	27.5	28.5	---

BRAZOS RIVER BASIN

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08110500 NAVASOTA RIVER NEAR EASTERLY, TEX.

LOCATION.--Lat 31°10'10", long 96°17'54", Robertson County, at bridge on U.S. Highway 79, 1 mile upstream from Missouri Pacific Railroad Company bridge, and 7 miles northeast of Easterly.

DRAINAGE AREA.--940 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1972.
Sediment records: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV.										
01...	1135	5.6	15	21	4.8	39	68	0	34	44
29...	1400	74	10	26	4.7	28	88	0	21	34
JAN.										
03...	1200	1420	1.3	20	3.9	17	48	0	20	30
FEB.										
08...	1800	77	10	39	7.5	44	96	0	48	64
MAR.										
14...	1410	17	7.0	79	19	130	143	0	130	220
APR.										
18...	1800	5.2	11	87	21	160	157	0	150	260
MAY										
16...	2030	7.4	8.5	63	16	130	110	0	130	200
JUNE										
27...	0945	3.0	11	29	9.2	56	84	0	38	84
AUG.										
01...	1230	3.2	12	42	8.3	52	126	0	38	77
SEP.										
06...	1540	1.9	11	39	8.4	68	100	0	53	100

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MH0S)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV.									
01...	.2	.7	194	72	16	2.0	331	7.1	22.5
29...	.2	.6	170	84	12	1.3	297	7.4	13.5
JAN.									
03...	.2	.2	117	66	27	.9	226	7.0	13.5
FEB.									
08...	.2	1.0	313	130	49	1.7	458	7.1	9.0
MAR.									
14...	.3	.03	659	280	160	3.5	1170	8.0	21.5
APR.									
18...	.3	.09	758	300	180	3.9	1320	7.9	23.5
MAY									
16...	.3	2.1	610	220	130	3.8	1060	7.7	23.0
JUNE									
27...	.2	1.4	275	110	41	2.3	504	7.8	30.0
AUG.									
01...	.2	.3	293	140	36	1.9	552	7.9	29.0
SEP.									
06...	.2	.1	329	130	50	2.6	603	7.5	30.0

BRAZOS RIVER BASIN

08111000 NAVASOTA RIVER NEAR BRYAN, TEX.

LOCATION.--Lat 30°52'10", long 96°11'32", Brazos County, at gaging station at bridge on U. S. Highway 190, 2.5 miles upstream from Shepherd Creek, and 17 miles northeast of Bryan.

DRAINAGE AREA.--1,429 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1958 to September 1972.

Chemical and biochemical analyses: October 1971 to September 1972.

Water temperatures: October 1958 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-15	19	9.1	18	4.2	37	--	3.9	59	0	23
16-18	27	5.2	13	4.3	--	22	--	36	0	24
19-31	56	8.6	18	4.2	--	36	--	60	0	28
NOV.										
01-21	25	13	17	4.4	--	33	--	62	0	27
22-28	1360	9.9	14	3.5	--	19	--	5	0	15
29-30	239	13	17	4.4	--	33	--	62	0	27
DEC.										
01-05	123	14	24	5.6	--	27	--	67	0	32
06-20	3510	10	12	2.9	--	10	--	42	0	13
21-31	108	14	24	5.6	--	27	--	67	0	32
JAN.										
01-03	96	14	32	7.4	34	--	4.2	74	0	50
04-13	2050	10	18	4.0	--	16	--	50	0	21
14-21	146	14	32	7.4	34	--	4.2	74	0	50
22-29	55	16	40	9.9	--	52	--	83	0	68
30-31	592	10	18	4.0	--	16	--	50	0	21
FEB.										
01-03	866	14	36	13	--	43	--	76	0	58
04-12	592	12	29	7.3	--	28	--	75	0	37
13-29	44	13	44	12	--	59	--	86	0	78
MAR.										
01-31	35	13	56	15	--	88	--	102	0	98
APR.										
01-30	19	12	63	16	98	--	4.5	112	0	100
MAY										
01-20	18	11	57	15	--	100	--	107	0	90
21-23	15	7.9	33	8.6	--	57	--	70	0	49
24-31	8.0	11	57	15	--	100	--	107	0	90
JUNE										
01-16	5.5	7.2	70	21	--	130	--	136	0	110
17-19	25	7.8	25	7.0	--	47	--	64	0	36
20-21	126	7.9	56	15	--	120	--	108	0	84
22-30	21	7.8	25	7.0	--	47	--	64	0	36
JULY										
01-08	67	9.3	27	6.6	50	--	4.6	77	0	34
09-14	682	10	22	4.0	--	20	--	72	0	17
15-31	33	8.3	25	4.8	--	23	--	82	0	20
AUG.										
01-27	8.1	9.5	30	6.8	--	40	--	98	0	33
28-31	17	8.2	46	10	--	81	--	108	0	56
SEP.										
01-30	4.6	7.6	27	5.8	--	39	--	78	0	33
WTD. AVG.	--	10	17	4.3	--	17	--	48	0	21
TIME WTD.										
AVG.	291	11	36	9.0	--	52	--	82	0	53
TOT. LOAD										
(TONS)	--	2990	5030	1230	--	4860	--	13800	0	6110

BRAZOS RIVER BASIN

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08111000 NAVASOTA RIVER NEAR BRYAN, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 637 mg/l June 1-16; minimum, 81 mg/l Dec. 6-20.
 Hardness: Maximum, 260 mg/l June 1-16; minimum, 42 mg/l Dec. 6-20.
 Specific conductance: Maximum daily, 1,190 micromhos June 12; minimum daily, 114 micromhos Sept. 30.
 Water temperatures: Maximum, 30.0°C June 25, 26, 27, 28, Aug. 20; minimum, 5.0°C Jan. 3, Feb. 3, 4.

EXTREMES, October 1958 to September 1972.--Dissolved solids: Maximum, 1,810 mg/l Dec. 1-4, 1961; minimum, 47 mg/l July 10, 1968.
 Hardness: Maximum, 355 mg/l June 25, 1960; minimum, 19 mg/l Sept. 17-18, 1964.
 Specific conductance: Maximum daily, 4,190 micromhos Feb. 8, 1964; minimum daily, 55 micromhos Sept. 17, 1964.
 Water temperatures: Maximum, 32.0°C Aug. 4, 1959; minimum, 1.0°C Jan. 13, 1962.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLORIDE (CL) (MG/L)	DIS- SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-15	53	.2	.7	180	62	14	2.0	325	6.5
16-18	30	.1	.3	117	50	20	1.4	217	6.9
19-31	42	.3	.6	168	62	13	2.0	303	7.3
NOV.									
01-21	36	.2	.4	162	60	10	1.9	284	6.9
22-28	20	--	.5	111	49	4	1.2	196	6.9
29-30	36	.2	.4	162	60	10	1.9	284	6.9
DEC.									
01-05	37	.2	.3	174	83	28	1.3	312	7.0
06-20	11	--	.3	81	42	8	.7	140	6.8
21-31	37	.2	.3	174	83	28	1.3	312	7.0
JAN.									
01-03	56	.2	.4	236	110	50	1.4	413	7.0
04-13	22	--	.4	118	61	20	.9	207	6.7
14-21	56	.2	.4	236	110	50	1.4	413	7.0
22-29	81	--	.2	309	140	72	1.9	541	7.0
30-31	22	--	.4	118	61	20	.9	207	6.7
FEB.									
01-03	79	.2	.5	282	140	81	1.6	509	7.0
04-12	42	--	.9	196	100	41	1.2	343	7.0
13-29	96	--	.2	345	160	89	2.0	619	7.1
MAR.									
01-31	150	.2	.03	466	200	120	2.7	829	7.9
APR.									
01-30	170	.2	.4	522	220	130	2.9	935	6.8
MAY									
01-20	170	.2	.08	497	200	120	3.0	898	6.8
21-23	94	--	.2	284	120	60	2.3	530	6.4
24-31	170	.2	.08	497	200	120	3.0	898	6.8
JUNE									
01-16	230	.2	.06	637	260	150	3.6	1150	8.3
17-19	72	.2	.6	229	91	39	2.1	415	7.2
20-21	200	.2	.2	544	200	110	3.7	991	8.1
22-30	72	.2	.6	229	91	39	2.1	415	7.2
JULY									
01-08	80	.2	.3	251	94	31	2.2	465	6.5
09-14	26	--	.4	136	71	12	1.0	258	6.6
15-31	31	--	.3	153	82	15	1.1	293	6.5
AUG.									
01-27	51	.3	.7	222	100	22	1.7	400	7.0
28-31	130	--	.3	386	160	68	2.8	707	6.8
SEP.									
01-30	55	.2	.02	206	91	27	1.8	382	6.8
WTD. AVG.	25	--	.3	124	61	18	1.0	219	6.8
TIME WTD.									
AVG.	86	--	.3	292	125	58	2.0	525	7.0
TOT. LOAD (TONS)	7120	--	109	35700	--	--	--	--	--

BRAZOS RIVER BASIN

08111000 NAVASOTA RIVER NEAR BRYAN, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
JULY 21...	1315	8.9	22	4.2	23	77	0	17	28	.3	.43	.021
SEP. 04...	1520	--	--	--	--	--	--	--	--	--	--	--

DATE	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	VOL. NON-SETTLABLE RESIDUE (MG/L)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
JULY 21...	.05	.1	.21	142	118	36	72	9	1.2	260	6.9	27.5
SEP. 04...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)
JULY 21...	40	65	5.8	72	28	3.6	0	.00	20	0	0
SEP. 04...	--	--	--	--	--	--	--	--	60	0	1

DATE	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
JULY 21...	0	0	6	60	0	10	0	.2	0	280	30
SEP. 04...	0	0	9	150	0	10	0	.2	3	220	10

08111000 NAVASOTA RIVER NEAR BRYAN, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	558	273	267	413	426	---	874	921	1080	410	324	689
2	349	274	273	419	671	---	852	891	1100	---	---	579
3	281	278	273	324	431	---	859	853	1110	427	336	526
4	265	279	280	---	268	---	859	825	1130	432	341	489
5	274	279	276	---	271	736	875	739	1130	435	346	442
6	280	270	195	---	303	749	849	784	1150	573	353	423
7	292	270	163	201	312	749	865	819	1160	580	361	406
8	305	282	146	180	334	747	885	770	1180	389	373	387
9	313	283	129	161	365	766	895	789	1180	184	380	379
10	316	284	119	166	387	781	898	837	1180	241	385	370
11	---	287	122	180	413	788	909	870	1180	272	387	369
12	319	289	135	213	445	---	924	892	1190	274	390	367
13	319	289	123	243	469	---	932	921	1180	277	---	365
14	321	290	151	456	484	822	917	937	1170	299	386	363
15	321	291	118	335	516	802	921	941	1160	---	392	367
16	256	272	122	405	538	816	935	961	1120	320	402	370
17	133	272	130	403	556	793	951	969	593	330	405	375
18	259	290	147	424	564	821	967	991	342	324	463	374
19	284	289	175	444	595	841	975	953	257	282	474	377
20	286	277	---	463	620	866	987	917	1150	266	397	380
21	292	292	---	479	643	873	996	438	829	267	407	382
22	298	171	249	490	660	886	1000	516	467	205	428	386
23	321	192	278	504	679	896	1020	633	429	270	444	386
24	299	196	300	520	691	899	1030	770	415	275	447	---
25	414	189	318	533	703	896	1010	877	426	296	448	379
26	299	192	336	550	707	866	1000	921	406	300	465	383
27	297	205	345	562	712	863	996	961	405	309	477	301
28	295	219	359	575	712	857	939	991	421	316	528	244
29	285	271	374	591	716	863	962	1020	---	315	662	129
30	276	272	387	255	---	876	954	1040	412	318	803	114
31	274	---	399	279	---	889	---	1060	---	---	863	---
MONTH	303	263	231	385	524	830	935	865	860	328	444	383

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	21.0	11.0	8.0	7.0	---	17.0	23.0	25.0	29.0	28.0	27.0
2	25.0	22.0	11.0	10.0	7.0	---	17.0	23.0	24.0	---	---	27.0
3	27.0	20.0	9.0	5.0	5.0	---	19.0	24.0	25.0	29.0	27.0	28.0
4	24.0	17.0	9.0	---	5.0	---	17.0	24.0	25.0	29.0	26.0	27.0
5	24.0	17.0	9.0	---	6.0	15.0	19.0	23.0	25.0	27.0	27.0	27.0
6	24.0	17.0	8.0	---	9.0	15.0	21.0	23.0	25.0	29.0	28.0	27.0
7	23.0	16.0	8.0	10.0	8.0	16.0	23.0	23.0	25.0	28.0	27.0	28.0
8	23.0	15.0	8.0	10.0	8.0	17.0	21.0	23.0	26.0	29.0	28.0	28.0
9	22.0	15.0	13.0	10.0	8.0	16.0	21.0	22.0	26.0	26.0	28.0	28.0
10	22.0	15.0	13.0	11.0	8.0	17.0	21.0	23.0	26.0	26.0	28.0	29.0
11	---	14.0	13.0	10.0	10.0	17.0	20.0	21.0	26.0	27.0	26.0	28.0
12	18.0	15.0	14.0	10.0	10.0	---	23.0	22.0	27.0	---	26.0	28.0
13	19.0	16.0	14.0	12.0	10.0	---	24.0	22.0	27.0	---	---	28.0
14	19.0	18.0	15.0	11.0	10.0	19.0	25.0	24.0	27.0	---	27.0	28.0
15	21.0	19.0	15.0	9.0	11.0	20.0	25.0	24.0	26.0	---	26.0	27.0
16	21.0	18.0	15.0	8.0	12.0	20.0	23.0	24.0	27.0	---	26.0	27.0
17	22.0	20.0	14.0	7.0	12.0	19.0	22.0	24.0	26.0	---	27.0	28.0
18	23.0	19.0	13.0	9.0	12.0	19.0	23.0	25.0	26.0	---	28.0	27.0
19	24.0	16.0	13.0	11.0	12.0	18.0	23.0	25.0	27.0	---	28.0	28.0
20	24.0	15.0	---	12.0	12.0	19.0	24.0	24.0	27.0	---	30.0	28.0
21	22.0	15.0	---	12.0	14.0	18.0	24.0	24.0	27.0	27.0	29.0	27.0
22	20.0	14.0	12.0	14.0	15.0	19.0	22.0	25.0	27.0	27.0	28.0	27.0
23	20.0	12.0	12.0	15.0	15.0	19.0	22.0	25.0	27.0	27.0	28.0	26.0
24	19.0	11.0	13.0	15.0	16.0	20.0	24.0	25.0	29.0	28.0	27.0	---
25	19.0	10.0	15.0	14.0	17.0	20.0	22.0	26.0	30.0	28.0	27.0	25.0
26	19.0	12.0	15.0	13.0	18.0	20.0	22.0	26.0	30.0	28.0	28.0	26.0
27	19.0	12.0	16.0	15.0	17.0	21.0	22.0	27.0	30.0	29.0	29.0	25.0
28	19.0	14.0	15.0	13.0	17.0	21.0	20.0	27.0	30.0	29.0	29.0	25.0
29	21.0	13.0	17.0	11.0	18.0	19.0	21.0	27.0	---	29.0	28.0	25.0
30	21.0	12.0	17.0	8.0	---	18.0	23.0	26.0	29.0	28.0	28.0	22.0
31	22.0	---	17.0	6.0	---	17.0	---	25.0	---	---	---	---
MONTH	21.5	15.5	13.0	10.5	11.5	18.5	21.5	24.0	27.0	---	27.5	27.0

BRAZOS RIVER BASIN

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08111700 MILL CREEK NEAR BELLVILLE, TEX.

LOCATION.--Lat 29°52'51", long 96°12'18", Austin County, at gaging station on abandoned bridge pier at State Highway 36, 5 miles southeast of Bellville, and 6 miles upstream from Brazos River.

DRAINAGE AREA.--377 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1972.

Sediment records: October 1966 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 03...	1300	7.0	20	70	4.7	29	210	0	9.0	52
JAN. 13...	1400	28	17	90	2.3	35	257	0	13	60
FEB. 11...	1145	155	16	64	4.9	24	182	0	17	46
MAR. 21...	1330	5840	8.0	25	1.1	7.2	72	0	11	7.5
APR. 18...	1125	14	19	83	6.1	31	245	0	9.2	62
MAY 22...	1740	53	18	94	5.2	28	281	0	14	50
JULY 11...	1800	16	21	71	4.6	28	212	0	7.6	53
AUG. 01...	1520	17	19	70	3.7	24	215	0	8.0	39
SEP. 28...	1140	5.9	22	62	6.6	26	190	0	7.2	52

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- UENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 03...	.0	.3	289	190	22	--	527	7.0	22.5
JAN. 13...	.2	.2	344	234	24	1.0	627	7.6	14.0
FEB. 11...	.1	.2	262	180	31	.8	493	6.9	11.0
MAR. 21...	.2	.3	96	67	8	.4	174	6.5	19.0
APR. 18...	.3	.1	331	230	31	.9	594	7.2	23.5
MAY 22...	.3	.2	348	260	26	.8	627	7.3	28.0
JULY 11...	.2	.07	290	200	22	.9	510	7.3	29.0
AUG. 01...	.2	.5	272	190	14	.8	486	7.2	31.0
SEP. 28...	.0	.4	271	180	26	.8	494	7.2	30.0

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
FEB. 11...	1130	125	11.0	92	31
MAR. 22...	0930	700	21.0	142	268
APR. 18...	1125	14	23.5	67	2.6
MAY 08...	1320	11800	26.0	116	3700
22...	1735	53	27.5	120	17
AUG. 01...	1520	17	31.0	62	2.9

BRAZOS RIVER BASIN

08114000 BRAZOS RIVER AT RICHMOND, TEX.

LOCATION.--Lat 29°34'56", long 95°45'27", Fort Bend County, at gaging station at bridge on U.S. Highway 59 in Richmond, 925 feet downstream from Texas and New Orleans Railroad Co. bridge.

DRAINAGE AREA.--44,020 sq mi, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1945 to September 1972.

Chemical and biochemical analyses: January 1968 to September 1972.

Pesticide analyses: February 1968 to September 1972.

Water temperatures: November 1950 to September 1972.

Sediment records: January 1966 to September 1972.

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 676 mg/l Sept. 4-30; minimum, 172 mg/l May 1-3, 8-22.

Hardness: Maximum, 270 mg/l Aug. 1-31, Sept. 4-30; minimum, 120 mg/l May 1-3, 8-22.

Specific conductance: Maximum daily, 1,450 micromhos Nov. 20; minimum daily, 222 micromhos May 10.

Water temperatures: Maximum, 30.0°C on many days during summer months.

Sediment concentrations: Maximum daily, 3,860 mg/l Dec. 13; minimum daily, 21 mg/l Aug. 25.

Sediment loads: Maximum daily, 236,000 tons Dec. 13; minimum daily, 34 tons Aug. 26.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-15	1090	6.9	62	9.6	--	83	--	158	0	68
16-19	2320	5.6	70	14	--	130	--	146	0	100
20-23	3680	5.9	62	9.6	--	83	--	158	0	68
24...	11500	5.6	70	14	--	130	--	146	0	100
25-31	11100	5.9	62	9.6	--	83	--	158	0	68
NOV.										
01-22	6510	5.8	75	15	--	130	--	144	0	110
23-30	5840	8.0	52	6.9	--	34	--	140	0	38
DEC.										
01-28	12700	7.7	50	6.8	--	46	--	126	0	47
29-31	8810	7.0	72	12	--	110	--	142	0	98
JAN.										
01-29	~020	7.3	67	13	--	92	--	146	0	83
30-31	5400	6.5	57	12	--	43	--	154	0	42
FEB.										
01-15	5420	5.5	56	8.6	--	46	--	143	0	53
16-29	2290	3.6	66	12	--	68	--	184	0	76
MAR.										
01-20	1730	1.8	71	13	--	72	--	196	0	76
21-27	4090	5.4	47	5.8	--	27	--	132	0	28
28-31	1230	5.1	77	13	--	72	--	217	0	66
APR.										
01-27	909	3.7	76	16	--	100	--	211	0	92
28-30	3230	5.8	--	--	--	81	--	161	9	66
MAY										
01-03	1950	8.2	41	4.3	--	15	--	122	0	18
04-07	6080	8.4	62	9.1	--	60	--	174	0	54
08-22	11900	8.2	41	4.3	--	15	--	122	0	18
23-31	3350	7.2	60	9.8	--	43	--	174	0	47
JUNE										
01-18	1740	8.2	67	13	--	70	--	174	0	56
19-20	4960	11	51	8.7	--	18	--	148	0	17
21-23	6080	9.5	68	12	--	57	--	172	0	65
24-30	1990	11	53	8.4	--	37	--	147	0	41
JULY										
01-15	1630	8.5	74	14	--	95	--	182	0	90
16-24	1750	8.8	51	9.5	--	40	--	156	0	50
25-31	1900	7.8	70	15	--	87	--	163	0	84
AUG.										
01-31	1410	5.8	79	18	--	120	--	180	0	110
SEPT.										
01-03	1450	11	--	--	--	75	--	185	0	65
04-30	959	7.0	79	18	--	140	--	172	0	120
WTD. AVG.										
TIME WTD.	--	7.0	60	10	--	68	--	146	0	63
AVG.										
4370	--	6.5	66	12	--	81	--	163	0	75
TOT. LOAD										
(TONS)	--	30400	255000	43000	--	293000	--	631000	235	274000

BRAZOS RIVER BASIN

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08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

EXTREMES, October 1945 to September 1972.--Dissolved solids: Maximum, 1,400 mg/l Sept. 1-10, 1951; minimum, 128 mg/l Feb. 22-24, 1969.

Hardness: Maximum, 446 mg/l Sept. 1-10, 1948; minimum, 74 mg/l Jan. 13-14, 18-20, 1950.

Specific conductance: Maximum daily, 2,540 micromhos Sept. 4, 1951; minimum daily, 187 micromhos Aug. 31, 1947.

Water temperatures (1950-72): Maximum, 33.0°C Aug. 5, 1951; minimum, 1.0°C Jan. 8, 1970.

Sediment concentrations (January 1966 to September 1972): Maximum daily, 8,300 mg/l Apr. 27, 1966; minimum daily, 8 mg/l Nov. 29, 1967.

Sediment loads (January 1966 to September 1972): Maximum daily, 1,190,000 tons Apr. 28, 1966; minimum daily, 15 tons Apr. 8-10, 1967.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-15	120	.4	.8	431	194	64	--	797	7.4
16-19	200	--	.5	594	230	110	3.6	1110	7.4
20-23	120	.4	.8	431	194	64	2.6	797	7.4
24...	200	--	.5	594	230	110	3.6	1110	7.4
25-31	120	.4	.8	431	194	64	2.6	797	7.4
NOV.									
01-22	210	.3	.8	615	250	130	3.5	1160	7.6
23-30	50	.3	1.8	266	160	43	1.2	506	7.6
DEC.									
01-28	68	.2	.8	291	150	50	1.6	537	7.4
29-31	180	--	.8	556	230	110	3.2	1020	7.3
JAN.									
01-29	150	.2	2.2	487	220	100	2.7	899	7.2
30-31	80	.2	.8	320	190	64	1.4	626	7.3
FEB.									
01-15	72	.3	.4	313	180	58	1.5	594	7.0
16-29	91	.3	.8	410	210	63	2.0	732	6.9
MAR.									
01-20	100	.3	.2	435	230	72	2.1	806	7.3
21-27	42	--	.8	224	140	33	1.0	419	7.3
28-31	110	--	.00	450	240	66	2.0	826	7.6
APR.									
01-27	140	.3	.3	537	260	84	2.7	961	8.3
28-30	120	--	.2	--	210	63	2.4	798	8.5
MAY									
01-03	22	.2	.8	172	120	20	.6	320	7.5
04-07	87	--	.2	367	190	50	--	642	7.5
08-22	22	.2	.8	172	120	20	.6	320	7.5
23-31	65	--	.4	320	190	48	1.4	573	7.3
JUNE									
01-18	120	.3	.4	422	220	78	--	819	7.7
19-20	44	--	.6	225	160	42	.6	468	7.5
21-23	94	--	.7	394	220	78	1.7	740	7.6
24-30	58	--	.7	284	170	47	1.1	544	7.5
JULY									
01-15	140	.3	.5	517	240	95	2.6	931	7.8
16-24	50	--	.8	290	170	38	1.3	538	7.6
25-31	140	--	.6	490	240	100	2.5	919	7.6
AUG.									
01-31	190	.0	.6	614	270	120	3.2	1150	7.5
SEP.									
01-03	100	.0	.5	--	200	46	2.3	750	7.7
04-30	220	--	.7	676	270	130	3.8	1200	7.7
WTD. AVG.	105	.2	.9	388	190	70	2.0	720	7.4
TIME WTD.									
AVG.	124	.2	.7	448	214	80	2.3	825	7.5
TOT. LOAD (TONS)	454000	879	4060	1661000	--	--	--	--	--

BRAZOS RIVER BASIN

08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 22...	1245	3850	12	60	12	120	117	0	94	180	.2	.33
DEC. 22...	0830	13500	5.7	45	7.7	35	118	0	41	55	.2	.34
FEB. 09...	0745	5200	8.0	56	9.2	46	130	0	59	76	.2	.22
APR. 18...	0730	1090	6.1	82	18	96	230	0	94	140	.4	.26
JUNE 07...	1400	1370	8.7	72	15	100	180	0	94	160	.3	.13
AUG. 22...	1130	650	9.0	80	17	120	219	0	95	180	.3	.17

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 22...	.020	.13	.4	.25	540	316	--	200	100	3.7	1010	7.6
DEC. 22...	.040	.00	.6	.30	250	700	122	140	47	1.3	480	7.9
FEB. 09...	.000	.06	.8	.23	322	211	43	180	72	1.5	599	7.8
APR. 18...	.000	.05	.00	.090	552	32	16	280	92	2.5	1000	6.9
JUNE 07...	.003	.17	.02	.12	542	39	8	240	94	2.9	948	8.0
AUG. 22...	.004	.04	.00	.11	610	25	0	270	88	3.2	995	7.9

BRAZOS RIVER BASIN

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08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 22...	24.0	45	130	8.6	101	19	2.2	0	.00	--	--	--
DEC. 22...	12.0	160	220	10.0	93	13	1.6	21	.00	40	0	0
FEB. 09...	5.0	140	30	10.6	83	24	2.5	1	.00	20	0	0
APR. 18...	24.0	25	20	8.5	100	16	2.7	3	.00	--	--	--
JUNE 07...	30.0	15	20	9.0	118	10	4.4	0	.00	10	0	0
AUG. 22...	31.0	10	15	9.0	120	7	1.1	2	.05	10	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 22...	--	--	--	--	--	--	--	--	--	--	--
DEC. 22...	0	0	7	50	0	0	0	.4	0	340	60
FEB. 09...	0	0	10	10	0	20	0	.2	0	570	30
APR. 18...	--	--	--	--	--	--	--	--	--	--	--
JUNE 07...	0	0	2	0	0	20	0	.2	0	890	70
AUG. 22...	0	0	4	0	0	20	0	3.0	4	930	60

BRAZOS RIVER BASIN

08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE MENT (MG/L)	SUS- PENDE MENT (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM
MAR.							
21...	0650	2280	19.0	1290	7940	100	--
22...	0650	11800	18.0	2550	81200	88	98
		SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
MAR.							
21...	--	68	75	83	90	95	
22...	100	55	61	68	73	86	

BRAZOS RIVER BASIN

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08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	897	722	1030	490	802	910	263	729	---	1150	712
2	757	914	---	1080	608	778	---	305	720	---	1230	781
3	883	885	523	1130	522	769	851	356	745	814	1270	---
4	967	901	491	1080	611	755	858	671	---	911	1280	1010
5	---	838	---	---	694	733	904	504	877	882	1270	1020
6	---	---	570	1050	611	730	827	804	868	855	---	1100
7	757	---	580	1070	551	690	873	---	948	952	1280	1180
8	486	939	702	1050	534	676	834	378	948	1070	1280	1200
9	552	1020	624	---	620	711	---	231	980	---	1250	1170
10	705	1050	461	718	---	806	920	222	995	1060	1260	---
11	785	1140	432	758	---	783	945	254	693	1060	1220	1240
12	811	1290	---	796	---	855	932	248	760	1020	1220	1220
13	829	1310	508	814	579	909	904	261	---	947	---	1180
14	784	1420	494	860	614	909	873	300	758	706	1220	1130
15	611	---	468	901	635	930	949	382	926	---	1240	1240
16	1040	1430	409	850	667	909	981	380	687	583	1180	1200
17	1060	---	406	742	684	893	986	356	627	535	1130	---
18	1230	1440	503	680	733	791	986	351	---	534	1110	1150
19	1140	1440	580	709	725	881	990	357	389	514	1030	1230
20	775	1450	520	720	698	847	1050	---	532	508	1130	1260
21	940	---	523	809	728	491	1080	393	622	518	1060	1270
22	994	1420	485	930	746	378	1060	446	970	517	1070	1220
23	602	659	484	---	719	313	1110	475	625	541	1040	1280
24	1120	462	528	985	683	321	1100	536	512	569	1060	---
25	737	---	582	948	660	416	1120	583	483	916	1070	1280
26	620	467	592	966	677	450	1050	527	477	668	1060	1290
27	---	465	607	893	827	559	1040	509	484	951	1020	1200
28	757	519	710	885	848	711	693	561	524	1030	---	1210
29	842	508	985	845	808	816	900	686	614	---	995	1200
30	842	400	1010	689	---	869	---	724	675	---	941	1150
31	842	---	1070	554	---	904	---	544	---	1060	911	---
MONTH	828	973	592	877	664	722	953	435	710	789	1140	1160

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	23.0	13.0	18.0	7.0	20.0	19.0	---	27.0	---	29.0	29.0
2	28.0	23.0	---	17.0	6.0	16.0	---	24.0	26.0	---	29.0	28.0
3	28.0	22.0	10.0	16.0	9.0	15.0	20.0	25.0	26.0	30.0	---	---
4	26.0	20.0	9.0	14.0	---	---	20.0	25.0	---	30.0	28.0	30.0
5	---	19.0	---	---	7.0	---	21.0	24.0	27.0	29.0	---	30.0
6	---	---	10.0	8.0	10.0	16.0	23.0	23.0	28.0	27.0	---	30.0
7	25.0	---	9.0	8.0	8.0	18.0	23.0	---	28.0	26.0	30.0	30.0
8	24.0	17.0	11.0	9.0	7.0	19.0	23.0	22.0	28.0	28.0	29.0	29.0
9	24.0	18.0	13.0	---	7.0	17.0	---	21.0	28.0	---	30.0	30.0
10	20.0	18.0	13.0	---	---	17.0	22.0	24.0	28.0	29.0	29.0	---
11	20.0	17.0	12.0	11.0	---	17.0	23.0	21.0	25.0	27.0	28.0	30.0
12	20.0	16.0	---	10.0	---	19.0	24.0	---	27.0	28.0	28.0	29.0
13	21.0	18.0	14.0	14.0	13.0	20.0	24.0	20.0	---	28.0	---	28.0
14	22.0	20.0	---	---	12.0	20.0	25.0	23.0	28.0	28.0	30.0	28.0
15	23.0	---	15.0	---	14.0	20.0	25.0	23.0	24.0	---	29.0	28.0
16	25.0	20.0	15.0	9.0	14.0	20.0	23.0	24.0	28.0	28.0	29.0	27.0
17	25.0	---	15.0	9.0	14.0	20.0	24.0	23.0	26.0	29.0	30.0	---
18	25.0	20.0	13.0	11.0	14.0	20.0	24.0	24.0	---	---	30.0	28.0
19	25.0	18.0	14.0	---	14.0	20.0	25.0	25.0	28.0	29.0	29.0	29.0
20	26.0	17.0	14.0	14.0	14.0	20.0	25.0	---	29.0	29.0	29.0	---
21	23.0	---	14.0	15.0	15.0	19.0	---	26.0	29.0	28.0	29.0	---
22	23.0	17.0	12.0	---	16.0	18.0	25.0	26.0	29.0	28.0	29.0	28.0
23	21.0	---	13.0	---	17.0	19.0	26.0	26.0	29.0	---	30.0	28.0
24	22.0	13.0	14.0	18.0	18.0	20.0	24.0	26.0	29.0	29.0	30.0	---
25	21.0	---	15.0	---	19.0	20.0	24.0	27.0	30.0	28.0	29.0	26.0
26	22.0	14.0	14.0	---	20.0	21.0	---	27.0	30.0	30.0	29.0	26.0
27	---	14.0	16.0	---	19.0	22.0	23.0	27.0	30.0	28.0	29.0	26.0
28	---	15.0	17.0	17.0	18.0	23.0	21.0	28.0	30.0	28.0	---	25.0
29	22.0	14.0	13.0	14.0	20.0	21.0	23.0	28.0	30.0	---	29.0	28.0
30	23.0	14.0	15.0	11.0	---	19.0	---	28.0	30.0	---	28.0	24.0
31	23.0	---	18.0	---	---	17.0	---	28.0	---	---	28.0	---
MONTH	23.5	---	13.5	---	13.5	19.0	23.0	24.5	28.0	---	29.0	28.0

BRAZOS RIVER BASIN

08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	952	49	126	11300	1030	31400	4530	800	9780
2	923	49	122	10500	950	26900	5270	940	13400
3	741	51	102	8480	770	17600	8840	1330	31700
4	525	41	58	6740	628	11400	8540	650	15000
5	744	50	100	5830	519	8170	7670	400	8280
6	1200	180	583	5400	432	6300	8420	650	14800
7	1570	305	1290	4890	380	5020	11100	770	23100
8	1210	210	686	4520	385	4700	14400	1430	55600
9	1100	110	327	4950	455	6080	15100	1700	69300
10	896	70	169	5750	390	6050	13600	1880	69000
11	738	50	100	5870	390	6180	12300	2100	69700
12	1120	69	209	5740	325	5040	17300	2620	122000
13	1480	88	352	5670	300	4590	22600	3860	236000
14	1580	83	354	5700	285	4390	21500	3300	192000
15	1630	88	387	5720	280	4320	17000	2440	112000
16	1570	90	382	5710	275	4240	15200	1800	73900
17	1540	72	299	5650	250	3810	14700	1340	53200
18	2690	232	1690	5640	245	3730	14800	1100	44000
19	3460	640	5980	5720	270	4170	15600	1030	43400
20	3140	570	4830	5660	265	4050	15900	960	41200
21	3550	350	3350	6570	305	5410	14900	880	35400
22	3830	260	2690	11200	1100	33300	13600	795	29200
23	4180	446	5030	10100	2600	70900	12900	720	25100
24	11500	2580	80100	7390	3000	59900	12000	618	20000
25	12700	3070	105000	5700	2320	35700	10300	527	14700
26	9540	2640	68000	4680	1430	18100	9390	480	12200
27	9800	1620	42900	4450	980	11800	9080	439	10800
28	11400	1600	49200	4860	732	9610	8800	410	9740
29	11600	1450	45400	4950	635	8490	8930	413	9960
30	11500	1200	37300	4630	835	10400	8810	420	9990
31	11500	1150	35700	--	--	--	8680	415	9730
TOTAL	129909	--	492816	189970	--	431750	381760	--	1484180
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	8590	384	8910	6160	675	11200	1820	37	182
2	8500	375	8610	5510	420	6250	1790	55	266
3	8720	420	9890	6180	537	8960	1810	37	181
4	9060	500	12200	6650	690	12400	2090	63	356
5	9360	520	13100	6370	495	8510	2180	65	383
6	9690	450	11800	5820	525	8250	2110	56	319
7	11600	735	23000	5170	430	6000	1980	41	219
8	13400	920	33300	5020	330	4470	1770	35	167
9	12700	1090	37400	5220	265	3730	1520	34	140
10	11600	1050	32900	5000	250	3380	1350	28	102
11	10700	780	22500	5200	260	3650	1170	26	82
12	10100	580	15800	5500	270	4010	1090	27	79
13	10000	455	12300	5340	280	4040	1070	22	64
14	10200	430	11800	4440	218	2610	1340	28	101
15	9460	450	11500	3690	153	1520	2030	54	296
16	8270	370	8260	3190	136	1170	2320	80	501
17	7820	330	6970	2950	112	892	2080	72	404
18	7990	328	7080	2910	102	801	1910	62	320
19	8030	308	6680	2720	110	808	1600	36	156
20	7460	342	6890	2420	100	653	1650	153	682
21	6590	500	8900	2240	95	575	4580	1730	21400
22	5500	512	7600	2170	87	510	10700	2250	65000
23	4610	325	4050	2130	74	426	5640	1200	18300
24	4210	130	1480	2030	68	373	2890	750	5850
25	3950	30	320	1960	72	381	1990	390	2100
26	3750	75	759	1900	54	277	1570	275	1170
27	3650	120	1180	1870	65	328	1280	125	432
28	3570	110	1060	1840	75	373	1160	92	288
29	3520	90	855	1790	47	227	1080	58	169
30	4420	720	8590	--	--	--	1260	54	184
31	6380	838	14400	--	--	--	1410	55	209
TOTAL	243400	--	350084	113390	--	96774	68240	--	120102

BRAZOS RIVER BASIN

08116650 BRAZOS RIVER NEAR ROSHARON, TEX.

LOCATION.--Lat 29°20'58", long 95°34'56", Brazoria County, at gaging station at bridge on Farm Road 1462, 2.0 miles downstream from Big Creek, and 7.3 miles west of Rosharon.

DRAINAGE AREA.--44,340 sq mi of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

Chemical and biochemical analyses: October 1968 to September 1972.

Pesticide analyses: February 1968 to September 1972.

Water temperatures: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-24	1780	7.5	61	13	--	86	--	166	0	75
25...	11800	7.9	97	18	--	150	--	146	0	94
26-31	10000	7.5	61	13	--	86	--	166	0	75
NOV.										
01-23	6020	6.0	71	14	--	130	--	134	0	110
24-30	5280	7.7	44	5.4	--	36	--	120	0	40
DEC.										
01-02	4000	7.9	47	6.3	--	43	--	118	0	45
03...	5940	8.2	62	14	--	96	--	129	0	88
04-28	14100	7.9	47	6.3	--	43	--	118	0	45
29-31	7910	7.5	69	10	--	100	--	140	0	89
JAN.										
01-30	7530	6.2	68	12	--	94	--	144	0	88
31...	7670	--	45	8.7	--	--	--	119	0	--
FEB.										
01-11	5580	4.6	60	9.8	--	52	--	162	0	55
12-13	10300	6.5	84	7.4	--	600	--	113	0	130
14-29	2610	8.2	50	8.0	--	43	--	124	0	54
MAR.										
01-21	1460	2.7	73	16	--	69	--	210	0	73
22-29	3160	5.1	46	6.1	--	30	--	132	0	29
30-31	779	2.7	73	16	--	69	--	210	0	73
APR.										
01-30	641	5.5	74	16	--	100	--	205	8	85
MAY										
01-04	1880	8.2	42	5.2	--	22	--	127	0	25
05-07	4540	9.1	60	11	--	57	--	170	0	57
08-11	15500	8.2	42	5.2	--	22	--	127	0	25
12...	25400	10	--	--	--	--	--	117	0	82
13-24	10600	8.2	42	5.2	--	22	--	127	0	25
25-31	2580	7.2	56	12	--	45	--	176	0	44
JUNE										
01-17	1440	8.3	65	13	--	67	--	178	0	53
18-21	3790	12	52	6.9	--	34	--	150	0	26
22-30	2450	11	56	8.6	--	41	--	154	0	41
JULY										
01-16	1130	13	70	16	--	81	--	190	0	72
17-26	1500	9.0	53	11	--	45	--	164	0	50
27-31	1420	8.8	73	15	--	93	--	162	0	90
AUG.										
01-31	1330	8.5	79	19	--	120	--	186	0	110
SEP.										
01-30	1120	9.0	79	17	--	130	--	184	0	110
WTD. AVG.	--	7.4	58	9.9	--	75	--	141	0	65
TIME WTD.										
AVG.	4220	7.5	64	13	--	83	--	162	1	73
TOT. LOAD										
(TONS)	--	30700	238000	40600	--	305000	--	588000	415	268000

BRAZOS RIVER BASIN

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08116650 BRAZOS RIVER NEAR ROSHARON, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 1,810 mg/l Feb. 12-13; minimum, 197 mg/l May 1-4, 8-11, 13-24.

Hardness: Maximum, 320 mg/l Oct. 25; minimum, 130 mg/l Nov. 24-30, May 1-4, 8-11, 13-24.

Specific conductance: Maximum daily, 4,020 micromhos Feb. 12; minimum daily, 244 micromhos May 10.

Water temperatures: Maximum, 30.0°C on many days during summer months; minimum, 8.0°C Feb. 3, 4, 5.

EXTREMES, October 1968 to September 1972.--Dissolved solids: Maximum, 1,810 mg/l Feb. 12-13, 1972; minimum, 151 mg/l Oct. 25-31, 1970.

Hardness: Maximum, 420 mg/l Aug. 8, 1971; minimum, 100 mg/l Oct. 25-31, 1970.

Specific conductance: Maximum daily, 4,430 micromhos Aug. 8, 1971; minimum daily, 203 micromhos Oct. 26, 1970.

Water temperatures: Maximum, 31.0°C on several days during summer months; minimum, 5.0°C Jan. 8, 9, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-24	120	.3	.4	451	210	70	2.6	831	7.2
25...	300	--	.9	740	320	200	3.7	1530	7.2
26-31	120	.3	.4	451	210	70	2.6	831	7.2
NOV.									
01-23	210	.3	.4	599	240	120	3.6	1120	7.6
24-30	48	.3	.7	244	130	34	1.4	469	7.5
DEC.									
01-02	63	.2	.8	274	140	46	1.6	510	7.4
03...	150	--	1.0	482	210	110	2.9	886	7.4
04-28	63	.2	.8	274	140	46	1.6	510	7.4
29-31	160	--	.6	512	210	99	3.1	926	7.6
JAN.									
01-30	150	.2	.5	492	220	100	2.8	890	7.3
31...	42	--	--	--	150	51	--	488	7.3
FEB.									
01-11	78	.3	.7	343	190	57	1.6	646	7.5
12-13	920	.2	1.8	1810	240	150	--	3230	7.0
14-29	64	.3	.7	343	190	57	1.6	646	7.5
MAR.									
01-21	110	.3	.09	443	250	74	1.9	816	7.4
22-29	46	--	.7	230	140	32	1.1	442	7.6
30-31	110	.3	.09	443	250	74	1.9	816	7.4
APR.									
01-30	140	.3	.09	534	250	70	2.8	962	8.4
MAY									
01-04	28	.2	.9	197	130	22	.9	362	7.6
05-07	84	--	.4	364	200	56	1.8	657	8.0
08-11	28	.2	.9	197	130	22	.9	362	7.6
12...	260	--	--	--	140	46	--	1100	7.4
13-24	28	.2	.9	197	130	22	.9	362	7.6
25-31	68	--	.2	320	190	43	1.4	578	7.7
JUNE									
01-17	110	.3	.2	408	220	71	2.0	775	7.6
18-21	57	--	.4	264	160	35	1.2	525	7.3
22-30	67	--	.4	302	180	49	1.3	596	7.5
JULY									
01-16	130	.4	.3	477	240	86	2.3	845	7.5
17-26	62	--	.4	313	180	42	1.5	577	7.6
27-31	160	--	.05	516	240	110	2.6	975	7.6
AUG.									
01-31	180	.2	.5	617	280	120	3.1	1130	7.5
SEP.									
01-30	200	.0	.4	636	270	120	3.4	1120	7.8
WTD. AVG.	117	.2	.6	403	187	69	2.1	729	7.5
TIME WTD.									
AVG.	126	.2	.4	452	215	77	2.3	820	7.6
TOT. LOAD (TONS)	487000	846	2530	1644000	--	--	--	--	--

BRAZOS RIVER BASIN

08116650 BRAZOS RIVER NEAR ROSHARON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

				DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
DATE	TIME	DIS- CHARGE (CFS)								
OCT.										
22...	1415	3420		17	58	13	100	119	0	87
NOV.										
30...	0930	4210		6.9	47	6.0	35	130	0	39
DEC.										
22...	1430	14000		5.8	44	7.3	38	120	0	42
JAN.										
27...	1300	3300		5.9	74	13	93	172	0	85
FEB.										
09...	1400	4700		8.2	50	8.0	43	124	0	54
MAR.										
30...	0930	727		7.5	76	14	74	228	0	62
APR.										
18...	0915	505		5.3	82	18	100	239	0	91
MAY										
25...	1000	3310		3.4	60	7.4	38	174	0	40
JULY										
27...	1330	1200		7.4	71	13	96	172	0	83
AUG.										
10...	0930	1550		6.6	81	18	150	166	0	122
22...	1330	700		9.7	81	18	120	224	0	91
SEP.										
28...	0930	1020		12	80	19	130	190	0	110
DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
OCT.										
22...	160	.2	.41	.020	.15	.3	.48	507	497	468
NOV.										
30...	48	.3	.22	.017	.14	.7	.44	249	250	473
DEC.										
22...	55	.2	.33	.044	.00	.6	.40	258	254	726
JAN.										
27...	150	.3	.18	.019	.09	.5	.17	523	506	242
FEB.										
09...	64	.3	.19	.000	.08	.8	.27	277	292	281
MAR.										
30...	110	.3	.22	.000	.00	.01	.12	444	456	66
APR.										
18...	150	.4	.27	.000	.06	.00	.080	--	568	42
MAY										
25...	54	.3	.26	.000	.11	.8	.35	301	293	366
JULY										
27...	150	.4	.16	.000	.00	.02	.13	515	506	119
AUG.										
10...	240	.3	.14	.000	.00	.01	.14	724	700	121
22...	180	.3	.22	.008	.02	.01	.12	628	615	76
SEP.										
28...	200	.2	.06	.007	.13	.00	.21	640	643	132
DATE	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	
OCT.										
22...	--	200	100	3.1	926	7.4	24.5	65	190	
NOV.										
30...	--	140	35	1.3	481	7.8	16.0	35	310	
DEC.										
22...	164	140	42	1.4	483	7.5	15.0	240	250	
JAN.										
27...	--	240	97	2.6	947	7.8	20.0	40	100	
FEB.										
09...	49	160	56	1.5	545	7.5	12.5	30	130	
MAR.										
30...	49	250	61	2.0	802	7.7	15.5	20	35	
APR.										
18...	24	280	83	2.7	995	6.8	24.0	25	20	
MAY										
25...	--	180	38	1.2	529	7.8	25.0	45	170	
JULY										
27...	--	230	89	2.8	894	7.8	30.0	10	60	
AUG.										
10...	--	275	139	3.9	1210	7.0	30.0	25	65	
22...	7	280	94	3.2	1020	8.0	31.0	15	40	
SEP.										
28...	88	280	120	3.3	1140	7.4	25.5	10	60	

BRAZOS RIVER BASIN

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08116650 BRAZOS RIVER NEAR ROSHARON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT. 22...	11.1	132	20	2.1	52000	1000	2	.00	--
NOV. 30...	9.0	90	26	2.1	79000	1500	--	.00	--
DEC. 22...	10.2	100	20	1.6	45000	370	24	.00	--
JAN. 27...	9.0	98	2	1.6	18000	48	--	.00	--
FEB. 09...	12.2	114	15	3.1	230000	430	--	.00	--
MAR. 30...	9.2	91	15	3.1	1600	52	--	.00	--
APR. 18...	9.1	107	16	3.1	10	1	7	.00	--
MAY 25...	7.8	93	15	1.1	1800	150	--	.00	--
JULY 27...	8.0	105	18	1.6	110	1	1	.03	--
AUG. 10...	9.0	118	4	1.4	1	1	--	.03	--
22...	8.5	113	10	1.4	72	50	4	.06	--
SEP. 28...	8.0	96	20	1.3	26000	20000	--	--	6.0

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN IN BOTTOM DE- POSITS (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
DEC. 22...	1430	14000	.00	<.2	.00	.4	.01	.9	.01	.8
FEB. 09...	1400	4700	.00	<.2	.00	.3	.00	.7	.00	.7
JULY 27...	1330	1200	.00	<.2	.00	1.6	.01	5.0	.01	<.2
AUG. 22...	1330	700	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
DEC. 22...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 09...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 27...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 22...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 22...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
FEB. 09...	.0	<1.0	.01	.00	.00	.00	.00	.01	.00
JULY 27...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
AUG. 22...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00

BRAZOS RIVER BASIN

08116650 BRAZOS RIVER NEAR ROSHARON, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	871	840	453	1030	516	819	881	438	688	687	1030	976
2	778	851	648	1060	435	813	921	297	697	745	1090	928
3	757	858	886	1100	505	800	926	337	680	820	1310	756
4	806	847	498	1110	625	788	883	380	717	824	1210	1000
5	910	840	529	1070	554	770	857	693	785	876	1230	972
6	886	813	525	1040	670	745	909	515	850	813	1140	1070
7	853	752	464	1060	594	742	934	769	843	840	1210	1050
8	763	777	588	1070	551	721	887	447	894	837	1260	1150
9	623	932	594	962	534	701	884	391	927	917	1210	1210
10	700	990	554	827	607	715	876	244	---	952	1220	1190
11	655	1020	424	713	682	802	921	277	---	995	1230	1180
12	769	1110	438	783	4020	825	947	1100	---	1000	1180	1230
13	812	1200	514	798	2480	822	980	334	662	1050	1280	1200
14	800	1300	404	824	599	915	995	286	745	909	1260	1200
15	868	1400	478	890	591	940	943	315	748	803	1180	1110
16	823	1410	417	886	614	940	897	361	800	746	1220	1170
17	953	1410	400	838	659	895	971	384	840	663	1180	1230
18	1070	1400	410	736	683	907	985	359	585	593	1130	1060
19	1170	1410	508	679	724	806	1010	349	580	580	1100	1130
20	1150	1420	533	718	729	919	1010	370	428	572	1110	1190
21	720	1430	508	715	711	857	1020	375	496	550	1060	1250
22	857	1430	498	838	699	499	1050	397	636	556	1070	1250
23	995	1330	483	935	762	352	1040	437	883	539	1100	1270
24	927	560	481	926	737	319	1090	474	573	538	1040	1230
25	1530	408	553	980	724	309	1100	526	510	579	1060	1230
26	775	452	579	939	679	393	1100	578	491	591	1070	1260
27	580	423	591	962	679	445	1120	523	516	861	1070	1230
28	623	441	610	901	798	515	1110	501	518	943	1070	1180
29	990	494	802	893	861	657	761	538	564	995	1040	1160
30	846	439	995	838	---	793	883	667	634	1040	1020	1150
31	846	---	1010	488	---	868	---	703	---	1040	1010	---
MONTH	861	971	560	891	828	722	963	463	677	789	1140	1140

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.0	23.0	14.0	18.0	9.0	20.0	16.0	24.0	27.0	30.0	30.0	28.0
2	27.0	23.0	13.0	17.0	9.0	17.0	18.0	24.0	26.0	29.0	30.0	28.0
3	27.0	22.0	12.0	17.0	8.0	15.0	20.0	24.0	25.0	30.0	29.0	29.0
4	26.0	21.0	11.0	16.0	8.0	17.0	20.0	24.0	25.0	30.0	28.0	30.0
5	27.0	20.0	11.0	11.0	8.0	18.0	22.0	25.0	26.0	28.0	28.0	30.0
6	25.0	20.0	11.0	10.0	9.0	17.0	23.0	25.0	26.0	27.0	29.0	30.0
7	25.0	20.0	10.0	10.0	10.0	18.0	23.0	25.0	26.0	27.0	30.0	29.0
8	25.0	18.0	11.0	10.0	9.0	20.0	25.0	22.0	27.0	28.0	30.0	29.0
9	25.0	18.0	14.0	11.0	9.0	17.0	22.0	22.0	28.0	28.0	30.0	29.0
10	21.0	18.0	14.0	13.0	10.0	17.0	22.0	23.0	---	28.0	29.0	29.0
11	20.0	17.0	14.0	12.0	11.0	18.0	23.0	22.0	---	28.0	28.0	29.0
12	21.0	17.0	15.0	12.0	11.0	19.0	24.0	22.0	---	28.0	28.0	29.0
13	22.0	18.0	15.0	14.0	12.0	20.0	24.0	21.0	28.0	28.0	29.0	29.0
14	22.0	19.0	15.0	13.0	12.0	20.0	24.0	22.0	28.0	29.0	29.0	28.0
15	24.0	20.0	15.0	12.0	14.0	21.0	25.0	23.0	28.0	29.0	28.0	27.0
16	25.0	20.0	16.0	10.0	15.0	20.0	23.0	24.0	29.0	29.0	29.0	27.0
17	25.0	20.0	16.0	10.0	15.0	20.0	23.0	24.0	28.0	29.0	29.0	28.0
18	25.0	22.0	15.0	11.0	15.0	20.0	24.0	25.0	28.0	29.0	29.0	28.0
19	26.0	18.0	15.0	13.0	15.0	20.0	25.0	25.0	28.0	29.0	28.0	28.0
20	26.0	17.0	15.0	14.0	15.0	21.0	25.0	25.0	29.0	29.0	28.0	28.0
21	24.0	17.0	15.0	15.0	15.0	20.0	26.0	26.0	30.0	29.0	28.0	28.0
22	23.0	17.0	14.0	16.0	16.0	20.0	23.0	26.0	30.0	29.0	30.0	28.0
23	23.0	16.0	14.0	17.0	17.0	19.0	22.0	27.0	30.0	28.0	30.0	28.0
24	22.0	15.0	15.0	18.0	18.0	20.0	24.0	27.0	30.0	29.0	30.0	27.0
25	22.0	14.0	15.0	18.0	19.0	21.0	24.0	27.0	30.0	29.0	30.0	26.0
26	22.0	15.0	16.0	17.0	20.0	21.0	23.0	27.0	30.0	30.0	29.0	26.0
27	22.0	15.0	17.0	18.0	20.0	22.0	23.0	28.0	30.0	30.0	28.0	26.0
28	22.0	16.0	17.0	18.0	20.0	22.0	21.0	27.0	30.0	30.0	29.0	25.0
29	23.0	15.0	18.0	17.0	20.0	22.0	22.0	28.0	30.0	30.0	30.0	27.0
30	23.0	15.0	19.0	13.0	---	19.0	24.0	28.0	30.0	30.0	29.0	25.0
31	23.0	---	19.0	9.0	---	16.0	---	28.0	---	30.0	28.0	---
MONTH	24.0	18.0	14.5	14.0	13.5	19.5	23.0	25.0	28.0	29.0	29.0	28.0

BRAZOS RIVER BASIN

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08116700 BRAZOS RIVER AT HARRIS RESERVOIR, NEAR ANGLETON, TEX.

LOCATION.--Lat 29°14'35", long 95°33'41", Brazoria County, at Harris Pumping Plant of Dow Chemical Company, 10 miles northwest of Angleton.

DRAINAGE AREA.--44,000 sq mi, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: January 1962 to September 1972.

Water temperatures: October 1966 to September 1972.

EXTREMES, January 1962 to September 1969.--Specific conductance: Maximum daily, 7,190 micromhos Mar. 3, 1964; minimum daily, 255 micromhos Apr. 15, 1969.

Water temperatures (1966-69): Maximum, 31.0°C Aug. 6, 7, 11, 12, 1967; minimum, 3.0°C Jan. 13-15, 1968.

REMARKS.--No discharge records available.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 01-19	8.0	64	12	84	190	0	68	120
NOV. 01-12	6.5	61	12	92	130	0	77	150
DEC. 01-28	7.9	48	6.6	45	120	0	47	66
JAN. 01-29	7.0	67	11	93	146	0	85	140
FEB. 11-29	4.7	63	13	56	172	0	62	88
MAR. 22-29	5.1	44	6.4	33	130	0	30	48
APR. 01-30	5.0	70	15	110	218	0	88	150
MAY 23-31	7.5	58	9.1	34	164	0	32	61
JUNE 24-30	10	51	8.5	41	142	0	46	60
JULY 19-26	7.8	49	9.1	48	152	0	49	62
AUG. 02-31	5.8	74	20	120	176	0	110	190
SEP. 07-13	7.0	75	17	130	174	0	120	200

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-19	.3	.2	446	210	54	2.5	822	7.9
NOV. 01-12	.3	.6	466	200	96	2.8	898	7.8
DEC. 01-28	.2	.9	284	150	49	1.6	523	7.6
JAN. 01-29	.2	.5	481	210	94	2.8	865	7.6
FEB. 11-29	.3	.6	375	210	71	1.7	698	7.4
MAR. 22-29	.2	.8	234	140	29	1.2	439	7.4
APR. 01-30	.2	.02	548	240	58	3.2	980	8.3
MAY 23-31	.2	.5	285	180	48	1.1	549	7.6
JUNE 24-30	.3	.2	288	160	46	1.4	539	7.6
JULY 19-26	.3	.00	300	160	36	1.7	560	7.6
AUG. 02-31	.2	.00	602	270	120	3.1	1120	7.5
SEP. 07-13	.0	.00	631	260	120	3.6	1140	7.5

08116700 BRAZOS RIVER AT HARRIS RESERVOIR, NEAR ANGLETON, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	928	822	477	---	480	833	---	419	703	710	990	1000
2	---	840	573	---	429	824	---	284	686	708	1030	---
3	---	855	855	---	477	810	910	295	---	768	1110	732
4	750	847	---	1080	585	---	926	440	---	814	1200	---
5	794	851	---	1020	---	---	905	472	743	821	---	981
6	842	---	535	---	590	744	881	497	830	897	---	1020
7	746	---	434	1030	557	744	935	---	857	801	1210	1000
8	860	738	560	---	537	739	---	497	852	870	1180	1110
9	---	971	615	---	537	708	---	343	912	855	1200	---
10	---	975	570	860	593	708	885	236	---	897	1240	---
11	584	1010	---	725	678	---	905	393	---	908	1200	1180
12	704	1110	---	763	---	---	943	1090	461	980	---	1180
13	795	---	493	789	---	827	962	---	582	1070	---	1210
14	810	---	394	815	669	863	985	---	689	934	1270	1210
15	860	1390	477	---	586	944	---	317	788	877	1270	1130
16	---	1410	418	---	616	931	---	375	---	730	1200	---
17	---	1420	386	869	656	905	934	364	845	679	1220	---
18	1090	1400	---	754	682	---	975	364	---	625	1170	1160
19	1010	1420	---	---	---	---	1010	353	729	568	1130	1090
20	1290	---	539	723	---	889	1020	---	364	555	1130	1140
21	785	---	508	719	---	910	---	---	463	550	1080	1210
22	710	1420	503	---	706	481	1030	393	579	---	1020	1260
23	---	1370	485	---	750	347	---	423	885	---	1060	---
24	---	619	---	908	779	301	1060	473	591	548	1100	---
25	---	---	---	976	745	---	1090	516	508	569	1030	1190
26	751	450	---	912	---	---	1120	573	508	592	---	1210
27	586	---	588	963	756	447	1120	---	515	726	---	671
28	601	---	599	---	---	494	1140	---	516	925	1070	857
29	819	499	727	924	846	591	---	---	554	---	1060	1020
30	---	488	975	475	---	707	---	655	607	995	1050	---
31	---	---	---	---	---	---	---	692	---	---	1040	---
MONTH	---	---	---	---	---	---	---	---	657	777	1130	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	23.0	15.0	---	9.0	20.5	---	24.0	28.0	30.5	30.0	29.5
2	---	23.0	13.0	---	9.0	18.0	---	25.0	27.0	31.0	30.0	---
3	---	23.0	13.0	---	8.0	17.0	21.0	25.0	---	31.0	30.0	29.0
4	28.0	21.0	---	16.0	8.0	---	22.0	25.5	---	31.0	29.0	---
5	27.0	21.0	---	10.0	---	---	23.0	25.5	28.0	29.0	---	30.0
6	25.0	---	11.0	---	---	17.0	23.0	---	27.0	29.0	---	30.0
7	25.0	---	11.0	10.5	9.5	18.5	24.0	---	27.5	30.5	30.0	30.0
8	25.5	18.5	13.5	---	9.0	19.5	---	23.0	28.5	29.0	30.0	30.0
9	---	20.0	17.0	---	9.5	17.0	---	22.5	28.0	29.0	30.0	---
10	---	18.0	14.0	13.0	10.0	17.0	23.0	22.5	---	29.0	30.0	---
11	22.5	18.0	---	13.0	11.0	---	24.0	24.0	---	29.0	30.0	30.0
12	22.0	18.0	---	12.0	---	---	24.5	22.5	27.0	29.0	---	29.0
13	24.0	---	15.0	13.0	---	21.0	25.0	---	27.0	28.0	---	29.0
14	23.0	---	17.0	13.0	14.0	21.0	26.0	---	28.0	29.0	30.0	29.0
15	24.0	20.0	16.0	---	15.0	22.0	---	23.5	28.0	29.0	29.0	28.0
16	---	20.0	16.0	---	15.0	22.0	---	25.0	---	29.0	29.0	---
17	---	21.0	16.0	10.0	16.0	21.0	25.0	25.0	28.0	29.0	30.0	---
18	25.0	22.0	---	11.0	15.0	---	25.0	25.0	---	29.0	30.0	---
19	26.0	19.0	---	---	---	---	25.0	25.5	30.0	29.5	30.0	29.5
20	26.0	---	16.0	14.0	---	21.5	26.0	---	30.0	29.5	29.0	29.5
21	25.0	---	15.0	14.0	---	21.0	---	---	30.0	29.0	29.5	29.0
22	24.0	18.0	14.0	---	16.5	20.5	25.0	27.0	30.0	---	30.0	29.5
23	---	17.5	14.5	---	17.0	19.5	---	27.0	31.0	---	30.0	---
24	---	15.0	---	18.5	19.0	21.0	26.0	27.0	30.5	29.0	30.0	---
25	---	---	---	18.0	19.5	---	25.5	27.0	30.0	29.0	30.5	28.0
26	22.5	17.0	---	17.0	---	---	25.0	28.0	31.0	30.0	---	28.5
27	22.0	---	16.5	18.0	20.0	22.0	25.0	---	31.0	30.0	---	25.0
28	23.0	---	17.5	---	---	23.0	24.0	---	31.0	30.5	30.5	25.5
29	23.0	15.5	17.0	17.5	20.0	22.0	---	---	31.0	---	30.5	27.0
30	---	18.0	19.0	---	---	20.0	---	28.0	31.0	---	30.0	---
31	---	---	---	10.0	---	---	---	29.0	---	30.0	29.5	---
MONTH	---	---	---	---	---	---	---	---	29.0	29.5	30.0	---

BRAZOS RIVER BASIN

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08117200 BRAZOS RIVER AT BRAZORIA RESERVOIR, NEAR BRAZORIA, TEX.

LOCATION.--Lat 29°03'09", long 95°33'00", Brazoria County, at Brazoria Pumping Plant of Dow Chemical Company, 1.5 miles east of Brazoria.

DRAINAGE AREA.--44,000 sq mi, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: January 1962 to September 1972.

Water temperatures: October 1966 to September 1972.

EXTREMES, October 1962 to September 1969.--Specific conductance: Maximum daily, 37,000 micromhos Aug. 28, 1963; minimum daily, 250 micromhos July 12, 1968.

Water temperatures (1966-69): Maximum, 29.0°C on several days during July and August 1967; minimum, 2.0°C Jan. 14-15, 1968.

REMARKS.--No discharge records available.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 01-19	8.3	61	13	78	190	0	64	110
NOV. 01-12	6.3	62	11	90	132	0	79	140
DEC. 01-29	7.8	46	6.6	45	116	0	46	66
JAN. 01-10	6.6	73	13	100	142	0	76	190
FEB. 12-29	4.5	60	8.9	56	163	0	52	83
MAR. 24-30	5.5	36	3.9	22	106	0	20	30
APR. 01-12	6.3	73	17	86	226	0	69	130
MAY 22-31	7.4	47	8.4	24	148	0	22	42
JUNE 26-30	9.3	47	9.4	41	136	0	44	61
JULY 24-28	10	50	10	44	160	0	40	62
AUG. 03-23	5.2	78	19	130	168	0	120	210
SEP. 18-28	4.6	73	18	130	172	0	110	200

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-19	.3	.1	425	200	50	2.4	806	7.6
NOV. 01-12	.3	.6	459	200	92	2.8	869	7.8
DEC. 01-29	.2	1.0	279	140	47	1.6	509	7.5
JAN. 01-10	.2	.4	530	240	120	2.9	1030	7.6
FEB. 12-29	.3	.7	348	190	52	1.8	659	7.6
MAR. 24-30	.2	.8	173	110	19	.9	330	7.3
APR. 01-12	.2	.3	492	250	65	2.4	876	8.0
MAY 22-31	.2	.3	225	150	31	.8	443	7.8
JUNE 26-30	.3	.3	280	160	45	1.4	532	7.6
JULY 24-28	.3	.00	295	170	37	1.5	554	7.5
AUG. 03-23	.2	.00	641	270	130	3.4	1190	7.9
SEP. 18-28	.0	.00	611	250	110	3.4	1110	7.3

BRAZOS RIVER BASIN

08117200 BRAZOS RIVER AT BRAZORIA RESERVOIR, NEAR BRAZORIA, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	790	826	491	---	462	686	---	741	623	527	920	3400
2	---	833	483	---	501	810	---	721	662	525	925	---
3	---	861	550	1030	441	866	611	413	---	556	1040	1570
4	950	861	---	1090	499	---	793	355	---	1150	1060	---
5	937	847	---	1090	633	---	865	286	714	4210	---	976
6	842	---	497	1060	---	810	906	---	706	4600	---	721
7	776	---	452	1030	---	788	910	---	688	6380	1230	793
8	787	785	471	---	588	753	---	764	704	6190	1230	791
9	---	717	658	---	564	758	---	422	2440	4560	1220	---
10	---	962	552	942	536	758	946	293	---	891	1180	---
11	878	981	---	750	1970	---	919	260	---	2390	1210	1040
12	779	1010	---	722	597	---	1140	867	911	867	---	1120
13	791	---	486	---	---	713	5320	---	595	943	---	1250
14	525	---	525	805	---	726	10500	---	458	961	1220	1510
15	644	1280	464	---	695	736	---	308	541	1060	1200	1290
16	---	1380	453	---	---	831	---	325	669	1030	1210	---
17	---	1400	397	892	616	840	1770	326	714	961	1260	---
18	839	1390	---	870	581	---	1090	381	---	921	1270	1190
19	859	1370	---	---	641	---	941	354	834	817	1190	1100
20	1080	---	522	688	---	901	923	---	696	762	1210	1140
21	1200	---	514	727	---	918	955	---	438	737	1190	1220
22	784	1420	504	---	---	810	1020	372	461	---	1160	1160
23	---	1390	493	---	709	684	---	374	596	---	1180	1200
24	---	1160	558	897	711	368	955	400	861	540	1860	---
25	---	---	---	917	747	---	1780	464	658	552	2350	1100
26	1290	461	---	977	---	---	8000	491	593	542	---	1150
27	745	---	---	933	---	340	11100	---	548	547	1130	---
28	598	---	582	---	702	303	8670	---	526	569	1050	1150
29	649	478	615	963	681	320	---	---	504	---	1080	656
30	---	492	818	---	---	322	---	514	521	---	1190	---
31	---	---	---	758	---	---	---	514	---	932	2560	---
MONTH	---	---	---	---	---	---	---	---	706	1660	1280	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	23.0	16.0	---	10.0	21.0	---	25.0	28.0	31.0	29.0	30.0
2	---	23.0	14.5	---	10.0	19.0	---	25.0	27.0	31.0	30.0	---
3	---	23.0	13.0	18.0	8.0	18.0	22.0	24.5	---	31.0	30.0	30.0
4	28.0	22.0	---	17.0	8.0	---	20.5	---	---	30.5	29.0	---
5	28.0	22.0	---	13.0	10.0	---	21.0	25.0	27.0	30.5	---	30.0
6	28.0	---	12.0	12.0	---	18.0	22.0	---	27.0	29.5	---	29.0
7	27.0	---	11.0	10.5	---	19.0	23.0	---	27.0	31.0	29.0	30.0
8	26.5	17.0	13.5	---	10.0	19.0	---	---	27.0	29.5	---	30.0
9	---	19.0	14.0	---	10.0	19.0	---	23.0	28.0	30.0	30.0	---
10	---	18.5	15.0	14.0	10.0	19.0	23.5	22.0	---	29.0	30.0	---
11	23.0	17.0	---	13.0	13.0	---	24.0	22.0	---	29.0	30.0	30.0
12	23.0	18.0	---	12.0	12.0	---	24.0	22.0	28.0	29.0	---	30.0
13	24.0	---	15.0	---	---	19.0	24.5	---	27.5	28.5	---	30.0
14	23.0	---	17.0	---	---	20.0	25.5	---	27.5	28.5	30.0	30.0
15	23.5	20.0	16.0	---	15.0	21.0	---	23.0	28.0	---	29.0	29.0
16	---	20.0	17.0	---	---	21.0	---	23.5	28.0	29.0	29.0	---
17	---	21.0	17.0	11.0	15.0	21.0	24.5	24.0	28.0	29.0	29.0	---
18	25.0	22.0	---	12.0	15.0	---	25.0	24.0	---	29.0	30.0	29.0
19	26.0	19.0	---	---	16.0	---	25.0	---	29.0	29.5	30.0	29.0
20	26.0	---	16.0	16.0	---	22.0	26.0	---	30.0	29.5	29.5	29.0
21	25.5	---	15.5	15.0	---	21.0	26.0	---	30.0	29.0	29.5	29.0
22	24.5	18.0	14.0	---	---	21.5	25.0	25.5	30.0	---	30.0	28.0
23	---	17.0	15.0	---	17.0	20.0	---	27.0	30.5	---	30.0	29.0
24	---	16.0	16.0	18.5	18.0	20.0	25.5	27.0	30.5	29.0	30.0	---
25	---	---	---	18.0	19.0	---	25.5	27.0	30.5	28.5	30.0	28.5
26	23.0	15.5	---	18.5	---	---	25.5	28.0	30.5	29.0	---	28.5
27	23.0	---	---	19.0	---	22.0	26.0	---	31.0	30.0	30.0	---
28	25.0	---	18.0	---	20.0	22.5	25.0	---	30.0	30.5	30.0	27.0
29	22.5	15.0	19.0	18.0	21.5	22.0	---	---	31.0	---	30.0	26.0
30	---	17.0	19.0	---	---	21.5	---	28.0	31.0	---	---	---
31	---	---	---	13.0	---	---	---	28.0	---	30.0	30.0	---
MONTH	---	---	---	---	---	---	---	---	29.0	29.5	---	---

BRAZOS RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08080910 WHITE RIVER RESERVOIR NEAR SPUR, TEX. (Lat 33°27'28", long 101°05'22")

		RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	
DATE	TIME											
OCT. 28...	1330	38380	2.3	15	8.9	110	4.4	194	0	34	76	
FEB. 16...	1545	36700	1.1	20	9.8	130	4.6	216	0	76	86	
DATE	TIME	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
OCT. 28...	1.6	.00		343	74	0	5.4	623	7.8	18.0	--	290
FEB. 16...	1.8	.07		437	90	0	6.0	679	7.7	8.5	10	250

08080940 SALT FORK BRAZOS RIVER AT STATE HIGHWAY 208 NEAR CLAIREMONT, TEX. (Lat 33°12'22", long 100°44'50")

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED CAL- CIUM (CA) (MG/L)	DIS-SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT. 28...	1030	6.4	9.1	490	140	4500	144	0	1400
DEC. 08...	1105	4.7	9.4	490	130	4500	172	0	1500
JAN. 12...	1100	.32	--	870	270	--	--	--	2300
JULY 13...	1145	16	10	78	20	560	137	0	260
SEP. 19...	1135	35	10	160	57	1100	147	0	520

DATE	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI- TUTENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 28...	7000	--	13600	1800	1700	46	21300	7.9	15.5
DEC. 08...	7000	--	13700	1800	1600	47	21100	8.0	5.0
JAN. 12...	7800	--	--	3300	--	--	24100	--	7.5
JULY 13...	780	.2	1780	280	160	15	3000	8.2	29.5
SEP. 19...	1600	.00	3530	640	520	18	6050	7.9	25.0

BRAZOS RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08080950 DUCK CREEK NEAR GIRARD, TEX. (Lat 33°21'22", long 100°42'17")

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
MAR.											
17...	1600	1.1	--	--	--	--	--	--	--	--	1800
21...	1700	1.1	--	--	--	--	--	--	--	--	1800
27...	1420	1.3	18	450	220	220	--	5.7	202	0	1900
31...	1115	1.3	--	--	--	--	--	--	--	--	1800
JULY											
12...	0820	3.8	14	170	52	--	110	--	167	0	580
AUG.											
13...	1625	965	7.4	29	3.3	--	.9	--	86	0	15
13...	2230	571	9.0	43	5.9	--	9.7	--	129	0	32
15...	1545	7.3	14	130	42	--	61	--	134	0	420

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
MAR.										
17...	250	--	--	--	--	--	--	3600	--	19.0
21...	250	--	--	--	--	--	--	3580	--	19.0
27...	260	.8	2.2	3170	2000	1800	2.1	3730	7.8	20.0
31...	250	--	--	--	--	--	--	3620	--	11.0
JULY										
12...	98	--	--	1100	640	510	1.8	1490	8.3	25.0
AUG.										
13...	1.2	--	--	99	86	15	.0	184	7.9	22.0
13...	9.6	--	--	172	130	26	.4	316	7.7	21.0
15...	59	--	--	790	500	380	1.2	1110	8.3	28.0

08081050 SHORT CROTON CREEK AT MOUTH NEAR JAYTON, TEX. (Lat 33°18'27", long 100°31'57")

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
NOV.									
04...	1655	.06	--	1400	310	11000	--	--	3400
24...	0945	.08	12	1400	270	11000	192	0	3400
JAN.									
11...	0930	.04	--	1400	250	9900	--	--	3300
SEP.									
19...	1345	.02	12	1200	210	8900	100	0	3300

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV.								
04...	18000	35000	4800	--	--	53000	--	18.0
24...	18000	34500	4600	4400	71	50800	7.9	9.0
JAN.								
11...	16000	30800	4400	--	--	45300	--	3.5
SEP.								
19...	14000	27700	3900	3800	--	41000	7.5	34.0

BRAZOS RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08081100 CROTON CREEK BELOW SHORT CROTON CREEK NEAR JAYTON, TEX. (Lat 33°18'23", long 100°31'55")

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
NOV.									
04...	1630	1.4	--	1300	1200	4300	--	--	3100
24...	0815	1.2	7.0	1200	290	8800	178	0	3400
JAN.									
11...	0900	.62	5.2	1200	360	9200	166	0	3700
FEB.									
24...	1810	.19	4.6	1300	390	10000	174	0	4100
JULY									
11...	1420	6.1	10	700	48	270	66	0	1400
SEP.									
19...	1400	3.0	11	1200	320	7300	94	0	3500

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV.									
04...	10000	--	20000	8300	--	--	32300	--	17.0
24...	14000	--	27900	4200	4000	59	41600	7.9	9.0
JAN.									
11...	15000	--	29200	4600	4500	--	43200	7.9	3.5
FEB.									
24...	16000	--	32100	4800	4700	63	47300	7.7	18.0
JULY									
11...	700	.00	3170	1900	1900	2.6	4630	7.5	33.0
SEP.									
19...	12000	.4	23900	4300	4200	--	34200	7.7	31.0

08082950 ELM CREEK NEAR PROFITT, TEX. (Lat 33°11'00", long 98°53'40")

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
DEC.										
06...	1240	1.8	3.3	120	66	320	164	0	82	740
JAN.										
10...	1050	.29	2.2	190	120	480	200	0	110	1200
MAY										
30...	1300	.01	7.4	60	20	73	165	0	34	160

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
DEC.									
06...	.3	.2	1410	570	440	5.8	2500	8.2	5.5
JAN.									
10...	.3	.1	2230	950	790	6.8	4070	8.1	11.0
MAY									
30...	.3	.3	432	230	97	2.1	824	7.7	25.0

BRAZOS RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08083500 FORT PHANTOM HILL RESERVOIR NEAR NUGENT, TEX. (Lat 32°36'58", long 99°40'05")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS-	DIS-	DIS-	DIS-	DIS-	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS-	DIS-	
			SOLVED SILICA (SIO2) (MG/L)	SOLVED CAL- CIUM (CA) (MG/L)	SOLVED MAG- NE- SIUM (MG)	SOLVED SODIUM (NA) (MG/L)	SOLVED PO- TAS- SIUM (K) (MG/L)			SOLVED SULFATE (S04) (MG/L)	SOLVED CHLO- RIDE (CL) (MG/L)	
DEC. 07...	1555	75960	3.0	48	16	44	7.2	156	0	60	72	
JULY 18...	1005	62450	.4	54	20	59	7.3	190	0	77	85	
DATE	TIME	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
DEC. 07...	.3	.09	328	190	58	1.4	595	7.6	10.0	10	120	
JULY 18...	.4	.1	397	220	62	1.7	717	7.7	26.5	--	150	

08086120 SALT PRONG HUBBARD CREEK AT U.S. HIGHWAY 380, NEAR ALBANY, TEX. (Lat 32°41'01", long 99°16'05")

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED CAL- CIUM (CA) (MG/L)	DIS-SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
JAN. 11...	0915	.33	4.9	200	74	460	152	0	190

DATE	TIME	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE-CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JAN. 11...	1000	.06	2050	800	680	7.1	3730	7.8	7.0	

08086200 SALT PRONG HUBBARD CREEK NEAR ALBANY, TEX. (Lat 32°42'02", long 99°12'42")

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CAL- CIUM (CA) (MG/L)	DIS-SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)
MAY 02...	1415	.18	5.2	150	51	340	130	0	98	800

DATE	DIS-SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
MAY 02...	.3	.8	1520	590	480	6.2	2850	7.5	25.0

MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08090300 LAKE PALO PINTO NEAR SANTO, TEX. (Lat 32°38'53", long 98°15'56")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
FER. 11...	2335	39000	5.9	140	0	46	11	36	152	0	41
DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FFB. 11...	49		.3	.3	266	160	37	1.2	472	7.9	7.0

08091900 LAKE PAT CLEBURNE NEAR CLEBURNE, TEX. (Lat 32°17'20", long 97°24'54")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESF (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
FER. 13...	2300	26010	6.2	70	5	46	6.1	13	168	0	15
DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FFB. 13...	8.8		.2	.6	181	140	2	.5	309	7.8	7.5

08095550 WACO LAKE NEAR WACO, TEX. (Lat 31°34'46", long 97°11'51")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JULY 10...	1445	155200	2.1	42	5.4	15	2.9	132	0	30	17
DATE	TIME	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED BORON (B) (UG/L)
JULY 10...		.3	.2	181	130	19	.6	328	7.4	29.0	70

08098300 LITTLE POND CREEK AT BURLINGTON, TEX. (Lat 31°01'35", long 96°59'17")

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE MENT (MG/L)	SUS- PENDE MENT (T/DAY)	SUS- SED. FALL DIAM. % FINER THAN .002 MM	SUS- SED. FALL DIAM. % FINER THAN .004 MM	SUS- SED. FALL DIAM. % FINER THAN .008 MM	SUS- SED. FALL DIAM. % FINER THAN .016 MM	SUS- SED. FALL DIAM. % FINER THAN .031 MM
DEC. 07...	1530	13	9.5	542	19	79	83	89	92	97

BRAZOS RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08099000 LEON RESERVOIR NEAR RANGER, TEX. (Lat 32°21'46", long 98°40'32")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS-	DIS-	DIS-	DIS-	DIS-	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS-	DIS-	
			SOLVED SILICA (SI02) (MG/L)	SOLVED CAL- CIUM (CA) (MG/L)	SOLVED MAG- NE- SIUM (MG) (MG/L)	SOLVED SODIUM (NA) (MG/L)	SOLVED PO- TAS- SIUM (K) (MG/L)			SOLVED SULFATE (S04) (MG/L)	SOLVED CHLO- RIDE (CL) (MG/L)	
OCT. 20...	1355	27290	3.8	52	9.6	48	5.1	122	0	47	94	
DATE	TIME	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
OCT. 20...		.3	.1	320	170	69	1.6	599	7.6	21.0	0	45

08099400 PROCTOR LAKE NEAR PROCTOR, TEX. (Lat 31°58'07", long 98°29'09")

		DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED SILICA (SI02) (MG/L)	RESER- VOIR STORAGE (AC-FT)	TIME	DATE
		BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)				
OCT. 20...		139	0	52	160	3.3	50	19	81
		6.5							

08104050 STILLHOUSE HOLLOW LAKE NEAR BELTON, TEX. (Lat 31°01'20", long 97°31'57")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
DEC. 09...	1330	238400	7.9	44	20	33	3.3	189	0	21	62
MAY 31...	--	235700	3.0	40	20	37	3.8	180	0	26	67
DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
DEC. 09...	.3	.2	286	190	38	1.0	532	7.9	13.0	0	120
MAY 31...	.3	.00	286	180	35	1.2	541	6.7	--	--	90

08109800 EAST YEGUA CREEK NEAR DIME BOX, TEX. (Lat 30°24'26", long 96°49'02")

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
OCT. 20...	1700	4.5	--	208	2.5
DEC. 08...	1430	125	12.0	258	87

BRAZOS RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08109900 SOMERVILLE LAKE NEAR SOMERVILLE, TEX. (Lat 30°19'06", long 96°31'24")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
FEB. 09...	1550	135100	7.1	0	0	42	7.6	--	36	--	100	0
JULY 31...	1240	159800	4.3	--	--	39	8.4	28	--	6.8	98	0

DATE	TIME	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED BORON (B) (UG/L)
FEB. 09...	60	48	.2	.2	251	140	54	1.3	463	7.7	--	--	--
JULY 31...	56	45	.3	.3	237	130	52	1.1	427	6.5	31.0	80	80

08110100 DAVIDSON CREEK NEAR LYONS, TEX. (Lat 30°25'10", long 96°32'24")

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
OCT. 20...	1415	3.1	24.0	160	1.3

08110300 LAKE MEXIA NEAR MEXIA, TEX. (Lat 31°38'45", long 96°34'39")

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
NOV. 12...	1440	4.3	40	3.8	13	4.6	137	0	16	12	.3
DEC. 06...	1615	9.1	25	2.3	5.3	4.1	77	0	12	5.4	.2

DATE	TIME	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
NOV. 12...		.4	163	120	3	.5	296	7.4	19.5	0	80
DEC. 06...		.8	105	72	9	.3	174	7.4	12.5	50	50

SAN BERNARD RIVER BASIN

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08117700 SAN BERNARD RIVER ON FARM ROAD 1301, NEAR WEST COLUMBIA, TEX.

LOCATION.--Lat 29°09'37", long 95°45'56", Brazoria County, at bridge on Farm Road 1301, and 4.4 miles west of West Columbia.

PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 26...	1530	12	18	3.2	14	62	0	6.4	22
NOV. 30...	1445	14	74	13	110	244	0	26	180
JAN. 04...	1345	8.2	18	4.2	14	60	0	9.6	23
FEB. 08...	1710	5.6	20	3.4	19	54	0	16	30
MAR. 23...	1120	8.0	39	8.0	36	128	0	20	57
APR. 19...	1310	13	68	13	95	220	0	31	150
MAY 24...	1625	12	29	4.8	11	100	0	7.2	19
JULY 13...	1500	16	52	14	45	173	0	22	84
AUG. 03...	1105	15	47	10	43	172	0	11	70
SEP. 09...	1500	30	69	18	87	190	0	67	150

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 26...	.0	.9	106	58	7	--	192	6.4	22.5
NOV. 30...	.2	.3	540	240	36	3.2	1010	7.5	15.5
JAN. 04...	.1	.2	108	62	13	.8	202	6.9	15.5
FEB. 08...	.0	.8	124	64	20	1.0	238	6.2	10.5
MAR. 23...	.3	.4	233	130	25	1.4	452	6.9	20.0
APR. 19...	.2	.05	482	220	44	2.8	871	7.4	25.0
MAY 24...	.1	.1	132	92	10	.5	252	6.4	28.0
JULY 13...	.3	.2	319	190	46	1.4	600	7.1	25.0
AUG. 03...	.2	.4	283	160	19	1.5	533	6.9	28.0
SEP. 09...	.0	.5	513	240	88	2.4	882	8.0	29.0

BIG BOGGY CREEK BASIN

08117900 BIG BOGGY CREEK NEAR WADSWORTH, TEX.

LOCATION.--Lat 28°48'46", long 95°57'02", Matagorda County, at bridge on Farm Road 521, 1.3 miles upstream from State Highway 60, and 2.0 miles southwest of Wadsworth.

DRAINAGE AREA.--10.3 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
19...	1035	13	22	18	5.8	13	5.8	71	0	14	21	.1
NOV.												
23...	1215	8.1	5.7	6.0	2.2	5.8	6.4	20	0	12	10	.0
DEC.												
28...	1245	.55	12	29	8.6	23	5.6	114	0	12	39	.2
FEB.												
01...	1045	28	11	9.5	3.2	11	6.0	30	0	10	18	.0
MAR.												
03...	1125	.60	.1	55	16	60	4.0	186	0	24	120	.3
APR.												
11...	1030	7.9	9.2	60	20	60	8.0	179	0	57	110	.4
MAY												
17...	1120	20	16	16	4.8	11	3.6	68	0	.8	14	.2
JUNE												
20...	1520	10	18	49	15	36	2.5	190	0	18	65	.4
JULY												
25...	1130	4.0	17	34	10	27	7.9	124	0	20	52	.2
AUG.												
30...	1345	7.0	33	58	19	49	6.4	225	0	25	90	.3

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.												
19...	--	--	.46	.010	.31	.00	.13	--	135	--	69	11
NOV.												
23...	--	--	.45	.000	.44	.1	.36	--	59	--	24	8
DEC.												
28...	.600	.005	.00	.000	.10	.07	.18	60	186	186	110	14
FEB.												
01...	--	--	.63	.000	.26	.4	.16	--	86	--	37	12
MAR.												
03...	--	--	.28	.000	.14	.02	.085	--	367	--	200	50
APR.												
11...	.530	.038	.97	.056	1.3	.6	.24	110	416	77	230	86
MAY												
17...	--	--	.93	.000	.21	.04	.42	--	100	--	60	4
JUNE												
20...	--	--	.23	.000	.00	.07	.090	--	297	--	180	28
JULY												
25...	.330	.027	.50	.000	.19	.04	.11	100	230	89	130	24
AUG.												
30...	--	--	.42	.000	.06	.03	.062	--	392	--	220	38

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
19...	.7	214	7.1	26.5	50	5.2	63	59	3.3	--	--	--
NOV.												
23...	.5	100	6.0	14.0	90	8.7	84	36	7.2	--	--	--
DEC.												
28...	1.0	331	8.4	26.0	95	10.4	127	49	4.2	110	10	0
FEB.												
01...	.8	132	6.6	7.5	80	11.0	92	56	3.9	--	--	--
MAR.												
03...	1.8	706	8.2	22.0	30	10.2	116	34	4.8	--	--	--
APR.												
11...	1.7	763	7.6	24.5	45	9.8	117	43	8.9	10	0	0
MAY												
17...	.6	177	7.1	26.0	25	5.7	70	46	3.2	--	--	--
JUNE												
20...	1.2	532	8.0	34.0	55	8.1	112	28	2.6	--	--	--
JULY												
25...	1.0	421	7.5	30.0	45	6.6	87	30	2.8	40	0	0
AUG.												
30...	1.4	683	7.6	29.0	20	5.6	72	25	1.8	--	--	--

BIG BOGGY CREEK BASIN

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08117900 BIG BOGGY CREEK NEAR WADSWORTH, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHROMIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MANGANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRONTIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 19...	--	--	--	--	--	--	--	--	--	--	--
NOV. 23...	--	--	--	--	--	--	--	--	--	--	--
DEC. 28...	0	0	6	420	0	0	0	.4	2	170	50
FEB. 01...	--	--	--	--	--	--	--	--	--	--	--
MAR. 03...	--	--	--	--	--	--	--	--	--	--	--
APR. 11...	0	0	5	40	0	0	40	.3	0	410	60
MAY 17...	--	--	--	--	--	--	--	--	--	--	--
JUNE 20...	--	--	--	--	--	--	--	--	--	--	--
JULY 25...	0	0	5	230	0	0	30	.3	0	210	70
AUG. 30...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
DEC. 28...	1245	.55	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 11...	1030	7.9	.00	<.2	.00	<.2	.00	.9	.00	<.2
JULY 25...	1130	4.0	.00	<.2	.00	<.2	.00	.6	.00	<.2

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
DEC. 28...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 11...	.02	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 25...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 28...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
APR. 11...	.0	<1.0	.01	.00	.00	.00	.00	.00	.00
JULY 25...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00

COLORADO RIVER BASIN

08120700 COLORADO RIVER NEAR CUTHBERT, TEX.

LOCATION.--Lat 32°28'41", long 100°56'54", Mitchell County, at gaging station at bridge on Farm Road 1808, 4.8 miles east of Cuthbert, and 8.0 miles northwest of Colorado City.

DRAINAGE AREA.--4,028 sq mi, of which 2,600 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: March 1965 to September 1972.

Water temperatures: March 1965 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
15...	6.0	3.5	220	77	1300	--	12	252	0	550
18...	13	7.7	160	56	--	570	--	214	0	440
30...	185	16	73	15	--	130	--	185	0	100
NOV.										
02...	19	7.7	98	27	--	400	--	152	0	200
18...	7.9	5.3	210	72	--	970	--	262	0	550
30...	5.7	6.2	220	89	--	1200	--	220	0	670
DEC.										
14...	5.8	5.7	270	100	--	1500	--	336	0	830
JAN.										
04...	5.2	5.1	130	59	790	--	6.4	187	0	670
12...	4.8	8.1	270	140	--	1400	--	332	0	900
FEB.										
02...	4.9	5.8	200	86	--	1000	--	252	0	680
16...	4.4	2.1	270	130	--	1600	--	272	0	1000
25...	4.0	2.1	250	150	--	1400	--	272	0	980
MAR.										
14...	1.9	1.4	260	130	--	1600	--	262	0	1000
APR.										
03...	.41	2.2	260	140	1600	--	11	244	0	1100
30...	1.1	2.7	370	140	--	3300	--	128	0	1100
MAY										
02...	10	13	70	19	--	190	--	126	0	180
04...	4.0	8.5	110	28	--	470	--	170	0	220
08...	24	11	92	25	--	630	--	128	0	230
28...	.06	4.4	190	72	--	1500	--	200	0	500
JUNE										
18...	3.1	4.5	110	38	470	--	10	140	0	320
23...	.06	2.3	120	48	--	770	--	114	0	380
JULY										
04...	61	9.6	54	13	170	--	4.8	148	0	110
AUG.										
14...	10900	7.5	32	2.4	--	11	--	112	0	5.2
19...	74	12	230	70	--	1500	--	232	0	510
22...	30	14	200	64	--	1100	--	236	0	500
SEP.										
02...	1450	7.7	37	5.0	--	46	--	108	0	26
06...	41	12	180	49	--	810	--	276	0	400

COLORADO RIVER BASIN

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08120700 COLORADO RIVER NEAR CUTHBERT, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 16,600 micromhos Apr. 29-30; minimum daily, 290 micromhos Aug. 14.
Water temperatures: Maximum, 32.0°C June 14, 19, July 3; minimum, freezing point Jan. 4.

EXTREMES, March 1965 to September 1972.--Dissolved solids (March 1965 to September 1968): Maximum, 28,900 mg/l Apr. 1-12, 25, 1965; minimum, 215 mg/l May 16, 1965.
Hardness (March 1965 to September 1968): Maximum, 3,640 mg/l Apr. 1-23, 25, 1965; minimum, 119 mg/l June 27-28, 1967.
Specific conductance: Maximum daily, 70,000 micromhos Nov. 17, 1968; minimum daily, 290 micromhos Aug. 14, 1972.
Water temperatures: Maximum, 36.0°C Aug. 2, 1966; minimum, freezing point on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
15...	2000	--	--	4300	870	670	19	7340	7.8
18...	880	--	.9	2220	620	450	10	3740	8.2
30...	180	.4	1.8	620	240	92	3.6	1090	7.7
NOV.									
02...	630	.3	.5	1440	360	235	9.2	2770	7.7
18...	1500	--	.3	3460	820	600	15	6070	8.1
30...	1800	--	.3	4090	910	730	17	6890	8.0
DEC.									
14...	2300	--	--	5150	1100	820	20	8380	8.0
JAN.									
04...	1000	--	.5	2770	570	410	14	4500	8.2
12...	2200	--	.3	5000	1200	960	17	8270	8.1
FEB.									
02...	1500	--	1.0	3600	860	650	15	6010	8.1
16...	2400	--	--	5540	1200	970	20	9000	8.1
25...	2100	--	--	4980	1300	1000	17	8160	7.6
MAR.									
14...	2300	.2	--	5420	1200	970	20	8710	7.4
APR.									
03...	2400	--	--	5580	1200	1000	20	9000	7.6
30...	5200	--	--	10200	1500	1400	37	16600	7.1
MAY									
02...	260	.3	1.8	813	250	150	5.3	1430	7.1
04...	730	--	1.3	1660	380	240	10	2950	7.3
08...	960	--	.8	2020	330	230	15	3570	7.1
28...	2400	--	--	4700	760	600	24	8090	7.1
JUNE									
18...	720	.3	.7	1740	420	310	10	3080	8.2
23...	1200	--	2.1	2560	490	400	15	4500	8.1
JULY									
04...	220	.4	1.6	667	190	66	5.3	1190	6.6
AUG.									
14...	10	.2	.4	125	90	2	.5	210	7.9
19...	2400	--	--	4860	860	670	22	8280	7.9
22...	1800	--	.1	3760	770	580	17	6470	8.2
SEP.									
02...	66	.2	1.2	246	110	24	1.9	449	7.6
06...	1200	--	.8	2830	650	420	14	4750	8.2

COLORADO RIVER BASIN

08120700 COLORADO RIVER NEAR CUTHBERT, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	902.2	3280	1910	150	4660	850	67	2060	260	21	640
NOV.	234.9	5090	2970	63	1880	1310	28	829	480	10	302
DEC.	187.2	7680	4670	76	2360	2070	34	1040	750	12	379
JAN. 1972, ..	147.5	7930	4770	61	1900	2030	26	809	880	11	350
FEB.	122.8	8460	5180	59	1720	2200	25	730	990	11	329
MAR.	66.5	8830	5480	32	983	2350	14	421	1040	6.0	188
APR.	62.32	11300	7020	39	1180	3190	18	536	1190	6.7	200
MAY	599.94	2760	1560	81	2520	680	36	1100	220	11	352
JUNE	66.56	2550	1420	8.5	256	570	3.4	103	280	1.7	51
JULY	221.50	2880	1660	32	991	760	15	456	210	4.0	123
AUG.	14475.4	1090	640	811	25100	250	313	9690	87	110	3410
SEP.	3093.4	1600	930	259	7780	390	120	3230	120	33	988
TOTAL	20180.22	--	--	--	51300	--	--	21000	--	--	7310
WTD. AVG.	55.1	1600	940	140	--	390	57	--	130	20	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5500	2040	6980	6420	7770	8190	8960	2120	---	2460	---	3000
2	6040	2650	6500	8310	6010	8000	8960	1430	---	3000	---	1300
3	5380	3350	6320	7830	8060	8220	9000	2470	---	2220	---	472
4	2730	3930	7000	7780	8330	8290	9330	2950	---	1190	5900	1000
5	6750	4470	7200	7720	8970	8260	9290	2790	---	3670	5860	2940
6	7420	4520	6930	7780	8600	8570	9240	5530	---	4610	6000	4750
7	7450	4920	7530	5490	8740	8530	9240	3110	---	4650	6100	4630
8	7070	5350	7640	7390	8780	8710	9500	3570	---	5720	---	6180
9	7120	5430	7910	8120	8490	8890	10300	4990	---	6760	---	6120
10	7340	5680	8010	8060	8560	5730	10400	5110	---	6820	2410	6130
11	7320	5760	7770	8170	8460	8890	10200	4620	8000	7800	1900	6070
12	7460	5670	8280	8240	8490	8530	10300	4500	2880	8800	1250	6290
13	7530	5800	8110	8110	8490	8540	11800	4230	3120	9100	1800	6310
14	7470	5930	8380	8340	8970	8710	11800	4430	3140	9060	290	6370
15	7370	5900	8280	8240	8850	8860	11900	4460	1590	9100	1740	4350
16	7470	5880	8150	8280	9000	9290	12000	4430	4620	9300	4110	4440
17	6530	6070	8020	8250	7790	9420	12900	4510	3900	9670	4090	4390
18	4590	5960	8050	8090	8700	9420	12800	4740	3080	5000	4740	4870
19	8900	6500	8350	8020	8930	8780	9240	4840	2470	4000	8280	4930
20	8240	6930	8200	8150	8890	9590	9330	5570	3980	4230	4830	5860
21	6220	6560	8020	7960	9200	9170	16100	6140	3670	4280	4850	4100
22	6130	6800	7890	8110	8810	9720	8730	6140	---	5000	6470	5950
23	6160	6960	7540	8020	8870	9680	11000	6510	---	5860	6490	5960
24	6070	6870	7590	8080	8560	9680	11100	6330	---	5870	6500	5290
25	6840	7130	7800	8250	8040	9680	12300	7210	---	---	2930	5300
26	6770	7080	7800	8770	8000	9630	12500	7240	---	---	2840	5400
27	6560	7160	7860	8180	8520	9540	10200	7260	---	---	1400	5600
28	7790	7110	7680	8020	8120	9540	12500	8090	---	---	1120	5700
29	2130	7170	8050	7550	8120	9290	16600	8050	---	---	4600	5800
30	1100	6890	7530	8000	---	9080	16600	8590	---	---	4610	5770
31	1300	---	7910	8120	---	8970	---	---	---	---	4650	---
MONTH	6220	5750	7720	7930	8460	8880	11140	5070	---	---	4070	4840

COLORADO RIVER BASIN

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08120700 COLORADO RIVER NEAR CUTHBERT, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	18.0	5.0	11.0	6.0	15.0	12.0	19.0	---	28.0	---	---
2	20.0	15.0	4.0	11.0	7.0	13.0	13.0	22.0	---	25.0	---	20.0
3	---	13.0	5.0	7.0	5.0	12.0	15.0	23.0	---	32.0	---	21.0
4	22.0	18.0	4.0	0.0	7.0	13.0	20.0	24.0	---	23.0	28.0	---
5	25.0	21.0	6.0	3.0	6.0	13.0	22.0	23.0	---	23.0	28.0	22.0
6	25.0	16.0	9.0	5.0	10.0	16.0	22.0	21.0	---	25.0	---	22.0
7	24.0	12.0	13.0	7.0	10.0	18.0	22.0	24.0	---	27.0	---	23.0
8	24.0	13.0	6.0	8.0	11.0	17.0	22.0	24.0	---	29.0	---	24.0
9	22.0	15.0	5.0	12.0	11.0	17.0	27.0	25.0	---	29.0	---	25.0
10	21.0	18.0	8.0	13.0	6.0	25.0	28.0	26.0	---	26.0	25.0	26.0
11	22.0	19.0	8.0	13.0	3.0	22.0	27.0	25.0	---	---	24.0	26.0
12	23.0	18.0	8.0	5.0	7.0	22.0	28.0	25.0	26.0	---	25.0	25.0
13	22.0	19.0	9.0	8.0	4.0	24.0	26.0	25.0	30.0	29.0	23.0	26.0
14	23.0	21.0	11.0	6.0	12.0	22.0	22.0	26.0	32.0	28.0	22.0	26.0
15	18.0	20.0	12.0	8.0	15.0	19.0	---	27.0	23.0	28.0	21.0	26.0
16	24.0	16.0	10.0	9.0	12.0	18.0	22.0	27.0	22.0	---	21.0	26.0
17	24.0	14.0	9.0	10.0	13.0	19.0	23.0	28.0	---	28.0	22.0	27.0
18	23.0	12.0	9.0	13.0	14.0	18.0	25.0	27.0	31.0	28.0	25.0	27.0
19	18.0	15.0	10.0	13.0	13.0	19.0	26.0	27.5	32.0	---	24.0	27.0
20	21.0	16.0	11.0	12.0	12.0	22.0	27.0	27.0	23.0	28.0	24.0	26.0
21	20.0	16.0	13.0	12.0	13.0	24.0	23.0	28.0	24.0	28.0	24.0	25.0
22	21.0	12.0	9.0	13.0	14.0	24.0	23.0	28.0	---	27.0	24.0	26.0
23	20.0	13.0	12.0	11.0	20.0	23.0	21.0	28.0	---	28.0	25.0	26.0
24	21.0	12.0	14.0	10.0	21.0	21.0	20.0	28.0	---	28.0	---	28.0
25	20.0	12.0	13.0	9.0	11.0	20.0	21.0	28.0	---	---	25.0	29.0
26	18.0	13.0	14.0	7.0	16.0	18.0	20.0	27.0	---	---	25.0	28.0
27	21.0	12.0	17.0	5.0	17.0	18.0	12.0	27.0	---	---	24.0	29.0
28	22.0	11.0	13.0	5.0	18.0	18.0	14.0	25.0	---	---	26.0	29.0
29	14.0	13.0	12.0	5.0	18.0	17.0	20.0	24.0	---	---	26.0	28.0
30	13.0	6.0	11.0	6.0	---	8.0	22.0	25.0	---	---	25.0	24.0
31	19.0	---	12.0	7.0	---	10.0	---	---	---	---	---	---
MONTH	21.0	15.0	9.5	8.5	11.5	18.0	21.5	25.5	---	---	---	25.5

COLORADO RIVER BASIN

08121000 COLORADO RIVER AT COLORADO CITY, TEX.

LOCATION. -Lat 32°23'33", long 100°52'42", Mitchell County, at gaging station at Colorado City, 3,517 feet upstream from bridge on State Highway 377, 4,100 feet upstream from Texas and Pacific Railroad Co. bridge, and 1.6 miles upstream from Lone Wolf Creek.

DRAINAGE AREA.--4,082 sq mi of which 2,600 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: May 1946 to September 1954, November 1956 to September 1972.
Water temperatures: November 1952 to September 1954, November 1956 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
07...	.70	6.5	210	86	1600	--	11	160	0	660
19...	6.7	3.8	35	150	--	3300	--	130	0	1300
31...	108	12	66	16	--	220	--	144	0	120
NOV.										
01...	34	9.9	83	21	--	260	--	159	0	150
09...	.81	7.2	170	56	--	990	--	148	0	440
30...	.45	2.6	280	120	--	2500	--	219	0	1100
DEC.										
01...	.45	8.6	320	120	--	2600	--	282	0	1200
29...	.17	6.6	420	170	--	4200	--	262	0	1700
JAN.										
01...	.29	3.1	410	180	4400	--	38	242	0	1700
19...	.20	2.0	510	230	--	5200	--	291	0	2000
FEB.										
15...	.17	.8	540	220	--	6000	--	204	0	2200
MAR.										
16...	.29	1.3	620	270	--	7700	--	212	0	2700
APR.										
06...	.09	1.2	710	310	8800	--	39	232	0	3000
20...	1.5	2.7	380	140	--	4200	--	90	0	1500
24...	.03	1.2	500	200	--	6400	--	112	0	2100
MAY										
02...	40	8.3	58	12	--	200	--	100	0	120
06...	33	8.3	150	42	--	640	--	170	0	380
16...	.06	1.0	190	84	--	1800	--	130	0	680
JUNE										
11...	1.8	4.3	53	19	270	--	7.4	66	0	180
14...	.06	2.8	200	93	--	2200	--	76	0	850
JULY										
04...	3.5	2.8	170	48	1900	--	8.3	44	0	580
05...	.09	2.9	230	74	--	2800	--	72	0	850
AUG.										
12...	5.3	2.7	70	19	--	690	--	64	0	200
13...	.45	3.0	100	35	--	1100	--	86	0	320
14...	1120	8.3	31	4.6	--	14	--	96	0	11
14...	9200	--	--	--	--	--	--	--	--	--
15...	5900	6.0	39	4.0	--	49	--	120	0	26
16...	419	8.3	72	12	--	250	--	142	0	110
17...	196	8.8	97	24	--	460	--	152	0	190
SEP.										
07...	54	10	160	44	--	850	--	235	0	360
17...	.29	4.4	240	110	--	2300	--	271	0	1100
29...	4.0	9.4	240	85	--	1500	--	200	0	720

COLORADO RIVER BASIN

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08121000 COLORADO RIVER AT COLORADO CITY, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 44,800 micromhos Apr. 15; minimum daily, 440 micromhos Aug. 15.
Water temperatures: Minimum, 2.0°C Jan. 4, 15.

EXTREMES, May 1946 to September 1954, November 1956 to September 1969, October 1971 to September 1972.--Dissolved solids (1946-54, 1956-58): Maximum, 48,600 mg/l May 1-17, 1961; minimum, 150 mg/l Sept. 5-7, 1962.
Hardness (1946-54, 1956-68): Maximum, 6,040 mg/l May 1-17, 1961; minimum, 62 mg/l June 27, 1967.
Specific conductance: Maximum daily, 67,400 micromhos May 14, 17, 1961; minimum daily, 245 micromhos May 14, 1957.
Water temperatures (1956-69, 1971-72): Maximum, 37.0°C July 29, 1960, July 9, 1965; minimum, freezing point on many days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
07...	2500	--	--	5100	870	740	23	8860	8.0
19...	4600	--	2.1	9420	690	580	54	15200	7.8
31...	320	.3	1.0	830	230	110	6.2	1440	7.8
NOV.									
01...	410	.4	1.2	1020	290	160	6.7	1850	7.8
09...	1600	--	.4	3330	660	540	17	5840	8.0
30...	3700	--	--	7800	1200	1000	32	12800	7.8
DEC.									
01...	3800	--	1.4	8170	1300	1100	32	13400	7.5
29...	6400	--	1.0	13100	1800	1600	44	20500	7.5
JAN.									
01...	6400	--	--	13300	1800	1600	46	20800	7.8
19...	8000	--	--	16000	2200	2000	48	24900	7.6
FEB.									
15...	9100	--	--	18200	2300	2100	55	27400	7.3
MAR.									
16...	12000	--	--	22900	2700	2500	65	35400	7.6
APR.									
06...	13000	--	--	26500	3100	2900	69	40000	7.4
20...	6500	--	--	12800	1500	1500	47	20400	6.8
24...	9700	--	--	19000	2100	2000	61	28600	6.9
MAY									
02...	290	.3	2.9	754	190	110	6.3	1390	7.2
06...	1000	--	1.1	2310	550	410	12	3930	7.2
16...	2800	--	--	5630	820	720	28	9540	7.1
JUNE									
11...	410	.4	.8	977	210	160	8.1	1800	8.0
14...	3400	--	1.3	6800	870	810	33	11500	7.9
JULY									
04...	2900	.1	--	5600	610	580	33	9720	7.0
05...	4300	--	--	8310	880	820	--	13900	7.2
AUG.									
12...	1000	.1	.07	2060	250	200	19	3600	7.6
13...	1700	--	.2	3320	400	330	24	5840	7.5
14...	25	--	.5	143	96	18	.6	276	7.6
14...	--	--	--	--	--	--	--	--	--
15...	66	--	.3	250	110	15	2.0	469	7.5
16...	390	--	.5	918	230	110	7.3	1620	7.4
17...	720	--	1.8	1590	340	220	11	2790	7.7
SEP.									
07...	1300	--	.8	2870	580	390	15	4850	8.3
17...	3400	--	--	7270	1100	830	--	11800	8.0
29...	2400	--	--	5060	940	770	22	8420	8.1

COLORADO RIVER BASIN

08121000 COLORADO RIVER AT COLORADO CITY, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	587.23	4450	2550	131	4050	1180	60	1860	380	20	608
NOV.	172.92	3160	1780	28	830	800	12	373	250	3.8	115
DEC.	11.16	16900	10600	10	318	5100	5.0	154	1410	1.4	42
JAN. 1972, ..	8.72	23900	15400	12	362	7570	5.8	178	1890	1.4	44
FEB.	8.69	27800	18500	15	433	9230	7.5	217	2260	1.8	53
MAR.	5.67	34700	22400	11	343	11300	5.6	174	2640	1.3	40
APR.	10.03	25900	16900	15	458	8570	7.7	232	1940	1.7	52
MAY	607.11	3660	2140	113	3510	930	49	1520	360	19	589
JUNE	10.56	9720	5670	5.4	162	2820	2.7	80	730	.7	21
JULY	4.42	11500	6750	2.6	81	3510	1.4	42	690	.3	8.3
AUG.	14416.1	1190	680	856	26500	280	353	10900	73	42	2850
SEP.	3370.47	2000	1240	378	11300	470	143	4280	142	43	1290
TOTAL	19213.08	--	--	--	48300	--	--	20000	--	--	5710
WTD. AVG.	52.5	1590	930	132	--	390	55	--	110	16	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5530	1850	13400	20800	27200	31400	39100	3000	---	17600	---	6360
2	7280	2310	12500	21300	25600	31800	39800	1390	---	20000	---	2500
3	8530	2940	13500	21300	26300	31800	40800	1970	---	25000	---	1000
4	7330	3470	14500	20800	26600	32400	40700	2900	---	9720	---	2030
5	8090	4090	15300	20700	26700	32700	40200	3740	---	13900	15000	2500
6	8460	4440	14100	20000	27700	33000	40000	3930	---	16900	17000	3740
7	8840	4850	14600	20200	27500	33400	41600	3230	---	16800	---	4850
8	9230	5450	15400	23600	27100	33900	41800	6320	---	17000	---	6000
9	10100	5800	16200	23000	26800	33800	42400	5920	---	18000	---	7000
10	10500	6200	15600	23100	27400	33800	41900	6710	---	19000	4000	8000
11	10800	6530	16100	23100	27700	33800	41500	8690	2000	20000	3000	8900
12	11400	7040	16700	23800	27200	33900	42200	8950	9000	---	4000	9530
13	12100	7640	16700	24100	27000	33900	43200	9150	10700	---	5840	10300
14	12500	8290	17700	24400	26800	34100	43700	7520	11600	---	1820	10600
15	12800	8930	17700	25700	27400	35200	44800	8920	10000	---	440	10900
16	13200	9370	17400	23600	27800	35400	---	9540	12700	---	2000	11300
17	13500	9500	17700	24300	28200	35600	---	9900	13100	---	3190	11800
18	14000	10300	18000	24700	28000	35500	---	10400	14000	---	6000	11700
19	15200	9630	18400	24900	28100	36700	25000	11100	15000	---	8000	6320
20	16200	10000	18700	24800	28500	36700	20400	12000	---	---	11000	6550
21	16800	11100	18700	24800	28700	36400	23600	13000	---	---	13200	3000
22	17400	11100	18300	24900	29100	36200	25500	14000	---	---	15000	5400
23	17700	11100	18500	25100	28900	36200	27600	15000	---	---	15100	6020
24	17400	11100	19200	25900	28700	36600	28600	16000	---	---	16200	6320
25	17400	11500	19200	25900	29200	36700	29600	17000	---	---	2500	6720
26	17400	11800	19900	25700	29300	37700	30600	18000	---	---	1000	6900
27	16900	11700	19900	26100	29300	38400	30000	19000	---	---	2000	7280
28	16500	12000	19900	26500	29400	38400	26400	20000	---	---	500	7750
29	5200	12500	20500	26700	29600	39200	28700	21000	---	---	1500	8420
30	5000	12800	20500	27200	---	39100	30000	---	15000	---	3500	8680
31	1440	---	20600	26900	---	36600	---	---	---	---	5000	---
MONTH	11770	8190	17270	24000	27860	35170	35170	9940	---	---	---	6950

COLORADO RIVER BASIN

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08121000 COLORADO RIVER AT COLORADO CITY, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	21.0	5.0	10.0	10.0	12.0	10.0	20.0	---	---	---	23.0
2	21.0	20.0	5.0	10.0	6.0	6.0	22.0	23.0	---	---	---	25.0
3	26.0	17.0	5.0	7.0	5.0	8.0	20.0	21.0	---	---	---	23.0
4	23.0	19.0	6.0	2.0	10.0	8.0	20.0	25.0	---	23.0	---	22.0
5	25.0	20.0	7.0	3.0	5.0	16.0	25.0	24.0	---	20.0	---	26.0
6	24.0	12.0	3.0	5.0	14.0	22.0	27.0	21.0	---	22.0	---	27.0
7	28.0	12.0	4.0	5.0	13.0	20.0	27.0	18.0	---	21.0	---	27.0
8	20.0	10.0	7.0	12.0	15.0	18.0	25.0	16.0	---	---	---	32.0
9	23.0	15.5	5.0	15.0	12.0	23.0	26.0	18.0	---	---	---	33.0
10	22.0	8.0	4.0	10.0	8.0	24.0	20.0	19.0	---	---	---	32.0
11	16.0	10.0	5.0	13.0	10.0	25.0	20.0	19.0	24.0	---	---	30.0
12	13.0	10.0	10.0	11.0	12.0	25.0	---	18.0	29.0	---	22.0	24.0
13	17.0	13.0	13.0	8.0	16.0	17.0	20.0	18.0	31.0	---	25.0	24.0
14	16.0	21.0	10.0	6.0	14.0	16.0	---	26.0	25.0	---	23.0	23.0
15	17.0	20.0	10.0	2.0	6.0	15.0	---	31.0	32.0	---	22.5	22.0
16	20.0	22.0	10.0	9.0	5.0	11.0	---	33.0	33.0	---	25.0	23.0
17	25.0	18.0	12.0	4.0	6.0	11.0	---	28.0	31.0	---	24.0	31.0
18	26.0	15.0	10.0	7.0	6.0	11.0	---	29.0	34.0	---	22.0	28.0
19	19.0	14.0	13.0	8.0	7.0	23.0	---	30.0	---	---	22.0	30.0
20	23.0	13.0	7.0	6.0	20.0	24.0	27.0	---	---	---	31.0	26.0
21	25.0	13.0	5.0	7.0	22.0	26.0	28.0	---	---	---	29.0	18.0
22	23.0	11.0	4.0	14.0	18.0	22.0	26.0	---	---	---	32.0	21.0
23	24.0	12.0	7.0	17.0	20.0	25.0	28.0	---	---	---	25.0	22.0
24	24.0	8.0	9.0	14.0	21.0	23.0	14.0	---	---	---	31.0	26.0
25	16.0	12.0	11.0	14.0	21.0	22.0	---	---	---	---	22.0	20.0
26	19.0	8.0	18.0	15.0	16.0	22.0	---	---	---	---	25.0	22.0
27	12.0	7.0	18.0	6.0	21.0	14.0	16.0	---	---	---	24.0	21.0
28	15.0	13.0	13.0	10.0	10.0	14.0	18.0	---	---	---	21.0	22.0
29	18.0	13.0	16.0	5.0	14.0	8.0	20.0	---	---	---	23.0	25.0
30	19.0	5.0	13.0	9.0	---	8.0	---	---	---	---	25.0	16.0
31	20.0	---	13.0	3.0	---	7.0	---	---	---	---	23.0	---
MONTH	20.5	14.0	9.0	8.5	12.5	17.0	---	---	---	---	---	25.0

COLORADO RIVER BASIN

08123800 BEALS CREEK NEAR WESTBROOK, TEX.

LOCATION.--Lat 32°11'57", long 101°00'49", Mitchell County, at gaging station at bridge on State Highway 163, 1.5 miles downstream from Crystal Creek, 11 miles south of Westbrook, and 16 miles southwest of Colorado City.

DRAINAGE AREA.--9,903 sq mi, of which 8,930 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: November 1958 to September 1972.

Water temperatures: November 1958 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
01-08	2.6	6.8	150	120	610	--	15	190	0	630
09-28	1.9	4.8	260	270	--	1300	--	240	0	1300
29-31	24	10	150	110	--	660	--	170	0	590
NOV.										
01-20	2.4	2.9	170	140	--	720	--	218	0	740
21-30	1.7	2.7	240	240	--	1100	--	254	0	1200
DEC.										
01-31	2.4	2.7	280	280	--	1300	--	256	0	1400
JAN.										
01-31	2.1	.8	280	300	1400	--	26	248	0	1500
FEB.										
01-29	2.1	1.1	260	260	--	1400	--	178	0	1400
MAR.										
01-31	1.0	2.3	320	340	--	1700	--	230	0	1700
APR.										
01-19	.53	2.9	380	390	1800	--	41	390	0	1900
20...	144	3.3	120	65	--	390	--	144	0	370
21-23	9.7	3.7	77	29	--	200	--	124	0	160
24-30	10	3.3	120	65	--	390	--	144	0	370
MAY										
01-06	38	4.1	76	35	--	210	--	154	0	180
07-09	280	6.8	45	10	--	65	--	121	0	53
10...	6.8	4.1	76	35	--	210	--	154	0	180
11-15	3.2	3.3	140	73	--	430	--	160	0	420
16-31	4.0	2.0	210	140	--	770	--	196	0	760
JUNE										
01-10	.90	4.6	160	100	--	660	--	168	0	460
11-15	48	9.2	98	62	--	250	--	136	0	280
16-18	265	11	75	29	--	150	--	146	0	170
19-22	8.1	4.6	160	100	--	660	--	168	0	460
23-30	9.2	5.6	240	210	--	1200	--	224	0	1100
JULY										
01-04	35	7.3	150	110	540	--	16	160	0	560
05-06	84	10	88	51	--	270	--	110	0	270
07-19	3.6	7.3	150	110	540	--	16	160	0	560
20-22	13	3.9	230	240	--	1100	--	220	0	1100
23-31	.46	7.3	150	110	540	--	16	160	0	560
AUG.										
01-05	.77	9.4	200	110	--	520	--	192	0	540
06-10	2.7	8.3	72	38	--	220	--	132	0	210
11...	80	7.3	44	9.3	--	54	--	132	0	46
12-21	13	8.3	72	38	--	220	--	132	0	210
22-26	.53	9.4	200	110	--	520	--	192	0	540
27-31	107	8.3	72	38	--	220	--	132	0	210
SEP.										
01...	8.9	8.1	190	270	--	1200	--	212	0	1200
02-04	846	10	62	22	--	140	--	130	0	140
05-07	47	8.1	190	270	--	1200	--	212	0	1200
08-20	17	3.9	280	660	--	2600	--	228	0	2800
21-26	175	9.1	80	66	--	320	--	128	0	330
27-30	7.8	8.1	190	270	--	1200	--	212	0	1200
WTD. AVG.	--	8.3	93	72	--	338	--	144	0	360
TIME WTD.										
AVG.	22	4.2	217	216	--	1020	--	210	0	1070
TOT. LOAD (TONS)	--	183	2040	1590	--	7180	--	3160	0	7910

COLORADO RIVER BASIN

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08123800 BEALS CREEK NEAR WESTBROOK, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 10,800 mg/l Sept. 8-20; minimum, 306 mg/l Aug. 11.

Hardness: Maximum, 3,400 mg/l Sept. 8-20; minimum, 150 mg/l May 7-9, Aug. 11.

Specific conductance: Maximum daily, 18,900 micromhos Sept. 18; minimum daily, 600 micromhos May 6.

Water temperatures: Maximum, 34.0°C on several days during June and July; minimum, 2.0°C Jan. 4, 6, 7, 15, Feb. 3.

EXTREMES, November 1958 to September 1972.--Dissolved solids: Maximum, 15,300 mg/l June 1-9, 1969; minimum, 141 mg/l Sept. 12-13, 1964.

Hardness: Maximum, 5,070 mg/l May 5-21, 1960; minimum, 75 mg/l Oct. 18-19, 1960, Oct. 12-13, 1970.

Specific conductance: Maximum daily, 22,800 micromhos June 2, 1969; minimum daily, 219 micromhos Sept. 13, 1964.

Water temperatures: Maximum, 37.0°C June 28, 1960; minimum, freezing point Jan. 7, 1971.

WATER QUALITY DATA. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-08	1000	--	.6	2650	880	720	8.9	4360	7.9
09-28	2200	--	--	5490	1800	1600	14	8700	7.9
29-31	1100	--	4.8	2690	840	700	9.8	4420	7.6
NOV.									
01-20	1200	--	1.4	3050	1000	840	9.8	4940	7.7
21-30	1800	--	1.6	4700	1600	1300	12	7540	7.8
DEC.									
01-31	2100	--	--	5490	1800	1600	13	8590	7.5
JAN.									
01-31	2400	.6	--	6050	1900	1700	14	9300	7.8
FEB.									
01-29	2200	.6	--	5750	1700	1600	15	8870	7.7
MAR.									
01-31	2700	--	--	6850	2200	2000	16	10500	8.1
APR.									
01-19	3000	--	--	7690	2600	2200	15	11700	8.1
20..	630	.5	1.2	1650	560	440	7.1	2780	8.0
21-23	330	--	1.2	865	310	210	4.8	1590	7.9
24-30	630	.5	1.2	1650	560	440	7.1	2780	8.0
MAY									
01-06	330	.5	1.0	915	330	210	5.0	1620	8.1
07-09	96	.4	1.2	342	150	54	2.3	617	8.0
10...	330	.5	1.0	915	330	210	5.0	1620	8.1
11-15	720	--	1.0	1880	650	520	7.3	3110	8.1
16-31	1300	--	.8	3280	1100	930	10	5340	8.1
JUNE									
01-10	1200	--	.5	2650	820	680	10	4380	8.1
11-15	450	.5	1.7	1230	500	390	4.9	2140	8.3
16-18	240	.5	.9	752	310	190	3.8	1230	8.3
19-22	1200	--	.5	2650	820	680	10	4380	8.1
23-30	1900	--	1.3	4750	1500	1300	13	7140	8.1
JULY									
01-04	930	--	1.0	2400	840	700	8.1	3970	8.1
05-06	460	--	1.2	1210	430	340	5.7	2080	7.4
07-19	930	--	1.0	2400	840	700	8.1	3970	8.1
20-22	1900	--	1.1	4710	1600	1400	12	7660	7.6
23-31	930	--	1.0	2400	840	700	8.1	3970	8.1
AUG.									
01-05	980	--	.7	2460	960	810	7.3	4110	8.2
06-10	340	.6	1.2	954	340	230	5.1	1640	8.1
11...	75	--	1.1	306	150	40	1.9	494	7.6
12-21	340	.6	1.2	954	340	230	5.1	1640	8.1
22-26	980	--	.7	2460	960	810	7.3	4110	8.2
27-31	340	.6	1.2	954	340	230	5.1	1640	8.1
SEP.									
01...	1900	--	.6	4800	1600	1400	13	7660	7.9
02-04	200	.5	.9	644	240	140	3.8	1090	7.9
05-07	1900	--	.6	4800	1600	1400	13	7660	7.9
08-20	4300	--	--	10800	3400	3200	--	15800	7.5
21-26	500	--	1.2	1370	470	370	6.3	2290	7.7
27-30	1900	--	.6	4800	1600	1400	13	7660	7.9
WTD. AVG.	567	--	--	1530	527	411	5.3	2470	7.9
TIME WTD.									
AVG.	1730	--	--	4400	1430	1250	11	6880	7.9
TOT. LOAD (TONS)	12500	--	--	33600	--	--	--	--	--

COLORADO RIVER BASIN

08123800 BEALS CREEK NEAR WESTBROOK, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS
OCT. 1971, ..	132.4	5380	3300	38	1180	1280	15	458
NOV.	64.52	6080	3710	22	646	1440	8.4	251
DEC.	74.4	8620	5530	36	1110	2170	14	436
JAN. 1972, ..	64.1	9300	6000	33	1040	2360	13	408
FEB.	59.9	8800	5650	32	914	2220	12	359
MAR.	31.03	10400	6760	18	566	2670	7.2	224
APR.	255.50	2940	1770	41	1220	660	15	455
MAY	1154.44	740	390	39	1220	100	10	312
JUNE	1150.95	1600	930	96	2890	320	33	994
JULY	400.48	3190	1930	67	2090	720	25	779
AUG.	764.54	1460	840	56	1730	290	19	599
SEP.	3987.7	2090	1230	441	13200	440	158	4740
TOTAL	8139.96	--	--	--	27800	--	--	10000
WTD. AVG.	22.2	2130	1270	76	--	460	27	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4540	3590	8270	9220	8640	9630	11400	1600	3110	3620	5470	6300
2	4520	5950	8080	9590	8490	9670	11200	1550	3850	3000	5770	600
3	4350	7480	7980	9680	8680	9770	11300	1640	7580	4500	6130	1000
4	4130	7630	7830	9860	8460	9770	11400	1690	4370	3120	3000	1100
5	4130	6350	8600	9810	8570	9670	11400	1690	4470	1530	2000	3500
6	4200	5460	8420	9910	8420	9810	11700	600	4750	2610	1120	6770
7	4400	4830	8630	9510	8320	9770	11700	5570	4750	4390	1300	9490
8	4750	5240	8860	9380	8220	9770	11900	650	4830	4400	1710	12500
9	5530	6050	8600	9260	8750	10000	11900	661	4200	3880	1990	13700
10	6080	6610	7920	9220	9190	10200	11800	1430	2050	3600	1010	15500
11	6340	6650	8080	9300	9110	10400	11800	2690	1370	3570	500	17900
12	7030	6150	8220	9380	8830	10600	11700	3160	2000	3540	1200	17500
13	7450	5460	8390	9180	8640	10700	12100	3260	2000	3650	3880	17300
14	7910	5130	8390	8980	8610	10600	12200	3320	1860	3770	1570	17900
15	8500	4690	8290	9140	8680	10600	12300	4000	2020	3870	1350	17300
16	8190	4500	8020	9340	8540	10500	12000	4800	900	3980	1060	17900
17	9320	4430	8190	9300	8400	10500	11600	5360	1180	4080	1430	18200
18	9760	4660	8020	9180	8430	10500	11500	5410	1640	4190	1810	18900
19	10100	5210	8120	9340	8570	10600	10800	5280	2320	4350	2040	12100
20	9860	4910	8050	9300	8490	10600	3000	5190	3320	6300	2430	6000
21	8440	6340	8210	9380	8950	10600	1170	5200	4690	9000	2820	2000
22	9360	6840	9060	9420	8910	10700	1310	5240	4660	7400	3180	1580
23	9720	7630	9810	9300	8990	10800	2170	5410	6550	3900	3380	2720
24	10000	8350	9670	9220	9270	11000	2300	5450	6520	3500	3570	2790
25	10000	8560	9310	9220	9530	11100	2510	5500	6540	3570	3930	2890
26	9950	8700	9220	9180	9760	11200	2890	5620	7490	3730	4080	2000
27	10100	8320	9220	9380	9760	11100	2000	5770	8340	3990	1000	4940
28	10400	8350	9600	9140	9900	11100	3010	5880	8370	4240	1480	9230
29	4000	8320	9810	8910	9860	11200	2790	5900	5000	4410	2500	10500
30	3000	8270	9620	8800	---	11200	1740	2000	5000	4720	2370	9860
31	4420	---	9310	8450	---	11300	---	3620	---	4940	4460	---
MONTH	7110	6360	8640	9300	8860	10480	8220	3710	4190	4170	2570	9330

COLORADO RIVER BASIN

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08123800 BEALS CREEK NEAR WESTBROOK, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	22.0	7.0	10.0	5.0	16.0	11.0	20.0	21.0	26.0	25.0	25.0
2	23.0	17.0	7.0	8.0	5.0	10.0	---	20.0	24.0	---	22.0	22.0
3	23.0	14.0	6.0	9.0	2.0	12.0	15.0	26.0	23.0	---	25.0	24.0
4	22.0	18.0	5.0	2.0	3.0	17.0	17.0	18.0	22.0	24.0	---	24.0
5	24.0	20.0	6.0	4.0	5.0	9.0	22.0	---	25.0	26.0	---	23.0
6	20.0	14.0	4.0	2.0	14.0	13.0	26.0	19.0	22.0	25.0	33.0	24.0
7	24.0	11.0	6.0	2.0	6.0	14.0	19.0	17.0	25.0	30.0	25.0	26.0
8	22.0	11.0	9.0	8.0	4.0	11.0	21.0	17.0	24.0	28.0	27.0	26.0
9	20.0	10.0	7.0	11.0	8.0	12.0	25.0	20.0	23.0	25.0	22.0	27.0
10	23.0	17.0	10.0	12.0	8.0	13.0	22.0	21.0	22.0	25.0	23.0	29.0
11	16.0	12.0	6.0	7.0	6.0	18.0	24.0	20.0	22.0	24.0	22.0	25.0
12	21.0	14.0	11.0	8.0	4.0	24.0	21.0	19.0	25.0	32.0	23.0	---
13	24.0	19.0	6.0	6.0	11.0	25.0	29.0	20.0	26.0	27.0	26.0	29.0
14	18.0	16.0	12.0	5.0	10.0	19.0	---	25.0	28.0	30.0	28.0	24.0
15	19.0	17.0	6.0	2.0	12.0	28.0	18.0	---	24.0	25.0	24.0	25.0
16	25.0	---	10.0	4.0	9.0	23.0	25.0	27.0	25.0	25.0	24.0	26.0
17	23.0	18.0	7.0	12.0	8.0	---	16.0	27.0	25.0	24.0	25.0	28.0
18	21.0	13.0	5.0	9.0	9.0	21.0	28.0	22.0	24.0	25.0	24.0	27.0
19	21.0	11.0	9.0	7.0	10.0	20.0	23.0	22.0	30.0	25.0	29.0	28.0
20	15.0	10.0	7.0	9.0	11.0	16.0	21.0	26.0	34.0	26.0	27.0	25.0
21	21.0	14.0	12.0	12.0	21.0	18.0	19.0	27.0	30.0	25.0	25.0	20.0
22	22.0	12.0	11.0	10.0	11.0	18.0	18.0	25.0	34.0	24.0	31.0	22.0
23	17.0	12.0	9.0	10.0	14.0	24.0	25.0	30.0	32.0	24.0	25.0	23.0
24	18.0	14.0	11.0	10.0	14.0	20.0	19.0	21.0	34.0	30.0	25.0	27.0
25	17.0	11.0	12.0	8.0	14.0	24.0	17.0	---	28.0	27.0	24.0	27.0
26	19.0	10.0	13.0	8.0	10.0	22.0	27.0	25.0	32.0	24.0	24.0	24.0
27	17.0	10.0	15.0	9.0	5.0	25.0	17.0	20.0	34.0	27.0	23.0	28.0
28	18.0	13.0	---	6.0	20.0	22.0	21.0	21.0	34.0	28.0	28.0	28.0
29	---	8.0	14.0	7.0	15.0	14.0	22.0	---	26.0	34.0	25.0	28.0
30	---	9.0	10.0	6.0	---	11.0	25.0	22.0	28.0	30.0	26.0	19.0
31	16.0	---	10.0	4.0	---	10.0	---	22.0	---	25.0	28.0	---
MONTH	20.5	13.5	9.0	7.5	9.5	17.5	21.0	22.0	27.0	26.5	25.5	25.5

COLORADO RIVER BASIN

08123850 COLORADO RIVER ABOVE SILVER, TEX.

LOCATION.--Lat 32°03'13", long 100°45'42", Coke County, at gaging station 0.5 mile downstream from a Pan American Oil Co. bridge, 4.6 miles west of Silver.

DRAINAGE AREA.--15,407 sq mi, of which 11,600 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: December 1967 to September 1972.

Pesticide analyses: October 1970 to September 1972.

Water temperatures: December 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
15...	11	7.7	240	72	750	--	9.1	194	0	690
20...	165	5.8	87	25	--	100	--	104	0	220
24...	12	5.9	150	50	--	420	--	130	0	440
NOV.										
02...	69	6.3	100	44	--	450	--	154	0	310
18...	7.0	5.7	220	69	--	620	--	172	0	610
DEC.										
01...	6.0	3.5	300	80	--	710	--	208	0	750
17...	6.0	2.2	320	120	--	870	--	242	0	920
31...	5.5	2.1	370	150	--	1000	--	206	0	1200
JAN.										
12...	4.6	4.9	380	160	1100	--	14	202	0	1200
FEB.										
25...	3.0	.9	420	200	--	1300	--	120	0	1500
MAR.										
14...	1.5	1.8	470	210	--	1400	--	124	0	1700
APR.										
09...	.20	4.4	580	240	--	--	--	136	0	1900
24...	8.9	4.7	220	100	--	760	--	120	0	850
30...	17	6.0	100	37	260	--	8.6	122	0	290
MAY										
04...	42	3.4	320	120	--	2000	--	196	0	1000
08...	500	5.1	58	10	--	63	--	158	0	57
21...	3.2	3.5	240	71	--	820	--	162	0	650
JUNE										
10...	.43	4.6	320	75	--	870	--	118	0	950
14...	7.1	3.6	330	74	--	1200	--	104	0	1200
15...	45	5.5	150	100	580	--	17	164	0	630
JULY										
04...	14	2.0	250	240	1100	--	24	168	0	1200
08...	18	4.8	60	25	--	150	--	112	0	150
AUG.										
11...	1.9	3.8	120	48	--	260	--	84	0	350
14...	49	5.2	60	16	--	140	--	108	0	150
15...	2020	13	120	78	--	230	--	227	0	210
16...	5620	6.0	40	4.4	--	58	--	126	0	32
21...	38	8.6	130	33	--	460	--	152	0	280
27...	308	9.9	220	74	--	890	--	200	0	700
SEP.										
04...	2130	7.6	58	15	--	130	--	116	0	100
11...	35	8.2	200	160	--	900	--	200	0	820
14...	25	7.4	230	230	--	1200	--	212	0	1200
17...	22	5.5	280	350	--	1700	--	224	0	1700

COLORADO RIVER BASIN

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08123850 COLORADO RIVER ABOVE SILVER, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 10,200 micromhos Apr. 13, 16; minimum daily, 500 micromhos Aug. 16.

Water temperatures: Maximum, 34.0°C June 8, July 17; minimum, freezing point Jan. 5, 16.

EXTREMES, December 1967 to September 1972.--Dissolved solids (December 1967 to September 1968): Maximum, 5,840 mg/l Feb. 1-29; minimum, 231 mg/l May 10.

Hardness (December 1967 to September 1968): Maximum, 1,310 mg/l Jan. 1-31; minimum, 159 mg/l May 10.

Specific conductance: Maximum daily, 13,600 micromhos Mar. 18, May 29, 1969; minimum daily, 398 micromhos May 5, 1968.

Water temperatures: Maximum, 29.0°C June 28, July 1, 10, 17, 30, 1968; minimum, freezing point on several days during winter months.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows. Conductivity is recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
15...	1200	--	.3	3020	880	720	11	4910	7.6
20...	160	.4	.7	659	320	240	2.5	1110	7.7
24...	670	--	.5	1810	580	480	7.6	3050	7.8
NOV.									
02...	680	.4	.5	1670	440	310	9.3	2880	7.5
18...	1000	--	.3	2610	830	690	9.4	4250	7.7
DEC.									
01...	1200	--	.00	3120	1100	910	9.3	4960	7.4
17...	1400	--	.06	3760	1300	1100	11	6000	7.6
31...	1700	--	.2	4530	1500	1400	11	7000	7.3
JAN.									
12...	1400	--	.3	4710	1600	1400	12	7390	7.7
FEB.									
25...	2100	--	--	5640	1900	1800	13	8660	6.9
MAR.									
14...	2200	.4	--	6020	2000	1900	13	9040	6.9
APR.									
09...	2500	--	--	6760	2400	2300	--	10000	7.1
24...	1200	--	1.2	3140	960	870	11	5060	7.0
30...	430	.4	.8	1200	410	360	5.6	2070	6.9
MAY									
04...	3200	.5	--	6830	1300	1100	24	11200	7.4
08...	90	.4	1.4	368	190	60	2.0	691	7.0
21...	1300	--	.3	3180	890	760	12	5240	7.5
JUNE									
10...	1400	--	.7	3620	1100	1000	11	5730	8.1
14...	1800	--	.8	4700	1100	1000	10	7260	7.9
15...	950	.5	1.8	2530	810	680	8.8	4180	8.3
JULY									
04...	1900	.5	.3	4780	1600	1500	12	7620	8.1
08...	230	--	.7	675	250	160	4.0	1230	7.8
AUG.									
11...	440	.3	.3	1260	500	430	3.0	2130	7.7
14...	200	--	.4	625	220	130	4.2	1110	7.8
15...	500	.4	1.2	1270	610	420	4.1	2300	7.8
16...	74	--	.8	280	120	15	2.3	509	7.6
21...	740	--	.2	1720	450	330	9.5	3080	8.0
27...	1400	--	.6	3350	850	690	13	5600	8.0
SEP.									
04...	200	--	.6	571	210	110	3.9	1020	8.0
11...	1500	--	.00	3650	1100	960	12	5970	8.0
14...	1900	--	.3	4840	1500	1400	13	7680	8.0
17...	2800	--	--	6850	2100	1900	--	10500	8.0

COLORADO RIVER BASIN

08123850 COLORADO RIVER ABOVE SILVER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
NOV. 02...	1430	75	.00	.00	.00	.00	.00	.00	.00	.00
JAN. 12...	1345	--	.00	.00	.00	.00	.00	.00	.00	.00
APR. 11...	1315	--	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 15...	1415	3900	.00	.00	.09	.00	.00	.00	.00	.00
15...	1612	4650	.00	.01	.03	.01	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 02...	.00	.0	.01	.00	.00	.00	.00	.01	.00
JAN. 12...	.00	.0	.03	.00	.00	.00	.00	.00	.03
APR. 11...	.00	.0	.00	.00	.00	.00	.00	.00	.00
AUG. 15...	.00	.0	.00	.00	.00	.00	--	--	--
15...	.00	.0	.00	.00	.00	.00	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

MONTH	DISCHARGE (CFS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS TONS PER DAY	DIS- SOLVED SOLIDS TOTAL TONS	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE TONS PER DAY	DIS- SOLVED CHLORIDE TOTAL TONS	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE TONS PER DAY	DIS- SOLVED SULFATE TOTAL TONS
OCT. 1971, ..	1098.6	3380	2050	196	6090	770	73	2270	480	46	1430
NOV.	624.7	3510	2150	121	3620	820	46	1380	500	28	835
DEC.	195.2	6140	3890	66	2050	1470	25	774	970	16	510
JAN. 1972, ..	149.3	7440	4740	62	1910	1760	23	710	1250	16	504
FEB.	122.2	8380	5450	62	1800	2040	23	675	1440	16	477
MAR.	47.96	9060	6020	25	780	2220	9.3	290	1680	7.0	220
APR.	722.94	4910	3120	203	6090	1150	75	2240	810	53	1580
MAY	2944.80	1740	1010	260	8060	400	101	3140	190	49	1510
JUNE	830.08	2040	1220	91	2730	410	30	913	330	25	739
JULY	356.49	3090	1850	57	1780	700	22	671	440	14	421
AUG.	13551.2	960	530	628	19500	190	219	6790	83	97	3020
SEP.	7925	1590	930	661	19800	340	246	7380	190	135	4040
TOTAL	28568.47	--	--	--	74200	--	--	27200	--	--	15300
WTD. AVG.	78.1	1640	960	203	--	350	74	--	200	42	--

08123850 COLORADO RIVER ABOVE SILVER, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3190	4000	4960	7020	7970	8670	9670	2200	5700	2500	---	2100
2	3510	3000	5110	7600	8000	8790	9720	2690	5390	3070	---	2500
3	3700	2460	5460	7030	8060	8830	9810	5980	5380	5900	---	1000
4	3640	2430	5450	5470	8120	8870	9860	9000	5540	7620	---	700
5	3530	2580	6250	7370	8220	8910	9860	5000	5520	3000	---	1100
6	2980	2790	6000	7340	8250	8990	9810	3400	5540	2200	---	1800
7	3750	3000	5000	6790	8290	8950	9900	940	5580	1530	---	2720
8	3970	3150	5500	7180	8390	8950	9900	800	5630	1230	4000	2740
9	4170	3250	6000	7210	9390	8950	10000	1600	5670	1770	3800	3600
10	4480	3450	6100	7340	8420	8980	10000	2330	5730	1820	3430	4500
11	4610	3610	6240	7430	8390	9030	10100	2370	5540	1890	1800	5970
12	4760	3710	6210	7370	8350	9030	10100	2570	5200	1970	1090	5960
13	4760	3800	6170	7460	8320	9070	10200	2560	5300	2230	1060	7650
14	4820	3860	6120	7490	8350	9040	10100	2640	4320	2370	1110	7650
15	4940	4000	6090	7520	8420	9070	10100	3110	3540	2670	560	9270
16	4870	4110	5980	7520	8460	9000	10200	3200	3680	3040	500	9270
17	4830	4190	6000	7550	8520	9120	---	3320	1670	3050	1000	10500
18	4770	4260	6190	7430	8460	9200	---	3940	960	3140	2190	7320
19	4710	4430	6350	7490	8490	9230	---	4390	1220	3230	2560	7090
20	2000	4440	6520	7600	8560	9320	---	4670	1440	3300	2830	7000
21	2510	4530	6760	7570	8560	9270	9220	5240	1700	3380	3080	2030
22	2760	4560	6850	7600	8600	9400	5200	5260	1890	4230	3330	1500
23	2920	4630	6970	7630	8630	9490	5100	5480	2060	4350	3590	960
24	3050	4700	7000	7660	8600	9440	5130	5710	2210	4360	3790	2310
25	3350	4760	7000	7750	8660	9440	5500	5770	2350	4260	3940	2300
26	3570	4760	7000	7870	8670	9580	5790	5840	2480	4250	4460	2650
27	3920	4830	7000	7970	8700	9620	2720	5890	2650	4270	5730	3030
28	4300	4850	7000	7940	8670	9620	3890	5940	2760	4320	1640	3600
29	3500	4880	7000	8060	8630	9760	2250	5990	2870	4370	600	3790
30	4000	4910	7000	8060	---	9760	2070	6010	2000	4440	1200	4020
31	3000	---	7000	8090	---	9710	---	6020	---	4460	1500	---
MONTH	3830	3930	6270	7460	8420	9200	7930	4190	3720	3360	---	4220

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	18.0	7.0	11.0	1.0	15.0	12.0	20.0	20.0	25.0	---	24.0
2	---	19.0	6.0	11.0	5.0	10.0	14.0	20.0	23.0	24.0	---	24.0
3	---	14.0	6.0	10.0	2.0	11.0	16.0	19.0	24.0	25.0	---	21.0
4	---	13.0	5.0	2.0	2.0	11.0	14.0	18.0	24.0	24.0	---	22.0
5	---	14.0	7.0	0.0	5.0	10.0	14.0	18.0	24.0	21.0	---	24.0
6	---	15.0	---	1.0	7.0	12.0	19.0	18.0	24.0	21.0	---	25.0
7	---	10.0	---	3.0	6.0	15.0	19.0	---	23.0	22.0	---	24.0
8	20.0	10.0	---	8.0	5.0	13.0	18.0	15.0	34.0	23.0	26.0	26.0
9	18.0	11.0	---	9.0	7.0	13.0	16.0	18.0	23.0	25.0	23.0	28.0
10	16.0	11.0	---	8.0	8.0	15.0	20.0	19.0	---	25.0	22.0	26.0
11	18.0	11.0	10.0	7.0	4.0	17.0	22.0	18.0	23.0	25.0	22.0	25.0
12	20.0	14.0	11.0	9.5	4.0	18.0	25.0	18.0	24.0	25.0	21.0	28.0
13	18.0	15.0	9.0	7.0	5.0	19.0	23.0	19.0	23.0	26.0	22.0	25.0
14	19.0	16.0	11.0	5.0	8.0	18.0	22.0	18.0	24.0	25.0	23.0	29.0
15	21.5	18.0	8.0	3.0	9.0	19.0	18.0	18.0	23.0	24.0	24.0	24.0
16	22.0	18.0	9.0	0.0	8.0	15.0	---	20.0	24.0	24.0	22.0	25.0
17	22.0	17.0	8.0	5.0	8.0	16.0	---	21.0	24.0	34.0	24.0	30.0
18	21.0	15.0	6.0	9.0	9.0	15.0	---	22.0	---	24.0	24.0	26.0
19	---	16.0	7.0	10.0	8.0	14.0	---	21.0	24.0	24.0	24.0	26.0
20	15.0	15.0	8.0	11.0	10.0	17.0	---	22.0	25.0	25.0	25.0	25.0
21	15.0	14.0	8.0	10.0	14.0	15.0	19.0	22.0	27.0	25.0	25.0	20.0
22	17.0	12.0	7.0	8.0	14.0	16.0	16.0	22.0	27.0	24.0	25.0	20.0
23	18.0	---	8.0	10.0	14.0	18.0	17.0	23.0	26.0	24.0	25.0	19.0
24	19.0	10.0	---	10.0	15.0	20.0	16.0	25.0	26.0	25.0	24.0	20.0
25	20.0	11.0	---	8.0	16.0	17.0	18.0	23.0	27.0	26.0	25.0	21.0
26	20.0	10.0	---	8.0	12.0	18.0	19.0	22.0	26.0	26.0	24.0	20.0
27	16.0	10.0	---	7.0	10.0	17.0	12.0	23.0	26.0	25.0	24.0	22.0
28	18.0	10.0	---	7.0	13.0	17.0	19.0	24.0	26.0	25.0	26.0	23.0
29	19.0	9.0	---	6.0	15.0	13.0	19.0	22.0	24.0	26.0	23.0	25.0
30	20.0	9.0	---	4.0	---	12.0	18.0	23.0	23.0	28.0	25.0	20.0
31	15.0	---	10.0	5.0	---	9.0	---	21.0	---	25.0	25.0	---
MONTH	---	13.5	---	7.0	8.5	15.0	18.0	20.5	24.5	25.0	---	24.0

COLORADO RIVER BASIN

08126500 COLORADO RIVER AT BALLINGER, TEX.

LOCATION.--Lat 31°43'48", long 99°56'30", Runnels County, at gaging station at bridge on U.S. Highway 83 in Ballinger, 2,000 feet upstream from Elm Creek.

DRAINAGE AREA.--16,840 sq mi, of which 11,600 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1972.

Water temperatures: October 1961 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-03	66	11	96	40	110	--	4.7	192	0	210
04...	333	8.2	68	23	--	70	--	140	0	140
05-31	55	11	96	40	110	--	4.7	192	0	210
NOV.										
01-30	28	1.6	120	61	--	170	--	200	0	360
DEC.										
01-31	31	9.2	150	68	--	180	--	200	--	410
JAN.										
01-31	24	9.9	160	74	200	--	4.7	174	0	440
FEB.										
01-29	22	8.6	170	81	--	220	--	184	0	490
MAR.										
01-31	9.6	7.1	190	94	--	240	--	210	0	590
APR.										
01-30	5.4	7.5	240	120	280	--	5.3	208	0	820
MAY										
01-06	7.9	7.5	300	130	--	310	--	124	0	1000
07-12	320	10	81	32	--	110	--	150	0	180
13-31	15	7.8	130	60	--	170	--	200	0	360
JUNE										
01-30	7.8	9.0	180	90	--	210	--	180	0	560
JULY										
01-31	5.2	8.6	190	91	240	--	6.2	180	0	610
AUG.										
01...	.01	12	190	94	--	250	--	124	0	670
02-04	.00	--	--	--	--	--	--	--	--	--
05-12	78	12	190	94	--	250	--	124	0	670
13-14	94	6.6	59	15	--	57	--	90	0	110
15-31	25	11	110	45	--	150	--	156	0	290
SEP.										
01-21	25	12	150	64	--	190	--	172	0	450
22-25	104	5.6	58	15	--	61	--	112	0	98
26-30	11	7.7	96	30	--	92	--	144	0	220
WTD. AVG.	--	9.0	125	56	--	--	--	171	0	344
TIME WTD.										
AVG.	29	8.5	159	75	--	--	--	184	0	475
TOT. LOAD (TONS)	--	257	3550	1590	--	--	--	4860	0	9780

COLORADO RIVER BASIN

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08126500 COLORADO RIVER AT BALLINGER, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 2,400 mg/l May 1-6; minimum, 397 mg/l Aug. 13-14, Sept. 22-25.
 Hardness: Maximum, 1,300 mg/l May 1-6; minimum, 210 mg/l Aug. 13-14, Sept. 22-25.
 Specific conductance: Maximum daily, 3,590 micromhos May 5; minimum daily, 589 micromhos Sept. 23.
 Water temperatures: Maximum, 33.5°C June 21; minimum, 4.5°C Jan. 15.

EXTREMES, October 1961 to September 1972.--Dissolved solids: Maximum, 6,900 mg/l May 2-5, 1963; minimum, 144 mg/l Aug. 14, 1963.
 Hardness: Maximum, 1,550 mg/l May 1-5, 1963; minimum, 97 mg/l Aug. 14, 1963.
 Specific conductance: Maximum daily, 13,500 micromhos May 3, 1963; minimum daily, 249 micromhos Aug. 14, 1963.
 Water temperatures: Maximum, 33.5°C June 21, 1972; minimum, 0.5°C Jan. 29, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-03	210	.4	1.9	786	400	250	2.5	1350	7.8
04...	100	.3	1.1	490	260	150	1.9	832	7.9
05-31	210	.4	1.9	786	400	250	2.5	1350	7.8
NOV.									
01-30	280	.4	3.6	1100	560	400	32	1770	7.8
DEC.									
01-31	320	.6	2.4	1240	650	480	3.1	2030	7.6
JAN.									
01-31	340	.7	5.8	1340	690	550	3.3	2180	7.6
FEB.									
01-29	400	.7	5.7	1490	760	610	3.5	2400	7.6
MAR.									
01-31	400	.6	6.1	1630	850	680	3.5	2520	8.2
APR.									
01-30	470	--	5.4	2060	1100	910	3.7	3020	7.7
MAY									
01-06	540	--	4.2	2400	1300	1200	3.7	3420	6.9
07-12	180	.4	1.9	671	330	210	2.6	1130	7.1
13-31	290	--	2.3	1130	580	410	3.1	1810	7.4
JUNE									
01-30	380	.5	2.9	1540	820	670	3.3	2330	8.3
JULY									
01-31	420	.7	1.9	1660	840	700	3.6	2510	7.2
AUG.									
01...	430	.5	1.4	1710	870	770	3.6	2600	8.2
02-04	--	--	--	--	--	--	--	--	--
05-12	430	.5	1.4	1710	870	770	3.6	2600	8.2
13-14	97	--	1.4	397	210	130	1.7	676	8.1
15-31	250	--	1.3	934	460	330	3.0	1540	8.2
SEP.									
01-21	310	.5	1.8	1270	650	510	3.2	1970	8.1
22-25	100	--	.8	397	210	110	1.8	702	8.0
26-30	150	--	1.7	673	360	240	2.1	1090	8.2
WTD. AVG.	270	.5	2.7	1060	541	402	5.2	1700	7.7
TIME WTD.									
AVG.	340	.6	3.4	1360	705	553	5.6	2130	7.8
TOT. LOAD (TONS)	7690	12	76	30000	--	--	--	--	--

COLORADO RIVER BASIN

08126500 COLORADO RIVER AT BALLINGER, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	1650	1880	2080	2260	2460	2610	3250	2390	1830	3010	---
2	1130	1690	---	2030	---	2560	2760	3300	2580	2010	3040	1690
3	1170	1660	1900	2060	2280	2610	2690	---	2660	2100	3070	1960
4	832	1680	1820	1930	2400	2510	2840	3510	2720	2680	3080	2010
5	1250	1680	1850	2040	2320	---	---	3590	2850	2710	3060	2030
6	1050	1710	1900	2150	2450	2520	2860	3470	2870	---	3090	2160
7	1130	1750	1850	2220	2350	2510	2930	741	---	---	3110	2600
8	1140	1810	1930	---	2300	2530	2950	927	2850	2490	---	2220
9	1220	1740	1960	2210	2280	2530	2890	1140	2970	2290	1910	1860
10	---	1790	1870	2120	2400	2630	---	---	2920	2230	1940	1820
11	1330	1820	2010	2060	2350	2620	3010	1380	2990	2270	1530	1820
12	1340	1790	2120	2140	2320	2560	3010	1470	2970	2270	1620	1840
13	1360	1770	2140	2250	2350	2590	3060	1520	---	2270	635	1810
14	1370	1780	2080	2120	2350	---	3020	1430	2930	2290	725	1830
15	1420	1790	2080	2210	2370	2520	2990	1530	1920	2320	1110	1710
16	1430	1860	2060	---	2410	2570	3130	1590	1970	2970	1020	1890
17	1460	1800	---	2210	2440	2410	3160	1720	1700	2400	1090	1930
18	1420	1760	2040	2270	2400	2380	3170	1530	1880	2400	1330	2040
19	1270	1780	2120	2340	2490	2470	3190	1390	1770	2440	1550	---
20	1430	1750	2000	2250	---	2430	3210	1540	1790	2440	1350	2200
21	1170	1780	---	2210	2490	2430	3010	---	1820	2510	1090	2040
22	1320	1830	2150	2290	2520	2410	3200	1590	1870	---	1200	709
23	1410	1790	2150	2400	2440	2390	3220	1700	---	2620	1380	589
24	---	1800	2140	2320	2540	2430	3220	1780	1980	2660	1560	653
25	1460	1780	2100	2250	2560	2450	3210	1930	2020	2750	1630	859
26	1340	1820	2150	2210	2540	2520	3230	2090	2070	2790	1820	902
27	1500	1840	2190	2210	---	2530	2800	2110	2110	2830	---	987
28	1600	1880	2190	2210	2470	2580	3030	2240	2150	2870	2080	1140
29	1650	1810	2150	2230	2460	2640	3070	2270	2080	2940	2160	1190
30	1630	1860	2120	2250	---	2660	3200	2280	1960	2940	2140	1220
31	1660	---	2090	2250	---	2670	---	2400	---	2990	2140	---
MONTH	1330	1780	2040	2190	2410	2520	3020	1980	2330	2510	1880	1630

COLORADO RIVER BASIN

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08126500 COLORADO RIVER AT BALLINGER, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.5	21.0	6.5	15.0	7.0	16.0	18.5	24.5	26.5	29.5	29.5	---
2	24.0	21.0	---	12.0	---	16.0	19.5	---	28.5	28.0	28.0	26.5
3	23.0	18.5	6.5	13.0	5.0	16.0	19.0	---	28.0	28.0	26.5	25.0
4	21.0	17.0	6.0	5.5	5.5	16.0	18.0	23.5	26.5	26.0	26.5	26.5
5	21.0	17.0	6.5	5.5	6.5	---	---	21.5	27.0	27.0	30.0	29.0
6	22.0	19.0	8.0	8.0	10.0	17.0	23.5	23.0	28.5	---	31.5	30.0
7	23.0	12.0	10.0	7.0	8.5	17.0	24.0	18.0	---	---	29.5	30.5
8	21.0	12.0	7.0	---	9.0	15.5	23.5	21.0	24.0	28.0	---	31.0
9	21.5	14.5	7.0	10.0	10.0	18.0	20.5	23.5	25.0	29.0	24.0	30.5
10	---	16.5	9.0	10.0	7.0	18.0	---	---	27.0	28.0	24.0	29.5
11	21.5	16.0	10.0	8.0	6.0	19.0	26.5	21.0	26.5	25.5	24.5	32.0
12	20.0	16.0	9.5	11.5	9.0	20.0	28.0	24.0	28.0	31.0	24.0	29.5
13	20.0	16.0	10.0	7.0	11.0	20.0	28.0	24.5	---	28.0	24.0	26.5
14	21.0	18.5	10.0	7.0	13.0	---	26.5	25.0	25.0	31.0	28.5	28.0
15	23.0	18.5	11.0	4.5	11.5	19.0	24.5	24.5	29.0	29.5	28.5	27.0
16	23.0	18.0	10.0	---	13.0	20.0	25.5	24.0	28.0	30.0	29.5	28.0
17	23.5	18.5	---	6.0	12.0	20.0	22.0	25.0	26.5	27.0	31.0	26.0
18	23.0	15.0	8.5	7.0	11.0	20.5	25.5	26.5	28.5	26.5	30.0	28.5
19	21.5	15.5	10.0	8.0	11.5	20.0	25.5	24.0	30.5	28.0	29.5	---
20	20.0	15.0	11.0	10.0	---	20.5	24.5	26.5	30.5	25.5	31.0	29.5
21	20.0	15.0	---	10.0	15.5	21.0	24.0	---	33.5	26.5	32.0	24.5
22	21.5	12.0	9.5	9.5	16.0	20.0	21.5	27.0	32.0	---	33.0	22.0
23	24.5	11.5	12.0	13.5	18.0	21.0	25.0	26.5	---	30.0	26.5	22.0
24	---	12.0	10.0	11.0	18.5	21.0	23.5	26.5	32.0	29.5	31.0	24.0
25	20.0	13.0	13.5	10.5	18.0	21.0	21.5	28.0	33.0	29.5	30.5	24.5
26	20.0	13.0	14.5	11.0	15.0	22.0	---	27.0	33.0	31.0	---	23.5
27	19.5	13.0	13.5	9.0	---	23.0	21.0	27.0	31.0	30.5	---	27.0
28	19.5	12.0	14.0	8.0	17.0	20.5	21.0	26.5	32.0	31.5	32.0	28.0
29	21.0	12.0	14.5	6.5	18.5	18.0	---	26.5	32.0	32.0	31.5	28.0
30	21.5	7.0	14.5	8.5	---	17.0	23.5	25.0	31.5	31.5	31.0	25.0
31	20.5	---	14.0	6.0	---	18.0	---	24.0	---	29.5	31.0	---
MONTH	21.5	15.0	10.0	9.0	11.5	19.0	23.0	24.5	29.0	29.0	29.0	27.0

COLORADO RIVER BASIN

08127000 ELM CREEK AT BALLINGER, TEX.

LOCATION.--Lat 31°44'57", long 99°56'51", Runnels County, at gaging station 1,000 feet upstream from storage dam at Ballinger, and 1.2 miles upstream from mouth.

DRAINAGE AREA.--471 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.
Water temperatures: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
01-03	227	13	96	40	130	--	6.2	218	0	130
04-05	743	12	70	22	--	69	--	174	0	63
06-10	177	13	96	40	130	--	6.2	218	0	130
11-31	92	11	120	96	--	240	--	256	6	240
NOV.										
01-30	44	13	140	100	--	340	--	241	0	330
DEC.										
01-31	57	11	160	98	--	320	--	280	0	320
JAN.										
01-31	34	12	150	110	330	--	4.6	270	0	350
FEB.										
01-29	28	10	160	110	--	370	--	272	0	390
MAR.										
01-31	14	5.6	150	130	--	370	--	252	0	420
APR.										
01-30	7.0	4.1	160	140	380	--	4.8	228	0	510
MAY										
01-06	7.4	5.2	150	140	--	420	--	236	0	500
07-10	262	5.8	70	39	--	130	--	106	0	170
11-31	15	6.5	120	77	--	250	--	214	0	280
JUNE										
01-13	20	7.9	130	110	--	320	--	232	0	370
14-30	13	8.9	98	74	--	200	--	198	0	240
JULY										
01-31	9.5	7.9	130	100	300	--	6.3	244	0	330
AUG.										
01-31	2.5	7.3	110	94	--	310	--	216	0	320
SEP.										
01-30	9.3	7.5	140	120	--	360	--	194	0	450
WTD. AVG.	--	10	122	81	--	--	--	229	1	261
TIME WTD.										
AVG.	36	8.7	137	104	--	--	--	238	0	351
TOT. LOAD (TONS)	--	371	4320	2870	--	--	--	8120	31	9240

COLORADO RIVER BASIN

599

08127000 ELM CREEK AT BALLINGER, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 2,190 mg/l May 1-6; minimum, 475 mg/l Oct. 4-5.

Hardness: Maximum, 970 mg/l Apr. 1-30, May 1-6; minimum, 260 mg/l Oct. 4-5.

Specific conductance: Maximum daily, 3,600 micromhos May 4; minimum daily, 837 micromhos Oct. 4.

Water temperatures: Maximum, 33.0°C July 29; minimum, 4.5°C Feb. 3.

EXTREMES, October 1967 to September 1972.--Dissolved solids: Maximum, 2,460 mg/l Aug. 1-31, Sept. 1-30, 1970; minimum, 262 mg/l Sept. 11-12, 1969.

Hardness: Maximum, 1,200 mg/l Sept. 1-30, Dec. 1-31, 1970, Jan. 1-31, Mar. 1-31, 1971; minimum, 150 mg/l Aug. 14-15, 1971.

Specific conductance: Maximum daily, 4,220 micromhos Sept. 12, 17, 1970; minimum daily, 359 micromhos May 7, 1969.

Water temperatures: Maximum, 33.5°C July 13, 1970; minimum, freezing point Jan. 8, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-03	260	.5	3.7	797	400	230	2.7	1410	7.9
04-05	140	.3	4.0	475	260	120	1.8	840	8.0
06-10	260	.5	3.7	797	400	230	2.7	1410	7.9
11-31	500	.7	6.8	1360	680	460	4.0	2310	8.3
NOV.									
01-30	660	.7	9.5	1740	770	570	5.3	2930	7.2
DEC.									
01-31	630	.8	10	1720	790	560	4.9	2860	7.6
JAN.									
01-31	640	1.0	14	1790	840	610	4.9	3020	7.9
FEB.									
01-29	680	.7	13	1910	840	610	5.5	3180	7.5
MAR.									
01-31	730	--	12	1990	910	700	5.4	3320	8.3
APR.									
01-30	770	--	8.0	2110	970	780	5.3	3490	8.0
MAY									
01-06	820	--	6.6	2190	970	770	6.0	3580	8.2
07-10	250	.3	1.8	726	340	250	3.1	1300	8.0
11-31	480	.6	3.7	1330	610	440	4.4	2290	8.3
JUNE									
01-13	640	.8	3.3	1710	790	600	5.0	2820	8.2
14-30	400	.6	1.9	1130	550	390	3.7	1970	8.1
JULY									
01-31	600	1.0	2.4	1610	730	530	4.8	2740	7.2
AUG.									
01-31	580	1.0	.9	1530	670	490	5.1	2610	7.3
SEP.									
01-30	700	--	1.0	1880	850	690	5.3	3050	7.1
WTD. AVG.	487	--	7.1	1350	635	445	4.1	2290	7.8
TIME WTD.									
AVG.	618	--	6.9	1680	770	572	4.9	2820	7.7
TOT. LOAD (TONS)	17300	--	251	47900	--	--	--	--	--

COLORADO RIVER BASIN

08127000 ELM CREEK AT BALLINGER, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1440	2540	3000	2300	3040	3180	3470	3590	2630	2050	2760	---
2	1570	2520	---	3030	---	3180	3470	3580	2690	2050	2760	2660
3	1500	2700	3040	1830	3120	3200	3460	---	2750	2270	2770	2660
4	837	2710	2980	2940	3090	3250	3450	3600	2780	2120	2750	2660
5	843	2850	2850	2950	3110	---	---	3590	2810	2230	2760	2670
6	1060	2740	2800	3070	3160	3250	3500	3580	2840	---	2800	2730
7	1230	2810	2650	3040	3240	3280	3450	1400	---	---	2750	2800
8	1400	2940	2820	---	3180	3290	3510	1200	2910	3020	---	2800
9	1670	2890	2770	3010	3180	3280	3510	1300	2960	3040	2700	2880
10	---	2880	2830	3030	3190	3290	---	---	2990	3040	2590	2870
11	1980	---	2820	3040	3090	3290	3510	1540	3020	3020	2550	2880
12	2050	3090	2800	2960	3180	3280	3500	1900	2610	3000	2550	2910
13	2110	2990	2680	2980	3180	3320	3500	1930	---	2990	2520	2940
14	2270	3010	2650	2930	3160	---	3520	2080	1370	2960	2540	2980
15	2370	3050	2760	3070	3170	3290	3530	2230	1210	3010	2510	2950
16	2490	3300	2800	---	3200	3280	3480	2290	1300	2360	2450	2990
17	2490	3110	---	3150	3180	3340	3530	2380	1580	2930	2410	2990
18	2610	3010	2750	3180	3180	3330	3540	2450	2070	2920	2450	3030
19	2650	3150	2730	3090	3220	3340	3550	2430	2210	2900	2470	---
20	2610	3010	2740	3150	---	3350	3560	2380	2240	2890	2480	3060
21	---	3120	---	3180	3180	3380	3550	---	2230	2870	2540	3060
22	2050	3030	2880	3180	3140	3370	3550	2320	2200	---	2490	3050
23	2010	3010	2930	3170	3200	3320	3560	2330	---	2810	2540	3100
24	---	3020	2940	3070	3220	3380	3560	2330	2160	2790	2540	3340
25	1670	3020	2950	3190	3210	3380	3550	2370	2140	2780	2580	3380
26	1970	3060	2950	3230	3210	3370	3520	2390	2170	2790	2600	3450
27	2390	3020	3040	3290	---	3410	3500	2400	2150	2770	---	3470
28	2670	2960	3060	3320	3190	3430	3560	2480	2140	2790	2650	3460
29	2460	2900	3000	3140	3220	3440	3540	2540	2120	2760	2670	3470
30	2520	2920	3090	3230	---	3420	3540	2540	2080	2740	2670	4130
31	2600	---	3110	3150	---	3490	---	2560	---	2740	2700	---
MONTH	1980	2940	2870	3030	3170	3320	3520	2420	2310	2740	2610	3050

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	23.0	8.5	15.0	7.0	15.5	19.0	24.5	26.5	29.5	30.5	---
2	24.5	21.0	---	11.0	---	---	19.5	---	29.0	27.0	29.0	26.5
3	23.0	19.0	7.0	12.0	4.5	16.0	18.5	---	27.0	28.0	26.5	25.5
4	24.0	19.5	6.5	5.0	5.0	16.0	18.5	24.0	27.0	26.0	26.5	27.0
5	21.0	17.0	6.0	6.0	6.5	---	---	21.0	28.0	27.0	29.0	29.0
6	23.0	15.5	9.0	8.5	8.5	17.0	21.5	23.5	29.5	---	31.0	29.0
7	24.0	13.0	10.0	8.0	8.0	17.0	23.5	17.0	---	---	29.0	29.5
8	21.0	14.0	8.0	---	9.0	15.5	23.0	22.0	26.5	29.0	---	30.0
9	21.5	15.5	8.0	9.5	9.0	17.0	20.0	24.5	26.0	30.0	25.5	30.5
10	---	16.5	9.0	9.0	6.5	18.0	---	---	26.5	29.5	26.0	30.0
11	23.0	---	10.0	7.0	6.5	18.5	25.5	21.0	27.0	26.5	25.0	30.5
12	20.5	15.5	9.0	12.0	8.5	19.0	26.5	24.5	26.5	30.0	25.0	30.0
13	20.5	16.0	10.0	7.0	10.5	19.0	27.0	25.0	---	26.5	25.0	27.0
14	21.5	18.0	10.0	6.5	11.0	---	26.0	25.0	25.5	29.5	28.0	28.0
15	22.0	18.0	11.5	5.0	13.0	19.0	24.0	25.0	29.5	29.5	28.0	27.0
16	23.0	18.5	10.0	---	12.0	19.5	25.0	24.5	28.0	30.0	29.5	26.0
17	23.0	18.5	---	6.0	11.5	20.0	22.0	26.5	26.5	28.5	30.5	26.5
18	23.0	15.5	9.0	7.0	11.0	21.0	23.5	26.5	28.0	26.5	30.0	29.0
19	21.5	16.0	10.0	7.0	13.0	19.5	26.0	26.0	29.0	29.5	30.5	---
20	20.0	15.0	11.5	8.5	---	19.5	24.5	26.5	30.0	26.0	30.0	28.5
21	---	15.5	---	9.0	15.5	21.0	20.0	---	---	27.0	31.0	23.5
22	23.0	13.5	9.0	8.5	16.0	21.0	23.5	32.0	31.0	---	31.5	25.0
23	20.5	13.0	11.5	13.0	17.0	21.5	25.0	26.0	---	30.0	29.5	25.0
24	---	13.0	10.5	11.0	18.0	20.5	24.0	29.0	30.5	29.5	29.5	25.0
25	20.0	13.0	13.0	11.0	18.0	21.5	23.5	28.0	32.0	29.5	30.5	24.5
26	20.0	13.0	14.5	11.0	15.0	21.5	22.0	28.0	31.5	31.0	29.5	23.5
27	20.5	13.0	13.5	8.5	---	22.0	21.0	28.0	---	30.5	---	28.0
28	20.0	12.0	14.0	8.0	18.0	20.5	22.0	26.5	31.5	31.5	31.5	26.0
29	20.5	12.0	14.0	7.0	18.5	18.5	22.0	26.5	31.0	33.0	31.5	27.0
30	20.5	8.5	13.5	8.0	---	18.0	23.5	26.5	30.5	32.0	31.0	25.0
31	21.0	---	14.0	5.5	---	20.0	---	26.5	---	30.0	31.0	---
MONTH	22.0	15.5	10.5	8.5	11.5	19.0	23.0	25.5	28.5	29.0	29.0	27.0

COLORADO RIVER BASIN

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08136150 CONCHO RIVER NEAR VERIBEST, TEX.

LOCATION.--Lat 31°32'07", long 100°13'05", Tom Green County, at bridge on county road, 2.8 miles downstream from Crownest Creek, 3.0 miles upstream from Willow Creek, 4.5 miles northeast of Veribest and 17.3 miles downstream from gaging station near San Angelo.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- RONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
NOV. 15...	1645	--	26	160	90	--	250	--	308	0
JAN. 17...	1420	17	24	180	100	--	290	--	352	0
MAR. 20...	1330	13	15	160	110	--	320	--	262	0
MAY 22...	1530	--	14	190	110	--	370	--	174	0
JULY 10...	1900	12	34	120	85	--	270	--	190	0
SEP. 21...	0850	23	7.8	130	76	240	--	5.4	218	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)
NOV. 15...	240	570	.6	--	.11	.07	6.8	.070	1520
JAN. 17...	270	620	.6	--	.069	.05	13	.060	1730
MAR. 20...	330	680	.6	--	.17	.06	6.2	.042	1780
MAY 22...	340	860	.5	--	.070	.03	8.0	.062	2000
JULY 10...	250	570	.6	--	.087	.24	1.0	.11	1420
SEP. 21...	210	540	.4	.41	.078	.13	1.4	.080	1320

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
NOV. 15...	780	530	4.0	2620	8.0	18.0	10.2	107	3.8
JAN. 17...	870	590	4.2	2900	7.9	8.0	12.5	106	4.5
MAR. 20...	840	630	4.8	3060	8.0	21.0	12.4	139	5.3
MAY 22...	930	790	5.3	3460	7.9	27.0	10.1	126	5.8
JULY 10...	640	490	4.5	2460	8.0	28.0	11.4	144	5.5
SEP. 21...	630	450	4.2	2340	7.9	25.0	5.8	69	3.7

COLORADO RIVER BASIN

08136500 CONCHO RIVER AT PAINT ROCK, TEX.

LOCATION.--Lat 31°30'57", long 99°55'09", Concho County, at gaging station at bridge on U.S. Highway 83, 0.5 mile north of Concho County Courthouse in Paint Rock, and 2.7 miles downstream from Kickapoo Creek.

DRAINAGE AREA.--6,415 sq mi, of which 1,283 sq mi, is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

Chemical and biochemical analyses: October 1967 to September 1972.

Pesticide analyses: October 1967 to September 1972.

Water temperatures: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
01-31	66	18	140	65	180	--	7.2	184	0	230
NOV.										
01-30	53	19	150	93	--	210	--	170	0	300
DEC.										
01-31	52	17	160	89	--	220	--	180	0	310
JAN.										
01-31	45	16	160	88	210	--	8.6	176	0	320
FEB.										
01-29	43	14	160	85	--	230	--	182	0	320
MAR.										
01-31	19	10	180	100	--	220	--	192	0	370
APR.										
01-30	11	9.0	190	110	220	--	4.8	172	0	440
MAY										
01-31	28	12	160	93	--	240	--	178	0	370
JUNE										
01-30	31	15	140	110	--	250	--	152	0	320
JULY										
01-31	9.3	13	160	96	270	--	6.8	148	0	350
AUG.										
01-31	50	14	140	82	--	220	--	152	0	300
SEP.										
01-30	39	14	140	82	--	220	--	180	0	300
WTD. AVG.	--	15	152	87	--	--	--	174	0	308
TIME WTD.										
AVG.	37	14	157	91	--	--	--	172	0	327
TOT. LOAD (TONS)	--	565	5590	3190	--	--	--	6380	0	11300

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1640	2210	2370	2530	2500	2580	2650	2660	2470	2720	2630	2140
2	1690	2360	2390	2480	2410	2530	2630	2650	2560	2720	2660	2110
3	1740	2450	2410	2420	2520	2550	2610	2670	2660	2710	2660	2110
4	1770	2330	2430	2330	2470	2600	2670	2680	2790	2760	2650	2130
5	1810	2480	2390	2480	2460	2620	2650	2670	2890	2730	2660	2150
6	1890	2370	2460	2450	2460	2620	2670	2680	2950	2730	2660	2170
7	1990	2410	2440	2420	2460	2600	2680	2640	2970	2750	2650	2190
8	2010	2420	2380	2430	2500	2630	2670	2670	2970	2780	2640	2230
9	2010	2360	2340	2400	2490	2640	2660	2640	2990	2790	2480	2210
10	2140	2370	2480	2420	2480	2570	2680	2610	3010	2730	2240	2220
11	2170	2420	2370	2440	2490	2640	2670	2520	2990	2730	1460	2230
12	2220	2400	2470	2540	2570	2570	2670	2590	2970	2700	1340	2230
13	2220	2380	2490	2550	2490	2600	2690	2260	2870	2710	1740	2230
14	2200	2470	2520	2510	2510	2610	2700	2240	2730	2690	1770	2220
15	2220	2430	2430	2610	2540	2630	2700	2260	2540	2700	2090	2240
16	2270	2430	2480	2550	2520	2590	2720	2150	2580	2700	2260	2260
17	2280	2470	2590	2510	2580	2620	2730	2040	2690	2690	2290	2280
18	2280	2470	2560	2570	2580	2650	2740	2060	2580	2680	2350	2330
19	2270	2440	2570	2560	2540	2670	2750	2130	2520	2670	2380	2320
20	1780	2460	2510	2530	2570	2660	2770	2250	2440	2670	2390	2350
21	2160	2420	2550	2470	2610	2670	2770	2590	2470	2670	2400	2330
22	2070	2430	2500	2460	2550	2650	2780	2580	2490	2670	2390	2360
23	2200	2430	2570	2530	2540	2660	2760	2660	2540	2660	2380	2420
24	2250	2430	2550	2490	2550	2650	2750	2650	2580	2660	2390	2420
25	2060	2420	2320	2480	2530	2650	2760	2630	2620	2650	2380	2400
26	2230	2420	2460	2600	2610	2650	2760	2620	2650	2640	2360	2370
27	2180	2410	2470	2610	2600	2660	2740	2610	2670	2640	2330	2350
28	2180	2400	2490	2570	2550	2640	2740	2600	2690	2630	2310	2360
29	2140	2410	2490	2590	2610	2650	2730	2600	2720	2630	2240	2360
30	2190	2410	2530	2580	---	2660	2700	2520	2710	2620	2200	2380
31	2270	---	2470	2510	---	2660	---	2470	---	2630	2180	---
MONTH	2080	2410	2470	2500	2530	2630	2710	2500	2710	2690	2310	2270

08136500 CONCHO RIVER AT PAINT ROCK, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 1,650 mg/l Apr. 1-30; minimum, 1,200 mg/l Oct. 1-31.
 Hardness: Maximum, 900 mg/l Apr. 1-30; minimum, 620 mg/l Oct. 1-31.
 Specific conductance: Maximum daily, 3,010 micromhos June 10; minimum daily, 1,340 micromhos Aug. 12.
 Water temperatures: Maximum, 30.0°C June 2, 23, 25, 26, 27; minimum, freezing point Jan. 6, 14, 15, Feb. 4, 8.

EXTREMES, October 1967 to September 1972.--Dissolved solids: Maximum, 1,730 mg/l Mar. 1-31, 1969; minimum, 254 mg/l June 1-9, 1971.
 Hardness: Maximum, 943 mg/l Apr. 1-11, 1969; minimum, 160 mg/l May 30-31, June 1-9, 1971.
 Specific conductance: Maximum daily, 3,010 micromhos June 10, 1972; minimum daily, 375 micromhos June 1, 1971.
 Water temperatures: Maximum, 35.0°C Aug. 11, 1969; minimum, freezing point on several days during winter months of 1971 and 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	440	.4	6.1	1200	620	470	3.1	2070	7.6
NOV.									
01-30	530	.4	9.3	1430	760	620	3.4	2410	8.0
DEC.									
01-31	500	.5	14	1450	760	610	3.5	2460	7.3
JAN.									
01-31	510	.7	14	1470	760	610	3.4	2510	7.6
FEB.									
01-29	510	.4	15	1480	760	610	3.6	2530	7.5
MAR.									
01-31	540	.5	13	1570	860	700	3.3	2640	8.2
APR.									
01-30	560	.5	8.1	1650	900	760	3.2	2710	7.9
MAY									
01-31	530	.5	4.2	1510	780	640	3.7	2500	7.6
JUNE									
01-30	620	.5	4.1	1550	800	680	3.9	2710	8.3
JULY									
01-31	620	.6	3.8	1600	780	660	4.1	2690	7.1
AUG.									
01-31	510	.6	2.4	1360	680	550	3.7	2310	6.8
SEP.									
01-30	490	.6	4.9	1350	690	540	3.6	2260	6.9
WTD. AVG.	513	.5	8.6	1420	736	593	3.5	2410	7.5
TIME WTD.									
AVG.	530	.5	8.2	1470	762	621	3.5	2480	7.6
TOT. LOAD (TONS)	18800	19	314	52200	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	18.0	9.5	10.5	2.0	17.0	---	19.0	29.5	28.0	28.0	27.0
2	21.5	18.5	9.0	9.0	0.5	13.5	18.0	19.0	30.0	29.0	28.5	26.5
3	20.5	17.0	8.5	9.0	3.0	16.0	17.0	19.0	29.5	29.0	28.0	26.5
4	20.0	15.5	9.5	1.5	0.0	18.0	---	19.5	29.0	26.0	28.0	26.0
5	19.0	18.0	---	---	2.0	15.0	23.5	20.0	29.5	26.0	27.0	26.5
6	21.0	15.5	5.0	0.0	3.5	17.0	19.0	19.5	26.5	25.5	28.0	26.5
7	20.0	15.0	8.0	7.0	1.0	18.0	20.0	18.5	27.0	26.0	27.0	27.0
8	19.5	15.0	5.0	10.5	0.0	11.0	20.0	18.0	---	26.0	26.5	28.0
9	17.0	11.0	5.0	11.5	4.5	13.5	20.5	19.5	27.0	28.5	26.5	27.0
10	19.5	11.0	5.5	5.5	5.5	16.5	20.0	18.0	27.0	28.0	27.0	27.0
11	22.0	11.5	6.0	6.0	0.5	18.0	20.5	17.0	27.0	27.0	26.5	26.5
12	21.0	12.0	6.5	7.0	5.0	18.5	21.0	18.5	28.0	28.5	27.0	27.0
13	19.5	18.0	7.0	0.5	5.0	15.5	22.0	19.5	27.0	28.5	26.5	26.5
14	19.0	13.5	10.0	0.0	6.0	17.0	23.0	17.0	26.5	27.0	27.0	27.0
15	19.5	15.5	9.0	0.0	5.5	16.0	21.5	18.5	26.5	27.0	27.0	28.0
16	20.0	15.5	8.0	0.5	7.0	14.5	23.0	18.0	27.0	---	27.0	26.5
17	20.0	17.0	5.5	4.0	7.0	18.5	23.0	20.0	28.0	28.0	28.0	26.5
18	19.0	15.5	6.0	5.0	8.0	19.0	23.5	19.5	28.0	28.0	28.0	27.0
19	20.0	13.5	10.5	10.5	8.5	19.5	---	21.5	---	27.0	28.0	28.0
20	18.0	13.5	10.5	11.5	10.5	18.0	22.0	19.5	---	28.0	26.5	28.0
21	19.0	15.0	11.5	10.5	15.0	19.0	22.0	21.5	---	28.0	28.0	25.5
22	19.5	11.5	9.0	11.5	14.0	---	23.0	22.0	28.5	27.0	28.0	25.5
23	18.5	10.5	10.0	13.0	15.5	19.5	23.5	26.5	30.0	28.5	28.0	26.0
24	19.5	10.5	11.0	12.0	16.0	20.0	22.0	25.5	29.5	27.0	27.0	25.5
25	16.5	11.0	11.0	5.0	18.0	19.5	23.5	27.0	30.0	28.5	28.0	26.0
26	16.0	11.5	10.5	8.5	14.0	20.0	21.5	28.5	30.0	28.0	28.0	26.5
27	16.5	10.5	12.0	3.5	11.5	---	18.0	28.0	30.0	28.0	28.5	26.5
28	16.0	11.0	9.0	1.5	13.0	---	18.5	27.0	27.0	28.0	---	26.5
29	18.0	10.0	9.0	3.0	15.5	17.0	18.0	28.5	28.0	28.0	28.0	26.0
30	17.0	9.5	8.5	5.0	---	---	18.5	---	28.0	28.5	28.5	26.5
31	18.0	---	9.5	4.5	---	15.5	---	28.5	---	28.0	---	---
MONTH	19.0	13.5	8.5	6.5	7.5	17.0	21.0	21.5	28.0	27.5	27.5	26.5

COLORADO RIVER BASIN

08136500 CONCHO RIVER AT PAINT ROCK, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HC03) (MG/L)	CAR-BONATE (C03) (MG/L)
NOV. 15...	1430	52	18	170	94	--	230	--	232	0
JAN. 17...	1250	45	16	190	96	--	210	--	272	0
MAR. 20...	1245	17	8.0	180	95	--	240	--	184	0
MAY 22...	1420	26	9.6	140	100	--	270	--	168	0
SEP. 21...	1015	30	22	150	86	220	--	5.5	171	0
DATE	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
NOV. 15...	340	520	.5	.38	.11	.10	9.9	.060	1530	44
JAN. 17...	320	510	.5	.12	.038	.03	16	.040	1550	--
MAR. 20...	400	520	.5	.30	.11	.12	13	.040	1600	17
MAY 22...	340	600	.6	1.1	.10	.11	3.8	.062	1560	74
SEP. 21...	320	500	.5	.56	.14	.27	2.5	.086	1390	72
DATE	VOL. NON-SETTLE-ABLE RESIDUE (MG/L)	HARD-NESS (CA+MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)
NOV. 15...	12	820	630	3.5	2510	8.0	20.0	5	20	10.0
JAN. 17...	--	880	660	3.1	2560	7.9	9.0	7	8	11.5
MAR. 20...	4	830	680	3.7	2650	8.1	21.0	15	10	10.2
MAY 22...	19	760	630	4.2	2640	8.0	27.0	15	35	9.8
SEP. 21...	15	730	590	3.5	2300	8.4	24.5	5	40	7.6
DATE	PER-CENT SATUR-ATION	CHEM-ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)
NOV. 15...	109	15	2.1	1	.00	--	10	10	1	0
JAN. 17...	100	8	1.0	0	.00	--	--	--	--	--
MAR. 20...	113	15	3.8	2	.00	--	--	--	--	--
MAY 22...	122	32	5.7	2	.01	--	210	0	0	0
SEP. 21...	90	--	4.1	--	--	15	10	0	1	0
DATE	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
NOV. 15...	0	2	90	0	60	5	.2	0	3100	140
JAN. 17...	--	--	--	--	--	--	--	--	--	--
MAR. 20...	--	--	--	--	--	--	--	--	--	--
MAY 22...	0	4	120	22	70	90	.2	0	3600	70
SEP. 21...	0	3	0	0	70	0	.2	5	3200	20

COLORADO RIVER BASIN

605

08136500 CONCHO RIVER AT PAINT ROCK, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 15...	1430	52	.00	<.2	.00	1.1	.00	15	.00	<.2
MAR. 20...	1245	17	.00	--	.00	--	.00	--	.00	--
MAY 22...	1420	26	.00	<.2	.00	1.4	.00	16	.00	<.2
JULY 10...	1700	11	.00	<.2	.00	1.3	.00	5.3	.00	<.2
SEP. 21...	1015	30	.00	<.2	.00	<.2	.00	6.7	.00	<.2

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
NOV. 15...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAR. 20...	.00	--	.00	--	.00	--	.00	--	.00	--
MAY 22...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 10...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
SEP. 21...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 15...	.0	1.0	.00	.00	.00	.00	.00	.00	.00
MAR. 20...	.0	--	.02	.00	.00	.00	.00	.00	.00
MAY 22...	.0	1.0	.00	.00	.00	.00	.00	.10	.00
JULY 10...	.0	<1.0	.00	.00	.00	.00	.00	.09	.00
SEP. 21...	.0	1.0	.00	.00	.00	.00	.00	.00	.00

COLORADO RIVER BASIN

08136700 COLORADO RIVER NEAR STACY, TEX.

LOCATION.--Lat 31°29'37", long 99°34'25", McCulloch County, at gaging station at bridge on Farm Road 503, 1.2 miles upstream from Bois d'Arc Creek, and 1.8 miles northeast of Stacy.

DRAINAGE AREA.--24,040 sq mi, of which 12,880 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: April 1968 to September 1972.

Water temperatures: April 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-11	646	12	80	27	77	--	5.6	176	0	100
12-19	241	9.6	90	35	--	110	--	176	0	150
20...	2630	18	51	11	--	40	--	132	0	46
21-22	1080	10	68	19	--	64	--	160	0	74
23-31	464	9.6	90	35	--	110	--	176	0	150
NOV.										
01-30	169	11	120	58	--	180	--	188	0	240
DEC.										
01-31	165	9.8	140	72	--	210	--	204	0	310
JAN.										
01-31	133	9.9	150	80	210	--	4.3	188	0	360
FFB.										
01-29	120	7.4	150	82	--	240	--	172	0	390
MAR.										
01-31	72	4.5	160	89	--	240	--	180	0	430
APR.										
01-30	40	3.9	170	90	240	--	4.8	152	0	510
MAY										
01-08	293	4.1	180	86	--	240	--	150	0	520
09-15	207	5.0	88	34	--	100	--	111	0	210
16-31	67	4.0	120	63	--	160	--	140	0	310
JUNE										
01-30	81	4.2	120	89	--	200	--	114	0	340
JULY										
01-31	30	5.1	120	73	200	--	5.8	112	0	360
AUG.										
01-31	110	6.8	110	52	--	160	--	122	0	290
SEP.										
01-30	54	9.4	120	61	--	180	--	134	0	300
WTD. AVG.	--	9.0	116	56	--	--	--	165	0	259
TIME WTD.										
AVG.	143	7.3	131	70	--	--	--	156	0	332
TOT. LOAD										
(TONS)	--	1280	16400	7930	--	--	--	23400	0	36800

COLORADO RIVER BASIN

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08136700 COLORADO RIVER NEAR STACY, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 1,590 mg/l Apr. 1-30; minimum, 307 mg/l Oct. 20.
Hardness: Maximum, 790 mg/l Apr. 1-30, May 1-8; minimum, 170 mg/l Oct. 20.
Specific conductance: Maximum daily, 2,600 micromhos Apr. 20; minimum daily, 509 micromhos Oct. 20.
Water temperatures: Maximum, 32.0°C July 3; minimum, 4.5°C Feb. 3.

EXTREMES, April 1968 to September 1972.--Dissolved solids: Maximum, 2,090 mg/l Sept. 20-25, 1970; minimum, 127 mg/l July 26-30, 1971.
Hardness: Maximum, 1,020 mg/l Sept. 20-25, 1970; minimum, 100 mg/l July 26-30, 1971.
Specific conductance: Maximum daily, 3,580 micromhos Sept. 23, 1970; minimum daily, 188 micromhos July 29, 1971.
Water temperatures: Maximum, 33.5°C July 18, 1971; minimum, 2.0°C Jan. 8, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-11	160	.4	1.8	564	310	170	1.9	1020	7.7
12-19	220	.3	2.5	711	370	230	2.6	1230	7.9
20...	68	--	1.9	307	170	64	1.3	509	8.1
21-22	120	.3	1.6	443	250	120	1.8	782	8.0
23-31	220	.3	2.5	711	370	230	2.6	1230	7.9
NOV.									
01-30	360	.4	4.3	1090	550	400	3.3	1840	8.1
DEC.									
01-31	420	.5	7.3	1300	650	480	3.6	2180	7.2
JAN.									
01-31	440	.5	9.5	1400	700	550	3.5	2330	8.1
FEB.									
01-29	460	.4	8.4	1450	710	570	4.0	2420	7.2
MAR.									
01-31	480	.5	5.8	1530	780	630	3.8	2510	8.2
APR.									
01-30	490	.5	1.4	1590	790	670	3.7	2560	7.5
MAY									
01-08	460	.5	.7	1570	790	670	3.8	2490	7.9
09-15	190	.3	1.1	689	360	270	2.4	1180	7.8
16-31	340	.4	1.3	1070	570	450	2.9	1810	7.9
JUNE									
01-30	460	.4	.8	1270	660	570	3.4	2170	7.9
JULY									
01-31	420	.5	.8	1240	610	520	3.4	2080	6.9
AUG.									
01-31	310	.5	1.1	1000	490	390	3.2	1670	6.7
SEP.									
01-30	380	.5	.6	1130	560	450	3.3	1900	6.7
WTD. AVG.	321	.4	3.6	1020	521	388	3.0	1720	7.7
TIME WTD.									
AVG.	395	.5	3.6	1230	617	490	3.4	2050	7.5
TOT. LOAD (TONS)	45500	57	515	145000	--	--	--	--	--

08136700 COLORADO RIVER NEAR STACY, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1050	1290	---	2240	---	2420	2560	2550	1830	2410	1970	1230
2	1100	1400	---	2190	2300	2440	2550	2540	1850	---	1970	1290
3	1160	1550	2110	2260	2350	2500	2570	2540	1800	2470	1980	---
4	1180	1560	2060	---	2350	2510	2590	2530	1770	---	1970	1500
5	1080	1690	---	---	2350	---	2590	2500	1760	2350	1980	1610
6	826	1660	2180	---	2360	2530	2580	2460	---	2300	---	1740
7	873	---	2140	2330	2380	2510	2560	---	1830	2190	2020	1800
8	910	1690	2180	---	2350	2530	2570	2340	1860	2180	2020	1870
9	955	1730	2130	2270	2420	2530	2570	970	---	---	1980	1920
10	1020	1760	2100	2350	2390	2520	2580	1070	1940	2060	1960	1920
11	1070	1730	2070	2270	---	2500	2560	1130	1960	2090	1850	1900
12	1140	1720	2170	2290	2410	2500	2540	1150	2050	2090	2130	1950
13	1170	1770	2140	2390	---	2500	2540	1170	2100	2070	---	2020
14	1260	1780	2160	---	2370	2490	2540	---	2230	2050	1510	2000
15	1320	1890	2060	2330	2390	2490	2540	1590	2140	2040	1930	2020
16	1400	1930	2150	---	2410	2480	2540	1530	2180	---	1680	2020
17	1460	1870	2110	2300	2410	2490	2560	1780	2350	2020	1900	---
18	---	1920	2150	2300	2400	2490	2560	1810	---	2030	1820	2040
19	1030	1950	2180	2360	2430	2480	2580	1660	2430	---	1460	2040
20	509	2000	2170	2380	2470	2480	2600	1690	2460	2000	---	1980
21	784	---	2280	2370	2490	2520	2560	---	2390	1980	1120	1920
22	776	2050	---	2390	2500	2520	2490	2040	2400	1970	1200	1810
23	1070	2000	2260	---	2440	2530	2520	1980	2450	---	1370	1960
24	---	2020	2260	2390	2470	2540	2530	1900	2480	---	1390	---
25	1300	---	---	2320	2430	2550	2530	1840	---	1930	1330	2190
26	1330	2090	2270	2330	2480	---	2540	1820	2480	1920	1280	2070
27	1200	2060	2280	---	2450	2560	2560	1820	2230	1920	---	2110
28	1270	2100	2290	2440	2490	2550	2560	---	2460	1920	1250	2110
29	1280	2100	2290	---	2450	2560	2560	1840	2490	1920	1190	2090
30	1340	2130	2250	2380	---	2550	---	1820	2490	---	---	2040
31	1340	---	2190	2370	---	2560	---	1810	---	1950	1190	---
MONTH	1110	1830	2180	---	2410	2510	2560	1850	2170	---	1670	1890

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	21.0	---	14.5	---	16.5	14.5	21.0	24.5	29.5	29.5	29.0
2	24.5	18.5	---	13.0	7.0	15.5	15.5	---	25.5	---	28.0	28.0
3	24.0	18.5	7.0	20.0	4.5	15.5	16.5	21.0	24.5	32.0	28.0	---
4	23.5	15.5	6.5	---	6.5	14.5	15.5	22.0	25.5	---	26.5	29.0
5	21.0	18.0	---	---	7.0	---	16.5	23.0	25.5	25.5	28.0	28.0
6	20.0	16.5	8.0	---	10.0	14.5	18.0	20.0	---	24.5	---	28.0
7	21.0	---	9.0	7.0	9.0	18.0	20.0	---	24.5	25.5	29.5	28.0
8	20.0	13.0	10.0	---	9.0	15.5	19.0	20.0	26.5	29.5	29.0	28.0
9	18.0	13.5	9.0	9.0	9.0	14.5	20.0	20.0	---	---	26.5	29.5
10	22.0	12.0	9.0	10.0	10.0	16.5	19.0	21.0	---	28.0	26.5	30.0
11	21.0	13.0	9.0	9.0	---	18.0	20.0	20.0	---	28.0	25.5	29.5
12	21.0	15.5	10.0	10.0	8.0	20.0	22.0	20.0	26.5	29.5	25.5	28.0
13	20.0	16.5	10.0	9.0	---	18.0	24.0	22.0	25.5	29.0	---	30.0
14	20.0	18.0	14.5	---	10.0	19.0	24.5	---	26.5	29.0	26.5	31.0
15	21.0	19.0	11.0	6.5	12.0	18.0	22.0	24.0	---	28.0	29.0	29.5
16	23.5	20.0	12.0	---	12.0	19.0	18.0	23.0	28.0	---	28.0	28.0
17	24.0	18.5	10.0	7.0	13.0	16.5	24.5	---	26.5	28.0	28.0	---
18	---	15.5	9.0	13.0	11.0	18.0	22.0	24.0	---	28.0	29.0	26.5
19	21.0	15.5	12.0	11.0	11.0	18.5	23.5	21.0	28.0	---	29.5	26.5
20	22.0	15.5	11.0	12.0	14.5	20.0	24.5	24.0	29.0	28.0	---	28.0
21	18.5	---	11.0	6.5	15.5	18.0	22.0	---	30.0	26.5	28.0	25.5
22	20.0	14.5	---	11.0	14.5	20.0	21.0	24.0	30.0	29.0	30.0	24.0
23	18.0	13.0	11.0	---	16.5	19.0	---	26.0	29.5	---	30.0	24.0
24	---	13.0	12.0	12.0	18.0	18.0	21.0	24.0	29.5	---	29.0	---
25	18.5	---	---	10.0	15.5	16.5	22.0	26.0	---	28.5	30.0	25.5
26	20.0	13.0	15.5	10.0	14.5	---	---	24.0	---	29.0	28.0	28.0
27	18.5	13.0	15.5	---	18.0	20.0	21.0	23.0	30.0	29.5	---	29.0
28	19.0	13.5	15.5	9.0	15.5	20.0	20.0	---	30.0	30.0	29.0	27.0
29	20.0	13.5	16.5	---	18.0	18.0	20.0	24.0	30.0	29.0	28.0	28.0
30	21.0	11.0	15.5	8.0	---	16.5	---	23.0	28.0	---	---	24.0
31	20.0	---	13.0	7.0	---	15.5	---	24.0	---	29.0	31.0	---
MONTH	21.0	15.5	11.5	---	12.0	17.5	20.0	22.5	---	---	28.5	28.0

COLORADO RIVER BASIN

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08138000 COLORADO RIVER AT WINCHELL, TEX.

LOCATION.--Lat 31°28'04", long 99°09'43", Brown County, at gaging station on U.S. Highway 377, 0.3 mile south of Winchell and 6.2 miles downstream from Home Creek.

DRAINAGE AREA.--24,580 sq mi, of which 12,880 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 18...	1755	468	5.0	62	18	66	134	0	74	130
NOV. 29...	1230	184	9.0	120	63	180	174	0	260	380
JAN. 03...	1300	13	6.4	110	66	210	86	0	310	410
FEB. 10...	1245	116	6.8	150	79	220	168	0	370	440
MAR. 16...	1200	52	.9	140	83	260	128	0	410	500
APR. 17...	1505	24	1.3	150	96	270	114	0	480	540
MAY 23...	1400	60	6.7	110	46	140	136	0	260	270
JULY 05...	1600	29	2.1	140	97	290	120	0	390	630
SEP. 13...	1310	40	14	99	43	120	122	0	230	250

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 18...	.3	.6	423	230	120	1.9	760	8.1	--
NOV. 29...	.4	4.8	1110	560	420	3.3	1860	7.9	12.5
JAN. 03...	.4	6.5	1180	540	470	3.9	2050	8.0	12.5
FEB. 10...	.5	8.9	1390	700	560	3.6	2280	8.0	9.0
MAR. 16...	.5	7.1	1490	700	590	4.3	2460	8.0	19.0
APR. 17...	.5	1.9	1610	770	680	4.2	2640	8.0	25.0
MAY 23...	.3	.6	898	460	350	2.8	1530	7.9	30.0
JULY 05...	.5	.5	1610	760	660	4.6	2760	7.7	28.0
SEP. 13...	.4	.3	815	420	320	2.6	1400	7.7	26.0

COLORADO RIVER BASIN

08143600 PECAN BAYOU NEAR MULLIN, TEX.

LOCATION.--Lat 31°31'02", long 98°44'25", Mills County, at gaging station on Farm Road 573, 5.5 miles southwest of Mullin.

DRAINAGE AREA.--2,034 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.

Water temperatures: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-31	964	8.6	50	9.3	40	--	4.7	130	0	38
NOV.										
01-30	79	11	68	22	--	81	--	220	0	72
DEC.										
01-31	99	.6	90	21	--	130	--	236	0	94
JAN.										
01-31	53	6.1	75	22	80	--	5.0	236	0	75
FEB.										
01-29	66	2.3	76	21	--	90	--	226	0	80
MAR.										
01-31	68	1.8	64	17	--	66	--	196	0	53
APR.										
01-28	36	10	59	19	48	--	5.7	208	0	53
29-30	60	10	77	21	--	100	--	228	0	78
MAY										
01-05	31	7.8	82	21	--	120	--	228	0	97
06-08	124	7.3	67	21	--	76	--	216	0	69
09-11	67	7.8	82	21	--	120	--	228	0	97
12-25	33	7.3	67	21	--	76	--	216	0	69
26-31	16	7.8	82	21	--	120	--	228	0	97
JUNE										
01-30	12	2.6	100	25	--	180	--	264	0	120
JULY										
01-04	4.4	4.6	93	22	190	--	10	238	0	120
05..	46	3.4	52	28	--	76	--	244	0	54
06-31	11	4.6	93	22	190	--	10	238	0	120
AUG.										
01-31	7.9	4.6	94	21	--	200	--	232	0	120
SEP.										
01-15	9.2	12	82	21	--	160	--	212	0	94
16-17	26	9.9	26	7.1	--	25	--	120	0	21
18-30	15	12	82	21	--	160	--	212	0	94
WTD. AVG.	--	7.5	57	13	--	--	--	161	0	51
TIME WTD.										
AVG.	122	6.8	74	20	--	--	--	217	0	82
TOT. LOAD (TONS)	--	904	6870	1570	--	--	--	19400	0	6150

COLORADO RIVER BASIN

611

08143600 PECAN BAYOU NEAR MULLIN, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 857 mg/l Aug. 1-31; minimum, 169 mg/l Sept. 16-17.
Hardness: Maximum, 350 mg/l June 1-30; minimum, 94 mg/l Sept. 16-17.

EXTREMES, October 1967 to September 1972.--Dissolved solids: Maximum, 1,080 mg/l Apr. 1-30, 1971; minimum, 169 mg/l Sept. 16-17, 1972.

Hardness: Maximum, 445 mg/l Aug. 1-20, 1970; minimum, 94 mg/l Sept. 16-17, 1972.

Specific conductance (1967-70): Maximum daily, 1,950 micromhos Aug. 20, 1970; minimum daily, 308 micromhos Sept. 18, 1969.

Water temperatures (1967-70): Maximum, 32.0°C Aug. 7, 24, 1968, July 4, 1969; minimum, 3.0°C Jan. 10, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	76	.2	.4	293	160	57	1.4	534	6.8
NOV.									
01-30	130	.3	.9	492	260	80	2.2	878	7.1
DEC.									
01-31	210	.4	.2	658	310	120	3.1	1200	8.2
JAN.									
01-31	140	.3	.8	518	280	84	2.1	935	7.6
FEB.									
01-29	140	.3	.4	525	280	91	2.4	942	8.3
MAR.									
01-31	110	.2	.4	410	230	69	1.9	749	8.3
APR.									
01-28	80	.2	.8	380	220	54	1.4	685	7.2
29-30	160	--	1.0	562	280	92	2.6	1010	7.3
MAY									
01-05	180	.4	1.1	626	290	100	3.0	1110	7.7
06-08	120	--	.7	467	250	76	2.1	841	7.5
09-11	180	.4	1.1	626	290	100	3.0	1110	7.7
12-25	120	--	.7	467	250	76	2.1	841	7.5
26-31	180	.4	1.1	626	290	100	3.0	1110	7.7
JUNE									
01-30	280	.4	.3	845	350	140	4.2	1500	7.6
JULY									
01-04	300	.4	.3	849	320	130	4.5	1520	8.0
05...	110	--	.00	442	240	44	2.1	821	7.6
06-31	300	.4	.3	849	320	130	4.5	1520	8.0
AUG.									
01-31	300	.5	.4	857	320	130	4.8	1520	7.8
SEPT.									
01-15	260	.5	.2	734	290	120	4.1	1340	8.1
16-17	17	--	1.0	169	94	0	1.1	299	8.0
18-30	260	.5	.2	734	290	120	4.1	1340	8.1
WTD. AVG.	103	.2	.4	378	199	69	1.8	686	7.1
TIME WTD.									
AVG.	174	.4	.6	578	265	91	2.8	1040	7.7
TOT. LOAD (TONS)	12400	24	48	45600	--	--	--	--	--

COLORADO RIVER BASIN

08143600 PECAN BAYOU NEAR MULLIN, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	564	---	1200	---	---	---	---	1010	1220	1730	1540	1470
2	---	---	1040	903	---	---	---	1160	1240	---	1560	1470
3	498	---	1040	889	---	---	---	1000	1230	---	1550	1470
4	506	---	---	914	---	702	---	1000	1250	1670	1550	---
5	561	---	---	899	906	687	---	1000	1300	821	---	---
6	---	---	---	---	903	---	---	596	1330	1510	1550	---
7	---	---	---	---	---	---	---	688	1370	---	---	---
8	544	556	---	---	1200	---	---	979	1310	1570	1560	720
9	---	775	---	---	1200	---	---	1040	1410	1580	1520	654
10	---	1070	---	817	1200	---	---	1160	1410	1610	---	1400
11	---	---	---	---	---	---	---	1180	1420	1570	1500	1500
12	570	---	---	917	---	---	---	---	1220	1580	1520	1410
13	---	823	---	914	959	---	---	---	1460	1580	---	1400
14	---	773	---	947	943	711	---	754	1490	1590	1090	1440
15	749	---	---	975	---	---	---	---	1490	---	1110	1410
16	---	---	---	---	---	---	---	757	---	---	---	---
17	624	---	---	---	---	---	---	757	---	1510	---	299
18	436	1000	---	---	---	---	---	801	1480	1510	---	---
19	---	---	---	---	921	748	---	849	---	1600	1280	1300
20	437	---	---	---	899	750	---	898	1470	1630	1280	1310
21	507	1130	---	---	---	---	---	---	1720	1600	1300	1280
22	512	---	---	---	---	---	---	987	1700	1520	1310	1270
23	---	1060	---	987	---	---	---	942	1790	1340	1280	1100
24	553	---	---	996	---	---	---	966	1770	1230	1290	---
25	518	---	---	987	---	---	---	954	1770	1210	1330	1100
26	513	---	---	---	---	---	673	1090	1780	1300	1880	1090
27	---	586	---	---	756	818	681	1080	---	1470	1880	---
28	---	---	---	---	699	821	702	1230	1760	1480	1880	---
29	542	1030	---	---	---	---	1010	1230	1740	1510	1910	---
30	545	---	---	---	---	---	1010	1240	1740	1530	1930	---
31	552	---	---	---	---	---	---	1240	---	1540	1930	---
MONTH	---	---	---	---	---	---	---	985	1500	1490	---	---

COLORADO RIVER BASIN

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08143600 PECAN BAYOU NEAR MULLIN, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	---	10.0	---	---	---	---	22.0	28.0	27.5	28.0	29.0
2	---	---	5.0	11.0	---	---	---	24.0	28.5	---	28.0	27.0
3	23.0	---	6.0	6.0	---	---	---	23.0	28.0	---	26.5	28.0
4	23.0	---	---	4.0	---	10.0	---	21.0	27.0	26.5	29.0	---
5	22.0	---	---	6.0	10.0	11.0	---	19.0	26.0	27.0	---	---
6	---	---	---	---	6.0	---	---	21.0	26.5	27.0	28.5	---
7	---	---	---	---	---	---	---	18.5	27.5	---	---	---
8	21.0	18.0	---	---	6.0	---	---	20.0	26.0	27.5	29.5	27.0
9	---	15.0	---	---	---	---	---	22.0	26.0	28.0	28.0	28.0
10	---	11.0	---	8.0	---	---	---	19.0	25.5	29.5	---	25.0
11	---	---	---	---	---	---	---	19.0	26.0	28.0	27.0	28.0
12	20.0	---	---	9.0	---	---	---	---	29.0	29.0	27.5	27.0
13	---	13.0	---	8.0	9.0	---	---	---	27.0	27.5	---	28.5
14	---	15.0	---	6.0	10.0	19.0	---	20.0	26.0	28.5	28.0	29.5
15	22.0	---	---	4.0	---	---	---	---	27.0	---	28.0	29.5
16	---	---	---	---	---	---	---	21.0	---	---	---	---
17	24.0	---	---	---	---	---	---	22.0	---	27.5	---	26.0
18	18.0	18.0	---	---	---	---	---	22.0	28.0	29.0	---	---
19	---	---	---	---	10.0	20.0	---	23.0	---	28.0	30.0	29.0
20	20.0	---	---	---	11.0	18.0	---	29.0	29.0	29.0	28.0	30.0
21	22.0	12.0	---	---	---	---	---	---	28.5	27.0	29.0	24.0
22	22.0	---	---	---	---	---	---	26.5	30.0	28.0	30.0	25.0
23	---	11.0	---	9.0	---	---	---	25.5	32.0	28.0	26.0	22.0
24	21.0	---	---	9.0	---	---	---	27.0	30.0	28.5	27.0	---
25	21.0	---	---	10.0	---	---	---	27.0	29.0	28.0	27.5	25.0
26	20.0	---	---	---	---	---	17.0	26.5	30.5	29.0	27.5	26.0
27	---	19.0	---	---	11.0	25.0	16.0	28.0	---	27.5	28.0	---
28	---	---	---	---	12.0	23.0	19.0	29.0	31.0	30.0	29.0	---
29	---	13.0	---	---	---	---	20.0	28.0	29.0	30.0	30.0	---
30	21.0	---	---	---	---	---	22.0	28.5	28.5	31.5	29.0	---
31	18.0	---	---	---	---	---	---	27.5	---	30.0	29.5	---
MONTH	---	---	---	---	---	---	---	23.5	28.0	28.5	---	---

COLORADO RIVER BASIN

08147000 COLORADO RIVER NEAR SAN SABA, TEX.

LOCATION.--Lat 31°13'04", long 98°33'51", San Saba County, at gaging station at bridge on U.S. Highway 190, 5.2 miles downstream from San Saba River, and 9.2 miles east of San Saba.

DRAINAGE AREA.--30,600 sq mi, of which 12,880 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: September 1947 to September 1972.

Chemical and biochemical analyses: October 1969 to September 1972.

Pesticide analyses: January 1968 to September 1972.

Water temperatures: September 1947 to September 1972.

Sediment records: December 1950 to September 1962.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-04	2920	11	65	16	39	--	4.3	204	0	44
05...	6390	9.5	46	10	--	20	--	156	0	26
06-18	1920	11	65	16	39	--	4.3	204	0	44
19...	8240	4.4	42	8.6	--	9.6	--	160	0	14
20...	9320	9.5	46	10	--	20	--	156	0	26
21-31	4190	11	65	16	39	--	4.3	204	0	44
NOV.										
01-30	818	13	80	30	--	63	--	280	0	73
DEC.										
01-31	803	10	90	34	--	76	--	282	0	94
JAN.										
01-31	457	8.3	74	40	83	--	3.2	248	0	99
FEB.										
01-29	414	6.5	90	39	--	130	--	284	0	160
MAR.										
01-31	296	8.3	76	37	--	78	--	264	0	95
APR.										
01-22	149	13	68	40	63	--	3.1	276	0	81
23-30	404	8.1	87	44	--	120	--	236	0	150
MAY										
01-06	227	9.5	70	33	--	77	--	208	0	110
07...	660	9.8	56	21	--	44	--	172	0	68
08-12	974	9.5	70	33	--	77	--	208	0	110
13-14	1100	9.8	56	21	--	44	--	172	0	68
15-31	465	9.5	70	33	--	77	--	208	0	110
JUNE										
01-30	181	12	54	34	--	61	--	240	0	68
JULY										
01-04	118	8.1	55	36	49	--	3.8	230	0	67
05-06	391	5.8	50	17	--	27	--	168	0	39
07-31	87	8.1	55	36	49	--	3.8	230	0	67
AUG.										
01-15	100	8.3	45	36	--	31	--	262	0	35
16-31	326	6.0	87	44	--	110	--	208	0	150
SEP.										
01-30	253	7.3	76	36	--	69	--	232	0	99
WTD. AVG.	--	9.9	70	26	--	--	--	228	0	72
TOT. LOAD	651	9.4	72	34	--	--	--	246	0	91
(TONS)	--	6360	45100	16600	--	--	--	147000	0	46300

COLORADO RIVER BASIN

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08147000 COLORADO RIVER NEAR SAN SABA, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 760 mg/l Feb. 1-29; minimum, 170 mg/l Oct. 19.
 Hardness: Maximum, 400 mg/l Apr. 23-30, Aug. 16-31; minimum, 140 mg/l Oct. 19.
 Specific conductance: Maximum daily, 1,870 micromhos Aug. 18; minimum daily, 280 micromhos Oct. 19.
 Water temperatures: Maximum, 32.0°C June 24, 29; minimum, 8.0°C Jan. 15.

EXTREMES, September 1947 to September 1972.--Dissolved solids: Maximum, 2,440 mg/l June 24-27, 1962; minimum, 102 mg/l Sept. 23-25, 1955.
 Hardness: Maximum, 842 mg/l June 24-27, 1962; minimum, 71 mg/l June 25-30, 1949.
 Specific conductance: Maximum daily, 5,660 micromhos June 28, 1962; minimum daily, 161 micromhos Sept. 11, 1952.
 Water temperatures: Maximum, 37.0°C Aug. 3, 1956; minimum, freezing point Jan. 29, 1948, Jan. 30, 1951.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-04	75	.3	1.2	360	230	61	1.1	636	7.6
05...	29	.2	.9	222	160	28	.7	421	7.7
06-18	75	.3	1.2	360	230	61	1.1	636	7.6
19...	8.9	.1	.7	170	140	9	.4	280	7.9
20...	29	.2	.9	222	160	28	.7	421	7.7
21-31	75	.3	1.2	360	230	61	1.1	636	7.6
NOV.									
01-30	100	.3	1.5	512	320	94	1.5	899	7.8
DEC.									
01-31	140	.3	2.0	588	360	130	1.7	1020	7.9
JAN.									
01-31	160	.3	1.2	592	350	150	1.9	1140	7.7
FEB.									
01-29	180	.3	3.6	760	380	150	2.9	1240	7.9
MAR.									
01-31	140	.2	1.0	565	340	120	1.8	1000	8.3
APR.									
01-22	110	.2	1.2	524	330	110	1.5	939	7.4
23-30	220	--	1.1	751	400	200	2.7	1330	7.3
MAY									
01-06	130	.3	.8	539	310	140	1.9	970	7.4
07...	76	--	.8	363	230	85	1.3	641	7.3
08-12	130	.3	.8	539	310	140	1.9	970	7.4
13-14	76	--	.8	363	230	85	1.3	641	7.3
15-31	130	.3	.8	539	310	140	1.9	970	7.4
JUNE									
01-30	97	.2	.9	448	280	80	1.6	832	8.1
JULY									
01-04	92	.2	1.1	429	280	96	1.3	808	7.9
05-06	50	--	1.3	278	200	58	.8	500	7.2
07-31	92	.2	1.1	429	280	96	1.3	808	7.9
AUG.									
01-15	52	.2	.9	340	260	46	.8	664	7.0
16-31	220	--	.7	728	400	230	2.5	1300	7.3
SEP.									
01-30	140	.3	.7	541	340	150	1.6	966	7.6
WTD. AVG.	103	.3	1.3	460	282	94	1.5	816	7.7
TIME WTD.									
AVG.	126	.3	1.3	534	321	119	1.7	954	7.7
TOT. LOAD (TONS)	66400	168	852	296000	--	--	--	--	--

COLORADO RIVER BASIN

08147000 COLORADO RIVER NEAR SAN SABA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
NOV. 15...	1030	730	11	75	32	--	51	--	264	0
JAN. 17...	0930	415	8.1	92	42	--	80	--	292	0
MAR. 20...	0945	245	6.0	60	34	--	84	--	240	0
MAY 22...	1125	370	7.3	74	36	--	92	--	192	0
JULY 10...	1400	116	15	64	34	--	61	--	208	12
SEP. 18...	1550	193	11	60	35	67	--	4.1	207	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
NOV. 15...	64	98	.3	--	.000	.00	1.8	.060	469
JAN. 17...	110	150	.3	--	.008	.08	2.1	.030	639
MAR. 20...	110	110	.2	--	.018	.06	1.1	.074	526
MAY 22...	160	150	.4	--	.000	.01	.1	.12	611
JULY 10...	80	110	.3	--	.000	.00	.5	.12	480
SEP. 18...	86	130	.2	.31	.000	.01	.4	.080	493

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
NOV. 15...	320	100	1.2	842	8.0	22.0	9.6	109	1.3
JAN. 17...	400	160	1.7	1120	8.0	7.5	11.0	92	1.0
MAR. 20...	290	93	2.1	898	7.9	19.5	8.8	95	4.0
MAY 22...	330	180	2.2	1060	8.2	25.0	8.1	96	4.7
JULY 10...	300	110	1.5	880	8.1	29.0	8.9	114	2.9
SEP. 18...	290	120	1.7	868	8.0	28.5	8.0	103	2.6

COLORADO RIVER BASIN

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08147000 COLORADO RIVER NEAR SAN SABA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
NOV. 15...	1030	730	.00	.00	.00	.00	.00	.00	.00	.00
MAR. 22...	1455	227	.00	.00	.00	.00	.00	.00	.00	.00
MAY 22...	1125	370	.00	.00	.00	.00	.00	.00	.00	.00
JULY 10...	1400	116	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVFX (UG/L)
NOV. 15...	.00	.0	.00	.00	.00	.00	.00	.00	.00
MAR. 22...	.00	.0	.01	.00	.00	.00	.00	.00	.00
MAY 22...	.00	.0	.00	.00	.00	.00	.00	.00	.00
JULY 10...	.00	.0	.00	.00	.00	.00	.00	.00	.00

COLORADO RIVER BASIN

08147000 COLORADO RIVER NEAR SAN SABA, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	535	768	1030	1040	1160	1140	943	1250	738	771	661	1100
2	553	800	1060	1120	1170	1150	954	1130	734	713	718	1020
3	574	808	1070	1080	1180	1110	970	1020	729	813	712	1390
4	588	803	1110	1020	1210	1100	1000	996	728	780	693	1230
5	411	800	1140	1140	1210	1080	996	966	759	495	680	1130
6	532	822	1100	1100	1220	1070	1000	865	764	504	701	919
7	739	837	1030	1160	1250	1080	987	638	769	725	676	1070
8	712	837	832	1160	1250	1090	970	1000	732	934	671	1150
9	731	855	883	1030	1260	1090	931	858	714	912	684	1190
10	733	870	1080	1110	1210	1090	906	852	---	890	654	1200
11	725	839	862	1150	1230	1100	885	1360	756	893	---	1090
12	692	877	809	1150	1250	1070	895	1390	747	880	634	1030
13	667	887	793	1160	1240	1060	920	583	741	844	614	950
14	650	828	920	1200	1250	1050	979	707	757	785	579	898
15	650	868	965	1180	1270	1030	991	1080	787	775	626	---
16	656	904	1020	1150	1240	1000	895	1110	768	857	1480	771
17	680	922	---	1120	1250	1020	891	818	746	791	1530	1030
18	694	908	1070	1150	1270	974	913	881	758	897	1870	939
19	280	922	1070	1150	1340	950	924	888	983	962	1590	916
20	434	922	1070	1150	1380	942	931	1110	1000	970	1770	817
21	503	933	1080	1150	1380	938	935	1150	1040	900	1620	797
22	571	983	1080	1170	1400	908	975	1060	1040	894	1420	1000
23	556	963	1070	1140	1350	915	1510	918	1020	819	1220	867
24	549	979	1080	1160	1270	908	1430	838	1000	725	1240	668
25	616	936	1080	1150	1290	894	1390	802	983	694	869	567
26	581	1010	1040	1180	1260	908	1310	791	983	698	910	755
27	581	1030	1080	1140	1180	898	1040	765	934	692	1050	915
28	625	992	---	1180	1150	905	1110	769	904	709	951	958
29	636	1040	1110	1190	1150	894	1500	752	851	747	1050	832
30	710	1060	1110	1160	---	888	1370	---	747	751	1080	904
31	747	---	1100	1190	---	934	---	748	---	681	1020	---
MONTH	610	900	1030	1140	1250	1010	1050	937	835	790	999	969

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	23.0	13.0	16.0	12.0	21.0	20.0	25.0	26.0	30.0	29.0	29.0
2	25.0	23.0	12.0	15.0	9.0	15.0	22.0	22.0	27.0	30.0	27.0	28.0
3	---	20.0	10.0	14.0	9.0	18.0	22.0	20.0	27.0	30.0	28.0	27.0
4	24.0	18.0	10.0	10.0	---	20.0	23.0	21.0	26.0	26.0	27.0	28.0
5	23.5	20.0	10.0	9.0	---	18.0	23.0	22.0	27.0	27.0	30.0	28.0
6	24.0	18.0	10.0	10.0	13.0	19.0	25.0	25.0	29.0	27.0	27.0	28.0
7	23.5	18.0	12.0	10.0	9.0	22.0	26.0	21.0	27.0	---	28.0	29.0
8	21.0	16.0	12.0	11.0	11.0	18.0	25.0	25.0	27.0	30.0	29.0	29.0
9	23.0	18.0	---	11.0	11.0	19.0	23.0	26.0	25.0	28.0	27.0	30.0
10	21.0	17.0	---	12.0	12.0	---	25.0	22.0	---	30.0	---	28.0
11	21.0	18.0	---	---	10.0	19.0	26.0	22.0	28.0	30.0	---	29.0
12	21.0	20.0	13.0	12.0	11.0	21.0	28.0	22.0	28.0	30.0	28.0	29.0
13	21.0	22.0	12.0	11.0	14.0	21.0	29.0	22.0	27.0	30.0	26.0	30.0
14	20.5	20.0	14.0	10.0	14.0	22.0	27.0	22.0	28.0	29.0	28.0	28.0
15	24.0	20.0	14.0	8.0	13.0	22.0	23.0	25.0	30.0	30.0	---	---
16	24.0	---	15.0	10.0	15.0	22.0	27.0	24.0	26.0	27.0	27.0	28.0
17	---	20.0	---	10.0	14.0	---	29.0	25.0	26.0	29.0	27.0	29.0
18	---	19.0	13.0	13.0	14.0	21.0	25.0	25.0	27.0	28.0	27.0	30.0
19	---	17.0	15.0	13.0	15.0	23.0	27.0	25.0	28.0	30.0	28.0	30.0
20	---	20.0	15.0	15.0	17.0	21.0	27.0	28.0	30.0	29.0	30.0	28.0
21	22.0	20.0	14.0	12.0	20.0	23.0	24.0	27.0	30.0	29.0	30.0	25.0
22	22.5	14.0	13.0	14.0	---	23.0	24.0	28.0	29.0	27.0	29.0	25.0
23	23.0	15.0	14.0	16.0	18.0	23.0	28.0	28.0	30.0	29.0	26.0	25.0
24	---	---	16.0	15.0	20.0	24.0	27.0	30.0	32.0	29.0	28.0	25.0
25	20.0	---	17.0	13.0	---	---	25.0	30.0	27.0	30.0	29.0	26.0
26	---	---	18.0	12.0	18.0	23.0	22.0	28.0	30.0	30.0	28.0	29.0
27	20.0	16.0	18.0	15.0	16.0	---	20.0	30.0	30.0	30.0	29.0	27.0
28	22.0	16.0	---	10.0	19.0	25.0	21.0	28.0	28.0	30.0	30.0	26.0
29	22.0	---	18.0	10.0	20.0	24.0	23.0	28.0	32.0	29.0	28.0	27.0
30	22.0	14.0	---	11.0	---	---	25.0	---	30.0	30.0	29.0	25.0
31	23.0	---	17.0	9.0	---	24.0	---	26.0	---	30.0	29.0	---
MONTH	---	18.5	14.0	12.0	14.0	21.0	24.5	25.0	28.0	29.0	28.0	28.0

COLORADO RIVER BASIN

619

08153500 PEDERNALES RIVER NEAR JOHNSON CITY, TEX.

LOCATION.--Lat 30°17'27", long 98°24'01", Blanco County, at gaging station on bridge on U.S. Highway 281, 0.2 mile downstream from Towhead Creek, 1.1 miles northeast of Johnson City.

DRAINAGE AREA.--947 sq mi.

PERIOD OF RECORD.--Chemical analyses: April 1948 to September 1950.

Chemical and biochemical analyses: October 1971 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 18...	1100	254	2.4	44	31	29	254	0	27	45
JAN. 03...	1500	107	3.7	19	35	36	178	6	33	56
FEB. 04...	1215	104	7.2	18	31	32	162	4	32	48
MAR. 06...	0915	60	3.6	39	41	46	280	0	36	70
APR. 11...	1230	40	6.1	42	40	46	276	0	38	73
MAY 19...	1200	460	12	55	21	13	248	0	18	20
JUNE 19...	1300	260	10	36	14	10	166	0	10	16
AUG. 01...	1300	35	10	35	36	38	242	0	26	65
31...	1830	39	11	34	33	35	226	0	28	58

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 18...	.3	.1	304	240	28	.8	557	8.1	--
JAN. 03...	.3	.01	276	190	36	1.1	526	8.4	16.0
FEB. 04...	.3	.3	254	170	33	1.1	476	8.4	10.0
MAR. 06...	.3	.2	375	270	38	1.2	659	8.2	15.5
APR. 11...	.4	.00	382	270	44	1.2	717	8.3	25.0
MAY 19...	.3	.5	264	220	20	.4	474	7.8	27.0
JUNE 19...	.2	.00	178	150	10	.4	324	8.0	30.0
AUG. 01...	.3	.00	329	240	38	1.1	623	8.1	32.0
31...	.3	.2	311	220	36	1.0	588	7.8	34.0

COLORADO RIVER BASIN

08154900 LAKE AUSTIN AT AUSTIN, TEX.

LOCATION.--Lat 30°18'53", long 97°47'10", Travis County, at City of Austin Waterplant No. 2, 1.5 miles upstream from Tom Miller Dam on the Colorado River at Austin.

DRAINAGE AREA.--38,240 sq mi, of which 11,900 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1964 to September 1972.

Water temperatures: October 1964 to September 1972.

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 313 mg/l Oct. 1-31; minimum, 296 mg/l May 1-31, July 1-31.

Hardness: Maximum, 200 mg/l Oct. 1-31, Jan. 1-31, June 1-30, Aug. 1-31, Sept. 1-30; minimum, 180 mg/l Nov. 1-30.

Specific conductance: Maximum daily, 605 micromhos Feb. 1; minimum daily, 396 micromhos Jan. 6.

Water temperatures: Maximum, 26.5°C July 30; minimum, 9.5°C Feb. 3, 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.									
01-31	8.6	44	21	38	--	3.7	181	0	37
NOV.									
01-30	9.2	40	20	--	42	--	168	0	40
DEC.									
01-31	9.4	44	20	--	39	--	170	0	38
JAN.									
01-31	9.4	47	19	35	--	3.8	180	0	38
FEB.									
01-29	8.4	46	19	--	38	--	175	0	40
MAR.									
01-31	8.6	46	19	--	38	--	176	0	40
APR.									
01-30	8.3	46	19	34	--	3.8	174	0	38
MAY									
01-31	8.7	46	19	--	35	--	176	0	38
JUNE									
01-30	8.6	48	20	--	32	--	176	0	39
JULY									
01-31	9.1	44	19	34	--	3.8	166	0	39
AUG.									
01-31	9.4	47	19	--	35	--	180	0	39
SEP.									
01-30	9.0	48	19	--	34	--	176	0	39

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	578	524	556	525	605	548	546	544	536	509	542	544
2	---	527	560	527	556	548	554	528	542	494	553	---
3	---	514	---	529	552	548	554	548	527	503	---	560
4	578	518	---	---	549	---	551	529	543	---	549	550
5	---	526	---	---	553	---	559	533	541	---	547	---
6	580	533	560	396	548	---	552	536	553	497	547	---
7	577	515	562	534	553	559	559	523	539	518	547	548
8	578	515	558	538	557	558	547	524	538	502	548	546
9	575	537	561	544	554	---	548	---	545	497	550	545
10	581	551	560	552	553	552	550	---	542	510	---	549
11	571	555	559	---	550	556	548	533	550	---	551	554
12	565	558	555	---	545	554	550	538	541	---	556	549
13	583	560	559	562	541	557	544	538	544	556	549	549
14	580	558	---	562	549	559	548	548	548	---	---	551
15	583	558	---	558	547	561	546	509	548	522	559	554
16	578	559	556	565	547	556	544	---	547	---	---	553
17	580	562	549	570	544	554	546	509	549	551	559	550
18	578	553	550	---	547	550	551	524	546	547	---	548
19	578	---	540	---	550	550	548	506	542	553	551	554
20	574	551	540	575	---	558	544	542	---	---	550	548
21	577	551	536	571	550	553	550	---	---	559	556	548
22	575	550	528	574	548	549	546	544	542	553	545	549
23	584	554	538	579	550	554	---	---	545	556	549	---
24	587	561	536	593	554	---	---	532	549	560	548	548
25	587	561	537	---	553	546	546	529	546	545	547	551
26	589	571	535	---	552	556	546	548	547	548	555	548
27	587	559	537	587	549	553	546	548	---	553	557	543
28	578	562	541	579	547	552	542	546	---	548	555	546
29	565	561	534	585	549	---	543	549	543	549	---	546
30	556	---	528	590	---	549	543	536	---	552	---	541
31	532	---	528	578	---	547	---	557	---	551	552	---
MONTH	576	547	546	---	552	553	548	535	544	---	---	549

08154900 LAKE AUSTIN AT AUSTIN, TEX.--Continued

EXTREMES, October 1964 to September 1972.--Dissolved solids: Maximum, 361 mg/l Dec. 1-31, 1964; minimum, 241 mg/l Apr. 1-30, 1968.

Hardness: Maximum, 209 mg/l Feb. 1-28, 1966; minimum, 161 mg/l July 1-31, 1967.

Specific conductance (1964-69, 1970-72): Maximum daily, 645 micromhos Oct. 23, 1964; minimum daily, 311 micromhos June 19, 1968.

Water temperatures (1964-69, 1970-72): Maximum, 32.0°C Aug. 24, 1965; minimum, 9.0°C Jan. 30, 1966, Jan. 9, 11, 1968. Jan. 5, 1969.

REMARKS.--No discharge records available.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	DIS- SOLVED FLUOR- IDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	71	.3	.1	313	200	48	1.2	577	7.5
NOV.									
01-30	66	.3	.2	301	180	45	1.4	549	7.3
DEC.									
01-31	68	.3	.3	304	190	53	1.2	544	6.8
JAN.									
01-31	64	.3	.3	307	200	48	1.1	556	7.1
FEB.									
01-29	63	.2	.3	302	190	50	1.2	552	7.8
MAR.									
01-31	63	.2	.2	303	190	49	1.2	552	8.0
APR.									
01-30	63	.2	.4	300	190	50	1.1	547	6.9
MAY									
01-31	60	.2	.4	296	190	49	1.1	535	7.5
JUNE									
01-30	61	.3	.4	298	200	58	1.0	545	7.0
JULY									
01-31	64	.2	.3	296	190	52	1.1	535	7.1
AUG.									
01-31	59	.2	.2	298	200	48	1.1	551	7.4
SEP.									
01-30	62	.2	.2	299	200	54	1.1	548	7.7

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	22.0	17.0	15.5	11.0	16.5	17.0	18.0	19.0	21.5	22.0	21.5
2	---	23.0	16.5	15.5	12.0	13.5	18.0	18.5	18.5	22.0	23.5	---
3	---	22.0	---	15.5	9.5	15.5	18.0	19.0	19.0	23.5	---	23.5
4	25.5	21.0	---	---	10.0	---	18.0	19.0	18.0	---	22.0	22.0
5	---	21.0	---	---	10.5	---	19.0	18.5	22.0	---	22.0	---
6	25.5	21.0	15.5	15.5	11.0	---	19.0	19.0	19.0	21.0	23.5	---
7	23.0	20.0	15.5	13.0	9.5	16.5	19.0	18.5	19.0	20.0	23.5	21.5
8	23.5	18.0	16.0	13.5	11.0	16.0	19.0	19.0	19.0	20.5	22.0	23.5
9	23.5	20.5	16.0	14.0	11.0	---	18.0	---	19.0	20.5	23.5	23.5
10	23.5	19.5	15.5	15.0	11.0	16.0	18.0	---	18.5	21.0	---	23.5
11	23.0	20.0	16.5	---	11.5	16.5	19.0	18.5	18.5	---	22.0	23.5
12	23.0	20.5	16.0	---	11.0	16.5	19.0	18.0	18.5	---	22.0	22.0
13	23.0	20.5	16.0	13.5	11.5	16.0	19.0	18.5	19.0	21.0	20.0	23.0
14	23.0	20.5	---	12.0	11.5	16.5	19.5	19.0	19.0	---	---	22.0
15	23.5	20.5	---	10.5	12.0	19.0	20.5	20.0	19.0	23.5	22.0	23.5
16	23.5	21.0	16.0	10.0	13.5	18.0	19.5	---	19.0	---	---	23.0
17	23.5	21.0	15.5	11.0	14.5	16.5	20.5	20.0	19.0	23.5	22.0	23.5
18	24.0	20.5	16.0	---	13.0	18.0	20.0	20.5	19.0	22.0	---	23.5
19	24.5	---	15.0	---	12.0	18.0	21.0	20.0	19.5	22.0	22.0	24.5
20	22.0	19.5	15.0	14.5	---	18.0	19.5	20.0	---	---	21.0	23.5
21	23.0	20.0	15.0	12.0	14.5	18.0	20.5	---	---	21.5	21.5	24.5
22	23.5	19.0	15.5	13.5	14.5	18.0	18.5	20.5	20.0	23.5	21.0	25.5
23	23.5	20.0	14.0	13.0	15.5	18.0	---	---	21.0	21.0	21.5	---
24	23.5	18.0	15.0	14.0	15.0	---	---	21.0	21.0	21.5	21.0	23.5
25	21.5	18.5	15.5	---	15.5	19.0	19.0	19.0	21.0	22.0	23.0	23.5
26	22.0	18.0	16.0	---	15.5	18.0	18.0	20.0	21.5	23.5	23.5	23.5
27	22.0	18.0	16.0	14.0	15.5	18.0	18.0	18.5	---	21.5	23.5	23.5
28	22.0	18.5	16.0	13.0	15.5	21.0	18.0	18.0	23.0	23.5	23.5	23.5
29	23.0	18.0	16.0	12.0	16.0	---	18.0	19.0	23.0	24.5	---	23.5
30	23.5	---	16.0	11.0	---	18.0	18.0	19.0	---	26.5	---	23.0
31	23.0	---	15.5	10.5	---	17.0	---	19.0	---	24.5	21.5	---
MONTH	23.5	20.0	15.5	---	12.5	17.5	19.0	19.0	19.5	---	---	23.5

COLORADO RIVER BASIN

08158000 COLORADO RIVER AT AUSTIN, TEX.

LOCATION.--Lat 30°14'40", long 97°41'39", Travis County, at raw water intake at Austin City Waterplant, just downstream from Lamar Boulevard bridge in Austin, 0.5 mile downstream from Barton Creek, and 4.5 miles upstream from gaging station at Montopolis bridge on U.S. Highway 183.

DRAINAGE AREA.--38,400 sq mi, of which 12,880 sq mi (revised) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1972.

Water temperatures: October 1947 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-31 1950		9.4	47	22	37	--	3.6	192	0	37
NOV.										
01-30 2720		9.4	41	19	--	44	--	172	0	40
DEC.										
01-31 2770		9.8	45	19	--	38	--	172	0	38
JAN.										
01-31 857		9.1	58	19	28	--	3.0	222	0	34
FEB.										
01-29 566		8.5	55	20	31	--	3.2	214	0	37
MAR.										
01-31 622		8.1	52	19	--	33	--	198	0	37
APR.										
01-30 1600		8.1	46	19	33	--	3.7	178	0	38
MAY										
01-31 1490		8.8	50	18	--	33	--	187	0	36
JUNE										
01-30 1890		8.8	48	20	--	33	--	179	0	38
JULY										
01-31 1310		9.4	49	19	33	--	3.7	182	0	38
AUG.										
01-31 1570		9.3	46	19	--	40	--	184	0	41
SEP.										
01-30 1280		9.4	46	19	--	43	--	194	0	37
WTD. AVG.	--	9.2	47	19	--	--	--	184	0	38
TIME WTD.										
AVG.	1550	9.0	49	19	--	--	--	189	0	38
TOT. LOAD (TONS)	--	14100	72200	29700	--	--	--	283000	0	58300

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	581	534	554	529	539	582	552	541	477	542	551	---
2	595	528	554	519	544	516	550	522	543	551	551	---
3	595	522	560	529	554	582	551	532	545	553	555	---
4	579	514	556	534	546	530	550	527	545	560	543	---
5	590	528	529	530	552	514	546	543	546	559	529	---
6	578	527	547	523	559	503	549	525	537	542	544	---
7	576	528	559	528	565	588	549	478	543	551	555	---
8	---	516	556	544	522	590	547	527	549	553	547	---
9	588	516	553	547	541	464	549	552	545	546	549	---
10	589	538	555	554	557	565	552	541	542	550	547	---
11	593	549	557	562	566	562	546	469	547	551	551	---
12	604	559	554	567	560	559	547	517	544	548	548	---
13	---	557	554	568	569	559	547	528	535	549	549	---
14	609	564	557	573	563	567	546	515	543	549	552	---
15	612	565	556	575	567	561	547	500	543	551	559	550
16	612	561	556	576	557	559	547	478	537	---	553	---
17	---	571	557	576	572	556	548	547	527	553	549	---
18	624	516	544	575	563	556	547	537	543	548	547	---
19	614	542	546	576	571	557	545	532	540	551	547	---
20	566	542	543	562	567	562	549	511	545	551	548	---
21	581	550	538	576	565	562	546	531	549	553	544	---
22	578	551	533	530	574	560	558	538	546	539	549	---
23	575	547	534	585	574	559	560	542	545	552	550	553
24	592	550	530	584	585	549	554	542	542	543	544	550
25	590	561	531	590	538	---	555	522	547	548	---	546
26	591	562	535	587	582	551	545	551	553	547	---	548
27	591	558	534	591	588	550	549	551	553	553	---	537
28	587	560	531	594	586	554	540	551	555	548	---	542
29	572	566	533	567	582	554	538	544	553	551	---	550
30	566	566	536	557	---	553	541	551	554	559	---	552
31	543	---	527	560	---	555	---	535	---	551	---	---
MONTH	588	545	545	560	562	553	548	528	542	550	---	---

08158000 COLORADO RIVER AT AUSTIN, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 322 mg/l Oct. 1-31; minimum, 296 mg/l May 1-31.
 Hardness: Maximum, 220 mg/l Jan. 1-31, Feb. 1-29; minimum, 180 mg/l Nov. 1-30.
 Specific conductance: Maximum daily, 624 micromhos Oct. 18; minimum daily, 464 micromhos Mar. 9.
 Water temperatures: Minimum, 10.5°C Feb. 3, 4.

EXTREMES, October 1947 to September 1972.--Dissolved solids: Maximum, 389 mg/l Dec. 1-31, 1963; minimum, 184 mg/l July 1-31, 1957.
 Hardness: Maximum, 253 mg/l Dec. 1-31, 1963; minimum, 120 mg/l Oct. 8-31, 1959.
 Specific conductance: Maximum daily, 737 micromhos Jan. 12, 1964; minimum daily, 243 micromhos Dec. 2, 1953.
 Water temperatures: Maximum, 31.0°C on several days during summer months; minimum, 6.0°C Jan. 28, 1948, Feb. 4, 1949.

REMARKS.--No appreciable inflow between sampling point and gaging station except during periods of heavy local rain.
 See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	70	.3	.5	322	210	50	1.1	587	7.1
NOV.									
01-30	66	.3	.2	306	180	40	1.4	548	7.6
DEC.									
01-31	65	.3	.2	301	190	50	1.2	546	6.9
JAN.									
01-31	51	.3	.5	314	220	40	.8	559	7.2
FEB.									
01-29	51	.2	.6	314	220	44	.9	561	8.2
MAR.									
01-31	54	.2	.5	302	210	45	1.0	551	8.1
APR.									
01-30	62	.2	.3	299	190	47	1.0	548	7.0
MAY									
01-31	56	.2	.4	296	200	46	1.0	528	7.7
JUNE									
01-30	60	.3	.5	298	200	56	1.0	543	7.1
JULY									
01-31	62	.2	.2	304	200	52	1.0	549	7.1
AUG.									
01-31	60	.2	.2	306	190	42	1.3	548	7.3
SEP.									
01-30	61	.2	.7	314	190	34	1.3	546	7.4
WTD. AVG.	62	.3	.3	306	196	46	1.1	551	7.3
TIME WTD.									
AVG.	60	.2	.4	306	200	46	1.1	551	7.4
TOT. LOAD (TONS)	95000	391	547	469000	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.5	23.5	18.0	16.5	15.0	20.0	20.0	18.0	21.5	23.5	23.5	---
2	25.0	23.5	18.0	18.5	15.5	19.0	19.5	20.0	21.0	22.0	23.5	---
3	25.5	23.5	18.0	18.5	10.5	19.0	19.5	20.0	20.0	23.5	23.5	---
4	25.0	23.5	16.0	15.5	10.5	20.0	19.0	19.5	21.0	25.0	23.5	---
5	24.5	21.0	14.0	14.0	12.0	20.0	20.0	19.5	21.0	24.0	24.5	---
6	25.0	21.0	15.5	13.5	13.5	20.0	19.5	20.5	21.0	23.5	23.5	---
7	24.0	21.0	16.0	13.0	12.0	19.5	19.5	21.0	21.0	23.0	23.5	---
8	---	19.5	16.5	13.0	13.5	20.5	20.5	20.5	21.0	21.5	25.0	---
9	24.0	21.0	16.5	15.5	14.5	19.0	20.5	20.5	20.5	22.0	23.0	---
10	24.5	20.0	16.5	15.5	13.5	18.0	19.5	21.5	20.0	22.0	23.5	---
11	23.5	20.0	17.0	15.5	15.0	18.0	20.0	22.0	21.0	22.0	23.5	---
12	23.5	20.0	16.5	15.5	13.0	18.5	20.0	21.0	21.0	23.0	23.5	---
13	---	21.0	16.0	18.0	15.5	19.0	20.0	21.0	21.0	22.0	23.5	---
14	24.0	21.5	18.5	16.5	16.0	19.0	19.5	21.0	20.5	22.0	23.0	---
15	24.0	21.0	17.0	16.5	15.5	19.5	20.5	20.5	21.0	22.0	24.0	22.0
16	24.0	21.0	17.0	15.5	15.5	19.0	20.5	22.0	21.5	---	24.0	---
17	---	22.0	16.5	15.5	15.5	20.0	20.5	22.0	22.0	22.0	24.0	---
18	24.0	21.0	16.5	16.5	---	20.0	20.5	21.0	22.0	23.5	23.5	---
19	24.0	20.5	16.5	16.5	16.5	19.0	20.5	21.5	22.0	24.0	23.5	---
20	24.0	19.5	16.0	22.0	16.5	19.5	20.0	22.0	23.0	23.5	23.5	---
21	25.0	20.5	16.0	19.0	16.0	19.5	20.5	21.5	23.5	23.5	23.5	---
22	24.0	20.0	16.0	19.5	19.5	20.0	---	20.5	21.5	24.5	---	---
23	24.0	18.5	15.5	19.0	---	19.0	20.0	20.5	21.5	24.5	23.5	24.0
24	23.5	18.0	16.0	19.5	20.0	19.0	19.0	21.0	22.0	---	23.0	24.5
25	23.0	18.0	16.0	19.5	20.0	---	20.0	21.5	23.0	24.0	---	23.5
26	23.5	19.0	16.5	18.5	21.0	20.0	19.0	21.0	23.5	24.5	---	24.5
27	24.0	19.0	17.0	18.5	20.0	20.0	19.0	20.0	---	23.5	---	24.5
28	23.5	19.0	18.0	19.0	20.0	---	---	20.0	---	24.0	---	24.0
29	24.0	17.0	18.5	18.5	20.0	20.0	19.0	20.0	23.5	---	---	24.5
30	24.0	18.0	18.0	17.0	---	20.0	18.5	20.0	23.5	24.0	---	22.0
31	24.0	---	17.0	17.0	---	19.5	---	21.0	---	25.5	---	---
MONTH	24.0	20.5	16.5	17.0	16.0	19.5	20.0	20.5	21.5	23.5	---	---

COLORADO RIVER BASIN

08158650 COLORADO RIVER AT FARM ROAD 973, BELOW AUSTIN, TEX.

LOCATION.--Lat 30°12'28", long 97°38'15", Travis County, at bridge on Farm Road 973, 0.3 mile northeast of intersection of State Highway 71 and Farm Road 973, and 9.6 miles downstream from gaging station at Austin.

PERIOD OF RECORD.--Chemical and biochemical analyses: February 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
NOV. 01...	0845	4930	8.6	41	20	38	166	0
JAN. 05...	1430	3670	9.9	47	19	32	176	0
MAR. 20...	0845	300	8.2	51	18	39	194	0
MAY 01...	1130	300	8.8	45	20	37	180	0
JULY 10...	0830	--	8.1	47	18	39	182	0

DATE	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)
NOV. 01...	36	66	.2	.010	.00	.3	.080	293	180
JAN. 05...	36	58	.2	.003	.13	.4	.072	291	200
MAR. 20...	40	60	.2	.037	.20	.4	.22	314	200
MAY 01...	38	62	.3	.026	.11	.4	.34	302	200
JULY 10...	37	62	.3	.016	.00	.3	.15	302	190

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
NOV. 01...	49	1.2	533	7.4	23.0	7.7	88	.5
JAN. 05...	52	1.0	527	7.8	13.0	9.8	92	.6
MAR. 20...	42	1.2	574	7.6	21.0	8.0	89	3.0
MAY 01...	48	1.2	562	7.6	24.5	9.6	114	1.4
JULY 10...	42	1.2	557	7.6	25.5	7.1	86	1.4

COLORADO RIVER BASIN

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08159200 COLORADO RIVER AT BASTROP, TEX.

LOCATION.--Lat 30°06'20", long 97°19'08", Bastrop County, at gaging station 400 ft upstream from bridge on State Highway 71, 0.3 mile upstream from Gills Creek, and 1.1 miles downstream from Piney Creek.

DRAINAGE AREA.--39,400 sq mi, of which 12,880 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: January 1968 to September 1970.

Chemical and biochemical analyses: February 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
OCT.								
22...	1315	1860	9.5	50	22	43	200	0
NOV.								
01...	0930	5500	8.7	42	21	40	172	0
30...	1230	3190	8.1	45	23	44	192	0
DEC.								
23...	0833	3590	10	46	20	41	188	0
JAN.								
05...	1320	3090	10	50	18	35	184	0
FEB.								
29...	1153	252	3.5	64	20	49	244	0
MAR.								
20...	0930	1030	9.0	52	19	42	200	0
MAY								
01...	1320	1900	9.3	44	21	34	176	0
09...	1300	763	5.3	50	14	32	166	0
JUNE								
05...	1310	2380	8.8	48	21	39	190	0
JULY								
10...	0935	1760	9.0	48	18	41	186	0
14...	1305	774	9.2	50	21	38	196	0
AUG.								
24...	1210	2430	9.1	45	21	35	178	0
SEP.								
21...	1310	752	6.6	49	23	37	202	0

DATE	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT.									
22...	42	70	.3	--	--	.9	--	339	210
NOV.									
01...	38	68	.2	.010	.00	.2	.11	304	190
30...	40	72	.2	--	--	.5	--	328	210
DEC.									
23...	39	64	.2	--	--	.6	--	315	200
JAN.									
05...	37	58	.2	.016	.00	.7	.24	301	200
FEB.									
29...	49	65	.2	--	--	1.4	--	377	240
MAR.									
20...	43	61	.3	.026	.05	.7	.28	328	210
MAY									
01...	37	60	.3	.022	.00	.7	.22	296	200
09...	43	48	.3	--	--	.8	--	278	180
JUNE									
05...	43	62	.2	--	--	.6	--	318	210
JULY									
10...	38	62	.3	.013	.00	.5	.22	310	190
14...	41	62	.3	--	--	.7	--	321	210
AUG.									
24...	37	62	.2	--	--	.8	--	301	200
SEP.									
21...	38	64	.2	--	--	.4	--	319	220

COLORADO RIVER BASIN

08159200 COLORADO RIVER AT BASTROP, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 22...	50	1.3	595	7.9	25.0	--	--	--
NOV. 01...	50	1.3	556	7.8	23.5	7.3	85	.5
30...	48	1.3	571	7.9	16.0	--	--	--
DEC. 23...	42	1.3	549	8.1	14.5	--	--	--
JAN. 05...	48	1.1	547	7.7	9.5	9.9	87	.8
FEB. 29...	40	1.4	657	7.9	20.5	--	--	--
MAR. 20...	44	1.3	588	7.6	20.0	7.4	80	1.6
MAY 01...	52	1.1	543	7.7	25.5	8.0	96	.7
09...	46	1.0	503	7.8	24.5	--	--	--
JUNE 05...	50	1.2	551	8.2	26.5	--	--	--
JULY 10...	42	1.3	570	7.7	27.5	6.3	79	.8
14...	50	1.1	567	8.2	29.5	--	--	--
AUG. 24...	54	1.1	540	8.3	30.0	--	--	--
SEP. 21...	52	1.1	578	7.7	29.0	--	--	--

08161000 COLORADO RIVER AT COLUMBUS, TEX.

LOCATION.--Lat 29°42'22", long 96°32'12", Colorado County, at gaging station at bridge on U.S. Highway 90 at eastern edge of Columbus, 340 feet downstream from Texas and New Orleans Railroad Co. bridge, and 2.6 miles downstream from Cummins Creek.

DRAINAGE AREA.--41,070 sq mi, of which 12,880 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1971.

Chemical and biochemical analyses: February 1968 to September 1972.

Specific conductance: October 1966 to September 1972.

Water temperatures: March 1957 to June 1959, October 1960 to September 1968.

Sediment records: March 1957 to September 1972.

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 682 micromhos Mar. 12; minimum daily, 208 micromhos May 11.

Sediment concentrations: Maximum daily, 2,490 mg/l May 5; minimum daily, 1 mg/l Feb. 17, Mar. 31.

Sediment loads: Maximum daily, 66,800 tons May 11; minimum daily, 1.90 tons Mar. 6.

EXTREMES, March 1957 to September 1972.--Specific conductance (October 1966 to September 1972): Maximum daily, 706 micromhos Feb. 7, 1969; minimum daily, 156 micromhos Oct. 25, 1970.

Sediment concentrations: Maximum daily, 5,650 mg/l Mar. 25, 1957; minimum daily, 1 mg/l Feb. 17, Mar. 31, 1972.

Sediment loads: Maximum daily, 497,000 tons Feb. 23, 1958; minimum daily, 1.90 tons Mar. 6, 1972.

REMARKS.--Radiochemical analyses available from U.S. Geological Survey, Denver, Colo. See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 22...	0930	1080	14	31	3.6	9.8	87	0	24
DEC. 22...	1150	3650	5.7	48	19	36	180	0	38
JAN. 12...	1440	2550	7.2	50	17	37	180	0	40
FEB. 09...	1115	1180	4.7	59	20	34	208	0	43
MAR. 17...	1345	906	7.0	65	20	43	230	0	46
APR. 18...	1300	1440	9.0	51	19	37	184	0	39
MAY 23...	1150	1970	9.5	58	16	27	197	0	31
JUNE 06...	0900	1910	7.5	51	19	39	180	8	39
JULY 12...	1300	1770	7.4	51	18	30	182	0	30
AUG. 02...	1040	1530	5.2	52	19	37	191	0	39
22...	0730	2050	8.1	49	20	35	179	0	38
SEP. 07...	1410	1820	10	51	19	35	184	0	37

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT. 22...	11	.2	.020	.19	.5	.59	139	--	92
DEC. 22...	61	.3	.024	.00	.6	.12	300	--	200
JAN. 12...	60	.2	--	--	.5	--	300	--	190
FEB. 09...	60	.3	.018	.04	.4	.15	325	--	230
MAR. 17...	64	.3	--	--	3.1	--	370	--	250
APR. 18...	64	.3	.014	.04	.5	.22	312	--	210
MAY 23...	52	.2	--	--	.6	--	293	--	210
JUNE 06...	62	.3	.005	.24	.4	.18	317	--	200
JULY 12...	60	.2	--	--	.3	--	287	--	200
AUG. 02...	64	.2	--	--	.00	--	310	--	210
22...	67	.3	.006	.24	.4	.18	308	--	200
SEP. 07...	65	.0	--	--	.3	--	308	--	200

COLORADO RIVER BASIN

08161000 COLORADO RIVER AT COLUMBUS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)
OCT. 22...	21	.4	253	7.2	22.0	8.5	97	2.9
DEC. 22...	52	1.1	573	8.0	15.0	10.4	102	1.0
JAN. 12...	46	1.2	557	7.2	16.0	--	--	--
FEB. 09...	60	1.0	615	7.7	12.5	12.8	120	1.4
MAR. 17...	58	1.2	687	7.0	22.5	--	--	--
APR. 18...	55	1.1	580	6.7	26.0	9.4	115	1.2
MAY 23...	48	.8	550	7.1	--	--	--	--
JUNE 06...	44	1.2	558	7.7	28.0	8.0	101	1.1
JULY 12...	52	.9	553	7.6	29.0	--	--	--
AUG. 02...	50	1.1	580	7.0	29.5	--	--	--
22...	56	1.1	551	7.8	30.0	9.0	118	.1
SEP. 07...	53	1.1	575	7.3	30.0	--	--	--

DATE	TIME	DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT CHARGE (T/DAY)	% FINER THAN .062 MM	% FINER THAN .125 MM
OCT. 06...	0744	3870	23.0	1610	16800	99	100
21...	0741	1470	23.0	1380	5480	98	99
MAR. 20...	1750	7760	15.0	3630	76100	88	97
MAY 11...	1114	19800	20.0	1350	72200	95	96

DATE	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
OCT. 06...	--	--	71	74	81	90	98
21...	100	--	69	79	85	93	97
MAR. 20...	99	100	46	49	52	61	74
MAY 11...	99	100	72	74	80	82	84

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	472	592	576	521	512	644	601	551	555	557	564	550
2	520	576	554	526	571	658	605	531	558	555	564	554
3	573	570	424	432	632	665	601	528	558	563	561	554
4	586	552	388	485	630	668	599	485	560	565	554	559
5	588	542	520	535	607	662	594	438	560	556	552	559
6	305	536	423	561	571	665	587	460	558	554	555	557
7	435	535	434	569	574	662	592	401	558	551	552	559
8	492	529	315	539	599	660	592	233	558	553	558	562
9	553	532	396	535	598	671	589	239	556	552	558	560
10	572	540	474	534	590	675	584	387	559	551	561	557
11	603	540	523	532	573	680	582	208	559	551	554	559
12	603	543	523	539	484	682	573	243	556	542	522	560
13	607	529	523	545	535	675	574	275	537	541	531	558
14	614	532	534	561	569	670	563	267	549	546	543	555
15	612	551	562	581	599	669	558	333	547	550	551	552
16	623	558	549	592	608	654	561	263	352	559	542	549
17	623	576	554	603	613	636	563	358	307	560	554	543
18	570	562	556	614	619	612	573	420	467	562	554	553
19	349	550	558	619	611	609	571	457	455	571	555	555
20	523	559	559	627	613	598	566	475	472	565	558	561
21	333	553	559	637	609	260	571	514	428	571	554	556
22	258	415	558	643	617	495	556	515	452	567	554	558
23	291	448	552	639	622	562	559	523	457	557	557	562
24	452	505	548	631	626	579	556	535	499	560	551	561
25	591	470	542	626	636	583	554	544	535	571	535	555
26	573	536	552	617	638	581	557	544	549	572	524	552
27	577	543	555	623	638	585	555	544	554	569	526	558
28	584	559	559	627	640	597	539	547	552	569	498	552
29	588	560	568	633	646	607	548	550	554	569	511	549
30	588	573	576	547	---	607	542	552	555	563	524	549
31	589	---	582	329	---	603	---	553	---	569	545	---
MONTH	524	539	519	568	599	619	572	435	517	559	546	556

08161000 COLORADO RIVER AT COLUMBUS, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	603	12	20	4960	226	3030	2400	142	920
2	466	11	14	4970	190	2550	4870	362	4760
3	611	11	18	4920	202	2680	5170	380	5300
4	659	23	41	4790	231	2990	4300	380	4410
5	1120	262	792	4900	174	2300	4290	240	2780
6	2810	1430	10800	4890	150	1980	7990	579	12500
7	1110	169	506	4090	138	1520	12800	1060	36600
8	846	69	158	3570	126	1210	8130	1030	22600
9	744	47	94	3500	125	1180	4910	450	5970
10	715	40	77	3360	112	1020	4490	210	2550
11	705	52	99	3260	104	915	4600	150	1860
12	712	120	231	3420	104	960	4840	280	3660
13	602	80	130	3410	104	958	4370	320	3780
14	458	19	23	2980	104	837	4100	240	2660
15	372	21	21	2320	97	608	4000	152	1640
16	345	23	21	2290	88	544	3880	88	922
17	593	62	99	2420	112	732	3800	68	698
18	615	32	53	2600	170	1190	3740	42	424
19	710	96	184	2690	92	668	3750	68	689
20	3190	1210	10400	4050	172	1880	3690	64	638
21	2980	1320	10600	3510	272	2580	3670	61	604
22	1080	800	2330	2650	465	3330	3650	60	591
23	1030	269	784	2380	204	1310	3640	61	600
24	2260	360	2200	2150	164	952	3630	57	559
25	4300	730	8480	2520	214	1460	3190	56	482
26	4880	562	7400	2530	180	1230	2750	50	371
27	5000	408	5510	2380	158	1020	2460	42	279
28	4640	322	4030	2090	128	722	1990	41	220
29	4780	288	3720	2250	124	753	1310	22	78
30	4900	270	3570	2060	122	679	1930	41	214
31	4890	248	3270	--	--	--	2520	104	708
TOTAL	58776	--	75675	97910	--	43788	130860	--	120067
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2770	136	1020	799	40	86	434	11	13
2	3700	230	2300	733	16	32	411	7	7.8
3	3060	292	2410	907	30	73	377	28	29
4	2210	102	609	1830	56	277	364	7	6.9
5	1470	42	167	2030	24	132	356	12	12
6	2040	46	253	2130	25	144	361	2	1.9
7	3380	82	748	2040	25	138	414	7	7.8
8	3820	94	970	1530	14	58	372	2	2.0
9	3720	84	844	1180	7	22	349	8	7.5
10	3190	74	637	1030	6	17	339	7	6.4
11	2860	70	541	1220	36	119	341	23	21
12	2600	44	309	1280	52	180	491	4	5.3
13	1950	36	190	1110	28	84	731	6	12
14	1210	28	91	1020	12	33	762	8	16
15	968	4	10	1090	9	26	780	9	19
16	861	17	40	962	8	21	823	10	22
17	812	8	18	852	1	2.3	898	8	19
18	786	5	11	787	5	11	948	3	7.7
19	751	8	16	724	6	12	971	11	29
20	693	6	11	679	4	7.3	4290	1130	13100
21	661	2	3.6	602	3	4.9	4920	851	11300
22	625	4	6.8	555	3	4.5	1550	128	536
23	598	6	9.7	523	5	7.1	1320	56	200
24	563	3	4.6	498	9	12	1150	36	112
25	523	3	4.2	448	4	4.8	1050	35	99
26	569	2	3.1	462	6	7.5	1020	38	105
27	539	7	10	457	4	4.9	988	26	69
28	499	17	23	447	5	6.0	966	19	50
29	498	4	5.4	441	5	6.0	948	16	41
30	1820	219	1080	--	--	--	944	18	46
31	1120	122	369	--	--	--	939	1	2.5
TOTAL	50866	--	12714.4	28366	--	1532.3	30607	--	25905.8

COLORADO RIVER BASIN

08161000 COLORADO RIVER AT COLUMBUS, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	924	12	30	1980	54	289	2170	136	797
2	927	14	35	2060	55	306	2100	120	680
3	938	11	28	2600	110	772	1990	120	645
4	962	12	31	4790	892	11500	2000	88	475
5	979	17	45	2530	2490	17000	1990	38	204
6	978	15	40	1730	820	3830	1910	45	232
7	1310	21	74	10000	1600	43200	1850	46	230
8	1480	38	152	14400	1280	49800	1830	39	193
9	1470	41	163	6580	590	10500	1860	41	206
10	1570	35	148	5490	988	14600	1780	43	207
11	1900	61	313	17800	1390	66800	1930	28	146
12	2010	78	423	15900	831	35700	2000	56	302
13	1860	53	266	8680	452	10600	2100	56	318
14	1750	68	321	6180	574	9580	2100	48	272
15	1660	49	220	4250	454	5210	2070	42	235
16	1560	47	198	3510	444	4210	4200	946	10700
17	1510	37	151	2540	388	2660	4840	1110	14500
18	1440	40	156	1780	268	1290	3680	324	3220
19	1340	13	47	1790	272	1310	4240	398	4560
20	1430	30	116	2080	212	1190	3020	348	2840
21	1700	44	202	2030	202	1110	2420	428	2800
22	2190	87	514	1980	172	920	2180	208	1220
23	2160	51	297	1900	126	646	2060	152	845
24	2100	63	357	1590	146	627	2020	148	807
25	2150	48	279	2060	130	723	2010	138	749
26	2160	33	192	2170	94	551	2070	112	626
27	2050	38	210	2300	164	1020	2100	69	391
28	2140	56	324	2230	141	849	2110	59	336
29	1970	55	293	2200	150	891	2230	57	343
30	2380	69	443	2230	159	957	2440	67	441
31	--	--	--	2180	130	765	--	--	--
TOTAL	48998	--	6068	139540	--	299406	71300	--	49520

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SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

COLORADO RIVER BASIN

08162000 COLORADO RIVER AT WHARTON, TEX.

LOCATION.--Lat 29°18'32", long 96°06'13", Wharton County, at gaging station at bridge on U.S. Highway 59 in Wharton, 1,100 feet downstream from Texas and New Orleans Railroad Co. bridge, and 12 miles upstream from Jones Creek.

DRAINAGE AREA.--41,380 sq mi, of which 12,880 sq mi (revised) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: April 1944 to September 1972.

Chemical and biochemical analyses: January 1968 to September 1972.

Pesticide analyses: February 1968 to September 1972.

Water temperatures: October 1945 to September 1948, March 1950 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
01-31	1750	7.6	48	14	28	173	0	26	48
NOV.									
01-30	3570	8.5	46	18	33	166	0	36	60
DEC.									
01-31	4710	8.4	46	15	31	158	0	35	52
JAN.									
01-31	1930	9.6	55	18	34	198	0	37	58
FEB.									
01-04	1310	4.6	38	7.8	20	124	0	20	32
05-11	1850	3.1	61	17	35	212	0	40	57
12-15	1630	4.6	38	7.8	20	124	0	20	32
16-29	868	3.1	61	17	35	212	0	40	57
MAR.									
01-21	813	5.1	68	20	33	240	0	41	60
22-24	3460	7.4	--	--	8.3	115	0	12	16
25-31	964	5.1	68	20	33	240	0	41	60
APR.									
01-30	953	8.0	56	19	38	189	8	36	66
MAY									
01-07	1910	9.2	47	17	29	168	0	23	62
08-18	11100	8.8	37	5.5	7.2	116	0	11	15
19-31	1390	9.5	54	13	21	180	0	21	44
JUNE									
01-30	1650	8.9	52	16	25	176	0	34	48
JULY									
01-31	1200	5.9	45	19	30	168	0	34	58
AUG.									
01-31	896	7.1	54	19	32	193	0	32	59
SEP.									
01-30	793	8.4	51	21	32	195	0	36	60
WTD. AVG.	--	8.1	48	15	27	166	0	30	48
TIME WTD.									
AVG.	2070	7.5	52	17	30	182	1	33	54
TOT. LOAD (TONS)	--	16500	96700	30100	54900	340000	618	61200	98400

COLORADO RIVER BASIN

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08162000 COLORADO RIVER AT WHARTON, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 346 mg/l Mar. 1-21, 25-31; minimum, 145 mg/l May 8-18.
 Hardness: Maximum, 250 mg/l Mar. 1-21, 25-31; minimum, 110 mg/l Mar. 22-24.
 Specific conductance: Maximum daily, 705 micromhos Mar. 16; minimum daily, 215 micromhos May 13.
 Water temperatures: Maximum, 32.0°C June 25, 28, 29, 30; minimum, 6.0°C Feb. 4.

EXTREMES, April 1944 to September 1972.--Dissolved solids: Maximum, 399 mg/l May 1-31, 1964; minimum, 108 mg/l Sept. 27-29, 1957.
 Hardness: Maximum, 252 mg/l Dec. 17-31, 1963; minimum, 66 mg/l Sept. 27-29, 1957.
 Specific conductance: Maximum daily, 904 micromhos Oct. 29, 1963; minimum daily, 146 micromhos Sept. 27, 1957.
 Water temperatures (1945-48, 1950-72): Maximum, 35.0°C July 26, 1954; minimum, 2.0°C Dec. 23, 1963, Jan. 14, 1964.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	.2	.9	258	180	37	.9	509	6.9
NOV.								
01-30	.2	.5	286	190	52	1.0	556	7.7
DEC.								
01-31	.2	1.0	270	180	46	1.0	498	7.6
JAN.								
01-31	.2	.3	310	210	50	1.0	558	7.7
FEB.								
01-04	.2	.7	187	130	25	.8	355	7.2
05-11	.3	.4	319	220	48	1.0	589	7.6
12-15	.2	.7	187	130	25	.8	355	7.2
16-29	.3	.4	319	220	48	1.0	589	7.6
MAR.								
01-21	.2	.2	346	250	56	.9	645	7.9
22-24	--	.8	--	110	20	.3	285	7.3
25-31	.2	.2	346	250	56	.9	645	7.9
APR.								
01-30	.2	.00	324	220	50	1.1	599	8.4
MAY								
01-07	.2	.4	272	190	50	.9	532	7.7
08-18	--	.8	145	120	20	.3	283	7.4
19-31	--	.4	253	190	40	.7	493	7.9
JUNE								
01-30	.2	.5	273	200	52	.8	518	7.7
JULY								
01-31	.2	.00	275	190	52	.9	519	7.5
AUG.								
01-31	.1	2.1	308	210	54	1.0	580	7.6
SEP.								
01-30	.0	.6	307	210	52	1.0	584	7.5
WTD. AVG.	.2	.6	262	182	43	.8	492	7.6
TIME WTD.								
AVG.	.2	.6	288	199	48	.9	540	7.6
TOT. LOAD (TONS)	315	1360	529000	--	--	--	--	--

COLORADO RIVER BASIN

08162000 COLORADO RIVER AT WHARTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
OCT. 22...	1115	3710	12	30	6.4	11	104	0	14	17	.2	.62
DEC. 22...	1000	3850	6.5	47	20	37	178	0	38	65	.2	.23
FEB. 09...	0945	1760	5.0	62	19	26	218	0	36	50	.3	.20
APR. 18...	1100	850	8.5	54	20	35	196	0	38	65	.3	.20
JUNE 07...	1130	1100	9.1	53	18	38	198	0	38	61	.3	.08
AUG. 22...	0930	950	7.0	52	19	34	184	0	36	66	.2	.15

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 22...	.040	.17	.6	.30	145	1240	--	100	16	.5	254	7.2
DEC. 22...	.033	.00	.5	.15	304	122	60	200	52	1.1	573	8.0
FEB. 09...	.017	.06	.8	.19	309	41	--	230	54	.7	585	7.9
APR. 18...	.016	.04	.1	.19	317	54	22	220	56	1.0	592	6.9
JUNE 07...	.000	.00	.03	.20	314	98	17	210	44	1.2	561	7.9
AUG. 22...	.010	.08	.2	.17	305	77	6	210	57	1.0	552	7.9

DATE	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 22...	23.0	140	320	9.5	109	52	1.9	0	.00	--	--	--
DEC. 22...	14.0	55	55	10.4	100	9	1.4	0	.00	10	0	0
FEB. 09...	10.5	30	30	12.8	114	8	1.8	0	.00	10	0	0
APR. 18...	25.0	10	25	10.9	130	12	3.0	8	.00	--	--	--
JUNE 07...	29.0	10	45	9.0	115	14	6.4	0	.00	10	0	0
AUG. 22...	30.0	5	45	9.0	118	4	.5	2	.03	10	0	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 22...	--	--	--	--	--	--	--	--	--	--	--
DEC. 22...	0	0	8	0	0	0	0	.2	0	340	80
FEB. 09...	0	0	6	0	0	20	0	.2	0	590	40
APR. 18...	--	--	--	--	--	--	--	--	--	--	--
JUNE 07...	0	0	4	0	0	10	0	.2	0	460	60
AUG. 22...	0	0	4	0	0	10	0	2.7	6	490	50

COLORADO RIVER BASIN

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08162000 COLORADO RIVER AT WHARTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
DEC. 22...	1300	3850	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 09...	0945	1760	.00	<.2	.00	<.5	.00	.7	.00	.7
JUNE 07...	1130	1100	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 22...	0930	950	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
DEC. 22...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 09...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 07...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 22...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 22...	.0	<1.0	.01	.00	.00	.00	.00	.00	.00
FEB. 09...	1.0	1.0	.02	.00	.00	.00	.00	.00	.00
JUNE 07...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
AUG. 22...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00

08162000 COLORADO RIVER AT WHARTON, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	570	592	571	587	302	628	600	550	570	452	577	558
2	575	602	583	571	258	625	618	543	568	552	623	573
3	543	601	346	512	339	661	625	550	567	557	593	582
4	536	588	322	440	410	677	618	538	562	560	584	580
5	529	580	359	420	567	674	611	533	560	554	555	580
6	519	559	421	460	637	686	625	528	565	505	571	575
7	561	557	372	513	625	686	629	470	575	533	620	589
8	342	553	416	556	583	690	617	288	571	517	579	624
9	325	551	329	568	586	654	613	249	570	506	587	608
10	441	547	359	542	606	697	623	---	570	446	591	581
11	486	551	414	540	458	701	606	269	499	496	581	581
12	544	554	510	537	418	612	609	292	525	506	616	587
13	590	560	512	540	351	700	594	215	552	559	580	578
14	611	557	523	546	359	700	592	---	521	526	587	568
15	625	543	511	560	420	698	596	285	522	534	555	568
16	638	548	541	568	496	705	586	330	543	496	546	582
17	556	---	551	578	556	702	594	321	483	535	569	579
18	490	571	---	586	578	698	595	365	413	494	592	570
19	546	583	567	596	591	681	596	383	389	477	585	577
20	602	578	571	609	590	671	---	416	490	436	592	584
21	570	578	573	617	601	631	581	459	475	496	588	583
22	276	575	576	626	598	233	590	458	481	---	586	578
23	302	552	577	632	598	258	600	463	452	522	582	599
24	284	440	576	609	609	357	583	514	446	---	578	580
25	278	492	567	609	616	487	579	512	492	478	585	574
26	445	---	557	620	616	542	578	520	512	556	577	573
27	594	482	556	624	629	567	575	545	532	554	---	569
28	594	559	565	631	633	582	---	556	557	570	570	578
29	597	559	568	642	637	582	554	552	556	556	553	577
30	601	576	571	512	---	603	546	558	571	606	537	618
31	602	---	570	448	---	604	---	564	---	604	556	---
MONTH	509	557	501	561	526	613	598	442	523	524	580	582

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.0	23.0	15.0	19.0	7.0	20.0	18.0	25.0	26.0	29.0	30.0	28.0
2	27.0	23.0	13.5	18.0	9.0	15.0	19.0	25.0	27.0	29.0	28.0	28.0
3	27.0	22.0	11.0	16.0	8.0	16.0	20.0	25.0	27.0	29.0	28.0	27.0
4	26.0	20.0	10.0	15.0	6.0	17.0	19.0	25.0	28.0	28.0	28.0	28.0
5	26.0	20.0	---	10.0	9.0	18.0	21.0	24.0	27.0	27.0	28.0	27.0
6	24.0	21.0	11.0	8.0	10.0	16.0	21.0	24.0	27.0	26.0	28.0	28.0
7	26.0	19.0	10.0	8.0	10.0	18.0	20.0	23.0	28.0	28.0	28.0	28.0
8	26.0	18.0	12.0	11.0	9.0	20.0	24.0	24.0	29.0	28.0	29.0	27.0
9	25.0	17.0	14.0	13.0	9.0	16.0	20.0	22.0	29.0	29.0	28.0	28.0
10	25.0	17.0	---	15.0	10.0	16.0	26.0	---	29.0	27.0	28.0	30.0
11	20.0	17.0	12.0	15.0	17.0	18.0	24.0	21.0	30.0	27.0	27.0	29.0
12	20.0	18.0	15.0	14.0	10.0	22.0	24.0	20.0	29.0	27.0	28.0	29.0
13	20.0	19.0	15.0	17.0	13.0	21.0	24.0	20.0	29.0	27.0	28.0	29.0
14	21.0	19.0	18.0	12.0	14.0	20.0	25.0	---	29.0	27.0	29.0	29.0
15	22.0	20.0	18.0	10.0	15.0	21.0	27.0	23.0	29.0	26.0	27.0	29.0
16	23.0	20.0	18.0	8.0	15.0	20.0	23.0	23.0	29.0	28.0	27.0	29.0
17	25.0	---	18.0	9.0	15.0	20.0	23.0	24.0	29.0	28.0	28.0	28.0
18	24.0	20.0	---	18.0	15.0	21.0	24.0	24.0	30.0	27.0	28.0	28.0
19	26.0	17.0	16.0	18.0	17.0	19.0	25.0	25.0	30.0	28.0	29.0	27.0
20	26.0	18.0	16.0	20.0	16.0	20.0	---	20.0	30.0	28.0	29.0	27.0
21	21.0	18.0	15.0	20.0	17.0	20.0	25.0	26.0	30.0	29.0	29.0	27.0
22	20.0	18.0	15.0	19.0	16.0	19.0	25.0	26.0	31.0	---	29.0	27.0
23	20.0	17.0	15.0	20.0	17.0	20.0	23.0	25.0	30.0	28.0	29.0	27.0
24	23.0	17.0	15.0	20.0	17.0	22.0	23.0	26.0	31.0	---	30.0	27.0
25	21.0	16.0	17.0	17.0	20.0	21.0	24.0	26.0	32.0	28.0	---	25.0
26	22.0	---	19.0	15.0	20.0	22.0	23.0	26.0	31.0	28.0	30.0	25.0
27	21.0	15.0	19.0	19.0	20.0	23.0	24.0	27.0	31.0	27.0	---	26.0
28	21.0	17.0	17.0	18.0	20.0	23.0	---	27.0	32.0	28.0	30.0	26.0
29	21.0	15.0	20.0	15.0	20.0	20.0	25.0	27.0	32.0	28.0	---	25.0
30	21.0	16.0	19.0	9.0	---	17.0	27.0	27.0	32.0	28.0	30.0	28.0
31	21.0	---	19.0	8.0	---	17.0	---	27.0	---	28.0	30.0	---
MONTH	23.0	18.5	15.5	14.5	14.0	19.5	23.0	24.5	29.5	28.0	28.5	27.5

COLORADO RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE COLORADO RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08118000 LAKE J. B. THOMAS NEAR VINCENT, TEX. (Lat 32°35'09", long 101°12'18")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JUNE 14...	0910	52780	3.5	34	7.5	62	5.4	170	0	58	41

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED BORON (B) (UG/L)
JUNE 14...	.9	.07	297	120	0	2.5	523	7.3	29.0	200

08123000 LAKE COLORADO CITY NEAR COLORADO CITY, TEX. (Lat 32°20'41", long 100°55'10")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 07...	1215	17590	1.6	67	35	130	16	134	0	290	140
MAY 10...	0945	15700	4.6	84	42	150	15	164	0	350	160

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED BORON (B) (UG/L)
OCT. 07...	.9	.00	744	310	200	3.2	1220	8.0	28.0	310
MAY 10...	1.1	.01	897	380	250	3.4	1400	7.1	23.0	340

08123600 CHAMPION CREEK RESERVOIR NEAR COLORADO CITY, TEX. (Lat 36°16'53", long 100°51'30")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 07...	1705	12280	2.8	46	11	16	7.0	120	0	69	23
MAY 10...	1200	9750	1.8	63	19	28	7.9	162	0	110	43

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED BORON (B) (UG/L)
OCT. 07...	.2	.00	234	160	62	.6	412	7.6	25.0	60
MAY 10...	.4	.04	354	240	100	.8	609	7.3	22.5	90

COLORADO RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN COLORADO RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08123950 E. V. SPENCE RESERVOIR NEAR ROBERT LEE, TEX. (Lat 31°52'46", long 100°31'01")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 08...	1200	105400	4.9	54	11	86	5.5	116	0	83	130
NOV. 10...	1250	104000	4.6	56	12	96	5.9	121	0	87	150
MAR. 07...	1230	92570	2.9	66	14	110	6.0	145	0	98	180
JUNE 14...	1345	86900	2.8	71	17	140	6.6	148	0	130	210

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
OCT. 08...	.2	.09	434	180	84	2.8	789	7.8	22.5	--	70
NOV. 10...	.2	.4	472	190	90	3.0	833	8.1	18.0	0	90
MAR. 07...	.3	.3	552	220	100	3.3	1000	7.3	16.0	20	80
JUNE 14...	.3	.2	652	250	130	3.8	1150	7.1	26.0	--	90

08125500 OAK CREEK RESERVOIR NEAR BLACKWELL, TEX. (Lat 32°03'25", long 100°17'37")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JULY 17...	1445	23600	1.3	46	24	48	7.2	96	0	140	76

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED BORON (B) (UG/L)
JULY 17...	.3	.00	390	210	140	1.4	681	7.1	27.0	140

08131200 TWIN BUTTES RESERVOIR NEAR SAN ANGELO, TEX. (Lat 31°22'59", long 100°32'11")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 30...	--	95120	.5	46	7.2	15	4.1	156	0	16	27
DEC. 04...	1000	97250	.3	52	8.8	20	4.4	172	0	21	35
FEB. 12...	1620	100800	1.3	54	10	24	4.8	181	0	24	43
JULY 06...	1015	86920	2.6	39	13	34	5.1	144	0	30	56

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
OCT. 30...	.1	.1	193	140	16	.5	366	7.6	--	--	50
DEC. 04...	.2	.5	229	170	25	.7	413	8.2	9.0	0	80
FEB. 12...	.2	1.0	255	180	28	.8	485	7.2	12.0	20	90
JULY 06...	.3	.00	251	150	33	1.2	469	6.9	26.0	--	140

COLORADO RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE COLORADO RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08132000 LAKE NASWORTHY NEAR SAN ANGELO, TEX. (Lat 31°23'17", long 100°28'39")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 30...	-- 10580		13	64	30	140	7.5	191	0	76	250
FEB. 12...	1700 10470		11	70	35	180	7.1	152	0	100	350

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- CORAL UNITS)	DIS- SOLVED BORON (B) (UG/L)
OCT. 30...	.4	.4	680	280	130	3.6	1250	7.4	--	--	220
FEB. 12...	.3	.4	829	320	190	4.3	1540	7.5	11.5	10	220

08134500 SAN ANGELO LAKE AT SAN ANGELO, TEX. (Lat 31°29'04", long 100°28'53")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 20...	1435 9720		1.5	47	8.4	18	7.5	160	0	21	33

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	COLOR (PLAT- INUM- CORAL UNITS)	DIS- SOLVED BORON (B) (UG/L)
JAN. 20...	.2	.1	216	150	21	.6	405	7.2	10	50

08141000 HORDS CREEK LAKE NEAR VALERA, TEX. (Lat 31°49'58", long 99°33'38")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 12...	1400 8630		6.4	58	19	58	4.6	155	0	34	140

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- CORAL UNITS)	DIS- SOLVED BORON (B) (UG/L)
JAN. 12...	.2	.1	397	220	96	1.7	746	7.8	9.5	10	80

COLORADO RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE COLORADO RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08143000 LAKE BROWNWOOD NEAR BROWNWOOD, TEX. (Lat 31°50'13", long 99°00'13")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	
OCT. 18...	1430	144800	8.0	48	8.6	38	4.6	120	0	37	77	
DATE	TIME	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICHO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- CORALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
OCT. 18...	.3	.2	281	160	57	1.3	516	7.7	20.0	5	60	

08152000 SANDY CREEK NEAR KINGSLAND, TEX. (Lat 30°33'30", long 98°28'19")

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT DIS- CHARGE (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
OCT. 08...	--	40	21.5	3	.33
MAY 23...	1320	54	30.0	11	1.6
JUNE 17...	1700	4810	--	2420	31400

08162600 TRES PALACIOS CREEK NEAR MIDFIELD, TEX.

LOCATION.--Lat 28°55'40", long 96°10'15", Matagorda County, at bridge on Farm Road 456, 1.0 mile downstream from Juanita Creek, and 2.4 miles southeast of Midfield.

DRAINAGE AREA.--145 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT.												
19...	1440	428	20	22	4.8	12	6.4	86	0	10	16	.2
NOV.												
23...	1010	219	9.1	26	5.8	22	3.4	92	0	14	34	.2
DEC.												
28...	1708	14	20	72	20	88	4.9	300	0	26	140	.4
FEB.												
01...	1445	331	9.8	16	4.2	14	5.5	46	0	15	19	.2
MAR.												
07...	1545	19	2.3	84	23	92	4.9	328	0	28	150	.4
APR.												
11...	1410	34	11	70	21	72	5.8	258	0	46	120	.4
MAY												
15...	1420	185	18	30	6.4	17	4.4	128	0	8.8	19	.2
JUNE												
20...	1125	77	17	44	15	48	3.2	200	0	20	70	.4
JULY												
25...	1650	50	19	47	13	54	5.1	189	0	20	85	.3
AUG.												
30...	1520	2300	43	65	20	72	8.5	284	0	21	110	.4
DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)
OCT.												
19...	--	--	.52	.030	.38	.2	.32	--	135	--	75	4
NOV.												
23...	--	--	1.7	.000	.33	1.4	.77	--	166	--	89	13
DEC.												
28...	2.5	.035	.24	.000	.00	.4	.20	120	517	51	260	16
FEB.												
01...	--	--	.86	.074	.57	2.3	.36	--	118	--	57	19
MAR.												
07...	--	--	.14	.018	.10	.7	.26	--	547	--	300	35
APR.												
11...	.530	.038	.19	.024	.19	.8	.26	100	473	120	260	50
MAY												
15...	--	--	.86	.012	.14	.4	.38	--	169	--	100	0
JUNE												
20...	--	--	.44	.000	.00	.2	.18	--	316	--	170	8
JULY												
25...	.410	.033	.34	.000	.13	.2	.30	70	338	100	170	16
AUG.												
30...	--	--	.34	.000	.05	.04	.16	--	481	--	240	12
DATE	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)
OCT.												
19...	.6	220	7.8	26.5	65	5.9	72	41	3.5	--	--	--
NOV.												
23...	1.0	300	7.4	13.0	750	8.7	82	87	5.6	--	--	--
DEC.												
28...	2.4	921	7.6	22.7	35	7.7	89	17	.8	10	0	0
FEB.												
01...	.8	186	7.1	--	95	11.4	98	35	5.3	--	--	--
MAR.												
07...	2.3	991	8.2	21.0	15	9.8	109	13	1.6	--	--	--
APR.												
11...	1.9	857	7.5	25.5	60	8.8	106	32	7.2	10	0	0
MAY												
15...	.7	292	7.6	26.0	50	7.0	85	22	3.8	--	--	--
JUNE												
20...	1.6	598	7.7	29.0	50	7.0	90	21	2.2	--	--	--
JULY												
25...	1.8	615	7.9	29.5	45	7.2	94	22	2.2	10	0	0
AUG.												
30...	2.0	824	7.8	28.0	20	7.1	90	28	2.6	--	--	--

TRES PALACIOS CREEK BASIN

08162600 TRES PALACIOS CREEK NEAR MIDFIELD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 19...	--	--	--	--	--	--	--	--	--	--	--
NOV. 23...	--	--	--	--	--	--	--	--	--	--	--
DEC. 28...	0	0	3	40	0	20	50	.2	2	370	80
FEB. 01...	--	--	--	--	--	--	--	--	--	--	--
MAR. 07...	--	--	--	--	--	--	--	--	--	--	--
APR. 11...	0	0	4	20	0	20	0	.3	0	500	80
MAY 15...	--	--	--	--	--	--	--	--	--	--	--
JUNE 20...	--	--	--	--	--	--	--	--	--	--	--
JULY 25...	0	0	4	60	0	10	0	.2	0	340	50
AUG. 30...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE-POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE-POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE-POSITS (UG/KG)
DEC. 28...	1708	14	.00	<.2	.00	2.3	.00	5.0	.00	1.5
APR. 11...	1410	34	.00	<.2	.00	.7	.00	5.6	.00	2.3
JULY 25...	1650	50	.00	<.2	.00	2.0	.00	8.0	.00	4.8

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOTTOM DE-POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE-POSITS (UG/KG)
DEC. 28...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 11...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 25...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 28...	.0	<1.0	.01	.00	.00	.00	.00	.00	.00
APR. 11...	.0	<1.0	.00	.00	.00	.00	.06	.02	.00
JULY 25...	.0	<1.0	.03	.00	.00	.00	.00	.00	.00

08162650 CASHS CREEK NEAR BLESSING, TEX.

LOCATION.--Lat 28°48'38", long 96°11'51", Matagorda County, at bridge on county road, 2.0 miles upstream from Farm Road 521, and 4.4 miles southeast of Blessing.

DRAINAGE AREA.--14.8 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
19...	1135	37	28	30	8.8	26	6.3	139	0	11	34	.2
NOV.												
23...	1350	13	9.6	37	13	66	6.7	168	0	48	76	.3
DEC.												
29...	1025	1.1	18	58	21	82	4.8	276	0	24	120	.4
FEB.												
01...	1155	44	9.9	14	4.1	16	4.7	49	0	14	17	.1
MAR.												
07...	1310	.40	13	58	40	180	2.8	332	0	53	270	.6
APR.												
11...	1145	2.9	11	64	24	110	8.8	236	0	64	160	.5
MAY												
17...	1303	15	21	26	8.1	32	4.2	143	0	8.4	31	.3
JUNE												
20...	1245	8.3	24	47	15	54	3.1	248	0	7.2	66	.4
JULY												
25...	1350	76	20	60	21	84	3.2	290	0	18	120	.5
AUG.												
30...	1455	2.5	52	66	23	88	10	326	0	8.8	130	.5

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.												
19...	--	--	.45	.000	.32	.1	.20	--	213	--	110	0
NOV.												
23...	--	--	.80	.050	.31	1.0	2.1	--	345	--	150	8
DEC.												
29...	1.5	.031	.29	.000	.02	.09	.12	120	465	48	230	5
FEB.												
01...	--	--	.78	.036	.36	1.2	.19	--	110	--	52	12
MAR.												
07...	--	--	.08	.000	.05	.02	.035	--	778	--	310	37
APR.												
11...	.670	.062	1.4	.16	.39	1.8	.53	90	570	40	260	64
MAY												
17...	--	--	.74	.022	.16	.07	.18	--	202	--	98	0
JUNE												
20...	--	--	.47	.000	.00	.05	.10	--	339	--	180	0
JULY												
25...	.660	.095	.37	.003	.14	.1	.11	180	470	26	240	0
AUG.												
30...	--	--	.64	.014	.23	.06	.11	--	541	--	260	0

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
19...	1.1	350	7.4	26.5	35	5.0	61	44	3.4	--	--	--
NOV.												
23...	2.4	611	7.2	14.0	130	7.9	76	40	6.8	--	--	--
DEC.												
29...	2.3	835	7.2	21.5	90	6.0	67	27	1.0	20	0	0
FEB.												
01...	1.0	172	6.8	8.0	80	11.3	95	33	4.0	--	--	--
MAR.												
07...	4.5	1420	7.6	20.5	10	8.0	88	14	1.5	--	--	--
APR.												
11...	2.9	1020	7.2	24.0	25	5.3	62	62	17	30	0	0
MAY												
17...	1.4	351	7.5	24.5	30	6.6	79	31	3.6	--	--	--
JUNE												
20...	1.8	595	7.5	27.0	25	6.1	75	28	2.5	--	--	--
JULY												
25...	2.4	859	7.7	27.5	15	6.4	80	22	2.2	0	0	0
AUG.												
30...	2.4	926	7.4	26.5	6	3.5	43	49	3.5	--	--	--

CASHS CREEK BASIN

08162650 CASHS CREEK NEAR BLESSING, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHROMIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MANGANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRONTIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 19...	--	--	--	--	--	--	--	--	--	--	--
NOV. 23...	--	--	--	--	--	--	--	--	--	--	--
DEC. 29...	0	0	3	70	0	0	40	.4	2	340	70
FEB. 01...	--	--	--	--	--	--	--	--	--	--	--
MAR. 07...	--	--	--	--	--	--	--	--	--	--	--
APR. 11...	0	0	5	40	0	20	20	.3	0	470	80
MAY 17...	--	--	--	--	--	--	--	--	--	--	--
JUNE 20...	--	--	--	--	--	--	--	--	--	--	--
JULY 25...	0	0	4	0	0	20	40	.2	0	450	70
AUG. 30...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
DEC. 29...	1025	1.1	.00	<.2	.00	<.2	.00	.8	.00	<.2
APR. 11...	1145	2.9	.00	<.2	.00	<.2	.00	.6	.00	<.2
JULY 25...	1350	76	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
DEC. 29...	.01	.3	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 11...	.11	.7	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 25...	.02	2.3	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 29...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
APR. 11...	.0	<1.0	.01	.00	.00	.00	.20	.22	.00
JULY 25...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00

08162700 EAST CARANCAHUA CREEK NEAR BLESSING, TEX.

LOCATION.--Lat 28°51'48", long 96°17'05", Matagorda County, at bridge on Farm Road 616, 100 ft downstream from Missouri Pacific Railroad bridge, and 4.2 miles west of Blessing.

DRAINAGE AREA.--81.2 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
19...	1610	257	20	20	4.9	13	5.9	88	0	7.4	16	.1
NOV.												
23...	1535	77	13	44	22	76	3.8	200	0	40	120	.5
DEC.												
29...	1200	7.7	16	51	21	85	5.4	226	0	26	140	.4
FEB.												
01...	1555	202	8.8	14	4.6	16	4.9	53	0	12	21	.2
MAR.												
07...	1710	2.7	12	79	45	160	3.1	368	0	61	260	.6
APR.												
11...	1525	12	12	67	31	110	6.3	296	0	51	180	.6
MAY												
16...	1430	207	17	22	5.8	14	3.7	102	0	5.2	14	.2
JUNE												
20...	0905	16	22	42	15	74	3.2	212	0	16	100	.4
JULY												
26...	1125	19	27	52	20	62	4.4	247	0	12	100	.3
AUG.												
30...	1605	6.8	38	52	17	110	9.2	225	0	20	180	.4

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.												
19...	--	--	.40	.010	.34	.1	.18	--	131	--	70	0
NOV.												
23...	--	--	.26	.000	.14	.1	.28	--	422	--	200	36
DEC.												
29...	1.2	.041	.30	.000	.06	.04	.060	190	456	42	210	28
FEB.												
01...	--	--	.74	.045	.30	.8	.24	--	112	--	54	10
MAR.												
07...	--	--	.10	.000	.06	.03	.030	--	808	--	380	80
APR.												
11...	.780	.065	.68	.079	.17	.6	.10	130	610	74	290	52
MAY												
16...	--	--	.70	.013	.16	.04	.16	--	132	--	79	0
JUNE												
20...	--	--	.24	.000	.00	.1	.11	--	379	--	170	0
JULY												
26...	.430	.066	.20	.000	.13	.03	.073	50	399	47	210	10
AUG.												
30...	--	--	.42	.000	.24	.00	.12	--	541	--	200	15

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
19...	.7	207	7.8	27.0	65	6.1	75	44	3.3	--	--	--
NOV.												
23...	2.3	773	7.6	13.0	280	8.9	84	40	4.4	--	--	--
DEC.												
29...	2.5	831	7.6	23.0	25	7.4	85	31	1.8	20	0	0
FEB.												
01...	.9	187	7.1	9.0	75	11.5	99	41	4.6	--	--	--
MAR.												
07...	3.6	1460	7.9	21.0	30	9.3	103	15	.9	--	--	--
APR.												
11...	2.9	1120	7.8	26.0	35	10.7	130	33	7.5	10	0	0
MAY												
16...	.7	227	7.6	27.5	40	5.9	74	23	3.4	--	--	--
JUNE												
20...	2.5	675	7.6	29.0	30	6.6	85	28	2.3	--	--	--
JULY												
26...	1.9	723	8.0	29.5	25	7.6	99	17	1.4	0	0	0
AUG.												
30...	3.5	962	8.0	30.0	35	8.7	114	33	3.7	--	--	--

EAST CARANCAHUA CREEK BASIN

08162700 EAST CARANCAHUA CREEK NEAR BLESSING, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 19...	--	--	--	--	--	--	--	--	--	--	--
NOV. 23...	--	--	--	--	--	--	--	--	--	--	--
DEC. 29...	0	0	2	80	0	0	0	.3	1	380	80
FEB. 01...	--	--	--	--	--	--	--	--	--	--	--
MAR. 07...	--	--	--	--	--	--	--	--	--	--	--
APR. 11...	0	0	4	20	0	30	0	.2	0	680	60
MAY 16...	--	--	--	--	--	--	--	--	--	--	--
JUNE 20...	--	--	--	--	--	--	--	--	--	--	--
JULY 26...	0	0	3	10	0	20	0	.2	0	550	70
AUG. 30...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
DEC. 29...	1200	7.7	.00	<.2	.00	.7	.00	.7	.00	<.2
APR. 11...	1525	12	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 26...	1125	19	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
DEC. 29...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 11...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 26...	.02	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM DE- POSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 29...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
APR. 11...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
JULY 26...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00

EAST CARANCAHUA CREEK BASIN

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08162800 WEST CARANCAHUA CREEK NEAR LAWARD, TEX.

LOCATION.--Lat 28°53'19", long 96°27'03", Jackson County, at bridge on county road, 3.2 miles northeast of LaWard, 3.8 miles upstream from Lunis Creek, and 6.3 miles upstream from Missouri Pacific Railroad bridge and Farm Road 616.

DRAINAGE AREA.-- 57.1 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 19...	1755	166	21	20	4.3	13	7.0	84	0	6.0	21	.1
NOV. 23...	1725	285	10	15	3.5	13	5.7	47	0	8.4	23	.2
DEC. 29...	1440	.10	13	35	7.5	36	7.1	156	0	14	47	.2
FEB. 01...	1725	25	12	20	4.3	24	7.5	50	0	14	41	.2
APR. 11...	1645	6.9	18	65	20	80	8.4	225	0	38	150	.5
MAY 16...	1125	51	23	26	5.5	16	5.0	108	0	6.8	20	.2
JUNE 19...	1330	21	33	67	15	56	4.0	237	0	18	100	.4
JULY 25...	0905	22	28	56	13	57	7.0	204	0	11	110	.3
AUG. 30...	1110	2.5	46	55	16	92	13	274	0	19	130	.4

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 19...	--	--	.39	.000	.28	.1	.19	--	134	--	68	0
NOV. 23...	--	--	1.4	.000	.36	1.2	.70	--	108	--	52	13
DEC. 29...	.000	.007	.22	.000	.07	.04	.15	130	237	81	120	0
FEB. 01...	--	--	1.2	.059	.39	2.2	.39	--	158	--	68	27
APR. 11...	.610	.033	.68	.050	.13	.5	.12	140	493	62	240	60
MAY 16...	--	--	.74	.034	.16	.1	.24	--	156	--	87	0
JUNE 19...	--	--	.25	.000	.00	.06	.13	--	415	--	230	34
JULY 25...	.480	.028	.35	.000	.06	.04	.13	150	380	110	190	26
AUG. 30...	--	--	.49	.000	.24	.03	.18	--	507	--	200	0

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 19...	.7	213	7.5	27.5	50	5.8	72	37	3.0	--	--	--
NOV. 23...	.8	180	6.9	11.5	600	8.4	76	83	6.2	--	--	--
DEC. 29...	1.4	422	8.2	25.4	35	9.0	108	36	2.4	40	0	0
FEB. 01...	1.3	267	7.2	10.5	70	11.7	104	44	4.7	--	--	--
APR. 11...	2.2	894	8.2	28.0	25	14.4	182	28	7.2	10	10	0
MAY 16...	.7	264	7.8	27.0	30	5.6	69	22	3.6	--	--	--
JUNE 19...	1.6	729	8.2	31.5	45	7.9	107	18	2.6	--	--	--
JULY 25...	1.8	694	7.8	27.5	60	7.0	88	20	2.2	20	0	0
AUG. 30...	2.8	868	8.1	27.5	30	6.6	82	37	4.5	--	--	--

EAST CARANCAHUA CREEK BASIN

08162800 WEST CARANCAHUA CREEK NEAR LAWARD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 19...	--	--	--	--	--	--	--	--	--	--	--
NOV. 23...	--	--	--	--	--	--	--	--	--	--	--
DEC. 29...	0	0	4	100	0	0	0	.3	2	160	40
FEB. 01...	--	--	--	--	--	--	--	--	--	--	--
APR. 11...	0	0	4	10	0	20	0	.3	0	550	50
MAY 16...	--	--	--	--	--	--	--	--	--	--	--
JUNE 19...	--	--	--	--	--	--	--	--	--	--	--
JULY 25...	0	0	4	40	0	10	0	.2	0	460	60
AUG. 30...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE-POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE-POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE-POSITS (UG/KG)
DEC. 29...	1440	.10	.00	<.2	.00	.3	.00	.7	.00	<.2
APR. 11...	1645	6.9	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 25...	0905	22	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOTTOM DE-POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE-POSITS (UG/KG)
DEC. 29...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 11...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 25...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	DI-AZINON (UG/L)	MALA-THION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 29...	.0	<1.0	.01	.00	.00	.00	.00	.00	.00
APR. 11...	.0	<1.0	.00	.00	.00	.00	.14	.00	.00
JULY 25...	.0	<1.0	.00	.00	.05	.00	.00	.00	.00

08164000 LAVACA RIVER NEAR EDNA, TEX.

LOCATION.--Lat 28°57'34", long 96°41'10", Jackson County, at gaging station on U.S. Highway 59, 660 feet upstream from Texas and New Orleans Railroad Co. bridge, and 2.8 miles southwest of Edna.

DRAINAGE AREA.--826 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1960 to September 1972.
Pesticide analyses: January 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
OCT.										
21...	1430	2990	12	22	.8	--	5.8	--	70	0
30...	1125	62	21	120	5.0	--	57	--	388	0
DEC.										
31...	1310	248	13	66	2.8	--	35	--	200	8
FEB.										
02...	1025	769	3.0	27	2.4	--	17	--	66	6
MAR.										
09...	1030	97	19	73	6.9	--	63	--	244	0
APR.										
13...	0915	65	25	110	7.1	--	67	--	364	0
MAY										
10...	0820	4490	7.2	24	2.9	--	12	--	86	0
JUNE										
22...	1010	211	22	72	8.4	--	23	--	237	0
JULY										
26...	0920	153	22	66	6.2	--	52	--	244	0
AUG.										
29...	1025	63	21	74	6.2	--	40	--	258	0
SEP.										
21...	0845	37	25	88	7.1	58	--	3.1	318	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
21...	.8	6.8	.1	--	--	--	.8	--	86
30...	24	62	.4	--	--	--	.5	--	479
DEC.									
31...	16	39	.3	--	--	--	.7	--	281
FEB.									
02...	12	26	.2	--	--	--	.1	--	132
MAR.									
09...	26	83	.3	--	--	--	.8	--	395
APR.									
13...	29	82	.3	--	--	--	1.0	--	504
MAY									
10...	6.4	12	.8	--	--	--	.4	--	109
JUNE									
22...	13	38	.4	--	--	--	.4	--	296
JULY									
26...	18	58	.3	--	--	--	.6	--	345
AUG.									
29...	17	47	.5	--	--	--	.3	--	334
SEP.									
21...	19	66	.3	.18	.000	.08	.06	.14	423

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT.									
21...	58	1	.3	140	7.2	24.0	--	--	--
30...	310	0	1.4	802	7.9	--	--	--	--
DEC.									
31...	180	0	1.1	480	8.4	18.5	--	--	--
FEB.									
02...	77	13	.8	277	8.5	9.0	--	--	--
MAR.									
09...	210	10	1.9	695	7.7	17.5	--	--	--
APR.									
13...	300	5	1.7	842	8.3	24.0	--	--	--
MAY									
10...	72	2	.6	205	7.1	24.5	--	--	--
JUNE									
22...	210	20	.7	495	8.3	29.0	--	--	--
JULY									
26...	190	0	1.6	584	7.6	27.0	--	--	--
AUG.									
29...	210	0	1.2	573	7.6	24.5	--	--	--
SEP.									
21...	250	0	1.6	705	7.8	29.5	7.0	91	1.7

LAVACA RIVER BASIN

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08164000 LAVACA RIVER NEAR EDNA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
DEC. 31...	1310	248	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 13...	0915	65	.00	<.2	.00	<.2	.00	.4	.00	<.2
JULY 26...	0920	153	.00	<.2	.00	<.2	.00	<.2	.00	<.2
SEP. 21...	0845	37	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
DEC. 31...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 13...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 26...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
SEP. 21...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 31...	.0	<1.0	.01	.00	.00	.00	.00	.00	.00
APR. 13...	.0	<1.0	.01	.00	.00	.00	.00	.00	.00
JULY 26...	.0	<1.0	.00	.00	.00	.00	.06	.06	.00
SEP. 21...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00

LAVACA RIVER BASIN

08164500 NAVIDAD RIVER NEAR GANADO, TEX.

LOCATION.--Lat 29°01'32", long 96°33'08", Jackson County, at gaging station at bridge on U.S. Highway 59, 170 feet upstream from Texas and New Orleans Railroad Co. bridge, 0.2 mile downstream from Sandy Creek, and 2.5 miles southwest of Ganado.

DRAINAGE AREA.--1,063 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1959 to September 1972.

Chemical and biochemical analyses: January 1968 to September 1972.

Pesticide analyses: January 1968 to September 1972.

Water temperatures: October 1959 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-05	361	23	36	5.0	24	--	4.0	134	0	7.6
06-08	838	13	20	3.4	--	11	--	76	0	6.6
09-15	186	23	36	5.0	24	--	4.0	134	0	7.6
16-19	1270	13	20	3.4	--	11	--	76	0	6.6
20-22	3920	7.7	12	1.5	--	6.4	--	46	0	2.8
23...	2400	23	36	5.0	24	--	4.0	134	0	7.6
24-26	823	13	20	3.4	--	11	--	76	0	6.6
27-31	196	23	36	5.0	24	--	4.0	134	0	7.6
NOV.										
01-30	52	23	56	5.9	--	52	--	208	0	14
DEC.										
01-03	1120	19	75	5.2	--	45	--	242	0	15
04...	2680	12	29	3.2	--	16	--	98	0	11
05-11	2730	8.6	15	2.1	--	8.5	--	48	0	8.4
12-15	376	12	29	3.2	--	16	--	98	0	11
16-31	92	19	75	5.2	--	45	--	242	0	15
JAN.										
01-29	214	16	56	4.5	35	--	3.2	180	0	14
30-31	4270	.4	6.0	1.3	--	5.4	--	23	0	4.0
FEB.										
01-02	5150	.3	7.2	1.8	--	6.2	--	21	0	8.0
03-05	747	6.5	15	2.5	--	11	--	50	0	9.6
06-11	276	12	47	4.0	--	27	--	155	0	13
12-17	2210	6.5	15	2.5	--	11	--	50	0	9.6
18-19	188	12	47	4.0	--	27	--	155	0	13
20-29	95	16	73	5.3	--	45	--	242	0	16
MAR.										
01-21	66	18	70	6.0	--	57	--	236	0	17
22-25	1490	10	36	2.3	--	10	--	113	0	7.0
26-31	126	18	70	6.0	--	57	--	236	0	17
APR.										
01-30	73	21	88	10	69	--	4.1	288	0	30
MAY										
01-03	86	24	60	7.4	--	48	--	220	0	13
04-07	783	13	40	3.9	--	22	--	140	0	8.8
08-10	5700	10	19	3.1	--	13	--	70	0	7.2
11-15	16000	5.5	8.8	1.7	--	6.6	--	34	0	3.6
16-19	6300	10	19	3.1	--	13	--	70	0	7.2
20...	828	13	40	3.9	--	22	--	140	0	8.8
21-31	247	24	60	7.4	--	48	--	220	0	13
JUNE										
01-11	161	23	72	5.9	--	45	--	247	0	17
12-16	793	15	38	6.0	--	29	--	132	0	17
17-21	2580	14	29	4.4	--	16	--	97	0	10
22-23	244	15	38	6.0	--	29	--	132	0	17
24-30	126	23	72	5.9	--	45	--	247	0	17
JULY										
01-19	344	20	45	8.2	43	--	3.7	173	0	17
20-26	654	16	26	5.0	--	28	--	106	0	10
27-31	182	20	45	8.2	43	--	3.7	173	0	17
AUG.										
01-02	145	25	60	6.8	--	46	--	220	0	18
03-08	668	16	24	3.8	--	23	--	94	0	12
09-31	96	25	60	6.8	--	46	--	220	0	18
SEP.										
01-30	191	21	58	12	--	57	--	220	0	14
WTD. AVG.										
TIME WTD.	--	10	23	3.2	--	--	--	81	0	7.9
AVG.										
TOT. LOAD	780	18	53	6.2	--	--	--	185	0	15
(TONS)	--	7740	17500	2480	--	--	--	62100	0	6070

LAVACA RIVER BASIN

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08164500 NAVIDAD RIVER NEAR GANADO, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 466 mg/l Apr. 1-30; minimum, 35 mg/l Jan. 30-31.
 Hardness: Maximum, 260 mg/l Apr. 1-30; minimum, 20 mg/l Jan. 30-31.
 Specific conductance: Maximum daily, 901 micromhos Apr. 16; minimum daily, 78 micromhos Jan. 31.
 Water temperatures: Maximum, 29.5°C July 2; minimum, 4.5°C Feb. 3.

EXTREMES, October 1959 to September 1972.--Dissolved solids: Maximum, 614 mg/l Oct. 1-31, 1963; minimum, 35 mg/l Jan. 30-31, 1972.
 Hardness: Maximum, 313 mg/l Nov. 16-30, 1959; minimum, 18 mg/l Feb. 5-8, 1961.
 Specific conductance: Maximum daily, 1,350 micromhos Oct. 26, 28, 1963; minimum daily, 57 micromhos Jan. 22, 1968.
 Water temperatures: Maximum, 37.0°C July 21, 27, 28, 1962, Aug. 19, 1969; minimum, freezing point Jan. 9, 10, 11, 1962, Feb. 22, 1963.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.									
01-05	35	.3	.5	203	110	1	1.0	337	7.8
06-08	12	--	.4	105	64	2	.6	185	7.1
09-15	35	.3	.5	203	110	1	1.0	337	7.8
16-19	12	--	.4	105	64	2	.6	185	7.1
20-22	6.2	.0	--	60	36	0	.5	107	6.9
23...	35	.3	.5	203	110	1	1.0	337	7.8
24-26	12	--	.4	105	64	2	.6	185	7.1
27-31	35	.3	.5	203	110	1	1.0	337	7.8
NOV.									
01-30	64	.3	.1	318	160	0	1.8	535	8.1
DEC.									
01-03	64	.2	.1	343	210	10	1.4	591	8.1
04...	20	--	.2	140	86	5	.8	250	6.9
05-11	9.6	--	.8	80	46	7	.5	138	6.6
12-15	20	--	.2	140	86	5	.8	250	6.9
16-31	64	.2	.1	343	210	10	1.4	591	8.1
JAN.									
01-29	55	.3	.1	273	160	11	1.2	478	7.5
30-31	6.0	--	.2	35	20	1	.5	78	8.2
FEB.									
01-02	8.2	.1	.4	44	25	8	.5	93	7.0
03-05	13	--	.6	85	48	7	.7	153	7.1
06-11	35	--	.6	217	130	7	1.0	391	8.0
12-17	13	--	.6	85	48	7	.7	153	7.1
18-19	35	--	.6	217	130	7	1.0	391	8.0
20-29	61	--	.1	336	200	6	1.4	605	8.0
MAR.									
01-21	78	.3	.6	365	200	5	1.7	679	8.1
22-25	13	--	.9	138	99	6	.4	246	7.8
26-31	78	.3	.6	365	200	5	1.7	679	8.1
APR.									
01-30	98	.3	.7	466	260	24	1.9	817	7.4
MAY									
01-03	63	.3	.3	325	180	0	1.6	598	8.2
04-07	25	.2	1.0	186	120	1	.9	319	8.2
08-10	14	.1	.8	104	60	3	.7	179	7.4
11-15	7.0	.0	.5	52	29	1	.5	93	7.0
16-19	14	.1	.8	104	60	3	.7	179	7.4
20...	25	.2	1.0	186	120	1	.9	319	8.2
21-31	63	.3	.3	325	180	0	1.6	598	8.2
JUNE									
01-11	56	.3	.5	342	200	2	1.4	593	7.5
12-16	38	--	.6	211	120	11	1.2	379	6.6
17-21	23	--	.8	148	90	11	.7	261	6.6
22-23	38	--	.6	211	120	11	1.2	379	6.6
24-30	56	.3	.5	342	200	2	1.4	593	7.5
JULY									
01-19	61	.2	.2	284	150	4	1.5	495	6.7
20-26	34	--	.2	172	85	0	1.3	304	6.5
27-31	61	.2	.2	284	150	4	1.5	495	6.7
AUG.									
01-02	55	.2	.2	320	180	0	1.5	548	8.2
03-08	25	--	.3	151	76	0	1.1	258	7.4
09-31	55	.2	.2	320	180	0	1.5	548	8.2
SEP.									
01-30	85	.3	.3	357	190	14	1.8	629	7.5
WTD. AVG.	20	.1	.5	122	70	4	.7	216	7.2
TIME WTD. AVG.	55	.3	.3	281	157	7	1.4	494	7.6
TOT. LOAD (TONS)	15500	49	400	94100	--	--	--	--	--

LAVACA RIVER BASIN

08164500 NAVIDAD RIVER NEAR GANADO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
NOV.										
02...	1430	80	21	47	6.0	--	27	--	169	0
JAN.										
05...	0830	1000	9.1	17	2.4	--	9.6	--	54	0
MAR.										
20...	1340	40	16	86	6.0	--	58	--	284	0
MAY										
01...	1830	45	23	86	8.6	--	78	--	312	0
JULY										
10...	1335	330	18	42	9.4	--	49	--	164	0
SEP.										
21...	1145	190	40	47	15	56	--	6.8	192	0

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
NOV.										
02...	8.4	37	.2	.36	.010	.17	.1	.10	230	47
JAN.										
05...	6.8	15	.1	.56	.000	.08	.2	.19	88	272
MAR.										
20...	19	79	.3	.15	.000	.12	.00	.053	404	12
MAY										
01...	24	98	.4	.32	.024	.00	.3	.080	472	23
JULY										
10...	19	67	.3	.40	.000	.18	.05	.18	286	180
SEP.										
21...	13	94	.3	.23	.000	.13	.06	.20	367	422

DATE	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
NOV.										
02...	10	140	3	1.0	402	7.9	26.0	45	25	8.0
JAN.										
05...	32	52	8	.6	161	7.0	6.0	110	140	10.6
MAR.										
20...	0	240	6	1.6	716	7.9	22.5	5	7	9.1
MAY										
01...	5	250	0	2.1	817	7.8	26.0	25	7	9.0
JULY										
10...	68	140	9	1.8	522	7.8	29.0	25	75	6.8
SEP.										
21...	36	180	22	1.8	616	7.7	28.0	40	100	6.8

DATE	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)
NOV.										
02...	98	20	1.5	0	.00	--	30	0	1	0
JAN.										
05...	85	45	3.8	1	.00	--	--	--	--	--
MAR.										
20...	103	13	3.0	1	.00	--	10	0	1	0
MAY										
01...	110	14	1.7	0	.00	--	0	0	1	0
JULY										
10...	87	20	1.7	0	.00	--	10	0	0	0
SEP.										
21...	86	--	2.6	--	--	17	--	--	--	--

LAVACA RIVER BASIN

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08164500 NAVIDAV RIVER NEAR GANADO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
NOV. 02...	0	4	180	0	0	30	.7	2	200	10
JAN. 05...	--	--	--	--	--	--	--	--	--	--
MAR. 20...	0	5	0	0	0	0	.7	0	300	60
MAY 01...	0	4	190	0	10	30	.2	0	400	70
JULY 10...	0	4	40	0	0	0	.2	0	310	80
SEP. 21...	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 02...	1430	80	.00	<.2	.00	.4	.00	.6	.00	<.2
MAR. 20...	1340	40	.00	<.2	.00	.3	.00	.3	.00	<.2
MAY 01...	1830	45	.00	<.2	.00	<.2	.00	2.8	.00	<.2
JULY 10...	1335	330	.00	<.2	.00	<.2	.00	1.9	.00	<.2

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOT- TOM DE- POSITS (UG/KG)
NOV. 02...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAR. 20...	.00	.4	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAY 01...	.00	3.6	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 10...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 02...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
MAR. 20...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
MAY 01...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
JULY 10...	.0	16	.00	.00	.00	.00	.00	.00	.00

LAVACA RIVER BASIN

08164500 NAVIDAD RIVER NEAR GANADO, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	284	---	533	120	81	728	716	660	631	611	475	639
2	294	---	481	202	106	673	700	582	639	574	500	688
3	326	461	359	217	127	650	815	647	565	577	216	---
4	356	525	209	---	163	676	874	331	600	---	218	---
5	311	523	150	152	195	608	812	377	580	543	226	696
6	180	528	146	161	292	635	848	284	535	511	226	578
7	175	599	99	246	289	749	839	275	673	500	274	648
8	---	554	143	245	354	622	795	175	467	518	386	702
9	244	504	128	308	394	625	867	229	617	516	402	693
10	307	524	146	442	387	625	766	225	605	520	422	---
11	318	522	156	443	567	772	827	87	---	553	429	730
12	387	515	235	486	115	659	874	82	395	592	412	685
13	384	560	223	565	148	697	884	82	394	465	475	687
14	431	509	283	600	139	744	823	101	409	462	322	662
15	473	599	305	589	145	632	841	107	366	441	---	665
16	---	520	---	618	193	774	901	132	343	---	---	657
17	224	560	---	615	---	---	814	142	286	444	---	659
18	206	541	---	615	363	726	860	141	---	---	---	665
19	191	---	496	---	365	---	815	212	212	444	---	663
20	86	---	498	594	530	687	815	329	265	262	---	656
21	104	---	562	617	579	714	821	427	286	396	---	553
22	131	---	710	623	545	219	784	496	335	397	---	673
23	427	357	621	761	620	209	789	585	409	---	---	662
24	143	526	710	643	619	314	820	553	479	264	681	597
25	164	533	659	670	679	---	792	648	577	227	740	602
26	194	605	---	599	646	537	795	648	594	270	778	459
27	225	---	705	---	611	671	842	687	615	409	778	456
28	299	693	668	637	637	696	836	603	610	320	743	538
29	308	525	648	610	605	713	827	---	632	406	366	544
30	343	655	---	---	---	704	---	647	650	---	543	544
31	---	---	628	78	---	740	---	596	---	487	645	---
MONTH	268	---	404	461	375	636	820	370	492	450	---	630

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	---	14.0	18.5	6.0	20.5	15.5	24.0	23.5	28.0	27.0	26.0
2	26.0	---	14.0	17.0	9.5	19.5	20.0	23.0	23.5	29.5	26.5	26.0
3	26.0	21.0	12.0	16.0	4.5	19.5	18.0	22.0	24.0	28.5	26.0	---
4	24.0	19.0	9.0	---	6.0	18.0	18.0	21.0	24.0	---	24.5	---
5	24.0	17.0	10.0	9.0	8.0	15.5	21.0	21.5	24.5	25.5	26.5	27.0
6	24.0	17.0	10.0	8.0	12.0	15.0	21.5	21.5	24.0	26.0	26.5	29.0
7	23.0	17.0	11.0	9.5	11.0	18.5	23.0	21.0	24.5	26.0	26.5	27.0
8	---	17.0	11.0	10.0	7.0	20.5	22.0	21.0	24.5	27.0	26.5	27.0
9	23.0	17.0	12.0	16.5	11.5	17.5	22.0	21.0	24.0	27.0	26.5	26.5
10	26.5	14.5	13.0	14.5	13.0	16.0	22.0	21.0	24.5	26.5	26.5	---
11	21.0	14.5	13.0	14.5	13.0	18.0	23.0	20.0	---	26.5	26.5	26.5
12	26.5	15.5	14.5	13.0	11.0	18.0	---	20.0	25.0	27.0	26.5	26.5
13	27.0	20.0	15.5	13.0	14.0	20.0	26.5	20.5	25.0	26.5	27.0	26.5
14	25.5	20.0	19.0	13.5	14.5	21.5	23.5	22.0	25.5	26.0	27.0	26.5
15	28.0	19.5	18.5	10.0	13.5	20.0	23.5	20.0	26.5	26.5	---	26.5
16	---	19.5	---	10.5	14.5	19.0	21.0	21.0	26.5	---	---	26.5
17	24.0	21.0	---	9.0	13.0	---	20.0	21.0	26.0	26.5	---	26.5
18	25.0	19.0	---	13.0	13.5	19.5	22.0	21.0	---	---	---	26.0
19	25.5	---	16.0	---	13.0	---	24.0	25.0	26.5	27.0	---	26.5
20	23.0	---	15.5	20.0	13.5	21.5	23.5	25.0	26.5	26.5	---	26.5
21	24.0	---	15.0	21.0	18.0	21.0	22.0	25.5	26.5	26.5	---	26.5
22	25.5	---	15.0	18.5	16.5	19.5	22.0	24.0	26.5	26.5	---	26.5
23	25.5	13.0	15.0	17.0	18.0	20.0	21.5	24.0	26.5	---	---	26.5
24	25.0	15.5	15.5	17.0	18.0	20.0	21.5	24.0	26.5	26.5	29.0	25.5
25	24.0	15.5	18.0	15.5	18.0	---	21.0	24.5	27.0	26.5	29.0	25.0
26	25.5	15.5	---	16.0	20.5	21.5	21.5	24.0	28.0	26.5	28.5	25.5
27	24.0	---	18.5	---	18.5	24.0	21.5	24.0	27.0	26.5	27.0	25.5
28	24.0	15.5	21.0	14.5	19.0	22.0	21.5	24.0	28.0	26.5	26.5	25.0
29	21.5	15.5	21.0	13.0	20.0	19.0	21.5	---	29.0	28.0	25.5	25.0
30	22.0	16.5	---	---	---	18.5	---	24.0	28.5	---	26.0	21.0
31	---	---	24.0	7.0	---	17.0	---	24.0	---	27.0	26.0	---
MONTH	24.5	---	15.0	14.0	13.5	19.5	21.5	22.5	26.0	27.0	---	26.0

08164600 GARCITAS CREEK NEAR INEZ, TEX.

LOCATION.--Lat 28°53'28", long 96°49'08", Victoria County, at bridge on U.S. Highway 59, 0.3 mile upstream from Southern Pacific Railroad bridge, 2.0 miles southwest of Inez, and 3.6 miles upstream from Casa Blanca Creek.

DRAINAGE AREA.--91.7 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1969 to September 1972.
Pesticide analyses: October 1969 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
18...	1635	1100	13	8.0	1.6	3.6	2.9	32	0	5.6	5.7	.0
NOV.												
22...	1225	2.4	31	75	9.6	37	1.9	244	8	36	44	.3
DEC.												
27...	1205	7.0	24	62	7.3	26	2.2	214	0	26	32	.2
JAN.												
31...	1650	1030	5.7	5.0	1.0	3.4	3.1	17	0	3.6	6.3	.0
MAR.												
06...	1550	1.0	4.2	72	8.3	32	2.2	238	0	33	39	.4
APR.												
12...	0810	1.0	18	58	9.9	50	2.1	214	0	32	61	.4
MAY												
15...	1735	72	18	23	3.4	10	3.0	88	0	6.4	10	.2
JUNE												
19...	1615	6.1	17	34	4.4	20	2.6	126	0	12	23	.3
JULY												
24...	1300	54	21	16	3.1	13	3.5	69	0	.8	15	.2
AUG.												
28...	1655	2.7	30	62	7.1	25	2.4	212	0	28	29	.3

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.												
18...	--	--	.35	.000	.36	.00	.060	--	56	--	27	0
NOV.												
22...	--	--	.02	.000	.08	.00	.020	--	363	--	230	13
DEC.												
27...	.900	.027	.07	.000	.13	.06	.006	90	285	34	180	9
JAN.												
31...	--	--	.37	.000	.32	.2	.075	--	38	--	17	3
MAR.												
06...	--	--	.34	.000	.15	.1	.090	--	309	--	210	18
APR.												
12...	.280	.110	.26	.000	.11	.00	.022	120	336	10	180	10
MAY												
15...	--	--	.57	.000	.08	.01	.035	--	117	--	71	0
JUNE												
19...	--	--	.30	.000	.00	.06	.043	--	176	--	100	0
JULY												
24...	.090	.023	.69	.000	.24	.05	.090	100	107	41	53	0
AUG.												
28...	--	--	.21	.000	.09	.01	.020	--	288	--	180	10

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
18...	.3	74	7.5	26.5	40	6.0	73	50	2.9	--	--	--
NOV.												
22...	1.1	583	7.6	17.5	4	9.6	100	16	1.1	--	--	--
DEC.												
27...	.8	475	8.0	21.8	20	8.3	94	19	.9	20	0	0
JAN.												
31...	.4	56	6.2	6.4	30	10.6	85	35	3.3	--	--	--
MAR.												
06...	1.0	538	8.0	20.0	45	8.0	87	27	1.1	--	--	--
APR.												
12...	1.6	588	7.7	24.5	4	7.0	83	19	3.1	0	0	0
MAY												
15...	.5	196	7.5	28.5	20	6.5	83	30	2.3	--	--	--
JUNE												
19...	.9	312	8.3	35.0	15	8.0	113	26	2.5	--	--	--
JULY												
24...	.8	186	7.7	30.0	15	6.6	87	51	2.5	70	0	0
AUG.												
28...	.8	489	8.3	32.0	5	8.2	111	21	2.2	--	--	--

GARCITAS CREEK BASIN

08164600 GARCITAS CREEK NEAR INEZ, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 18...	--	--	--	--	--	--	--	--	--	--	--
NOV. 22...	--	--	--	--	--	--	--	--	--	--	--
DEC. 27...	0	0	4	40	0	0	0	.3	1	150	70
JAN. 31...	--	--	--	--	--	--	--	--	--	--	--
MAR. 06...	--	--	--	--	--	--	--	--	--	--	--
APR. 12...	0	0	2	10	0	10	50	.2	0	220	60
MAY 15...	--	--	--	--	--	--	--	--	--	--	--
JUNE 19...	--	--	--	--	--	--	--	--	--	--	--
JULY 24...	0	0	10	310	0	0	0	.2	6	110	50
AUG. 28...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE-POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE-POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE-POSITS (UG/KG)
DEC. 27...	1205	7.0	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 12...	0810	1.0	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 24...	1300	54	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOTTOM DE-POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE-POSITS (UG/KG)
DEC. 27...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 12...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 24...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 27...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
APR. 12...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
JULY 24...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00

PLACEDO CREEK BASIN

659

08164800 PLACEDO CREEK NEAR PLACEDO, TEX.

LOCATION.--Lat 28°43'30", long 96°46'07", Victoria County, at bridge on Farm Road 616, 140 ft downstream from Missouri Pacific Railroad bridge, 0.1 mile downstream from confluence of Lone Tree Creek and Arroyo Palo Alto, and 4.4 miles northeast of Placedo.

DRAINAGE AREA.--68.3 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
18...	1335	3370	11	7.2	1.5	2.8	3.9	34	0	.4	3.1	.0
NOV.												
22...	1445	1.1	23	120	18	190	3.8	242	12	31	380	.4
DEC.												
27...	1620	3.0	30	330	52	600	5.5	392	0	51	1400	.5
JAN.												
31...	1330	154	11	14	2.7	11	6.0	37	0	10	16	.2
MAR.												
06...	1325	.64	12	360	55	650	4.0	396	0	61	1500	.5
APR.												
11...	0805	.92	23	360	55	730	5.1	368	0	52	1600	.5
MAY												
16...	1605	81	22	27	4.2	21	4.4	94	0	4.4	32	.2
JUNE												
19...	1220	18	22	33	4.4	37	4.7	94	0	4.6	74	.3
JULY												
24...	1500	33	20	22	3.4	20	5.3	84	0	4.4	28	.2
AUG.												
28...	1405	.90	34	250	41	450	6.2	364	0	50	1000	.5
DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.												
18...	--	--	.20	.010	.19	.2	.15	--	48	--	24	0
NOV.												
22...	--	--	.12	.000	.17	.1	.10	--	892	--	360	150
DEC.												
27...	6.8	.180	.09	.000	.02	.05	.036	840	2650	15	1000	720
JAN.												
31...	--	--	1.0	.079	.36	1.6	.51	--	97	--	46	16
MAR.												
06...	--	--	.14	.000	.00	.04	.065	--	2850	--	1100	790
APR.												
11...	8.6	.350	.39	.000	.16	.02	.088	1000	3060	24	1100	820
MAY												
16...	--	--	.87	.031	.17	.2	.30	--	162	--	85	8
JUNE												
19...	--	--	.62	.033	.02	.2	.23	--	227	--	100	23
JULY												
24...	.130	.021	.47	.000	.15	.1	.38	120	145	116	69	0
AUG.												
28...	--	--	.19	.000	.09	.00	.020	--	2050	--	800	500
DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
18...	.2	67	7.4	25.5	65	4.6	55	25	2.5	--	--	--
NOV.												
22...	4.3	1630	7.0	17.0	20	6.4	66	19	2.0	--	--	--
DEC.												
27...	8.1	4830	7.4	20.4	6	5.6	62	18	.4	10	0	0
JAN.												
31...	.7	158	6.6	6.5	120	10.2	82	40	6.0	--	--	--
MAR.												
06...	8.5	5210	7.4	18.0	10	6.3	67	36	2.6	--	--	--
APR.												
11...	9.5	5640	7.1	23.0	10	4.2	48	37	2.8	10	0	0
MAY												
16...	1.0	281	7.4	26.0	85	6.2	76	28	3.1	--	--	--
JUNE												
19...	1.6	409	7.5	29.5	80	6.0	78	40	2.8	--	--	--
JULY												
24...	1.0	250	7.7	23.0	80	6.3	81	37	2.2	120	10	0
AUG.												
28...	6.9	3740	7.3	29.0	2	1.8	23	23	3.1	--	--	--

PLACEDO CREEK BASIN

08164800 PLACEDO CREEK NEAR PLACEDO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 18...	--	--	--	--	--	--	--	--	--	--	--
NOV. 22...	--	--	--	--	--	--	--	--	--	--	--
DEC. 27...	0	0	3	30	0	50	140	.4	2	3800	170
JAN. 31...	--	--	--	--	--	--	--	--	--	--	--
MAR. 06...	--	--	--	--	--	--	--	--	--	--	--
APR. 11...	0	3	3	20	0	70	280	.2	3	4200	120
MAY 16...	--	--	--	--	--	--	--	--	--	--	--
JUNE 19...	--	--	--	--	--	--	--	--	--	--	--
JULY 24...	0	0	6	260	0	0	0	.2	0	170	70
AUG. 28...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
DEC. 27...	1620	3.0	.00	<.2	.00	<.2	.00	.4	.00	<.2
APR. 11...	0805	.92	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 24...	1500	33	.00	<.2	.00	2.0	.00	2.9	.00	<.2

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOTTOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
DEC. 27...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 11...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 24...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM DE- POSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 27...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
APR. 11...	.0	<1.0	.01	.00	.00	.00	.00	.02	.00
JULY 24...	.0	<1.0	.00	.00	.00	.00	.00	.22	.00

08164850 CHOCOLATE BAYOU NEAR PORT LAVACA, TEX.

LOCATION.--Lat 28°35'40", long 96°41'48", Calhoun County, at bridge on Sweetwater Road, 2.3 miles upstream from State Highway 35, and 4.5 miles southwest of Port Lavaca.

DRAINAGE AREA.--53.7 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
20...	1025	619	19	11	2.0	6.2	4.9	55	0	1.0	7.0	.0
NOV.												
22...	1545	1.3	19	40	7.4	47	5.2	92	0	24	93	.2
DEC.												
29...	1642	.33	29	180	36	290	7.2	272	0	100	640	.3
FEB.												
02...	1510	38	15	18	3.2	18	6.1	44	0	16	27	.1
MAR.												
08...	0920	.12	14	330	68	550	8.8	372	0	220	1300	.4
APR.												
10...	1305	1.9	15	380	72	560	11	384	0	194	1400	.3
MAY												
17...	0805	14	26	22	3.4	20	4.7	101	0	4.4	18	.2
JUNE												
20...	1650	5.2	24	38	6.8	67	5.0	127	0	18	110	.3
JULY												
24...	1620	3.3	25	60	13	160	4.5	198	0	21	260	.3
AUG.												
28...	1225	1.1	32	110	25	360	8.0	332	0	65	610	.6

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.												
20...	--	--	.22	.000	.25	.00	.10	--	78	--	36	0
NOV.												
22...	--	--	.37	.090	.32	1.3	.27	--	287	--	130	55
DEC.												
29...	2.7	.200	.19	.020	1.0	.09	.51	310	1420	12	590	360
FEB.												
02...	--	--	.88	.059	.74	1.8	.37	--	135	--	58	22
MAR.												
08...	--	--	.62	.047	.52	.3	.70	--	2670	--	1100	800
APR.												
10...	6.2	.410	.53	.011	.31	.01	.29	420	2830	10	1300	1100
MAY												
17...	--	--	.50	.022	.10	.07	.19	--	149	--	69	0
JUNE												
20...	--	--	.80	.070	.21	.2	.31	--	332	--	120	19
JULY												
24...	1.2	.130	.37	.011	.18	.04	.18	360	643	13	200	40
AUG.												
28...	--	--	.33	.000	.25	.01	.26	--	1370	--	390	120

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
20...	.4	113	6.1	25.5	35	4.7	57	27	2.0	--	--	--
NOV.												
22...	1.8	514	6.4	16.5	75	5.3	54	27	2.9	--	--	--
DEC.												
29...	5.2	2540	6.9	23.6	3	4.2	49	29	2.1	0	10	0
FEB.												
02...	1.0	216	6.9	11.0	70	7.8	70	41	4.9	--	--	--
MAR.												
08...	7.2	4620	7.1	20.5	10	4.4	49	37	7.5	--	--	--
APR.												
10...	6.8	5070	7.3	24.0	6	6.0	70	47	5.5	10	10	1
MAY												
17...	1.0	241	7.2	24.5	45	5.8	69	25	2.7	--	--	--
JUNE												
20...	2.6	597	7.1	34.0	85	3.4	47	41	4.0	--	--	--
JULY												
24...	4.8	1180	7.7	34.0	6	7.1	99	28	3.2	0	0	0
AUG.												
28...	7.9	2480	7.8	30.5	6	11.6	153	29	5.2	--	--	--

08164850 CHOCOLATE BAYOU NEAR PORT LAVACA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

CHOCOLATE BAYOU BASIN

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08164850 CHOCOLATE BAYOU NEAR PORT LAVACA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
DEC. 29...	1642	.33	.00	<.2	.00	16	.00	50	.00	5.9
APR. 10...	1305	1.9	.00	<.2	.00	66	.00	140	.00	7.6
JULY 24...	1620	3.3	.00	<.2	.00	60	.01	250	.00	35

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
DEC. 29...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 10...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 24...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 29...	.0	<1.0	.01	.00	.00	.00	.00	.00	.00
APR. 10...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
JULY 24...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00

GUADALUPE RIVER BASIN

08169580 GUADALUPE RIVER BELOW NEW BRAUNFELS, TEX.

LOCATION.--Lat 29°40'00", long 98°04'14", Comal County, in Lake Dunlap, 8 miles southeast of New Braunfels, 15 miles downstream from Interstate 35 bridge.

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HC03) (MG/L)	CAR-BONATE (C03) (MG/L)
NOV. 01...	1035	12	51	14	--	9.7	--	200	0
JAN. 03...	1000	12	69	16	--	9.4	--	256	0
MAR. 22...	1845	10	63	16	--	16	--	248	0
MAY 05...	1110	12	66	17	--	17	--	260	0
JULY 14...	1020	12	63	14	--	13	--	244	0
SEP. 18...	1035	11	66	15	13	--	1.9	248	0

DATE	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)
NOV. 01...	18	14	.2	--	.010	.00	.8	.040	220
JAN. 03...	20	16	.2	--	.002	.00	1.2	.050	274
MAR. 22...	23	20	.2	--	.007	.03	.8	.12	274
MAY 05...	22	22	.3	--	.012	.00	.9	.095	288
JULY 14...	18	16	.2	--	.017	.00	.6	.072	259
SEP. 18...	20	18	.2	.00	.000	.07	.7	.040	270

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)
NOV. 01...	180	21	.3	393	7.5	23.0	7.8	90	.5
JAN. 03...	240	28	.3	483	7.6	17.5	8.5	89	.4
MAR. 22...	220	20	.5	475	8.1	24.0	15.0	176	1.9
MAY 05...	230	22	.5	499	7.7	25.0	10.1	120	2.5
JULY 14...	220	15	.4	460	7.5	27.0	6.3	78	1.8
SEP. 18...	230	23	.4	470	7.6	28.0	9.1	115	1.3

GUADALUPE RIVER BASIN

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08172000 SAN MARCOS RIVER AT LULING, TEX.

LOCATION.--Lat 29°39'54", long 97°38'59", Caldwell County, at gaging station 390 ft downstream from bridge on State Highway 80, 1.0 mile south of Luling, and 9.4 miles upstream from Plum Creek.

DRAINAGE AREA.--838 sq mi.

PERIOD OF RECORD.--Chemical analyses: September 1961 to April 1966, October 1968 to September 1972.
Water temperatures: September 1961 to April 1966.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 21...	1445	123	9.2	83	18	28	302	0	28	43
NOV. 30...	1700	194	12	80	21	20	312	0	27	29
DEC. 29...	1010	322	5.0	45	19	32	234	0	26	28
FEB. 03...	0950	228	8.7	63	19	24	248	0	29	34
MAR. 07...	1520	190	6.0	30	19	22	143	0	28	34
APR. 11...	1405	164	10	76	18	23	276	0	29	35
JUNE 26...	1045	307	11	79	18	25	278	0	31	42
JULY 25...	1420	228	10	36	22	23	162	0	32	42
AUG. 31...	1210	188	12	40	17	19	155	0	28	36

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 21...	.3	1.3	364	280	32	.7	616	7.9	23.5
NOV. 30...	.2	1.3	348	280	28	.5	594	7.9	16.0
DEC. 29...	.2	.4	272	190	0	1.0	424	7.8	20.0
FEB. 03...	.2	1.6	307	240	33	.7	523	7.8	10.0
MAR. 07...	.2	1.4	215	150	35	.8	397	8.1	19.0
APR. 11...	.3	2.0	336	260	38	.6	588	8.2	24.0
JUNE 26...	.2	1.3	349	270	44	.7	609	7.7	29.5
JULY 25...	.2	1.2	250	180	47	.7	457	8.0	28.0
AUG. 31...	.2	.9	232	170	43	.6	418	8.0	28.0

GUADALUPE RIVER BASIN

08173000 PLUM CREEK NEAR LULING, TEX.

LOCATION.--Lat 29°41'58", long 97°36'12", Caldwell County, at gaging station at bridge on county road, 1.2 miles upstream from West Fork, 1.9 miles upstream from Southern Pacific Railroad Co. bridge, 2.2 miles upstream from McNeil Creek, and 3.0 miles northeast of Luling.

DRAINAGE AREA.--309 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1972.
Water temperatures: October 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-31	3.6	20	120	11	160	--	5.5	316	0	83
NOV.										
01-30	5.0	20	130	12	--	170	--	356	0	96
DEC.										
01-05	35	14	100	9.2	--	99	--	256	0	80
06-15	126	6.0	62	4.8	--	37	--	158	0	51
16-31	12	14	100	9.2	--	99	--	256	0	80
JAN.										
01-31	10	8.6	120	10	110	--	4.7	284	0	96
FEB.										
01-29	8.8	4.7	120	12	--	140	--	182	0	110
MAR.										
01-10	4.9	16	140	14	--	180	--	352	0	110
11-12	5.8	2.8	69	10	--	120	--	134	0	95
13-31	4.4	16	140	14	--	180	--	352	0	110
APR.										
01-30	2.6	24	140	15	190	--	5.3	376	0	110
MAY										
01-06	3.0	17	100	11	--	110	--	196	0	83
07-08	564	11	52	5.2	--	47	--	118	0	37
09-10	294	17	100	11	--	110	--	196	0	83
11-14	4020	9.0	39	2.8	--	15	--	114	0	19
15-16	110	11	52	5.2	--	47	--	118	0	37
17-31	40	17	100	11	--	110	--	196	0	83
JUNE										
01-15	10	17	130	14	--	140	--	256	0	100
16-19	388	14	56	4.5	--	45	--	136	0	28
20-30	10	17	130	14	--	140	--	256	0	100
JULY										
01-31	4.1	7.3	150	17	210	--	6.4	326	0	120
AUG.										
01-31	3.3	18	130	13	--	210	--	324	16	110
SEP.										
01-30	2.7	19	110	11	--	210	--	372	0	90
WTD. AVG.	--	10	52	4.4	--	--	--	137	0	32
TIME WTD.										
AVG.	64	15	121	12	--	--	--	293	1	96
TOT. LOAD (TONS)	--	638	3310	276	--	--	--	8650	4	2050

GUADALUPE RIVER BASIN

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08173000 PLUM CREEK NEAR LULING, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 1,050 mg/l July 1-31; minimum, 163 mg/l May 11-14.
 Hardness: Maximum, 450 mg/l July 1-31; minimum, 110 mg/l May 11-14.
 Specific conductance: Maximum daily, 2,470 micromhos June 28; minimum daily, 265 micromhos May 11.
 Water temperatures: Maximum, 29.0°C June 28, July 30, Aug. 28; minimum, 11.0°C Feb. 10.

EXTREMES, October 1967 to September 1972.--Dissolved solids: Maximum, 1,380 mg/l Mar. 1-2, 1971; minimum, 116 mg/l Apr. 10, 1968.
 Hardness: Maximum, 564 mg/l Feb. 1-13, 1969; minimum, 69 mg/l Apr. 10, 1968.
 Specific conductance: Maximum daily, 2,560 micromhos Oct. 27, 1968; minimum daily, 148 micromhos Dec. 1, 1968.
 Water temperatures: Maximum, 35.0°C July 24, 1969; minimum, 4.0°C Jan. 4, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	260	.4	2.8	834	350	93	3.8	1460	8.0
NOV.									
01-30	260	.4	.1	869	380	88	3.9	1510	8.1
DEC.									
01-05	160	.4	.9	593	300	90	2.5	1020	7.5
06-15	50	--	.4	291	170	44	1.2	518	8.0
16-31	160	.4	.9	593	300	90	2.5	1020	7.5
JAN.									
01-31	180	.5	1.1	668	330	98	2.7	1140	7.6
FEB.									
01-29	220	.4	2.3	758	350	120	--	1300	8.3
MAR.									
01-10	280	--	1.8	923	410	120	--	1610	8.3
11-12	180	.3	.6	544	210	100	3.5	991	8.1
13-31	280	--	1.8	923	410	120	--	1610	8.3
APR.									
01-30	280	.4	1.8	959	410	100	4.0	1640	7.7
MAY									
01-06	200	.4	2.3	632	300	140	2.8	1170	7.4
07-08	82	--	1.0	297	150	54	1.7	536	7.8
09-10	200	.4	2.3	632	300	140	2.8	1170	7.4
11-14	17	--	1.2	163	110	15	.6	288	7.7
15-16	82	--	1.0	297	150	54	1.7	536	7.8
17-31	200	.4	2.3	632	300	140	2.8	1170	7.4
JUNE									
01-15	260	.5	4.9	818	390	180	3.1	1420	7.3
16-19	78	--	1.2	298	160	46	1.6	519	7.1
20-30	260	.5	4.9	818	390	180	3.1	1420	7.3
JULY									
01-31	370	.4	1.3	1050	450	190	4.3	1860	8.1
AUG.									
01-31	310	.4	1.0	971	390	96	4.6	1670	8.5
SEP.									
01-30	270	.5	.9	902	320	14	5.2	1560	8.1
WTD. AVG.	55	.4	1.3	264	150	36	1.1	466	7.7
TIME WTD.									
AVG.	245	.4	1.7	806	354	106	3.6	1400	7.9
TOT. LOAD (TONS)	3450	3.5	79	16700	--	--	--	--	--

GUADALUPE RIVER BASIN

08173000 PLUM CREEK NEAR LULING, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1410	1450	1310	1130	1260	1080	1620	1570	1130	1950	1890	1740
2	1400	1790	1210	1120	1230	1500	1630	1620	1140	1970	1900	1400
3	1530	1520	1220	1140	1230	1670	1620	1520	1190	2020	1900	1290
4	1550	1570	843	1100	1270	1670	1610	1350	1210	2070	1500	1490
5	1520	1530	834	1100	650	855	1600	1460	1490	2150	1810	1530
6	1500	1680	483	1110	1270	1520	1580	1520	1240	2130	1650	1550
7	1420	1810	480	1090	1250	1610	1630	446	1230	1900	1520	1490
8	1430	1570	498	1090	1230	1550	1610	490	1340	2170	1690	1470
9	1410	1660	490	1090	1200	1540	1590	831	1420	1920	1750	1600
10	1410	1580	484	1100	1240	1590	1600	840	1220	1900	1710	1410
11	1470	1610	469	1090	1210	1050	1570	265	1460	2070	1680	1630
12	1480	1580	478	1160	1240	926	1620	---	1140	1890	1650	1370
13	1560	1580	486	1130	824	1590	1620	301	1120	2450	1640	1660
14	1550	1590	665	1140	1390	1570	1620	302	1290	2160	1700	1640
15	1590	1540	665	1130	1210	1570	1620	603	1310	1280	1700	1490
16	1580	1540	816	1090	1390	1040	1620	603	527	2450	1430	1640
17	1580	1530	816	1120	1350	1570	1730	879	525	1500	1690	1550
18	1560	1480	825	1130	1350	1670	1620	900	504	1920	1430	1660
19	1310	1480	825	1150	1150	1670	1680	886	523	1510	1690	1670
20	1330	1440	938	1190	1300	1620	1590	907	970	1310	1430	1700
21	1530	1460	938	1160	1300	1650	1740	903	958	1630	1660	1650
22	1530	1410	1040	1210	829	1620	1760	1040	1530	1650	1700	1710
23	1550	1380	1040	1150	1350	1630	1690	1240	1530	1960	1680	1690
24	1530	1360	1060	1160	1360	1650	1680	1100	1650	1630	1680	1640
25	1240	1370	1050	1620	1520	1620	1800	1100	1730	1740	1730	1740
26	1260	1360	1050	1300	1110	1640	1720	1100	1780	1710	1700	1710
27	1490	1290	1110	799	1510	1570	1720	1340	1680	1750	1690	1640
28	1370	1260	1100	1280	1510	1620	1650	1160	2470	1700	1730	1390
29	1400	1300	1110	1140	1500	1600	1680	1150	1810	1450	1780	1350
30	1420	1310	1170	1150	---	1580	1650	1110	1920	1830	1830	1340
31	1470	---	1170	1080	---	1600	---	1160	---	1780	1460	---
MONTH	1460	1500	860	1140	1250	1500	1650	990	1300	1860	1680	1560

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	23.0	15.0	14.0	12.0	15.0	19.0	24.0	21.0	28.0	26.0	26.0
2	27.0	22.0	14.0	15.0	15.0	15.0	18.0	21.0	21.0	28.0	---	26.0
3	27.0	22.0	14.0	15.0	14.0	18.0	19.0	21.0	22.0	27.0	26.0	26.0
4	26.0	20.0	12.0	16.0	12.0	15.0	20.0	21.0	21.0	26.0	28.0	26.0
5	25.0	21.0	15.0	16.0	14.0	15.0	18.0	20.0	24.0	24.0	26.0	28.0
6	25.0	17.0	14.0	16.5	15.0	15.0	19.0	21.0	24.0	28.0	26.0	27.0
7	20.0	19.0	15.0	12.0	15.0	16.0	20.0	22.0	24.0	27.0	28.0	27.0
8	21.0	17.0	15.0	14.0	14.0	16.0	19.0	21.0	25.0	25.0	27.0	27.0
9	22.0	17.0	17.0	15.0	15.0	15.0	19.0	22.0	24.0	26.0	28.0	26.0
10	24.0	18.0	15.0	14.0	11.0	15.0	21.0	21.0	24.0	27.0	25.0	26.0
11	22.0	19.0	14.0	14.0	14.0	16.0	23.0	21.0	22.0	28.0	26.0	27.0
12	22.5	15.0	15.0	15.0	14.0	15.0	19.0	---	24.0	28.0	26.0	27.0
13	24.0	18.0	15.0	---	15.0	20.0	20.0	21.0	24.0	27.0	26.0	26.0
14	25.0	19.0	18.0	12.0	14.0	15.0	20.0	20.0	24.0	26.0	26.0	26.0
15	23.0	20.0	15.0	14.0	15.0	14.0	20.0	21.0	22.0	27.0	28.0	26.0
16	24.0	20.0	15.0	12.0	15.0	15.0	19.0	20.0	24.0	26.0	27.0	25.0
17	24.0	19.0	15.0	15.0	16.0	15.0	19.0	21.0	24.0	27.0	27.0	26.0
18	24.0	22.0	14.0	15.0	15.0	14.0	20.0	22.0	26.0	26.0	26.0	28.0
19	24.0	20.0	14.0	15.0	15.0	19.0	21.0	20.0	25.0	27.0	26.0	27.0
20	25.0	19.0	14.0	18.0	14.0	18.0	20.0	20.0	25.0	26.0	26.0	28.0
21	20.0	20.0	15.0	15.0	14.0	17.0	20.0	20.0	25.0	25.0	27.0	27.0
22	22.0	16.0	17.0	14.0	15.0	16.0	19.0	24.0	25.0	25.0	27.0	25.0
23	23.0	18.0	14.0	15.0	16.0	20.0	20.0	20.0	27.0	26.0	28.0	25.0
24	22.5	12.0	15.0	15.0	16.0	19.0	21.0	20.0	25.0	27.0	26.0	25.0
25	23.0	15.0	15.0	14.0	18.0	17.0	20.0	20.0	28.0	28.0	28.0	28.0
26	23.0	18.0	16.0	16.0	15.0	16.0	21.0	21.0	28.0	26.0	26.0	25.0
27	25.0	15.0	17.0	15.0	15.0	19.0	21.0	22.0	28.0	27.0	26.0	26.0
28	25.0	15.0	16.0	15.0	21.0	18.0	22.0	20.0	29.0	26.0	29.0	28.0
29	22.0	14.0	15.0	14.0	18.0	20.0	21.0	26.0	28.0	25.0	26.0	28.0
30	23.0	14.0	14.0	14.0	---	19.0	20.0	22.0	26.0	29.0	26.0	24.0
31	22.0	---	14.0	14.0	---	19.0	---	22.0	---	26.0	28.0	---
MONTH	23.5	18.0	15.0	14.5	15.0	16.5	20.0	21.0	24.5	26.5	26.5	26.5

GUADALUPE RIVER BASIN

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08174600 PEACH CREEK BELOW DILWORTH, TEX.

LOCATION.--Lat 29°28'26", long 97°18'59", Gonzales County, at gaging station on U.S.Highway 90-A, 1.3 miles downstream from Mitchell Creek, 3.1 miles southwest of Dilworth, 6.4 miles upstream from mouth, and 8.5 miles southeast of Gonzales.

DRAINAGE AREA.--460 sq mi.

PERIOD OF RECORD.--Chemical analyses: April 1962 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 19...	1600	15	9.0	16	2.9	27	87	0	15	14
NOV. 22...	1633	7.0	14	29	5.8	68	211	0	33	26
DEC. 27...	1520	4.8	16	59	13	79	177	0	123	70
FEB. 01...	1525	63	13	26	3.7	51	70	0	81	31
MAR. 06...	1330	4.0	12	64	20	98	160	0	160	110
21...	1545	106	4.0	30	2.5	21	84	0	23	26
APR. 10...	1300	1.9	14	97	21	120	206	0	220	130
MAY 12...	2210	27100	4.5	4.5	1.0	3.2	14	0	5.8	2.1
13...	1440	12500	5.5	6.5	1.1	2.5	22	0	4.0	1.8
15...	1450	2860	12	25	4.4	14	61	0	32	20
JUNE 23...	1705	2.5	23	67	12	46	160	0	88	66
JULY 24...	1330	6.7	14	57	14	77	186	0	99	77
AUG. 29...	1415	1.3	13	71	19	67	180	0	130	83

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 19...	.1	.8	130	52	0	1.6	214	7.3	25.0
NOV. 22...	.3	.00	280	96	0	3.0	463	7.6	15.0
DEC. 27...	.1	.01	447	200	57	2.4	723	7.6	18.5
FEB. 01...	.1	1.6	247	80	23	2.5	319	6.9	8.0
MAR. 06...	.2	.02	543	240	110	2.7	957	8.3	15.0
21...	.2	.1	148	85	16	1.0	317	9.2	19.0
APR. 10...	.3	.2	706	330	160	2.9	1140	8.2	22.0
MAY 12...	.0	.5	30	15	4	.4	52	6.0	20.5
13...	.0	.4	34	21	3	.2	55	6.8	22.0
15...	.0	.1	138	80	30	.7	240	6.6	--
JUNE 23...	.2	.2	382	220	87	1.4	662	8.1	28.0
JULY 24...	.2	.4	431	200	46	2.4	761	8.2	29.0
AUG. 29...	.3	.06	472	250	110	1.8	810	8.2	29.5

GUADALUPE RIVER BASIN

08175000 SANDIES CREEK NEAR WESTHOFF, TEX.

LOCATION.--Lat 29°12'54", long 97°26'57", DeWitt County, at gaging station 100 ft downstream from bridge on county highway, 1.9 miles upstream from Birds Creek, and 2.0 miles northeast of Westhoff.

DRAINAGE AREA.--549 sq mi.

PERIOD OF RECORD.--Chemical analyses: April 1962 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 14...	1445	10	15	26	4.9	73	134	0	37	66
NOV. 17...	1300	6.3	15	50	18	140	290	0	55	140
JAN. 26...	1720	10	13	58	13	200	360	0	79	170
27...	1520	8.7	13	58	10	200	358	0	79	180
MAR. 01...	1340	8.5	12	62	12	160	270	0	99	170
APR. 04...	1550	6.6	15	56	11	170	300	0	83	160
MAY 09...	1515	7400	6.8	7.8	1.8	8.1	30	0	11	4.9
11...	1017	2830	3.4	9.0	1.5	11	12	12	11	7.4
15...	1353	1970	.5	9.8	1.8	9.2	31	2	12	7.4
JUNE 12...	1105	15	16	61	18	160	228	0	120	190
JULY 18...	1523	4.1	17	64	14	200	342	0	63	210
AUG. 21...	1136	12	17	46	9.0	170	322	0	51	150

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 14...	.2	.4	290	85	0	3.4	489	7.3	22.0
NOV. 17...	.5	.3	567	200	0	4.3	1050	8.0	22.0
JAN. 26...	.5	1.1	717	200	0	6.2	1210	7.9	16.5
27...	.4	1.0	722	190	0	6.5	1210	8.0	20.0
MAR. 01...	.4	.9	653	200	0	5.0	1100	8.2	22.0
APR. 04...	.4	1.0	647	180	0	5.5	1120	8.2	20.5
MAY 09...	.0	.4	57	27	2	.7	97	6.7	23.0
11...	.0	.1	62	29	0	.9	119	9.2	25.0
15...	.0	.06	58	32	3	.7	113	8.5	23.0
JUNE 12...	.3	.6	673	220	37	4.6	1150	8.2	26.0
JULY 18...	.4	.3	731	220	0	5.8	1260	8.0	28.5
AUG. 21...	.4	1.0	605	150	0	6.1	1040	8.2	27.0

GUADALUPE RIVER BASIN

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08175800 GUADALUPE RIVER AT CUERO, TEX.

LOCATION.--Lat 29°03'57", long 97°19'16", DeWitt County, at gaging station on U.S. Highway 77-A, 87, and 183, 2.1 miles upstream from Gohike Creek, 2.4 miles southwest of Cuero, and 4.2 miles downstream from Sandies Creek.

DRAINAGE AREA.--4,934 sq mi.

PERIOD OF RECORD.--Chemical analyses: March 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 15...	1343	932	13	59	17	17	240	0	20	25
NOV. 17...	0910	1150	11	70	15	26	274	0	21	23
DEC. 20...	1442	1680	11	72	14	30	272	0	23	23
JAN. 26...	1440	966	9.6	74	18	25	284	0	27	33
MAR. 01...	1040	1350	8.7	64	18	23	260	0	25	29
APR. 04...	1330	769	1.9	44	16	28	192	0	28	34
MAY 09...	1325	23700	.0	25	3.3	7.7	65	11	10	7.5
15...	1155	53600	7.6	45	3.4	2.1	136	0	9.2	4.8
JUNE 12...	1235	2130	11	62	17	26	239	0	28	38
JULY 18...	1155	1380	11	31	16	22	136	0	24	36
AUG. 21...	1417	1010	12	40	15	21	164	0	23	33

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 15...	.2	.4	271	220	20	.5	473	7.8	23.0
NOV. 17...	.3	3.3	316	240	12	.7	508	7.9	20.5
DEC. 20...	.3	5.9	333	240	13	.8	511	7.9	--
JAN. 26...	.2	1.7	334	260	28	.7	555	8.1	16.5
MAR. 01...	.2	1.1	301	230	19	.7	508	8.2	20.5
APR. 04...	.3	.2	247	180	18	.9	455	8.0	22.0
MAY 09...	.0	.02	97	76	4	.4	186	8.9	22.0
15...	.1	.8	143	130	15	.1	254	7.0	22.5
JUNE 12...	.2	.8	304	230	30	.8	556	8.1	26.0
JULY 18...	.2	1.0	212	140	31	.8	394	8.0	28.0
AUG. 21...	.2	.7	228	160	26	.7	414	8.0	29.0

GUADALUPE RIVER BASIN

08176500 GUADALUPE RIVER AT VICTORIA, TEX.

LOCATION. -Lat 28°47'35", long 97°00'45", Victoria County, at gaging station at bridge on U.S. Highway 59 in Victoria, 1,300 feet upstream from Southern Pacific Railroad Co. bridge, and 15 miles upstream from Coleta Creek.

DRAINAGE AREA.--5,198 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1945 to September 1946, October 1948 to September 1972.
Water temperatures: November 1950 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-16	1320	14	59	14	19	--	2.6	220	0	21
17-20	2010	12	36	7.3	--	13	--	136	0	12
21-31	1450	14	59	14	19	--	2.6	220	0	21
NOV.										
01-30	1450	13	60	17	--	17	--	232	4	21
DEC.										
01-12	2640	11	45	9.3	--	18	--	161	0	22
13-31	1640	11	66	14	--	19	--	242	0	24
JAN.										
01-30	1340	11	61	16	20	--	2.3	236	0	26
31...	4650	8.6	36	7.2	--	14	--	128	0	13
FEB.										
01-03	2390	10	47	9.3	25	--	4.0	166	0	24
04-29	1490	9.8	64	16	--	24	--	244	0	27
MAR.										
01-31	1060	10	70	16	--	23	--	256	0	27
APR.										
01-30	756	11	72	17	26	--	2.2	266	0	28
MAY										
01-06	759	11	68	16	--	29	--	260	0	28
07-18	25200	7.9	33	3.4	--	7.6	--	110	0	9.4
19-20	11600	12	44	5.6	--	13	--	140	0	18
21-31	4430	12	66	12	--	21	--	228	0	26
JUNE										
01-30	2790	14	54	12	--	20	--	190	0	25
JULY										
01-31	1650	13	--	--	23	--	2.4	--	--	26
AUG.										
01-31	1340	12	--	15	--	--	--	--	--	26
SEP.										
01-30	971	11	64	15	--	32	--	260	0	25
WTD. AVG.	--	11	49	9.9	--	--	--	177	0	19
TIME WTD.										
AVG.	2410	12	61	14	--	--	--	227	0	24
TOT. LOAD (TONS)	--	25200	105000	22100	--	--	--	376000	470	45800

GUADALUPE RIVER BASIN

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08176500 GUADALUPE RIVER AT VICTORIA, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 329 mg/l Apr. 1-30; minimum, 126 mg/l May 7-18.
 Hardness: Maximum, 250 mg/l Apr. 1-30; minimum, 96 mg/l May 7-18.
 Specific conductance: Maximum daily, 604 micromhos Mar. 31; minimum daily, 203 micromhos May 10.
 Water temperatures: Maximum, 30.0°C on several days during summer months; minimum, 8.0°C Jan. 31.

EXTREMES, October 1945 to September 1946, October 1948 to September 1972.--Dissolved solids: Maximum, 1,040 mg/l Jan. 11-17, 1946; minimum, 100 mg/l Oct. 30-31, 1960.
 Hardness: Maximum, 428 mg/l Jan. 11-17, 1946; minimum, 69 mg/l Oct. 30-31, 1960.
 Specific conductance: Maximum daily, 1,950 micromhos Jan. 11-17, 1946; minimum daily, 155 micromhos Sept. 22, 1967.
 Water temperatures: (1950-72): Maximum, 32.0°C Aug. 4, 27, 1952; minimum, 2.0°C Jan. 11, 12, 1962, Jan. 24, 1963.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-16	29	.3	.7	270	200	24	.6	461	7.5
17-20	16	--	.7	166	120	8	.5	288	6.9
21-31	29	.3	.7	270	200	24	.6	461	7.5
NOV.									
01-30	25	.2	.8	275	220	22	.5	461	8.3
DEC.									
01-12	22	--	.8	210	150	19	.6	375	7.3
13-31	26	.3	.9	283	220	24	.6	495	7.7
JAN.									
01-30	31	.2	.9	288	220	24	.6	503	8.1
31...	17	--	2.0	168	120	14	.3	274	7.9
FEB.									
01-03	31	.2	.8	236	160	19	.9	411	8.0
04-29	32	--	1.2	298	230	26	.7	520	8.3
MAR.									
01-31	35	.2	1.0	312	240	30	.6	553	8.2
APR.									
01-30	38	.2	.9	329	250	32	.7	570	7.4
MAY									
01-06	37	.3	.7	320	240	22	.8	566	7.6
07-18	7.6	--	.6	126	96	6	.3	226	6.8
19-20	18	--	.6	182	130	18	.5	318	6.7
21-31	30	--	.9	283	210	27	.6	498	7.1
JUNE									
01-30	30	.3	.9	252	180	28	.6	439	7.2
JULY									
01-31	34	.2	1.0	--	--	--	--	534	--
AUG.									
01-31	31	.2	.8	--	--	--	--	523	--
SEP.									
01-30	34	.3	.8	313	220	8	.9	523	7.8
WTD. AVG.	22	.2	.7	215	161	17	.5	392	7.3
TIME WTD.									
AVG.	30	.2	.8	279	210	23	.6	491	7.7
TOT. LOAD (TONS)	52600	279	1880	459000	--	--	--	--	--

GUADALUPE RIVER BASIN

08176500 GUADALUPE RIVER AT VICTORIA, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	403	468	520	537	403	485	594	581	467	471	447	540
2	446	461	524	555	388	515	---	585	472	491	---	509
3	456	450	499	527	446	527	565	543	433	562	---	524
4	485	447	463	542	520	523	589	554	562	565	405	530
5	467	430	474	---	527	549	577	564	470	548	482	544
6	476	441	397	443	546	493	584	573	553	432	524	511
7	475	434	336	432	531	545	588	286	531	448	540	518
8	479	442	540	495	548	554	568	216	454	570	538	537
9	422	440	497	515	563	559	519	210	496	543	547	529
10	463	458	374	485	493	541	575	203	524	535	546	547
11	475	455	377	524	515	565	586	219	544	528	550	551
12	440	492	393	466	502	563	585	204	520	571	558	543
13	463	439	403	518	521	568	542	217	515	542	546	524
14	481	---	424	529	524	554	575	---	556	548	545	523
15	482	442	452	550	503	562	585	229	597	531	537	530
16	472	450	475	506	496	562	517	235	602	559	518	542
17	276	503	479	454	523	562	544	227	583	516	536	559
18	249	465	486	486	537	573	579	237	415	544	518	547
19	336	483	505	499	510	566	582	292	368	556	534	565
20	293	460	516	543	554	579	583	345	476	575	471	551
21	395	487	526	490	547	557	585	422	404	529	513	554
22	313	454	520	474	510	539	583	451	460	522	511	536
23	468	430	520	507	517	558	569	462	449	523	532	549
24	---	478	479	527	517	502	577	473	455	556	546	482
25	489	536	517	479	505	507	583	499	---	544	543	437
26	495	470	523	511	520	598	584	562	494	540	554	521
27	498	468	528	503	---	569	572	533	539	573	536	438
28	522	462	531	518	502	595	581	556	545	546	549	425
29	475	475	499	515	523	590	579	520	544	537	546	527
30	474	439	507	508	---	598	---	501	528	542	542	---
31	476	---	530	274	---	604	---	506	---	546	532	---
MONTH	438	461	478	497	510	554	573	400	502	535	526	524

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	24.0	15.0	19.0	9.0	20.0	20.0	26.0	23.0	30.0	30.0	28.0
2	26.0	24.0	15.0	18.0	9.0	17.0	---	26.0	23.0	29.0	---	29.0
3	27.0	23.0	13.0	18.0	9.0	18.0	21.0	27.0	24.0	29.0	---	29.0
4	25.0	21.0	12.0	16.0	9.0	19.0	20.0	26.0	23.0	30.0	27.0	29.0
5	25.0	20.0	12.0	---	10.0	19.0	22.0	26.0	24.0	29.0	28.0	29.0
6	25.0	21.0	12.0	12.0	13.0	18.0	22.0	25.0	24.0	28.0	28.0	30.0
7	25.0	20.0	12.0	12.0	12.0	19.0	23.0	22.0	25.0	27.0	29.0	29.0
8	24.0	19.0	13.0	13.0	10.0	20.0	23.0	22.0	25.0	28.0	29.0	29.0
9	23.0	20.0	15.0	15.0	10.0	18.0	22.0	22.0	25.0	28.0	29.0	29.0
10	22.0	20.0	14.0	15.0	11.0	18.0	23.0	23.0	25.0	28.0	28.0	29.0
11	22.0	19.0	13.0	15.0	12.0	19.0	---	22.0	25.0	27.0	28.0	29.0
12	21.0	19.0	15.0	14.0	11.0	20.0	24.0	22.0	25.0	28.0	28.0	29.0
13	21.0	19.0	15.0	15.0	12.0	20.0	25.0	21.0	26.0	27.0	28.0	29.0
14	23.0	---	17.0	13.0	13.0	19.0	25.0	---	26.0	28.0	29.0	28.0
15	23.0	20.0	17.0	12.0	15.0	20.0	25.0	22.0	27.0	28.0	28.0	28.0
16	23.0	20.0	18.0	10.0	14.0	20.0	23.0	23.0	27.0	28.0	28.0	28.0
17	24.0	21.0	17.0	13.0	14.0	20.0	24.0	23.0	27.0	27.0	28.0	29.0
18	25.0	20.0	16.0	14.0	15.0	21.0	25.0	23.0	27.0	28.0	29.0	29.0
19	25.0	17.0	15.0	15.0	13.0	20.0	26.0	24.0	27.0	27.0	28.0	29.0
20	24.0	17.0	16.0	16.0	15.0	21.0	26.0	24.0	28.0	27.0	28.0	28.0
21	23.0	18.0	16.0	15.0	16.0	21.0	26.0	24.0	27.0	27.0	28.0	28.0
22	23.0	17.0	16.0	17.0	17.0	21.0	24.0	25.0	28.0	27.0	29.0	28.0
23	22.0	17.0	16.0	17.0	18.0	21.0	24.0	24.0	28.0	27.0	30.0	28.0
24	---	16.0	16.0	18.0	18.0	22.0	25.0	24.0	29.0	28.0	30.0	26.0
25	22.0	16.0	17.0	16.0	19.0	22.0	24.0	25.0	---	28.0	30.0	26.0
26	23.0	17.0	17.0	16.0	19.0	22.0	25.0	25.0	29.0	29.0	30.0	27.0
27	23.0	16.0	18.0	18.0	---	23.0	25.0	25.0	29.0	28.0	29.0	26.0
28	23.0	17.0	19.0	17.0	19.0	24.0	24.0	26.0	30.0	29.0	28.0	27.0
29	24.0	16.0	19.0	16.0	20.0	23.0	25.0	25.0	30.0	29.0	29.0	27.0
30	24.0	16.0	20.0	12.0	---	22.0	---	24.0	30.0	29.0	29.0	---
31	24.0	---	19.0	8.0	---	20.0	---	23.0	---	30.0	28.0	---
MONTH	23.5	19.0	15.5	15.0	13.5	20.0	23.5	24.0	26.5	28.0	28.5	28.0

LOCATION.--Lat 28°45'10", long 97°00'30", Victoria County, at bridge on State Highway 175 loop south of Victoria, 6.8 miles downstream from gaging station and 8.0 miles upstream from Coleta Creek.

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1968 to September 1972.
Pesticide analyses: January 1968 to September 1972.

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	DIS-SOLVED P0-TAS-SIUM (K) (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)
JAN. 04...	1720	12	72	16	--	19	--	264	0	24
MAR. 20...	1640	9.8	73	16	--	33	--	274	0	29
MAY 02...	0800	11	68	19	--	38	--	274	0	30
JULY 11...	0825	13	62	16	--	27	--	242	0	26
SEP. 20...	1520	11	70	16	25	--	2.4	264	0	27

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)
JAN. 04...	29	.2	.14	.000	.10	1.2	.15	308	73	11
MAR. 20...	43	.3	.23	.007	.10	1.0	.17	344	34	8
MAY 02...	51	.3	.18	.016	.00	.7	.26	355	24	4
JULY 11...	35	.2	.42	.000	.02	.9	.090	302	46	39
SEP. 20...	33	.2	.01	.000	.03	.6	.057	317	3	1

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
JAN. 04...	250	29	.5	539	8.0	12.5	11	35	9.1	85
MAR. 20...	250	24	.9	607	8.2	24.5	5	15	8.7	104
MAY 02...	250	23	1.0	619	8.2	27.0	5	7	7.1	88
JULY 11...	220	22	.8	538	7.9	30.0	5	25	6.8	89
SEP. 20...	240	24	.7	562	7.9	31.0	0	4	8.1	108

DATE	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METH- YLENE BLUE ACTIVE SUB- STANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)
JAN. 04...	9	.9	0	.00	--	--	--	--	--	--
MAR. 20...	8	2.7	1	.00	--	10	0	0	0	0
MAY 02...	8	2.0	0	.00	--	0	0	0	0	0
JULY 11...	7	.8	0	.00	--	0	0	0	0	0
SEP. 20...	--	1.1	--	--	8.0	--	--	--	--	--

[illegible]

GUADALUPE RIVER BASIN

08176520 GUADALUPE RIVER BELOW VICTORIA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
NOV. 03...	0840	.00	<.2	.00	4.3	.00	3.1	.00	9.4	.00
MAR. 20...	1640	.00	<.2	.00	1.4	.00	1.2	.00	1.5	.00
MAY 02...	0800	.00	<.2	.00	1.9	.00	1.2	.00	1.5	.00
JULY 11...	0825	.00	<.2	.00	<.2	.00	2.1	.00	<.2	.00

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
NOV. 03...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAR. 20...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAY 02...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 11...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 03...	.0	18	.00	.00	.00	.00	.02	.00	.00
MAR. 20...	.0	12	.00	.00	.00	.00	.00	.00	.00
MAY 02...	.0	11	.00	.00	.00	.00	.06	.00	.00
JULY 11...	.0	6.2	.00	.00	.00	.00	.00	.00	.00

GUADALUPE RIVER BASIN

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08177600 OLMOS CREEK TRIBUTARY AT FARM ROAD 1535, SHAVANO PARK, TEX.

LOCATION.--Lat 29°34'35", long 98°32'45", Bexar County, at culvert on Farm Road 1535 at Shavano Park, and 1.9 miles southeast of intersection of Farm Roads 1535 and 1604.

DRAINAGE AREA.--0.33 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

		DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3)	CAR- BONATE (CO3)	DIS- SOLVED SULFATE (SO4)				
DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)						
MAY 07...	1022	107	13	22	1.0	2.6	73	0	.2	
		DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)
DATE										
MAY 07...	2.6	.1	.000	.09	.3	.35	70	79	59	
		NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
DATE										
MAY 07...	0	.1	139	7.3	19.5	8.0	86	4.2	.00	
		DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
DATE	TIME									
MAY 07...	1022	107	.00	.00	.00	.00	.02	.00	.00	.00
		LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DATE										
MAY 07...	.00	.0	.01	.00	.00	.00	.00	.00	.00	.00
		DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)					
DATE	TIME									
MAY 07...	1022	107	19.5	410	118					

GUADALUPE RIVER BASIN

08177700 OLMOS CREEK AT DRESDEN DRIVE, SAN ANTONIO, TEX.

LOCATION.--Lat 29°29'56", long 98°30'36", Bexar County, at gaging station at bridge on Dresden Drive at San Antonio, 0.15 mile west of intersection of Blanco Road and Dresden Drive, and 4.0 miles upstream from Olmos Dam.

DRAINAGE AREA.--21.2 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.

Pesticide analyses: October 1969 to September 1972.

Sediment analyses: October 1970 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
APR.									
21...	0425	12	14	110	8.4	47	276	0	81
21...	0905	12	8.4	61	2.9	16	164	0	33
27...	1120	120	6.2	36	1.7	6.6	99	0	16
27...	1445	35	7.7	48	1.7	5.9	138	0	14
MAY									
06...	1147	128	4.6	32	1.0	5.9	96	0	8.8
06...	1405	208	7.3	36	1.2	4.7	106	0	10
07...	1348	1900	10	31	1.1	2.9	97	0	4.4
JULY									
22...	1800	29	7.3	31	1.6	3.2	89	0	11
AUG.									
03...	1410	98	6.8	29	1.6	1.8	86	0	7.6

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)
APR.									
21...	60	.5	.069	.24	3.0	.34	140	469	300
21...	19	.3	.028	.15	.6	.68	140	225	160
27...	7.0	.2	.025	.29	1.1	.85	20	129	97
27...	6.4	.2	.040	.21	.8	.80	30	156	130
MAY									
06...	5.0	.2	.016	.05	.4	.54	30	106	84
06...	3.8	.2	.050	.05	.5	1.2	40	118	95
07...	2.2	.1	.000	.18	.4	1.1	50	102	82
JULY									
22...	3.8	.2	.014	.12	.3	.33	40	104	84
AUG.									
03...	2.2	.2	.000	.05	.3	.55	100	93	79

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
APR.									
21...	78	1.2	751	7.5	22.5	--	--	9.0	.00
21...	30	.5	383	6.9	22.0	--	--	15	.00
27...	16	.3	219	6.9	21.5	--	--	11	.00
27...	14	.2	221	6.8	21.5	--	--	10	.00
MAY									
06...	5	.3	184	7.9	19.5	7.6	82	6.2	.04
06...	8	.2	196	7.7	20.0	7.5	82	11	.03
07...	2	.1	177	7.5	21.5	7.7	87	4.0	.02
JULY									
22...	11	.2	192	7.6	27.0	--	--	4.8	.00
AUG.									
03...	8	.1	181	7.6	23.5	8.0	93	6.8	.00

GUADALUPE RIVER BASIN

679

08177700 OLMOS CREEK AT DRESDEN DRIVE, SAN ANTONIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DOT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
APR.										
21...	0425	12	.00	.00	.00	.02	.02	.00	.00	.00
21...	0905	12	.00	.00	.00	.05	.02	.00	.00	.00
27...	1120	120	.00	.00	.00	.04	.06	.00	.00	.00
27...	1445	35	.00	.00	.00	.04	.03	.00	.00	.00
MAY										
06...	1147	128	.00	.00	.00	.00	.00	.00	.00	.00
06...	1405	208	.00	.00	.00	.03	.02	.00	.00	.00
07...	1348	1900	.00	.00	.00	.01	.01	.00	.00	.00
JULY										
22...	1800	29	.00	.00	.00	.00	.01	.00	.00	.00
AUG.										
03...	1410	98	.00	.00	.00	.00	.02	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
APR.									
21...	.00	.1	.12	.00	.00	.00	.00	.02	.00
21...	.00	.2	.06	.00	.00	.00	.00	.43	.00
27...	.00	1.4	.36	.00	.00	.00	.00	.33	.00
27...	.00	.7	.09	.00	.00	.00	.00	.13	.00
MAY									
06...	.00	.0	.06	.00	.00	.00	.00	.00	.00
06...	.01	.1	.07	.00	.00	.00	.00	.15	.00
07...	.00	.1	.01	.00	.00	.00	.00	.02	.00
JULY									
22...	.00	.0	.05	.00	.00	.00	.00	.15	.00
AUG.									
03...	.00	.4	.07	.00	.00	.00	.00	.33	.00

GUADALUPE RIVER BASIN

08178000 SAN ANTONIO RIVER AT SAN ANTONIO, TEX.

LOCATION.--Lat 29°24'34", long 98°29'41", Bexar County, at gaging station near South Alamo Street Bridge in San Antonio, and 2.1 miles upstream from San Pedro Creek.

DRAINAGE AREA.--41.8 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (HC03) (MG/L)	BICAR- BONATE (CO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
MAY										
07...	1245	2180	6.5	32	2.0	3.0	91	0	14	3.0
07...	1455	1670	7.8	36	1.9	6.8	104	0	18	4.4

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
MAY									
07...	.2	.000	.28	.5	1.5	30	108	88	14
07...	.2	.000	.07	.5	1.4	50	128	98	12

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
MAY								
07...	.1	196	7.7	19.5	--	--	13	.00
07...	.3	228	7.2	21.5	8.0	90	9.6	.00

DATE	TIME	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)	LINDANE (UG/L)
MAY										
07...	1245	.00	.07	.06	.30	.12	.00	.00	.00	.00
07...	1455	.00	.00	.01	.06	.04	.00	.00	.00	.00

DATE	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	PCB (UG/L)
MAY									
07...	.5	.11	.00	.00	.00	.00	.12	.00	.4
07...	.2	.08	.00	.00	.00	.00	.00	.00	.2

DATE	TIME	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)
MAY			
07...	1355	21.5	1420

08178300 ALAZAN CREEK AT ST. CLOUD STREET, SAN ANTONIO, TEX.

LOCATION.--Lat 29°27'29", long 98°32'59", Bexar County, at bridge on St. Cloud Street, San Antonio, and 1.5 miles upstream from Woodlawn Lake Dam.

DRAINAGE AREA.--3.26 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.

Pesticide analyses: October 1968 to September 1972.

Sediment analyses: October 1970 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)
APR. 21...	0455	15	4.8	56	2.2	13	152	0	28
27...	0950	605	4.0	34	1.3	3.6	101	0	7.6
AUG. 03...	1335	94	4.8	24	1.4	3.1	75	0	6.8

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)
APR. 21...	15	.4	.042	.48	.7	1.2	110	198	150
27...	4.2	.2	.028	.49	.7	.42	30	109	90
AUG. 03...	2.1	.1	.012	.00	.2	.26	80	80	66

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
APR. 21...	24	.5	310	6.9	21.0	--	--	15	.00
27...	7	.2	155	7.2	21.0	--	--	8.7	.00
AUG. 03...	4	.2	152	7.5	24.0	8.5	100	4.4	.00

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	HEPTACHLOR EPOXIDE (UG/L)
APR. 21...	0455	15	.00	.14	.09	.15	.06	.00	.00	.00
27...	0950	605	.00	.00	.05	.61	.09	.00	.00	.00
AUG. 03...	1335	94	.00	.00	.00	.03	.03	.00	.00	.00

DATE	LINDANE (UG/L)	CHLORDANE (UG/L)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
APR. 21...	.00	.4	.46	.00	.00	.00	.10	.12	.00
27...	.02	.5	.23	.00	.00	.00	.34	.06	.00
AUG. 03...	.00	.0	.21	.00	.00	.00	.00	.30	.00

DATE	TIME	DIS-CHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
APR. 21...	1655	15	21.0	950	38
27...	0950	605	21.0	1650	2700
AUG. 03...	1335	94	24.0	99	25

LOCATION.--Lat 29°37'31", long 98°31'06", Bexar County, at culvert on Farm Road 2696, 1.3 miles north of intersection on Farm Roads 2696 and 1604, and 5.5 miles north of San Antonio.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
MAY 07...	1250	474	9.5	28	1.1	1.2	91	0	.0	1.3

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)
MAY 07...	.1	.000	.02	.09	.24	60	87	74	0

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
MAY 07...	.1	155	7.1	21.0	8.0	89	3.0	.00

[illegible]

	LINDANE	CHLOR-DANE	DI-AZINON	MALA-THION	METHYL-PARA-THION	PARA-THION	2,4-D	2,4,5-T	SILVEX
DATE	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
MAY 07...	.00	.0	.00	.00	.00	.00	.00	.00	.00

GUADALUPE RIVER BASIN

683

08178690 SALADO CREEK TRIBUTARY AT BITTERS ROAD, SAN ANTONIO, TEX.

LOCATION.--Lat 29°31'36", long 98°26'25", Bexar County, at culvert on Bitters Road, immediately east of MacArthur High School, San Antonio.

DRAINAGE AREA.--0.26 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CAL- CIUM (CA) (MG/L)	DIS-SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS-SOLVED PO- TAS- SIUM (K) (MG/L)	RICAR- BONATE (HCO3) (MG/L)	
APR. 03...	2155	6.7	4.5	48	2.4	--	11	--	160	
JULY 22...	1620	8.5	2.5	16	.4	.6	--	2.1	50	
DATE		CAR- BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	DIS-SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)
APR. 03...	0	9.6	8.0	.1	.000	.00	.00	.00	1.7	100
JULY 22...	0	.2	.6	.0	.008	.24	.2	.40	.40	40
DATE		DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUR- STANCE (MG/L)
APR. 03...	163	130	0	.4	328	6.9	20.0	76	.23	
JULY 22...	49	42	1	.0	94	7.6	--	3.4	.00	
DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
APR. 03...	2155	6.7	.00	.13	.01	.04	.02	.00	.00	.00
JULY 22...	1640	8.5	.00	.00	.02	.06	.03	.00	.00	.00
DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	
APR. 03...	.01	.1	--	--	--	--	.10	.02	.00	
JULY 22...	.00	.1	.04	.00	.00	.00	.00	.09	.00	

GUADALUPE RIVER BASIN

08178700 SALADO CREEK (UPPER STATION) AT SAN ANTONIO, TEX.

LOCATION.--Lat 29°30'57", long 98°25'51", Bexar County, at gaging station on upstream bridge of two bridges on Interstate Highway 410 in San Antonio, 1.0 mile west of Northeast School, 1.2 miles upstream from Perrin-Beitel Creek, and 2.7 miles east of San Antonio International Airport.

DRAINAGE AREA.--137 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972.

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	
NOV. 18...	1035	41	11	46	2.4	13	110	0	39	
MAY 07...	1610	3000	10	32	1.2	3.9	97	0	7.2	
DATE	TIME	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED BORON (R) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)
NOV. 18...	12	.5	.020	.00	.8	1.0	60	182	120	
MAY 07...	2.7	.1	.022	.02	.6	.45	70	108	85	
DATE	TIME	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV. 18...	34	.5	311	7.3	16.0	--	--	5.2	.00	
MAY 07...	5	.2	183	7.5	21.0	7.4	82	3.7	.00	
DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR EPOXIDE (UG/L)
NOV. 18...	1035	41	.00	.00	.00	.00	.01	.00	.00	.00
MAY 07...	1610	3000	.00	.00	.00	.00	.00	.00	.00	.00
DATE	TIME	LINDANE (UG/L)	CHLORDANE (UG/L)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 18...		.00	.0	.01	--	--	--	.00	.01	.00
MAY 07...		.00	.0	.02	.00	.00	.00	.00	.00	.00
DATE	TIME	DIS-CHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)					
NOV. 18...	1035	39	16.0	1230	130					
MAY 07...	1610	3000	21.0	299	2420					

GUADALUPE RIVER BASIN

685

08178736 SALADO CREEK TRIBUTARY AT BEE STREET, SAN ANTONIO, TEX.

LOCATION.--Lat 29°26'38", long 98°27'12", Bexar County, at culvert near intersection of Bee and Shirley Streets, San Antonio, and 0.25 mile north of Pershing Elementary School.

DRAINAGE AREA.--0.45 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1972.
Pesticide analyses: October 1970 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)
APR. 21...	0540	6.0	34	3.8	17	91	0	29	18	.4	.049	.35
JULY 22...	1705	3.0	24	1.4	1.6	72	0	5.2	1.8	.1	.015	.20

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (R) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MH0S)	PH (UNITS)	TEMPER- ATURE (DEG C)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
APR. 21...	1.8	.74	600	162	100	26	.7	290	6.8	21.0	19	.04
JULY 22...	.7	.39	480	76	66	7	.1	151	7.6	26.5	5.2	.00

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
APR. 21...	0540	4.9	.00	.01	.01	.08	.01	.00	.00	.00
JULY 22...	1705	39	.00	.02	.02	.21	.02	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
APR. 21...	.00	.1	.03	.12	.00	.00	.00	.65	.00
JULY 22...	.00	.1	.04	.00	.00	.00	.00	.01	.00

GUADALUPE RIVER BASIN

08178800 SALADO CREEK (LOWER STATION) AT SAN ANTONIO, TEX.

LOCATION.--Lat 29°21'25", long 98°24'45", Bexar County, at gaging station at bridge on Loop 13 at San Antonio, 1.4 miles east of Brooks Air Force Base, and 3.3 miles upstream Rosillo Creek.

DRAINAGE AREA.--189 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
NOV. 18...	1345	833	7.5	46	5.0	11	137	0	26
MAY 07...	1828	6280	8.3	36	2.1	8.3	110	0	17

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)
NOV. 18...	11	.2	.030	.00	1.0	.61	180	178	140
MAY 07...	4.8	.2	.000	.20	.6	1.5	70	134	98

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV. 18...	23	.4	319	7.3	18.0	--	--	7.8	.00
MAY 07...	8	.4	236	7.2	21.0	6.4	71	14	.00

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	DDO (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	HEPTACHLOR EPOXIDE (UG/L)
NOV. 18...	1340	833	.00	.00	.03	.08	.04	.00	.00	.00
MAY 07...	1828	6280	.00	.00	.02	.04	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLORDANE (UG/L)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 18...	.00	.2	.13	.00	.00	.00	.00	.04	.04
MAY 07...	.00	.0	.04	.00	.00	.00	.00	.00	.00

DATE	TIME	DIS-CHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
NOV. 18...	1345	812	18.0	2410	5280
MAY 07...	1828	6280	21.0	1700	28800

GUADALUPE RIVER BASIN

687

08180500 MEDINA RIVER NEAR RIOMEDINA, TEX.

LOCATION.--Lat 29°29'53", long 98°54'16", Medina County, at gaging station upstream from bridge at Haby's Crossing 0.9 mile downstream from Bexar, Medina and Atascosa Counties Water Control and Improvement District No. 1 diversion dam, and 4.2 miles northwest of Riomedina.

DRAINAGE AREA.--650 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
NOV. 01...	1200	625	9.2	54	11	--	6.7	--	174	0
JAN. 03...	1145	130	10	65	13	--	7.0	--	210	0
MAR. 22...	1600	27	8.0	62	13	--	11	--	208	0
MAY 05...	0845	27	9.6	62	14	--	14	--	212	0
JULY 13...	1540	29	10	68	12	--	10	--	228	0
SEP. 18...	1725	34	12	61	13	6.8	--	2.1	198	0

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)
NOV. 01...	34	9.8	.2	--	.000	.00	.6	.010	214
JAN. 03...	37	12	.2	--	.000	.00	.8	.022	251
MAR. 22...	41	12	.2	--	.000	.00	.6	.020	252
MAY 05...	43	15	.2	--	.000	.00	.8	.000	265
JULY 13...	33	12	.2	--	.000	.00	.6	.021	260
SEP. 18...	36	12	.2	.00	.000	.00	.4	.000	242

DATE	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
NOV. 01...	180	37	.2	371	7.8	23.0	8.5	98	.5
JAN. 03...	220	44	.2	434	7.5	17.0	8.9	92	.3
MAR. 22...	210	38	.3	437	7.8	23.0	9.8	113	1.8
MAY 05...	210	39	.4	442	7.5	19.5	7.2	77	.6
JULY 13...	220	32	.3	462	7.5	29.0	7.4	95	.9
SEP. 18...	200	43	.2	413	7.3	27.0	8.0	99	.6

GUADALUPE RIVER BASIN

08181000 LEON CREEK TRIBUTARY AT FARM ROAD 1604, SAN ANTONIO, TEX.

LOCATION.--Lat 29°35'14", long 98°37'40", Bexar County, at culvert on Farm Road 1604 at San Antonio and 1.5 miles west of bridge over Leon Creek.

DRAINAGE AREA.--5.57 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.

Pesticide analyses: October 1968 to September 1972.

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	
MAY										
07...	1000	475	5.7	30	1.2	.7	94	0	.2	
07...	1415	39	9.1	36	1.8	.3	110	0	1.6	
DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CON-STI-TUENTS) (MG/L)	HARD-NESS (CA+MG) (MG/L)	
MAY										
07...	2.2	.1	.000	.00	.2	.15	60	87	80	
07...	3.4	.1	.000	.04	.3	.080	90	108	97	
DATE	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	
MAY										
07...	3	.0	162	7.4	20.0	7.9	86	3.3	.00	
07...	7	.0	201	7.3	23.0	--	--	2.2	.00	
DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR EPOXIDE (UG/L)
MAY										
07...	1000	475	.00	.00	.00	.00	.00	.00	.00	.00
07...	1415	39	.00	.00	.00	.00	.00	.00	.00	.00
DATE	LINDANE (UG/L)	CHLOR-DANE (UG/L)	DI-AZINON (UG/L)	MALA-THION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	
MAY										
07...	.00	.0	.00	.00	.00	.00	.00	.00	.00	
07...	.00	.0	.00	.00	.00	.00	.00	.00	.00	
DATE	TIME	DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	SUS-PENDE SEDI-MENT DIS-CHARGE (T/DAY)						
MAY										
07...	1000	901	20.0	189 460						

GUADALUPE RIVER BASIN

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08181400 HELOTES CREEK AT HELOTES, TEX.

LOCATION.--Lat 29°34'42", long 98°41'29", Bexar County, at gaging station near bridge on State Highway 16, 0.1 mile northwest of Helotes, and 8.6 miles upstream from mouth.

DRAINAGE AREA.--15.0 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED CAL- CIUM (CA) (MG/L)	DIS-SOLVED MAG- NE- SIUM (MG)	DIS-SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	
MAY										
07...	1140	900	7.6	44	3.7	4.3	146	0	6.8	
07...	1525	120	6.4	42	3.9	4.7	138	0	8.2	
DATE		DIS-SOLVED CHLO- RIDE (CL) (MG/L)	DIS-SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS-SOLVED BORON (R) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)
MAY										
07...	4.4	.1	.000	.15	.5	1.1	70	145	120	
07...	5.4	.1	.000	.08	.5	.25	30	141	120	
DATE		NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUF ACTIVE SUB- STANCE (MG/L)
MAY										
07...	5	.2	256	7.4	20.0	7.9	86	13	.00	
07...	8	.2	251	7.6	22.0	--	--	3.4	.00	
DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDPIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
MAY										
07...	1140	900	.00	.00	.00	.00	.00	.00	.00	.00
DATE		LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAY										
07...	.00	.0	.00	.00	.00	.00	.00	.00	.00	.00
DATE	TIME	DIS-CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)					
MAY										
07...	1140	966	20.0	1810	4720					
07...	1525	118	22.0	468	149					

GUADALUPE RIVER BASIN

08181450 LEON CREEK TRIBUTARY AT KELLY AIR FORCE BASE, TEX.

LOCATION.--Lat 29°23'12", long 98°36'00", Bexar County, near bridge on Billy Mitchell Road at Kelly Air Force Base, 0.15 mile upstream from mouth, and 2.0 miles southeast of intersection of U.S. Highway 90 West and Loop 13.

DRAINAGE AREA.--1.19 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1969 to September 1972.
Pesticide analyses: October 1969 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (CO3) (MG/L)
APR. 27...	1825	27	3.1	24	1.1	--	3.6	--	73	0
MAY 07...	1150	79	3.4	16	.5	--	.6	--	51	0
AUG. 03...	1117	101	3.3	18	.5	.7	--	2.4	57	0

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)
APR. 27...	5.6	3.2	.2	.011	.10	.5	.43	50	--
MAY 07...	.0	.6	.1	.010	.00	.05	.21	20	--
AUG. 03...	.0	.4	.1	.011	.05	.2	.21	30	54

DATE	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUF ACTIVE SUB- STANCE (MG/L)
APR. 27...	79	64	5	.2	146	6.7	15.0	9.6	.00
MAY 07...	46	42	0	.0	90	7.2	19.5	2.1	.00
AUG. 03...	--	47	0	.0	105	7.5	24.0	3.7	.00

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
APR. 27...	1825	27	.00	.21	.07	.34	.00	.00	.00	.00
MAY 07...	1150	79	.00	.03	.02	.10	.01	.00	.00	.00
JULY 18...	1300	7.2	.00	.05	.01	.18	.00	.00	.00	.00
AUG. 03...	1117	101	.00	.05	.01	.17	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	PCB (UG/L)
APR. 27...	.02	.3	.09	.00	.00	.00	.00	.02	.00	2.6
MAY 07...	.00	.1	.03	.00	.00	.00	.00	.01	.00	.2
JULY 18...	.00	.1	.02	.00	.00	.00	.00	.01	.00	.3
AUG. 03...	.00	.2	.02	.00	.00	.00	.00	.01	.00	.3

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
APR. 27...	1825	31	15.0	429	36
JULY 18...	1300	79	23.5	61	13
AUG. 03...	1117	101	24.0	45	12

GUADALUPE RIVER BASIN

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08181500 MEDINA RIVER AT SAN ANTONIO, TEX.

LOCATION.--Lat 29°15'14", long 98°28'20", Bexar County, on downstream side of pier of upstream bridge of two bridges on U.S. Highway 281 in San Antonio and 6.8 miles upstream from mouth.

DRAINAGE AREA.--1,317 sq mi (634 sq mi is above dam forming Medina Lake).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1972.
Pesticide analyses: October 1970 to September 1972.

REMARKS.--See Part 2 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
NOV.										
01...	1330	935	11	56	13	--	17	--	180	0
JAN.										
03...	1340	260	13	89	18	--	37	--	276	0
MAR.										
22...	1220	112	12	110	22	--	51	--	316	0
MAY										
04...	1215	90	16	96	23	--	63	--	308	0
31...	1200	527	11	70	15	--	29	--	228	0
JUNE										
29...	0815	180	16	94	20	--	46	--	276	8
JULY										
13...	0945	122	15	100	21	--	61	--	308	0
26...	1000	122	15	90	20	--	62	--	292	0
AUG.										
15...	0850	113	16	96	20	--	60	--	284	6
28...	1725	178	15	83	17	--	36	--	244	0
SEP.										
08...	0915	100	16	93	19	--	61	--	296	0
18...	1310	87	17	98	21	54	--	4.2	298	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
NOV.										
01...	45	21	.2	.18	.010	.00	1.5	.20	259	146
JAN.										
03...	73	46	.2	.21	.018	.16	3.0	.42	425	49
MAR.										
22...	110	74	.3	.36	.013	.94	3.8	.65	553	37
MAY										
04...	96	69	.3	.27	.009	.00	5.4	2.2	538	102
31...	60	30	.3	.51	.007	.00	2.0	.34	336	190
JUNE										
29...	84	56	.3	.34	.068	.55	3.3	.62	476	71
JULY										
13...	100	70	.3	.26	.054	.13	5.8	1.1	549	35
26...	87	66	.3	.45	.016	.16	5.3	1.2	508	66
AUG.										
15...	92	68	.3	.52	.10	.36	4.8	1.4	520	58
28...	70	48	.3	.45	.000	.13	3.9	.96	406	124
SEP.										
08...	87	64	.3	.45	.082	.28	5.4	1.1	511	72
18...	90	66	.3	.05	.042	.17	6.2	1.2	525	62

DATE	VOL- NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
NOV.										
01...	33	190	46	.5	447	7.7	24.0	12	65	8.0
JAN.										
03...	12	300	70	.9	710	7.7	17.5	15	25	8.6
MAR.										
22...	8	380	120	1.1	923	8.0	25.0	10	20	8.8
MAY										
04...	34	330	82	1.5	891	7.9	27.0	10	45	8.2
31...	31	240	49	.8	577	7.5	24.0	20	80	6.9
JUNE										
29...	31	320	78	1.1	828	7.8	28.0	5	40	6.6
JULY										
13...	22	340	91	1.4	911	7.8	27.5	15	20	6.4
26...	7	310	68	1.5	844	8.0	28.5	0	40	6.4
AUG.										
15...	6	320	80	1.5	865	7.8	26.0	0	30	--
28...	18	280	77	.9	742	7.8	31.0	0	60	6.8
SEP.										
08...	10	310	68	1.5	841	7.9	27.5	0	35	6.6
18...	6	330	87	1.3	838	7.7	29.0	0	30	7.2

08181500 MEDINA RIVER AT SAN ANTONIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

GUADALUPE RIVER BASIN

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08181500 MEDINA RIVER AT SAN ANTONIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTERRER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 01...	1330	935	.00	<.2	.00	1.5	.00	2.7	.01	<.2
MAR. 22...	1220	112	.00	<.2	.00	4.1	.00	4.1	.00	<.2
MAY 04...	1215	90	.00	<.2	.00	5.6	.00	7.3	.00	8.2
JULY 26...	1000	122	.00	<.2	.00	2.5	.00	3.2	.00	1.4
DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
NOV. 01...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAR. 22...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAY 04...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 26...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	PCR IN BOTTOM DE- POSITS (UG/KG)
NOV. 01...	.0	3.9	.00	.00	.00	.00	.00	.00	.00	--
MAR. 22...	.0	9.7	.01	.00	.00	.00	.00	.00	.00	30
MAY 04...	.0	21	.00	.00	.00	.00	.00	.00	.00	--
JULY 26...	.0	6.6	.02	.00	.00	.00	.00	.05	.00	--

GUADALUPE RIVER BASIN

08181800 SAN ANTONIO RIVER NEAR ELMENDORF, TEX.

LOCATION.--Lat 29°14'15", long 98°21'43", Bexar County, at gaging station 2,000 feet downstream from Braunig Plant Lake, and 2.2 miles southwest of Elmendorf.

DRAINAGE AREA.--1,743 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1972.

Chemical and biochemical analyses: January 1968 to September 1972.

Pesticide analyses: January 1968 to September 1972.

Water temperatures: October 1966 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-20	819	12	70	14	31	--	3.9	222	0	55
21-26	2170	11	58	10	--	20	--	186	0	42
27-31	1250	12	70	14	31	--	3.9	222	0	55
NOV.										
01-30	787	13	78	15	--	43	--	238	8	60
DEC.										
01-31	627	14	86	17	--	48	--	260	0	72
JAN.										
01-31	402	15	91	19	56	--	4.4	272	8	82
FEB.										
01-29	372	14	88	19	64	--	4.8	282	0	87
MAR.										
01-31	299	16	91	20	--	76	--	290	0	88
APR.										
01-27	258	17	88	21	70	--	6.4	286	0	90
28-29	640	11	65	12	--	44	--	202	0	63
30...	292	17	88	21	70	--	6.4	286	0	90
MAY										
01-05	280	15	89	18	--	62	--	246	8	87
06-08	5470	9.1	50	5.2	--	13	--	144	0	28
09-14	3640	12	57	7.6	--	19	--	160	0	42
15-31	1220	12	76	15	--	26	--	210	6	63
JUNE										
01-30	605	15	82	17	--	49	--	252	0	74
JULY										
01-31	359	17	88	18	62	--	5.2	276	0	85
AUG.										
01-03	518	17	82	17	--	68	--	268	0	82
04...	1270	12	56	10	--	35	--	176	0	52
05-23	336	17	82	17	--	68	--	268	0	82
24-25	722	12	56	10	--	35	--	176	0	52
26-31	364	17	82	17	--	68	--	268	0	82
SEP.										
01-30	304	16	82	18	--	65	--	264	0	78
WTD. AVG.	--	13	75	15	--	--	--	231	2	64
TIME WTD.										
AVG.	632	15	83	17	--	--	--	257	2	75
TOT. LOAD (TONS)	--	8400	47200	9140	--	--	--	144000	1150	40200

GUADALUPE RIVER BASIN

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08181800 SAN ANTONIO RIVER NEAR ELMENDORF, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 548 mg/l Mar. 1-31; minimum, 199 mg/l May 6-8.
 Hardness: Maximum, 310 mg/l Mar. 1-31, Apr. 1-27, 30; minimum, 150 mg/l May 6-8.
 Specific conductance: Maximum daily, 1,030 micromhos Apr. 27; minimum daily, 330 micromhos May 6.
 Water temperatures: Maximum, 30.0°C June 25, Aug. 1; minimum, 11.0°C Jan. 16.

EXTREMES, October 1966 to September 1972.--Dissolved solids: Maximum, 596 mg/l Jan. 24-31, 1968; minimum, 153 mg/l May 28-29, 1970.
 Hardness: Maximum, 364 mg/l Jan. 24-31, 1968; minimum, 113 mg/l May 28-29, 1970.
 Specific conductance: Maximum daily, 1,060 micromhos Feb. 2, 1968; minimum daily, 330 micromhos May 6, 1972.
 Water temperatures: Maximum, 32.0°C June 21, 1969; minimum, 7.0°C Jan. 9, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-20	40	.3	3.1	349	230	50	.9	581	8.1
21-26	20	.2	1.4	258	190	34	.6	431	8.0
27-31	40	.3	3.1	349	230	50	.9	581	8.1
NOV.									
01-30	47	.3	3.3	396	260	48	1.2	635	8.4
DEC.									
01-31	60	.3	4.4	444	280	72	1.2	736	7.6
JAN.									
01-31	74	.4	4.1	502	300	68	1.4	827	8.4
FEB.									
01-29	74	.4	6.1	517	300	66	1.6	860	8.3
MAR.									
01-31	86	.4	6.4	548	310	72	1.9	918	8.3
APR.									
01-27	84	.4	6.3	546	310	72	1.7	910	7.6
28-29	51	--	1.1	350	210	46	1.3	621	7.3
30...	84	.4	6.3	546	310	72	1.7	910	7.6
MAY									
01-05	74	.4	5.6	499	300	81	1.6	836	8.5
06-08	13	--	2.2	199	150	28	.5	351	8.2
09-14	24	--	2.0	250	170	42	.6	435	8.3
15-31	36	--	2.5	348	250	69	.7	596	8.4
JUNE									
01-30	57	.3	4.4	437	270	68	1.3	743	7.6
JULY									
01-31	76	.4	5.0	510	290	68	1.6	845	8.0
AUG.									
01-03	71	.3	4.8	490	270	55	1.8	803	7.6
04...	35	--	2.4	298	180	36	1.1	506	7.5
05-23	71	.3	4.8	490	270	55	1.8	803	7.6
24-25	35	--	2.4	298	180	36	1.1	506	7.5
26-31	71	.3	4.8	490	270	55	1.8	803	7.6
SEP.									
01-30	74	.4	4.6	483	280	62	1.7	819	8.1
WTD. AVG.	50	.3	3.7	393	248	56	1.1	658	8.1
TIME WTD.									
AVG.	64	.4	4.5	459	276	63	1.4	764	8.0
TOT. LOAD (TONS)	31300	149	2290	246000	--	--	--	--	--

GUADALUPE RIVER BASIN

08181800 SAN ANTONIO RIVER NEAR ELMENDORF, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
NOV.										
01...	1400	1060	12	67	14	--	24	--	216	0
JAN.										
03...	1450	440	15	90	18	--	49	--	276	0
MAR.										
22...	1020	245	15	92	19	73	--	5.9	298	0
MAY										
04...	0920	255	17	83	19	65	--	6.0	268	0
31...	1300	760	12	78	17	--	48	--	252	0
JUNE										
29...	0930	395	19	87	20	--	59	--	282	0
JULY										
13...	1215	315	17	90	19	--	74	--	288	0
26...	1156	350	15	78	17	--	81	--	260	0
AUG.										
15...	1020	320	17	82	17	--	60	--	262	0
28...	1630	360	17	82	16	--	58	--	256	0
SEP.										
08...	0830	245	18	85	18	--	71	--	282	0
18...	1210	260	17	86	19	64	--	5.1	274	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
NOV.										
01...	50	28	.2	.37	.15	.00	2.2	.38	311	201
JAN.										
03...	74	60	.2	.04	.59	.30	4.3	1.2	463	46
MAR.										
22...	94	84	.5	.35	.45	4.1	2.1	2.9	546	42
MAY										
04...	84	78	.5	.55	.71	1.2	3.1	3.4	502	49
31...	72	55	.4	.36	.33	.40	2.5	1.6	419	176
JUNE										
29...	83	72	.4	.34	.58	.77	2.3	2.7	492	83
JULY										
13...	85	86	.4	.39	1.1	.64	4.5	2.3	538	40
26...	78	72	.4	.74	8.8	.62	4.3	2.3	518	71
AUG.										
15...	74	67	.3	.54	1.2	.45	4.3	2.0	470	91
28...	75	62	.3	.48	.70	.30	5.1	1.4	462	104
SEP.										
08...	81	78	.4	.43	1.2	.76	3.6	3.5	511	56
18...	85	76	.4	.38	1.1	.43	4.3	2.0	511	28

DATE	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
NOV.										
01...	28	220	48	.7	530	7.7	25.0	15	70	7.6
JAN.										
03...	7	300	72	1.2	779	7.6	18.5	20	7	7.4
MAR.										
22...	28	310	64	1.8	935	7.5	23.0	20	5	4.4
MAY										
04...	16	280	66	1.7	854	7.8	28.0	20	20	4.7
31...	25	260	58	1.3	722	7.3	24.5	15	50	5.4
JUNE										
29...	45	300	68	1.5	844	7.6	29.5	5	40	4.4
JULY										
13...	38	300	66	1.8	907	7.6	29.5	10	15	4.6
26...	10	260	52	2.2	817	7.6	29.5	5	35	5.0
AUG.										
15...	7	270	60	1.6	792	7.6	29.0	5	40	--
28...	16	270	60	1.5	765	7.6	31.0	5	45	5.9
SEP.										
08...	9	290	55	1.8	883	7.5	28.5	0	30	4.8
18...	4	290	68	1.6	839	7.5	29.5	5	15	5.4

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WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

GUADALUPE RIVER BASIN

08181800 SAN ANTONIO RIVER NEAR ELMENDORF, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 01...	1400	1060	.00	<.2	.00	4.4	.00	2.7	.00	<.2
MAR. 22...	1020	245	.00	<.2	.00	25	.00	17	.00	<.2
MAY 04...	0920	255	.00	<.2	.00	4.6	.00	5.3	.00	3.2
JULY 26...	1145	--	.00	<.2	.00	18	.00	16	.00	7.5

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
NOV. 01...	.01	3.4	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAR. 22...	.01	11	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAY 04...	.02	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 26...	.02	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 01...	.0	12	.03	.00	.00	.00	.00	.01	.00
MAR. 22...	.0	74	.17	.00	.00	.00	.00	.03	.00
MAY 04...	.0	11	.21	.00	.00	.00	.00	.00	.00
JULY 26...	.0	43	.25	.00	.00	.00	.00	.00	.00

GUADALUPE RIVER BASIN

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08181800 SAN ANTONIO RIVER NEAR ELMENDORF, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	654	537	731	792	784	900	961	846	699	905	816	789
2	700	572	703	775	827	900	929	809	732	891	861	796
3	700	572	589	765	839	913	921	795	741	860	799	831
4	675	646	712	759	854	931	911	858	741	---	442	---
5	608	582	466	742	858	917	953	884	744	898	614	785
6	584	599	476	759	845	896	970	330	753	874	734	790
7	521	620	622	772	827	880	941	335	768	942	772	890
8	536	608	703	824	833	917	949	390	784	905	793	840
9	529	617	726	818	864	924	937	461	798	898	851	850
10	536	641	742	800	871	935	892	552	692	877	897	850
11	545	629	753	824	864	942	892	375	739	867	870	813
12	555	626	766	827	824	945	933	426	661	905	858	840
13	578	656	741	827	830	916	941	332	685	905	783	843
14	584	658	745	842	833	880	949	458	740	898	777	886
15	590	642	792	855	815	931	930	504	737	902	793	850
16	585	647	789	862	871	920	938	531	708	898	835	863
17	596	666	773	839	874	913	896	482	525	867	847	866
18	565	780	795	842	877	938	882	533	678	888	863	834
19	635	503	795	878	871	934	933	536	680	707	858	807
20	587	588	771	896	881	877	933	556	713	763	881	922
21	395	642	789	896	867	882	---	574	758	824	845	904
22	378	640	801	875	864	920	766	590	756	827	834	922
23	436	647	815	858	881	938	794	609	761	561	867	886
24	456	677	---	836	898	923	868	641	774	720	547	804
25	---	681	827	836	891	934	862	631	790	748	543	647
26	485	---	809	862	895	931	872	634	784	812	724	787
27	609	683	771	868	908	913	1030	643	795	848	756	515
28	518	698	787	878	881	889	516	685	833	851	768	658
29	523	696	789	892	874	934	730	---	845	861	728	735
30	515	696	792	885	---	938	842	681	864	860	779	784
31	534	---	---	772	---	941	---	710	---	841	774	---
MONTH	557	636	737	831	859	918	892	580	743	847	778	813

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.0	25.0	18.0	18.0	13.0	22.0	20.0	25.0	24.5	29.0	30.0	28.0
2	26.5	25.5	16.5	19.0	14.5	21.0	20.0	24.5	26.0	29.0	28.5	28.0
3	26.0	24.5	14.5	19.5	14.0	19.0	22.0	25.5	26.0	28.5	26.0	28.0
4	26.5	23.0	18.0	18.0	13.0	21.0	22.0	25.5	25.0	---	26.0	---
5	25.0	21.0	14.0	14.0	14.5	20.0	23.0	24.5	26.0	28.0	27.5	28.0
6	25.0	21.0	13.0	13.0	16.0	18.5	25.0	21.0	26.0	26.0	28.0	28.0
7	25.0	19.0	15.0	14.5	15.5	20.5	25.0	20.0	25.5	27.0	29.5	28.0
8	25.0	19.5	18.0	18.0	14.0	21.5	25.0	21.0	26.0	26.0	29.0	28.0
9	24.0	21.0	20.5	18.0	14.5	19.0	24.0	23.0	25.0	26.0	28.5	29.0
10	23.0	21.0	19.0	19.0	---	19.5	23.5	24.0	25.0	29.0	28.5	28.0
11	22.0	20.5	18.0	18.5	16.0	19.0	24.5	20.5	25.0	28.0	28.0	28.0
12	23.0	19.5	19.0	17.0	14.0	21.0	25.5	21.5	26.0	29.5	27.0	28.0
13	23.0	21.0	18.5	18.5	17.0	21.0	26.0	22.0	26.0	28.5	28.0	28.0
14	23.5	22.0	20.0	16.5	16.5	21.5	27.0	23.0	28.0	28.5	29.0	28.0
15	24.0	22.0	19.5	12.0	18.0	23.0	27.0	23.0	28.5	27.5	29.0	27.0
16	24.0	23.5	19.5	11.0	17.0	22.0	24.0	24.0	28.0	27.0	29.0	29.0
17	24.0	24.0	19.5	15.0	18.0	21.5	26.0	23.5	26.0	26.5	29.0	28.0
18	25.5	24.5	16.0	18.0	18.0	22.0	25.0	23.5	27.0	28.0	29.0	28.0
19	26.0	19.0	18.0	18.0	15.0	20.0	25.5	24.0	27.0	27.0	28.0	28.0
20	26.0	19.0	18.0	20.0	19.0	---	26.0	25.0	27.0	28.0	27.0	28.0
21	22.0	19.0	18.0	20.0	19.0	---	---	24.5	28.0	28.5	29.0	28.0
22	22.0	19.5	18.5	20.0	20.0	23.0	23.0	23.5	28.5	27.0	29.0	27.0
23	22.0	19.5	18.5	19.0	20.5	23.0	23.0	23.5	28.5	27.0	29.0	26.0
24	21.5	18.5	---	19.5	21.5	23.5	24.0	25.0	29.0	28.5	27.0	26.0
25	---	18.0	19.0	18.5	21.5	22.0	24.5	25.5	30.0	29.0	27.0	26.0
26	24.0	---	19.0	19.5	20.0	24.0	24.5	25.5	29.0	29.0	29.0	27.0
27	24.0	18.5	20.5	20.0	21.0	24.0	23.5	26.0	29.5	29.0	28.5	26.0
28	25.0	19.0	22.0	20.0	20.0	24.5	18.0	26.0	29.0	29.0	27.0	26.5
29	25.0	19.0	23.5	16.0	21.5	23.0	24.0	---	29.5	29.0	28.0	27.0
30	24.0	20.0	24.0	14.0	---	19.5	26.0	25.5	29.0	28.5	28.0	25.0
31	23.0	---	---	11.5	---	20.0	---	25.5	---	29.0	28.0	---
MONTH	24.0	21.0	18.5	17.0	17.0	21.5	24.0	24.0	27.0	28.0	28.0	27.5

GUADALUPE RIVER BASIN

08183500 SAN ANTONIO RIVER NEAR FALLS CITY, TEX.

LOCATION.--Lat 28°57'05", long 98°03'50", Karnes County, at gaging station at bridge on Farm Road 791, 0.9 mile upstream from Scared Dog Creek, and 3.6 miles southwest of Falls City.

DRAINAGE AREA.--2,113 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1968 to September 1972.
Sediment analyses: January 1966 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTMEBR 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)
NOV.										
01...	1520	1250	12	68	14	--	26	--	220	0
JAN.										
03...	1615	450	16	95	19	--	59	--	294	0
25...	1540	358	6.3	98	22	--	79	--	292	16
MAR.										
22...	0830	195	16	100	22	--	90	--	316	0
MAY										
03...	1430	245	17	86	20	--	76	--	270	0
30...	1430	875	12	81	17	--	46	--	254	0
JUNE										
28...	1435	433	19	93	20	--	62	--	282	4
JULY										
12...	1440	286	17	98	21	--	85	--	288	10
25...	1740	486	12	62	13	--	44	--	202	0
AUG.										
14...	1500	430	18	88	19	--	77	--	278	0
28...	1515	375	15	74	14	--	61	--	234	0
SEP.										
07...	1520	228	17	92	19	--	82	--	290	0
19...	0900	255	18	93	21	74	--	6.4	286	0

DATE	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
NOV.									
01...	49	31	.2	--	.12	.00	2.0	.60	317
JAN.									
03...	83	70	.3	--	.096	.11	4.3	1.3	507
25...	95	89	.5	--	--	--	4.0	--	568
MAR.									
22...	120	100	.5	--	.50	.94	4.7	2.8	634
MAY									
03...	98	85	.4	--	.27	.00	4.7	2.0	537
30...	76	52	.3	--	.10	.00	2.8	.88	422
JUNE									
28...	99	74	.4	--	.007	.00	1.1	.10	515
JULY									
12...	110	96	.5	--	.008	.12	4.6	1.9	596
25...	60	45	.3	--	.000	.00	3.1	1.0	349
AUG.									
14...	91	87	.4	--	1.0	.12	4.6	3.4	541
28...	82	60	.3	--	.000	.04	3.1	2.4	435
SEP.									
07...	100	88	.4	--	.008	.12	4.2	1.6	565
19...	97	90	.5	.42	.045	.11	4.8	3.0	562

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
NOV.									
01...	230	46	.8	543	7.7	24.0	6.8	80	1.3
JAN.									
03...	320	74	1.4	844	7.6	18.5	7.1	76	2.0
25...	340	70	1.9	905	8.4	17.0	--	--	--
MAR.									
22...	350	91	2.1	1060	7.4	22.0	3.7	42	14
MAY									
03...	300	76	1.9	894	7.6	26.5	4.9	60	2.1
30...	270	64	1.2	713	7.3	26.5	5.4	66	3.9
JUNE									
28...	310	77	1.5	880	7.6	30.0	5.4	71	1.9
JULY									
12...	330	78	2.0	974	7.7	28.5	5.8	74	1.8
25...	210	42	1.3	594	7.5	29.0	4.4	56	5.0
AUG.									
14...	300	70	1.9	907	7.4	30.0	--	--	2.9
28...	240	50	1.7	713	7.5	29.5	5.1	66	1.7
SEP.									
07...	310	70	2.0	938	7.7	30.0	5.6	74	1.0
19...	320	84	1.8	923	7.6	28.0	5.7	72	1.5

GUADALUPE RIVER BASIN

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08183500 SAN ANTONIO RIVER NEAR FALLS CITY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
OCT.					
12...	1430	800	22.5	619	1340
NOV.					
08...	1330	762	19.0	256	527
APR.					
03...	0945	232	21.0	50	31
MAY					
12...	1145	3520	22.0	1430	13600
JUNE					
19...	1245	1730	22.0	1520	7100
AUG.					
22...	1210	274	28.5	46	34
SEP.					
27...	1625	358	26.5	112	108

GUADALUPE RIVER BASIN

08186000 CIBOLO CREEK NEAR FALLS CITY, TEX.

LOCATION.--Lat 29°00'50", long 97°55'48", Karnes County, at gaging station at bridge on State Highway 123, 5.7 miles northeast of Falls City, and 10.4 miles upstream from mouth.

DRAINAGE AREA.--827 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1972.

Chemical and biochemical analyses: October 1969 to September 1972.

Water temperatures: October 1968 to September 1972.

Sediment records: October 1968 to September 1969.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-05	26	17	98	19	110	--	7.7	228	0	190
06-09	188	14	70	11	--	64	--	184	0	100
10-19	27	17	98	19	110	--	7.7	228	0	190
20-24	490	11	43	4.6	--	24	--	139	0	29
25-31	51	14	70	11	--	64	--	184	0	100
NOV.										
01-30	32	15	90	18	--	110	--	216	0	180
DEC.										
01-04	84	16	100	18	--	100	--	240	0	180
05-09	430	11	44	5.2	--	25	--	123	0	40
10-14	81	13	60	8.4	--	45	--	155	0	75
15-31	33	16	100	18	--	100	--	240	0	180
JAN.										
01-31	30	12	81	22	120	--	6.3	164	0	210
FEB.										
01-29	26	7.0	89	23	130	--	6.1	208	0	220
MAR.										
01-31	21	12	100	25	--	150	--	236	0	240
APR.										
01-30	15	15	110	27	160	--	7.9	230	0	300
MAY										
01-07	145	17	80	19	--	99	--	172	0	180
08-14	8780	8.3	37	2.8	--	5.9	--	113	0	13
15-19	851	12	69	7.8	--	30	--	184	0	65
20-31	203	17	80	19	--	99	--	172	0	180
JUNE										
01-15	89	13	79	22	--	98	--	140	0	190
16-17	376	14	80	12	--	63	--	214	0	100
18-19	831	12	47	4.1	--	23	--	155	0	25
20-22	131	14	80	12	--	63	--	214	0	100
23-30	67	13	79	22	--	98	--	140	0	190
JULY										
01-31	52	4.9	120	23	110	--	5.9	284	0	220
AUG.										
01-31	37	16	--	23	--	--	--	--	--	200
SEP.										
01-30	28	17	100	23	--	120	--	248	0	220
WTD. AVG.	--	9.7	48	6.3	--	--	--	134	0	49
TIME WTD.										
AVG.	242	13	91	20	--	--	--	210	0	196
TOT. LOAD										
(TONS)	--	2320	11400	1510	--	--	--	31600	0	11700

GUADALUPE RIVER BASIN

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08186000 CIBOLO CREEK NEAR FALLS CITY, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 934 mg/l Apr. 1-30; minimum, 132 mg/l May 8-14.

Hardness: Maximum, 400 mg/l July 1-31; minimum, 100 mg/l May 8-14.

Specific conductance: Maximum daily, 1,890 micromhos Mar. 16; minimum daily, 211 micromhos May 13.

Water temperatures: Maximum, 30.0°C on several days during October and November; minimum, 15.0°C Jan. 5.

EXTREMES, October 1968 to September 1972.--Dissolved solids: Maximum, 1,300 mg/l Apr. 1-30, 1971; minimum, 132 mg/l May 8-14, 1972.

Hardness: Maximum, 510 mg/l May 1-31, 1971; minimum, 100 mg/l Dec. 1-2, 1969, Sept. 9-16, 1971, May 8-14, 1972.

Specific conductance: Maximum daily, 2,270 micromhos May 20, 21, 1971; minimum daily, 190 micromhos Aug. 5, 1971.

Water temperatures: Maximum, 33.0°C on several days during August, 1969; minimum, 4.5°C Jan. 7, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-05	140	.4	1.1	695	320	140	2.7	1120	7.6
06-09	68	--	1.0	425	220	68	1.9	690	7.3
10-19	140	.4	1.1	695	320	140	2.7	1120	7.6
20-24	22	--	1.0	206	130	12	.9	347	6.9
25-31	68	--	1.0	425	220	68	1.9	690	7.3
NOV.									
01-30	120	.2	1.0	643	300	120	2.8	1030	8.1
DEC.									
01-04	120	.3	1.0	670	340	140	2.5	1100	7.5
05-09	28	--	1.2	218	130	30	1.0	390	6.9
10-14	52	--	1.1	334	180	57	1.4	577	7.7
15-31	120	.3	1.0	670	340	140	2.5	1100	7.5
JAN.									
01-31	150	.3	1.6	689	290	160	3.0	1180	8.0
FEB.									
01-29	150	.3	1.5	734	320	150	3.2	1240	8.0
MAR.									
01-31	180	.3	.5	832	360	170	3.5	1410	8.1
APR.									
01-30	190	.4	.2	934	390	200	3.6	1560	7.4
MAY									
01-07	110	.3	.9	599	280	140	2.6	1100	6.8
08-14	5.2	--	.9	132	100	11	.3	232	6.7
15-19	33	--	1.0	311	200	53	.9	526	7.9
20-31	110	.3	.9	599	280	140	2.6	1100	6.8
JUNE									
01-15	130	.3	2.1	607	290	170	2.5	1080	7.2
16-17	68	--	1.6	454	250	74	1.7	748	7.6
18-19	19	--	1.3	212	130	7	.9	352	8.0
20-22	68	--	1.6	454	250	74	1.7	748	7.6
23-30	130	.3	2.1	607	290	170	2.5	1080	7.2
JULY									
01-31	130	.3	2.2	765	400	170	2.4	1250	7.5
AUG.									
01-31	130	.3	1.9	--	--	--	--	1220	--
SEP.									
01-30	140	.3	1.2	750	350	150	2.9	1210	8.0
WTD. AVG.	29	.3	1.0	236	143	36	.8	417	6.9
TIME WTD.									
AVG.	130	.3	1.3	673	313	142	2.7	1130	7.7
TOT. LOAD (TONS)	7060	11	241	55600	--	--	--	--	--

GUADALUPE RIVER BASIN

08186000 CIBOLO CREEK NEAR FALLS CITY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
NOV.										
01...	1600	32	15	76	14	--	78	--	178	0
JAN.										
03...	1730	28	18	130	22	--	120	--	308	0
MAR.										
21...	1900	30	12	120	23	--	150	--	280	0
MAY										
03...	1530	35	18	110	24	--	150	--	268	0
30...	1320	220	15	130	21	--	110	--	324	0
JUNE										
28...	1250	60	21	120	19	--	110	--	274	0
JULY										
12...	1320	50	17	120	24	--	130	--	294	0
25...	1600	47	16	110	21	--	110	--	268	0
AUG.										
14...	1340	34	16	130	24	--	130	--	320	0
28...	1330	40	15	110	23	--	130	--	276	0
SEP.										
07...	1415	26	15	110	21	--	130	--	280	0
19...	1020	26	15	110	23	120	--	6.5	272	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
NOV.									
01...	140	86	.2	--	.007	.00	.7	.10	501
JAN.									
03...	210	140	.3	--	.003	.08	1.4	.080	802
MAR.									
21...	240	160	.3	--	.011	.03	.5	.060	835
MAY									
03...	240	150	.4	--	.000	.00	.3	.060	827
30...	210	120	.4	--	.010	.00	1.9	.080	781
JUNE									
28...	200	120	.4	--	.030	.00	3.3	1.7	728
JULY									
12...	220	140	.3	--	.017	.16	1.9	.065	812
25...	190	120	.4	--	.000	.00	2.6	.090	716
AUG.									
14...	210	140	.3	--	.018	.06	2.0	.056	810
28...	220	140	.3	--	.013	.14	1.4	.050	793
SEP.									
07...	220	130	.3	--	.017	.11	1.0	.043	775
19...	210	130	.3	.02	.000	.09	1.0	.11	758

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
NOV.									
01...	250	100	2.2	825	7.9	24.0	8.3	98	.8
JAN.									
03...	420	160	2.6	1300	8.0	17.5	9.4	98	1.5
MAR.									
21...	380	150	3.3	1360	8.0	24.0	8.8	104	3.4
MAY									
03...	370	150	3.4	1320	8.1	28.0	9.9	125	1.4
30...	420	160	2.4	1240	7.9	27.0	8.8	109	1.9
JUNE									
28...	370	150	2.4	1140	7.9	30.5	8.4	111	1.9
JULY									
12...	410	170	2.7	1300	7.9	27.5	9.0	112	2.8
25...	360	140	2.6	1160	8.0	31.0	8.6	115	1.9
AUG.									
14...	410	150	2.7	1290	7.9	29.5	--	--	3.2
28...	370	150	3.0	1250	7.8	30.0	8.4	111	1.5
SEP.									
07...	360	130	3.0	1230	7.8	30.5	7.9	104	1.4
19...	370	150	2.7	1210	7.8	28.0	7.2	91	1.2

08186000 CIBOLO CREEK NEAR FALLS CITY, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1070	861	1090	1150	1340	1310	1580	1330	1160	1210	1200	1270
2	996	---	1080	1190	1260	1300	1500	1330	1280	1270	1240	1160
3	---	987	1120	1160	1170	1350	1410	1220	1220	1280	1250	1130
4	1120	954	825	1160	1160	1340	1560	1130	1220	1220	1160	1220
5	1120	974	451	1150	1240	1360	1450	1130	1220	1270	1220	1200
6	425	1000	455	1160	1070	1350	1590	1100	1200	1260	1210	1180
7	785	1010	298	1130	1190	1380	1600	711	1300	1300	1170	1180
8	785	1010	373	1140	1200	1370	1600	236	1310	1210	1080	1170
9	782	1040	385	1110	1240	1370	1570	244	1360	1310	1090	1180
10	1080	1060	511	1090	1260	1330	1570	222	1230	1320	1250	1300
11	1090	1020	512	1080	1250	1390	1480	232	1260	1320	1240	1260
12	1020	1030	594	1170	1200	1370	1550	225	1310	1320	1290	1280
13	1070	1100	596	1170	1240	1400	1570	211	1170	1320	1300	1180
14	1040	1120	691	1200	1260	1410	1550	255	1220	1300	1300	1170
15	1090	1120	826	1110	1260	1880	1600	413	1150	1280	1230	1180
16	1160	1130	829	1150	1220	1890	1610	542	863	1280	1240	1270
17	1320	1200	960	1250	1240	1390	1620	476	834	1280	1260	1150
18	1210	1140	956	1190	1250	1310	1570	498	356	1280	1240	1180
19	1290	1120	1070	1200	1200	1400	1600	705	350	---	1240	1210
20	282	975	1080	1190	1320	1390	1620	806	545	1180	1230	1170
21	327	842	1130	1220	1290	1350	1650	927	690	1200	1230	1230
22	397	845	1110	1200	1320	1340	1660	931	810	---	1180	1200
23	368	1270	1150	1220	1240	1310	1670	979	922	1200	1200	1310
24	368	1010	1220	1200	1220	1390	1580	1040	996	1080	1190	1330
25	581	958	1210	1150	1260	1390	1590	1060	1080	1200	1200	1250
26	565	983	1240	1240	1250	1430	1510	1080	1070	1210	1270	1240
27	565	1000	1190	1190	1260	1430	1510	1160	1100	1200	1270	1250
28	746	1000	1280	1270	1250	1540	1490	1200	1060	1220	1270	1140
29	753	1060	1280	1260	1300	1600	1480	1190	1150	1220	1100	1170
30	750	1050	1290	1290	---	1530	1490	1280	1180	1240	1090	1120
31	856	---	1240	1150	---	1510	---	1260	---	1250	1250	---
MONTH	834	1030	905	1180	1240	1420	1560	810	1050	1250	1220	1210

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.0	29.0	25.0	24.0	25.0	26.0	25.0	26.0	26.0	26.0	28.0	27.0
2	30.0	---	24.0	24.0	25.0	26.0	25.0	26.0	26.0	26.0	27.0	28.0
3	---	30.0	24.0	25.0	24.0	25.0	26.0	26.0	26.0	26.0	28.0	28.0
4	30.0	29.0	24.0	20.0	25.0	---	26.0	26.0	26.0	26.0	27.0	28.0
5	30.0	29.0	24.0	15.0	25.0	25.0	26.0	26.0	26.0	26.0	28.0	28.0
6	29.0	29.0	24.0	24.0	25.0	25.0	26.0	26.0	26.0	26.0	28.0	28.0
7	29.0	28.0	25.0	24.0	25.0	26.0	26.0	26.0	26.0	26.0	28.0	28.0
8	29.0	29.0	24.0	25.0	25.0	26.0	26.0	25.0	26.0	26.0	27.0	28.0
9	29.0	29.0	24.0	25.0	25.0	25.0	26.0	26.0	26.0	26.0	27.0	27.0
10	29.0	28.0	24.0	25.0	25.0	25.0	26.0	26.0	26.0	26.0	27.0	27.0
11	29.0	28.0	24.0	25.0	25.0	25.0	26.0	26.0	26.0	26.0	28.0	27.0
12	29.0	29.0	24.0	25.0	26.0	26.0	25.0	26.0	26.0	26.0	28.0	28.0
13	29.0	29.0	24.0	25.0	26.0	25.0	25.0	26.0	26.0	26.0	27.0	27.0
14	30.0	29.0	25.0	25.0	25.0	26.0	25.0	26.0	26.0	26.0	27.0	27.0
15	30.0	29.0	25.0	25.0	25.0	25.0	26.0	26.0	26.0	26.0	28.0	28.0
16	30.0	29.0	24.0	25.0	---	25.0	25.0	26.0	26.0	26.0	28.0	28.0
17	29.0	29.0	25.0	---	25.0	26.0	25.0	26.0	26.0	26.0	28.0	27.0
18	30.0	29.0	25.0	25.0	25.0	26.0	25.0	26.0	26.0	26.0	28.0	28.0
19	29.0	29.0	25.0	25.0	26.0	25.0	25.0	26.0	26.0	---	28.0	28.0
20	29.0	29.0	25.0	27.0	25.0	26.0	26.0	26.0	26.0	26.0	28.0	28.0
21	29.0	29.0	24.0	25.0	25.0	25.0	26.0	26.0	26.0	28.0	27.0	28.0
22	30.0	29.0	24.0	25.0	25.0	25.0	26.0	26.0	26.0	---	28.0	28.0
23	29.0	28.0	24.0	25.0	25.0	25.0	26.0	26.0	26.0	28.0	28.0	27.0
24	29.0	26.0	24.0	26.0	25.0	25.0	26.0	26.0	26.0	29.0	28.0	27.0
25	30.0	26.0	24.0	25.0	25.0	25.0	26.0	26.0	26.0	28.0	28.0	27.0
26	29.0	25.0	25.0	25.0	25.0	25.0	26.0	26.0	26.0	28.0	28.0	28.0
27	30.0	25.0	25.0	25.0	25.0	26.0	26.0	26.0	26.0	28.0	28.0	27.0
28	30.0	25.0	24.0	24.0	25.0	26.0	26.0	26.0	26.0	28.0	28.0	27.0
29	29.0	25.0	25.0	24.0	26.0	26.0	26.0	26.0	26.0	28.0	28.0	27.0
30	29.0	25.0	25.0	24.0	---	26.0	26.0	26.0	26.0	27.0	27.0	27.0
31	29.0	---	25.0	24.0	---	25.0	---	26.0	---	28.0	27.0	---
MONTH	29.5	28.0	24.5	24.5	25.0	25.5	25.5	26.0	26.0	26.5	27.5	27.5

GUADALUPE RIVER BASIN

08188500 SAN ANTONIO RIVER AT GOLIAD, TEX.

LOCATION.--Lat 28°38'58", long 97°23'04", Goliad County, at gaging station at bridge on U.S. Highway 183, 1.2 miles southeast of courthouse in Goliad, and 11.7 miles upstream from Manahuilla Creek.

DRAINAGE AREA.--3,921 sq mi.

PERIOD OF RECORD.--Chemical analyses: September 1945 to September 1946, September 1958 to September 1972.

Chemical and biochemical analyses: January 1968 to September 1972.

Pesticide analyses: January 1968 to September 1972.

Water temperatures: September 1958 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-07	710	14	70	14	40	--	4.5	220	0	61
08-18	1290	11	46	8.6	--	28	--	159	0	38
19-22	1110	14	70	14	40	--	4.5	220	0	61
23-31	2210	11	46	8.6	--	28	--	159	0	38
NOV.										
01-04	1240	11	64	13	--	32	--	208	0	53
05-21	847	13	84	14	--	49	--	244	10	67
22-23	1500	11	64	13	--	32	--	208	0	53
24-30	718	13	84	14	--	49	--	244	10	67
DEC.										
01-07	879	17	88	18	--	66	--	276	0	82
08-11	1580	12	54	9.0	--	33	--	156	0	50
12-31	608	17	88	18	--	66	--	276	0	82
JAN.										
01-30	496	17	100	20	75	--	4.8	286	10	100
31...	1760	7.8	46	5.5	--	29	--	144	0	25
FEB.										
01-02	642	14	76	14	59	--	6.3	224	0	75
03-29	407	15	100	21	--	91	--	300	0	110
MAR.										
01-31	354	18	100	22	--	110	--	302	4	120
APR.										
01-26	262	19	110	22	100	--	6.9	320	0	120
27-28	4280	8.2	25	2.5	--	7.7	--	79	0	9.6
29-30	393	19	110	22	100	--	6.9	320	0	120
MAY										
01-06	546	15	90	16	--	58	--	250	0	90
07...	3920	9.5	33	3.3	--	13	--	110	0	17
08-09	2100	14	72	12	--	47	--	232	0	63
10-17	9990	9.5	33	3.3	--	13	--	110	0	17
18-20	6760	11	54	7.6	--	20	--	160	0	41
21-24	2440	14	72	12	--	47	--	232	0	63
25-31	1420	15	90	16	--	58	--	250	0	90
JUNE										
01-17	997	18	100	18	--	66	--	284	0	98
18-22	1860	14	64	9.8	--	35	--	180	0	54
23-30	742	18	100	18	--	66	--	284	0	98
JULY										
01-24	509	21	120	23	92	--	5.7	326	0	120
25-31	543	6.2	95	18	--	74	--	272	0	97
AUG.										
01-07	662	20	98	19	--	84	--	284	0	100
08-09	716	14	62	11	--	41	--	179	0	61
10-31	459	20	98	19	--	84	--	284	0	100
SEP.										
01-26	326	19	100	19	--	94	--	304	0	110
27-28	2690	3.0	42	6.5	--	33	--	137	0	32
29-30	834	17	74	14	--	59	--	224	0	68
WTD. AVG.										
TIME WTD.	--	13	68	12	--	--	--	206	1	61
AVG.										
TOT. LOAD	991	16	90	17	--	--	--	267	2	91
(TONS)	--	13100	66800	11700	--	--	--	202000	1040	60100

GUADALUPE RIVER BASIN

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08188500 SAN ANTONIO RIVER AT GOLIAD, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 694 mg/l Apr. 1-26, 29-30; minimum, 103 mg/l Apr. 27-28.

Hardness: Maximum, 380 mg/l July 1-24; minimum, 73 mg/l Apr. 27-28.

Specific conductance: Maximum daily, 1,250 micromhos Apr. 24; minimum daily, 192 micromhos Apr. 28.

Water temperatures: Maximum, 31.5°C July 2, Aug. 4; minimum, 3.5°C Feb. 3.

EXTREMES, September 1945 to September 1946, September 1958 to September 1972.--Dissolved solids: Maximum, 840 mg/l Apr. 1-14, 1971; minimum, 85 mg/l Oct. 27, 1960.

Hardness: Maximum, 453 mg/l Oct. 25-31, 1967; minimum, 44 mg/l June 20, 1966.

Specific conductance: Maximum daily, 1,500 micromhos July 15, 17, 1969; minimum daily, 138 micromhos Oct. 27, 1960.

Water temperatures (1958-72): Maximum, 36.0°C June 5, 1969; minimum, 3.5°C Feb. 3, 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	DIS- SOLVED FLUOR- IDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-07	54	.3	2.2	376	230	52	1.1	627	8.0
08-18	25	--	1.8	243	150	20	1.0	407	7.0
19-22	54	.3	2.2	376	230	52	1.1	627	8.0
23-31	25	--	1.8	243	150	20	1.0	407	7.0
NOV.									
01-04	36	.2	1.7	319	210	42	1.0	522	8.2
05-21	56	.2	2.4	424	270	52	1.3	682	8.4
22-23	36	.2	1.7	319	210	42	1.0	522	8.2
24-30	56	.2	2.4	424	270	52	1.3	682	8.4
DEC.									
01-07	80	.4	3.1	501	290	68	1.7	840	8.1
08-11	40	--	2.1	284	170	44	2.1	495	7.5
12-31	80	.4	3.1	501	290	68	1.7	840	8.1
JAN.									
01-30	98	.4	1.6	575	330	98	1.8	965	8.4
31...	35	--	2.2	229	140	19	1.1	402	7.4
FEB.									
01-02	81	.3	3.5	451	250	64	1.6	764	8.0
03-29	110	--	4.6	616	340	90	2.2	1010	8.3
MAR.									
01-31	130	.3	4.6	674	350	100	2.5	1120	8.4
APR.									
01-26	140	.5	5.1	694	360	96	2.3	1150	7.9
27-28	9.2	--	.5	103	73	8	.4	183	6.6
29-30	140	.5	5.1	694	360	96	2.3	1150	7.9
MAY									
01-06	77	.3	2.5	480	290	86	1.5	810	8.2
07...	9.6	--	.9	143	96	6	.6	246	7.9
08-09	50	--	1.6	379	230	39	1.3	614	8.3
10-17	9.6	--	.9	143	96	6	.6	246	7.9
18-20	23	--	1.2	241	170	35	.7	421	7.9
21-24	50	--	1.6	379	230	39	1.3	614	8.3
25-31	77	.3	2.5	480	290	86	1.5	810	8.2
JUNE									
01-17	89	.4	2.0	538	320	91	1.6	891	7.9
18-22	46	--	1.9	320	200	52	1.1	548	7.2
23-30	89	.4	2.0	538	320	91	1.6	891	7.9
JULY									
01-24	120	.5	4.9	690	380	120	2.0	1120	7.7
25-31	96	--	3.4	535	310	88	1.8	916	7.6
AUG.									
01-07	110	.4	4.4	589	320	90	2.0	970	7.8
08-09	51	--	1.9	336	200	53	1.3	587	7.7
10-31	110	.4	4.4	589	320	90	2.0	970	7.8
SEP.									
01-26	110	.5	4.4	622	330	84	2.2	1020	8.3
27-28	39	--	.8	226	130	19	1.2	411	8.2
29-30	74	--	2.9	429	240	58	1.6	724	7.9
WTD. AVG.									
TIME WTD.	55	.4	2.2	370	219	50	1.3	617	7.9
AVG.									
TOT. LOAD	90	.4	3.3	526	296	78	1.8	871	8.0
(TONS)	54300	158	2140	362000	--	--	--	--	--

GUADALUPE RIVER BASIN

08188500 SAN ANTONIO RIVER AT GOLIAD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SIO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
NOV.										
02...	1030	1280	13	68	13	--	27	--	216	0
JAN.										
04...	1130	520	18	100	20	--	67	--	302	0
MAR.										
20...	1800	325	16	100	20	--	95	--	296	0
MAY										
03...	0740	370	14	63	13	--	56	--	184	0
30...	1115	1240	15	92	17	--	73	--	312	0
JUNE										
28...	1045	686	22	100	19	--	81	--	284	10
JULY										
11...	1615	475	22	110	22	--	110	--	324	0
25...	1215	620	17	89	18	--	79	--	254	0
AUG.										
14...	1200	410	20	100	20	--	89	--	296	0
28...	1145	775	18	87	17	--	81	--	276	0
SEP.										
07...	1145	283	21	100	20	--	95	--	304	0
19...	1430	317	18	98	20	83	--	6.1	280	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
NOV.										
02...	50	33	.2	.42	.004	.00	1.8	.65	318	406
JAN.										
04...	94	92	.4	.16	.015	.00	3.4	2.9	559	119
MAR.										
20...	110	120	.4	.13	.003	.48	4.7	2.1	638	190
MAY										
03...	74	66	.4	1.3	.000	.00	3.0	1.5	389	478
30...	87	73	.4	.69	.000	.00	2.2	1.0	520	386
JUNE										
28...	100	100	.4	.37	.000	.00	2.6	1.8	590	218
JULY										
11...	130	130	.4	.54	.000	.15	3.9	2.5	693	208
25...	100	100	.4	.66	.000	.00	2.6	1.4	544	480
AUG.										
14...	110	110	.3	.38	.000	.04	4.0	1.2	623	120
28...	94	87	.4	.33	.000	.09	4.4	3.0	540	490
SEP.										
07...	110	120	.4	.35	.018	.12	3.0	1.7	637	119
19...	110	110	.4	.00	.000	.09	4.2	2.0	600	336

DATE	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
NOV.										
02...	62	220	46	.8	542	7.9	24.0	10	140	7.6
JAN.										
04...	19	340	94	1.6	940	7.8	15.0	20	50	8.6
MAR.										
20...	32	340	100	2.2	1070	8.0	23.0	15	80	7.8
MAY										
03...	118	210	60	1.7	667	7.5	24.5	25	250	5.6
30...	43	300	44	1.8	816	7.6	26.0	20	160	6.5
JUNE										
28...	64	330	84	1.9	969	7.8	30.5	10	90	6.3
JULY										
11...	68	360	100	2.4	1140	7.8	28.5	10	75	6.8
25...	108	300	88	2.0	925	7.7	29.0	5	150	6.8
AUG.										
14...	20	340	100	2.1	1040	7.8	28.5	5	55	--
28...	66	290	61	2.1	896	7.7	29.5	5	150	6.4
SEP.										
07...	11	340	93	2.2	1060	7.7	29.0	0	50	6.7
19...	40	330	98	2.0	983	7.8	28.0	5	100	7.4

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08188500 SAN ANTONIO RIVER AT GOLIAD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)
NOV. 02...	89	8	1.2	0	.00	--	0	0	0	0
JAN. 04...	84	15	1.3	3	.00	--	--	--	--	--
MAR. 20...	90	26	4.2	1	.00	--	10	0	0	0
MAY 03...	67	47	3.9	0	.00	--	10	0	0	0
30...	79	21	1.4	3	.01	--	--	--	--	--
JUNE 28...	83	17	1.4	0	.01	--	--	--	--	--
JULY 11...	87	24	1.5	0	.00	--	20	0	0	0
25...	87	19	2.0	3	.00	--	--	--	--	--
AUG. 14...	--	18	2.4	0	.00	--	--	--	--	--
28...	83	26	1.9	1	.00	--	--	--	--	--
SEP. 07...	86	--	1.1	0	--	9.0	--	--	--	--
19...	94	--	1.6	0	--	16	--	--	--	--

[illegible]

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
NOV. 02...	1030	1280	.00	<.2	.00	8.1	.00	6.6	.01	3.5	.01
FEB. 01...	1045	631	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
MAY 03...	0740	370	.00	<.2	.00	.5	.00	1.6	.03	1.0	.02
JULY 11...	1615	475	.00	<.2	.00	<.2	.00	.7	.00	<.2	.01
SEP. 14...	1115	317	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.01

DATE	DI-ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)
NOV. 02...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.0
FEB. 01...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.0
MAY 03...	1.5	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.1
JULY 11...	.8	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.0
SEP. 14...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.0

[illegible]

GUADALUPE RIVER BASIN

711

08188500 SAN ANTONIO RIVER AT GOLIAD, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	775	541	785	896	641	1050	1150	1010	828	1010	1070	862
2	764	540	772	918	888	1070	1130	961	853	1020	1050	908
3	736	550	794	933	966	1110	1130	658	860	1050	1050	900
4	705	564	914	926	966	1110	1120	723	873	1070	1100	915
5	632	575	761	933	842	1070	1170	843	886	1060	987	974
6	705	582	717	937	920	1070	1190	869	908	1120	877	996
7	786	613	670	929	1000	1070	1210	229	930	1120	822	1010
8	351	631	530	868	1030	1110	1180	541	942	1130	536	1070
9	455	638	420	862	1030	1140	1190	694	950	1160	645	1110
10	604	647	485	868	1010	1140	1150	223	934	1140	722	1110
11	564	654	552	893	1020	1150	1130	216	596	1170	817	1100
12	533	672	635	918	1050	1110	1170	261	950	1170	811	1080
13	550	670	725	937	1080	1090	1190	260	983	1170	992	1060
14	570	688	770	957	1060	1120	1180	211	962	1180	1050	1080
15	564	698	800	961	1030	1120	1190	277	890	1150	1090	1020
16	580	702	803	949	1030	1140	1190	235	897	1140	1020	1040
17	304	722	827	991	1020	1150	1170	303	799	1150	1000	1050
18	343	738	827	1000	979	1160	1150	346	399	1160	858	1020
19	612	738	836	996	1010	1130	1150	429	717	1170	1000	970
20	612	739	862	1010	987	1060	1160	487	502	1170	1040	1040
21	580	702	871	1010	1000	1170	1160	543	496	1170	1040	1050
22	645	405	881	1010	1030	1170	1180	588	589	1130	1090	1060
23	409	536	918	1010	1050	1130	1190	642	761	1030	1100	1080
24	396	619	921	1020	1050	1020	1250	681	804	1050	1110	1050
25	416	670	903	1050	1070	1140	1200	716	859	865	1110	1030
26	407	713	899	1040	1060	1240	1140	742	897	899	1100	1060
27	447	731	937	1030	1050	1190	200	765	930	939	1090	280
28	459	741	941	1020	1050	1130	192	786	954	892	959	544
29	484	763	978	1040	1040	1140	829	797	983	843	783	721
30	500	768	978	966	---	1140	1010	818	1000	951	758	728
31	520	---	957	402	---	1140	---	838	---	1010	753	---
MONTH	549	652	796	945	999	1120	1090	571	831	1070	949	964

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.5	23.5	13.5	19.5	9.0	21.0	19.5	26.0	24.0	28.5	28.0	26.0
2	26.5	23.5	13.0	16.5	11.0	18.0	20.0	24.0	25.5	31.5	28.5	26.0
3	26.5	21.0	11.0	18.0	3.5	18.0	21.0	25.0	25.5	29.0	26.0	28.0
4	25.5	20.0	10.0	14.5	9.0	20.0	21.5	25.0	24.5	29.5	31.5	29.0
5	24.0	20.0	11.0	11.0	13.0	20.0	22.0	24.0	26.0	28.0	28.0	29.0
6	24.0	19.0	11.0	10.0	11.0	18.5	24.0	22.0	25.0	26.5	28.5	28.0
7	22.0	16.5	10.0	10.0	11.0	21.0	24.5	21.0	25.5	28.0	29.0	28.0
8	21.0	20.0	9.5	13.0	10.0	20.0	24.5	22.0	25.5	28.0	28.0	26.5
9	21.0	18.5	13.0	16.5	11.0	18.5	22.0	24.0	25.5	29.0	28.0	28.0
10	20.0	16.5	13.0	15.5	12.0	19.5	24.0	21.0	25.0	28.0	28.5	29.0
11	21.0	15.5	13.0	15.5	11.0	20.5	25.0	21.0	24.0	28.5	28.0	28.0
12	21.0	18.0	14.5	13.0	12.0	21.0	25.0	22.0	25.5	26.5	26.5	28.0
13	22.0	18.5	14.5	15.5	11.0	20.5	25.5	21.0	26.5	26.5	28.0	26.5
14	21.0	18.5	16.5	13.0	16.5	21.0	26.0	21.0	28.0	26.5	31.0	26.5
15	21.0	19.5	16.5	10.0	18.0	21.0	26.0	21.0	29.0	26.5	28.0	26.5
16	22.0	19.0	16.5	10.0	15.5	21.0	24.5	22.0	29.5	26.5	28.0	28.0
17	22.0	20.0	15.0	11.5	15.5	21.5	24.5	22.0	28.5	25.5	26.5	29.5
18	24.0	19.0	14.5	15.5	16.5	21.5	26.5	23.0	27.0	26.5	29.5	28.0
19	24.0	16.5	14.0	15.5	14.5	21.5	26.0	23.0	28.5	28.0	26.0	31.0
20	22.0	15.5	14.0	16.5	18.0	21.0	25.5	24.0	30.0	28.0	28.0	26.5
21	21.0	16.5	14.5	18.0	18.5	23.0	25.5	26.0	26.5	26.5	28.5	26.5
22	21.0	16.5	13.0	16.5	19.0	23.5	24.0	26.0	28.0	26.5	29.5	26.0
23	20.0	14.5	14.0	18.5	20.0	23.0	24.0	24.0	29.0	28.0	29.0	26.0
24	20.0	13.0	16.5	18.0	20.0	23.0	24.5	26.0	29.0	26.5	28.0	25.5
25	19.0	14.0	15.5	16.5	20.0	23.5	25.0	26.0	30.5	28.0	26.0	26.5
26	20.0	14.5	16.5	16.5	16.5	24.0	24.0	26.0	29.5	28.5	29.0	25.5
27	21.0	14.5	16.5	20.0	19.5	24.0	25.0	26.0	29.5	29.0	29.0	22.0
28	21.0	17.0	19.0	16.5	19.5	25.0	20.5	26.0	29.5	29.0	29.0	24.0
29	22.0	14.5	19.0	15.5	20.0	22.0	24.0	26.0	30.5	29.0	28.0	25.5
30	21.0	15.5	14.0	12.0	---	25.5	25.0	26.0	30.5	29.5	28.0	24.0
31	22.0	---	14.0	7.0	---	18.5	---	26.0	---	29.0	28.0	---
MONTH	22.0	17.5	14.0	14.5	14.5	21.5	24.0	24.0	27.5	28.0	28.0	27.0

GUADALUPE RIVER BASIN

08188800 GUADALUPE RIVER NEAR TIVOLI, TEX.

LOCATION.--Lat 28°30'20", long 96°53'04", Refugio County, at water-stage recorded about 500 feet downstream from mouth of Calhoun County Irrigation Canal, 0.4 mile downstream from mouth of San Antonio River, 3.5 miles north of Tivoli, and 10.2 miles upstream from mouth.

DRAINAGE AREA.--10,128 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1972.

Chemical and biochemical analyses: October 1968 to September 1972.

Water temperatures: October 1966 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.									
01-15	12	56	11	26	--	4.1	194	0	32
16-20	13	35	4.4	--	16	--	116	0	16
21-31	12	56	11	26	--	4.1	194	0	32
NOV.									
01-30	13	67	14	--	36	--	240	0	40
DEC.									
01-31	13	72	14	--	34	--	236	0	40
JAN.									
01-31	12	84	17	41	--	3.0	280	0	44
FEB.									
01-04	10	46	8.0	29	--	4.4	149	0	29
05-29	11	74	16	--	46	--	252	4	44
MAR.									
01-31	11	80	17	--	50	--	268	0	47
APR.									
01-27	14	84	19	55	--	3.7	292	0	54
28-30	10	45	8.6	--	29	--	148	0	30
MAY									
01-08	14	65	10	--	33	--	206	0	41
09-21	12	42	4.2	--	17	--	134	0	18
22-31	14	65	10	--	33	--	206	0	41
JUNE									
01-30	14	78	14	--	40	--	248	0	48
JULY									
01-31	16	84	17	43	--	3.4	276	0	48
AUG.									
01-31	15	76	15	--	47	--	260	0	47
SEP.									
01-28	15	83	16	--	46	--	264	0	50
29...	9.6	42	4.8	--	13	--	134	0	13
29-30	9.6	42	4.8	--	13	--	134	0	13

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 463 mg/l Apr. 1-27; minimum, 163 mg/l Oct. 16-20.
Hardness: Maximum, 290 mg/l Apr. 1-27; minimum, 100 mg/l Oct. 16-20.

EXTREMES, October 1965 to September 1972.--Dissolved solids: Maximum, 509 mg/l Feb. 1-15, 1969; minimum, 126 mg/l Sept. 21, 28, 1967.
Hardness: Maximum, 314 mg/l Jan. 1-12, 1968; minimum, 92 mg/l Sept. 11-15, 1971.
Specific conductance (1965-70): Maximum daily, 990 micromhos Oct. 9, 1969; minimum daily, 204 micromhos Sept. 26, 1967.
Water temperatures (1966-69): Maximum, 32.0°C on several days during June, July and August, 1967, 1968 and 1969; minimum, 8.0°C Jan. 15, 1968.

REMARKS.--No discharge records available. See Part 1 of this report for remarks on diversions and return flows.

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-15	38	.3	.6	277	180	26	.8	479	7.0
16-20	19	--	.6	163	100	10	.7	275	7.2
21-31	38	.3	.6	277	180	26	.8	479	7.0
NOV.									
01-30	42	.3	1.3	336	220	28	1.0	569	7.8
DEC.									
01-31	50	.3	1.3	345	240	44	1.0	595	8.0
JAN.									
01-31	63	.3	1.4	408	280	50	1.1	702	7.9
FEB.									
01-04	40	.2	1.6	247	150	26	1.0	432	7.8
05-29	60	--	1.8	387	250	38	1.3	669	8.4
MAR.									
01-31	74	.2	1.3	417	270	50	1.3	732	8.2
APR.									
01-27	83	.3	1.3	463	290	48	1.4	807	7.7
28-30	39	--	.9	239	150	26	1.0	432	6.9
MAY									
01-08	42	.3	1.1	311	200	34	1.0	539	7.4
09-21	19	--	.8	182	120	12	.7	318	7.1
22-31	42	.3	1.1	311	200	34	1.0	539	7.4
JUNE									
01-30	56	.3	1.4	378	250	49	1.1	642	7.4
JULY									
01-31	66	.4	1.3	420	280	54	1.1	702	8.1
AUG.									
01-31	62	.2	1.0	395	250	38	1.3	684	8.0
SEP.									
01-28	70	.3	1.2	416	270	56	1.2	723	8.0
29...	19	--	.6	170	120	15	.5	300	8.0
29-30	19	--	.6	170	120	15	--	300	8.0

[illegible]

GUADALUPE RIVER BASIN

08188800 GUADALUPE RIVER NEAR TIVOLI, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS-SIUM (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HC03) (MG/L)	CAR-BONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)
NOV. 02...	1230	15	66	13	--	23	--	220	0	35
JAN. 04...	1500	14	82	17	--	36	--	276	0	42
MAR. 21...	0945	12	82	16	--	55	--	274	0	50
MAY 02...	1120	13	47	8.6	--	29	--	164	0	23
JULY 11...	1050	16	84	17	--	49	--	288	0	48
SEP. 20...	1025	14	80	17	53	--	3.8	268	0	51

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	VOL. NON-SETTLE-ABLE RESIDUE (MG/L)
NOV. 02...	34	.2	.24	.008	.00	.9	.36	298	222	32
JAN. 04...	55	.2	.18	.013	.00	1.5	.31	389	93	14
MAR. 21...	76	.3	.27	.014	.12	1.9	.44	435	89	9
MAY 02...	38	.2	.56	.022	.02	.6	.54	243	178	40
JULY 11...	68	.3	.36	.000	.26	1.2	.50	430	87	43
SEP. 20...	76	.3	.41	.020	.13	1.5	.81	434	80	11

DATE	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION
NOV. 02...	220	38	.7	524	7.8	25.5	25	90	6.8	82
JAN. 04...	270	48	.9	685	7.9	14.5	21	45	8.4	82
MAR. 21...	270	46	1.5	751	8.1	25.0	5	40	6.9	82
MAY 02...	150	18	1.0	437	7.5	27.5	45	70	4.6	58
JULY 11...	280	44	1.3	734	7.8	<30.0	10	45	5.9	78
SEP. 20...	270	50	1.4	743	7.8	30.0	5	40	6.0	79

DATE	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)
NOV. 02...	7	1.1	0	.00	--	10	0	0	0	0
JAN. 04...	10	1.0	0	.00	--	--	--	--	--	--
MAR. 21...	13	2.4	1	.00	--	20	0	0	0	0
MAY 02...	24	3.0	15	.00	--	10	0	0	0	0
JULY 11...	11	2.5	0	.00	--	10	0	0	0	0
SEP. 20...	--	1.4	--	--	6.0	--	--	--	--	--

GUADALUPE RIVER BASIN

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08188800 GUADALUPE RIVER NEAR TIVOLI, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MAN- GANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRON- TIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
NOV. 02...	2	3	0	10	2	<.5	0	480	0
JAN. 04...	--	--	--	--	--	--	--	--	--
MAR. 21...	4	10	0	20	0	<.2	0	600	50
MAY 02...	4	130	0	10	0	.2	0	290	40
JULY 11...	2	0	0	20	0	<.2	0	650	60
SEP. 20...	--	--	--	--	--	--	--	--	--

DATE	TIME	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
NOV. 02...	1230	.00	<.2	.00	11	.00	6.3	.00	4.7	.00
MAR. 21...	0945	.00	<.2	.00	1.8	.00	1.7	.00	<.2	.00
MAY 02...	1120	.00	<.2	.00	2.5	.00	4.2	.00	2.2	.00
JULY 11...	1050	.00	<.2	.00	3.2	.00	3.1	.00	1.5	.00

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
NOV. 02...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAR. 21...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAY 02...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 11...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 02...	.0	13	.01	.00	.00	.00	.00	.00	.00
MAR. 21...	.0	4.7	.02	.00	.00	.00	.00	.01	.00
MAY 02...	.0	7.8	.00	.00	.00	.00	.09	.01	.00
JULY 11...	.0	6.6	.03	.00	.00	.00	.00	.00	.00

GUADALUPE RIVER BASIN

08188800 GUADALUPE RIVER NEAR TIVOLI, TEX.--Continued

MAXIMUM SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	450	520	615	700	650	700	815	380	650	700	670	680
2	470	535	640	705	570	700	820	520	660	700	680	645
3	540	545	640	705	460	690	830	680	680	720	700	670
4	555	550	630	690	560	690	815	680	690	730	640	700
5	560	540	620	680	610	705	810	670	690	730	600	715
6	575	540	650	670	640	715	820	670	700	740	660	710
7	570	545	630	660	650	750	810	650	700	740	720	710
8	600	550	590	625	640	750	800	720	700	740	760	715
9	660	555	560	655	660	760	810	310	720	740	710	720
10	440	565	540	680	680	760	830	430	720	750	590	720
11	500	580	530	690	700	760	820	460	740	750	590	740
12	560	580	500	690	700	770	810	320	730	750	610	750
13	560	590	510	690	680	770	810	320	730	750	590	770
14	535	600	540	690	660	790	820	290	740	735	620	770
15	540	610	570	690	665	770	810	295	750	740	650	770
16	550	600	580	695	690	740	820	300	700	740	670	760
17	550	620	610	710	690	810	830	290	700	750	700	760
18	360	610	615	715	670	810	820	290	670	720	720	760
19	300	610	620	710	670	740	820	300	690	710	720	775
20	320	625	620	730	680	770	820	340	570	710	710	760
21	380	625	630	740	680	770	820	410	630	740	690	760
22	420	640	650	750	700	730	810	470	620	740	720	750
23	470	645	655	765	700	640	820	510	510	730	740	760
24	580	545	665	770	690	680	825	550	590	750	740	760
25	460	560	675	760	700	710	810	580	620	730	740	740
26	440	610	670	750	710	730	840	600	630	710	760	720
27	460	630	670	750	700	740	900	640	650	740	760	660
28	460	630	665	760	700	800	570	660	670	725	770	800
29	490	630	680	780	700	820	310	670	690	715	790	520
30	500	620	680	770	---	830	310	670	700	700	790	510
31	505	---	690	750	---	820	---	660	---	680	720	---
MONTH	495	587	617	714	662	749	779	495	675	729	695	719

MINIMUM SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	435	505	605	690	360	685	790	260	635	690	650	640
2	445	520	615	700	340	670	790	380	640	685	665	630
3	470	535	630	690	420	670	800	520	660	700	640	640
4	535	535	605	660	460	670	790	640	680	720	600	670
5	540	530	605	660	560	690	780	640	680	720	580	690
6	560	530	600	655	610	700	790	620	680	725	580	680
7	525	535	580	620	620	715	780	620	690	720	660	700
8	530	540	480	610	620	740	780	240	690	730	680	700
9	440	540	480	625	630	740	790	230	700	730	590	710
10	400	555	505	655	650	740	750	320	715	730	525	710
11	420	560	480	670	680	750	800	320	720	740	550	720
12	500	565	480	675	680	760	790	290	690	735	590	740
13	530	575	490	670	660	760	800	290	590	720	500	750
14	500	590	510	675	630	760	800	270	620	720	570	760
15	520	600	540	680	640	710	790	275	610	720	620	740
16	540	590	560	685	665	690	750	290	610	730	650	740
17	340	600	580	690	670	690	740	260	590	720	670	750
18	270	600	605	690	645	690	730	270	610	705	700	740
19	240	600	610	700	660	710	800	270	570	695	700	740
20	260	600	615	710	660	740	800	300	430	695	680	740
21	320	620	620	730	660	730	780	340	550	710	660	730
22	380	620	630	735	680	570	800	410	430	690	680	730
23	410	545	645	745	680	580	800	460	430	700	720	720
24	460	460	655	740	680	630	810	510	480	730	730	740
25	400	500	665	740	690	680	790	550	590	700	730	710
26	390	560	660	740	690	680	780	580	620	680	740	640
27	440	610	655	730	690	700	350	600	630	710	740	600
28	430	620	655	730	690	740	290	640	650	690	740	440
29	460	620	655	760	690	800	290	650	670	680	770	250
30	490	605	670	750	---	810	260	655	690	680	720	310
31	495	---	675	650	---	780	---	640	---	660	690	---
MONTH	441	566	592	692	621	709	720	430	618	708	655	669

GUADALUPE RIVER BASIN

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08188800 GUADALUPE RIVER NEAR TIVOLI, TEX.--Continued

MEAN SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	442	510	610	695	540	695	800	320	645	695	660	660
2	455	524	626	702	410	685	805	450	650	690	670	640
3	505	540	635	700	440	680	810	600	670	710	680	655
4	545	542	620	675	510	680	805	660	680	725	620	685
5	550	535	615	670	590	700	790	660	685	725	590	705
6	567	535	625	665	625	710	800	640	690	730	620	695
7	548	540	605	650	640	730	795	630	695	730	690	710
8	560	545	535	620	630	745	790	470	695	735	740	710
9	606	550	520	640	645	750	800	270	715	735	670	715
10	417	560	520	670	670	750	800	380	720	740	550	715
11	460	570	505	680	690	755	810	400	730	745	570	730
12	530	572	490	680	690	765	800	300	710	740	500	745
13	545	582	500	680	670	765	805	300	650	740	550	760
14	517	595	525	685	645	775	810	280	680	730	590	765
15	530	605	555	685	655	755	800	290	700	730	630	750
16	545	595	570	690	680	720	810	290	670	735	660	750
17	485	610	595	700	680	750	810	270	630	740	685	755
18	315	605	610	700	655	730	810	280	630	710	710	750
19	270	605	615	705	665	725	810	280	660	700	710	760
20	275	612	618	720	670	760	810	320	500	700	695	755
21	350	622	625	735	670	750	800	370	600	725	670	750
22	400	630	640	745	690	690	800	440	520	720	700	740
23	440	620	650	755	690	610	810	490	490	715	730	750
24	550	485	660	760	685	650	820	530	535	740	730	750
25	430	530	670	750	695	700	800	560	610	710	730	730
26	415	585	665	745	700	700	810	590	625	700	750	690
27	450	620	663	740	695	720	700	620	640	730	750	615
28	445	625	660	745	695	770	360	650	660	710	750	670
29	475	625	667	770	695	810	300	660	680	700	780	310
30	495	615	675	760	---	820	290	660	695	690	740	410
31	500	---	680	710	---	800	---	650	---	670	700	---
MONTH	472	576	605	704	642	730	752	462	649	719	672	694

GUADALUPE RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE GUADALUPE RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08167700 CANYON LAKE NEAR NEW BRAUNFELS, TEX. (Lat 29°52'07", long 98°11'55")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 03...	1140	384300	11	60	16	9.2	2.0	232	0	19	16
JULY 03...	1410	386400	9.6	33	14	8.0	2.2	146	0	16	14

DATE	TIME	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED BORON (B) (UG/L)
JAN. 03...		.2	.6	250	220	25	.3	441	7.7	14.5	0	80
JULY 03...		.2	.04	169	140	20	.3	312	7.9	18.0	0	160

08179500 MEDINA LAKE NEAR SAN ANTONIO, TEX. (Lat 29°32'24", long 98°56'01")

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 21...	1310	265000	8.1	52	12	5.6	2.2	170	0	35	11

DATE	TIME	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED BORON (B) (UG/L)
OCT. 21...		.1	.4	212	180	40	.2	368	7.7	23.0	60

08181200 FRENCH CREEK TRIBUTARY NEAR HELOTES, TEX. (Lat 29°33'43", long 98°39'26")

DATE	TIME	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
MAY 07...	1035	.00	.00	.00	.00	.00	.00	.00	.00
07...	1310	.00	.00	.00	.00	.00	.00	.00	.00

DATE	TIME	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAY 07...		.00	.0	.00	.00	.00	.00	.00	.00	.00
07...		.00	.0	.00	.00	.00	.00	.00	.00	.00

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
MAY 07...	1035	260	19.0	74	52

GUADALUPE RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE GUADALUPE RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08186500 ECLETO CREEK NEAR RUNGE, TEX. (Lat 28°55'12", long 97°46'19")

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
MAY					
12...	1010	2710	--	408	2990
JUNE					
19...	1550	24	29.0	276	18
29...	1555	1.1	31.0	43	.13

SALT CREEK BASIN

08189100 SALT CREEK NEAR REFUGIO, TEX.

LOCATION.--Lat 28°19'00", long 97°00'24", Refugio County, at culvert on Farm Road 774, and 16.4 miles east of Refugio.

DRAINAGE AREA.--13.6 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.

Pesticide analyses: October 1970 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTMEBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
20...	1155	123	20	15	2.6	8.2	4.6	62	0	.8	11	.0
NOV.												
24...	1020	.05	15	26	4.0	16	4.2	103	0	8.0	16	.1
DEC.												
30...	1530	.02	15	37	5.7	27	5.1	124	0	6.8	48	.1
FEB.												
03...	0915	1.6	12	25	3.6	20	8.7	81	0	14	30	.1
MAR.												
08...	1055	.12	12	35	4.9	26	9.6	128	0	14	35	.2
MAY												
18...	0915	53	23	15	2.8	14	3.7	70	0	.0	15	.1
JUNE												
21...	0915	40	11	18	3.1	14	3.7	77	0	.4	17	.2
JULY												
27...	0905	.78	23	28	4.5	27	4.9	143	0	7.2	19	.2

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.												
20...	--	--	.40	.002	.28	.00	.055	--	93	--	48	0
NOV.												
24...	--	--	.64	.000	.29	.2	.13	--	142	--	81	0
DEC.												
30...	1.6	.000	.29	.000	.04	.05	.040	90	206	87	120	14
FEB.												
03...	--	--	.70	.000	.22	.2	.17	--	155	--	77	11
MAR.												
08...	--	--	.44	.000	.20	.01	.075	--	200	--	110	2
MAY												
18...	--	--	.40	.000	.10	.02	.025	--	108	--	49	0
JUNE												
21...	--	--	.55	.000	.03	.03	.050	--	106	--	58	0
JULY												
27...	.180	.022	.61	.000	.11	.05	.060	90	184	21	88	0

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
20...	.5	140	6.2	24.5	20	5.0	60	39	2.4	--	--	--
NOV.												
24...	.8	235	7.1	13.5	120	8.6	82	41	4.5	--	--	--
DEC.												
30...	1.1	373	7.5	24.5	50	7.8	93	38	2.3	30	0	0
FEB.												
03...	1.0	254	6.7	7.0	80	10.1	83	54	5.2	--	--	--
MAR.												
08...	1.1	370	7.4	23.0	70	6.1	70	48	3.8	--	--	--
MAY												
18...	.9	175	6.9	24.5	15	5.4	64	38	2.1	--	--	--
JUNE												
21...	.8	193	6.8	29.0	30	5.8	74	41	2.0	--	--	--
JULY												
27...	1.3	310	7.4	29.5	40	5.3	69	42	1.7	40	0	0

SALT CREEK BASIN

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08189100 SALT CREEK NEAR REFUGIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHROMIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 20...	--	--	--	--	--	--	--	--	--	--	--
NOV. 24...	--	--	--	--	--	--	--	--	--	--	--
DEC. 30...	0	0	4	60	0	0	0	.3	1	140	40
FEB. 03...	--	--	--	--	--	--	--	--	--	--	--
MAR. 08...	--	--	--	--	--	--	--	--	--	--	--
MAY 18...	--	--	--	--	--	--	--	--	--	--	--
JUNE 21...	--	--	--	--	--	--	--	--	--	--	--
JULY 27...	0	0	4	100	0	10	0	.2	12	170	60

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
DEC. 30...	1530	.02	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 27...	0905	.78	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
DEC. 30...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 27...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 30...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
JULY 27...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00

COPANO CREEK BASIN

08189200 COPANO CREEK NEAR REFUGIO, TEX.

LOCATION.--Lat 28°18'12", long 97°06'44", Refugio County, at bridge on Farm Road 774, 3.6 miles upstream from Alameda Creek, 8.1 miles east of Refugio, and 11.9 miles upstream from mouth.

DRAINAGE AREA.--87.8 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1968 to September 1972.
Pesticide analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 20...	1410	1270	13	7.8	1.7	7.9	4.5	40	0	.8	9.9	.0
NOV. 24...	1135	1.3	6.9	21	4.2	74	5.3	118	0	28	77	.2
DEC. 30...	1352	.38	13	37	6.4	110	6.3	150	0	51	140	.2
FEB. 03...	1030	25	8.7	10	2.6	29	6.6	34	0	16	38	.0
MAR. 08...	1256	.06	2.6	33	4.8	110	5.7	156	0	34	140	.3
MAY 18...	1130	678	14	8.0	2.1	12	3.6	42	0	.0	13	.1
JUNE 21...	1040	95	14	10	2.6	13	4.4	54	0	.4	12	.2
JULY 27...	1020	5.0	17	25	4.3	87	5.9	92	0	11	140	.1

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 20...	--	--	.38	.000	.36	.1	.070	--	66	--	26	0
NOV. 24...	--	--	.49	.000	.36	.9	.17	--	279	--	70	0
DEC. 30...	1.2	.016	.62	.000	.08	.2	.16	300	448	228	120	0
FEB. 03...	--	--	.76	.000	.19	.6	.14	--	131	--	36	8
MAR. 08...	--	--	.57	.000	.20	.1	.16	--	406	--	100	0
MAY 18...	--	--	.59	.000	.13	.03	.025	--	74	--	29	0
JUNE 21...	--	--	.66	.000	.09	.06	.11	--	84	--	36	0
JULY 27...	.660	.059	.64	.014	.27	.1	.11	290	332	105	80	4

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT. 20...	.7	102	6.5	26.0	20	4.0	49	41	2.8	--	--	--
NOV. 24...	3.8	501	6.8	14.0	100	8.3	80	48	4.2	--	--	--
DEC. 30...	4.4	804	7.1	24.8	100	7.1	85	49	2.5	150	10	1
FEB. 03...	2.1	223	6.8	8.0	70	10.5	88	40	4.3	--	--	--
MAR. 08...	4.8	751	7.2	22.5	140	8.1	92	53	4.9	--	--	--
MAY 18...	1.0	123	6.7	26.5	5	4.5	55	25	2.4	--	--	--
JUNE 21...	.9	139	6.9	30.0	55	5.8	76	56	3.1	--	--	--
JULY 27...	4.2	622	7.0	29.0	45	5.8	74	52	2.5	100	10	0

COPANO CREEK BASIN

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08189200 COPANO CREEK NEAR REFUGIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHROMIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 20...	--	--	--	--	--	--	--	--	--	--	--
NOV. 24...	--	--	--	--	--	--	--	--	--	--	--
DEC. 30...	0	0	11	190	0	40	80	.4	3	1200	100
FEB. 03...	--	--	--	--	--	--	--	--	--	--	--
MAR. 08...	--	--	--	--	--	--	--	--	--	--	--
MAY 18...	--	--	--	--	--	--	--	--	--	--	--
JUNE 21...	--	--	--	--	--	--	--	--	--	--	--
JULY 27...	0	0	6	280	0	10	20	.2	4	580	80

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 05...	0915	--	.00	--	.00	--	.00	--	.00	--
DEC. 30...	1352	.38	.00	<.2	.00	.4	.00	.9	.00	<.2
JULY 27...	1020	5.0	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
NOV. 05...	.00	--	.00	--	.00	--	.00	--	.00	--
DEC. 30...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 27...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 05...	.0	--	.00	.00	.00	.00	.00	.00	.00
DEC. 30...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
JULY 27...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00

MISSION RIVER BASIN

08189500 MISSION RIVER AT REFUGIO, TEX.

LOCATION.--Lat 28°17'30", long 97°16'44", Refugio County, at gaging station on upstream bridge of two bridges on U.S. Highway 77, 560 feet upstream from Missouri Pacific Railroad Co. bridge, and 0.2 mile southwest of Refugio.

DRAINAGE AREA.--690 sq mi.

PERIOD OF RECORD.--Chemical analyses: September 1961 to September 1972.

Chemical and biochemical analyses: January 1968 to September 1972.

Water temperatures: November 1962 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
01-16	128	34	120	19	450	--	4.8	224	0	25
17-19	4020	12	25	2.3	--	9.4	--	82	0	.4
20-22	544	21	52	6.2	--	94	--	148	0	9.8
23-30	131	34	120	19	450	--	4.8	224	0	25
NOV.										
01-30	53	35	96	23	--	580	--	162	0	32
DEC.										
01-06	43	34	110	24	--	640	--	188	0	33
07-09	154	18	56	8.3	--	160	--	134	0	17
10-13	53	24	100	17	--	440	--	212	0	23
14-31	36	34	110	24	--	640	--	188	0	33
JAN.										
01-29	31	36	130	28	700	--	5.4	214	0	35
30-31	120	24	66	12	--	120	--	180	0	34
FEB.										
01-03	217	15	48	7.6	--	94	--	117	0	29
04-08	44	20	94	13	--	360	--	188	0	25
09-28	24	31	120	24	--	680	--	212	0	35
29...	27	27	170	27	--	1100	--	258	0	33
MAR.										
01-05	30	32	110	23	--	530	--	222	0	37
06-31	18	36	140	29	--	850	--	228	0	56
APR.										
01-26	12	40	150	35	1100	--	8.1	220	0	38
27...	88	18	96	14	--	610	--	184	0	26
28-29	1140	7.8	20	3.0	--	25	--	96	0	7.2
30...	155	11	32	4.0	--	53	--	108	0	9.6
MAY										
01-06	76	21	89	14	--	320	--	184	0	20
07-11	2520	8.2	29	2.1	--	9.6	--	94	0	4.0
12-15	6080	7.7	13	1.9	--	9.4	--	62	0	.8
16-18	1290	15	48	3.9	--	15	--	121	0	6.0
19-20	294	23	70	9.0	--	130	--	191	0	13
21-31	105	31	84	19	--	410	--	178	0	25
JUNE										
01-10	68	32	87	20	--	470	--	164	0	26
11...	316	21	58	8.3	--	140	--	156	0	12
12-13	618	11	24	2.8	--	26	--	74	0	2.8
14-19	149	21	58	8.3	--	140	--	156	0	12
20-30	44	32	87	20	--	470	--	164	0	26
JULY										
01-16	30	39	82	23	600	--	5.4	132	0	32
17-19	390	15	27	3.5	--	35	--	83	3	5.2
20...	93	17	50	7.0	--	150	--	140	0	7.6
21...	89	23	86	11	--	340	--	192	0	11
22...	131	18	51	6.9	--	120	--	138	0	7.6
23-24	277	15	27	3.5	--	35	--	83	3	5.2
25-27	136	18	51	6.9	--	120	--	138	0	7.6
28-29	42	23	86	11	--	340	--	192	0	11
30-31	31	39	82	23	600	--	5.4	132	0	32
AUG.										
01-02	29	40	95	23	--	570	--	172	0	27
03...	375	28	88	13	--	290	--	214	4	15
04-06	857	13	22	2.6	--	22	--	78	0	4.4
07-08	109	22	54	7.0	--	130	--	156	0	8.8
09-12	50	28	88	13	--	290	--	214	4	15
13-31	26	40	95	23	--	570	--	172	0	27
SEP.										
01-23	22	35	100	26	--	750	--	148	0	32
24-26	41	33	100	17	--	400	--	236	0	28
27...	633	12	39	4.7	--	65	--	125	0	10
28-29	2000	11	26	2.6	--	12	--	87	0	4.2
30...	315	12	39	4.7	--	65	--	125	0	10
WTD. AVG.										
TIME WTD.	--	14	38	5.7	--	--	--	103	0	7.5
AVG.										
TOT. LOAD	233	31	99	21	--	--	--	179	0	29
(TONS)	--	3260	8780	1320	--	--	--	23700	20	1730

MISSION RIVER BASIN

725

08189500 MISSION RIVER AT REFUGIO, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 3,400 mg/l Apr. 1-26; minimum, 70 mg/l May 12-15.

Hardness: Maximum, 530 mg/l Feb. 29, Apr. 1-26; minimum, 40 mg/l May 12-15.

Specific conductance: Maximum daily, 6,970 micromhos Apr. 26; minimum daily, 113 micromhos May 12.

Water temperatures: Maximum, 31.5°C June 26, 29; minimum, .5°C Feb. 1, 2.

EXTREMES, September 1961 to September 1972.--Dissolved solids (1961-69, 1971-72): Maximum, 70,100 mg/l Aug. 1-10, 13-30, 1969; minimum, 70 mg/l May 12-15, 1972.

Hardness: Maximum, 6,280 mg/l Aug. 1-10, 13-30, 1963; minimum, 40 mg/l Apr. 9-10, 1970, May 12-15, 1972.

Specific conductance: Maximum daily, 100,000 micromhos Nov. 28, 1965; minimum daily, 85 micromhos Sept. 13, 1971.

Water temperatures (1962-72): Maximum, 37.0°C May 12, 1967; minimum, 4.0°C Jan. 13, 1963.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-16	800	.2	.5	1560	360	180	10	2900	7.5
17-19	16	--	.6	108	72	5	.5	198	6.5
20-22	160	--	.5	418	160	34	3.3	771	7.0
23-30	800	.2	.5	1560	360	180	10	2900	7.5
NOV.									
01-30	1000	--	.4	1860	330	200	14	3430	7.0
DEC.									
01-06	1100	.3	.3	2040	370	210	15	3790	7.2
07-09	270	--	.3	595	170	64	5.1	1130	7.0
10-13	760	--	.5	1470	320	150	11	2740	7.5
14-31	1100	.3	.3	2040	370	210	15	3790	7.2
JAN.									
01-29	1200	.3	.2	2270	430	250	15	4190	7.6
30-31	200	--	1.0	543	210	66	3.4	978	7.1
FEB.									
01-03	160	.2	.8	415	150	56	3.3	775	7.8
04-08	640	--	.7	1250	290	130	9.3	2350	8.2
09-28	1200	--	.2	2190	410	230	15	4070	7.9
29...	1800	--	1.0	3290	530	320	20	6020	7.9
MAR.									
01-05	930	--	.06	1780	380	190	12	3300	8.1
06-31	1500	--	.3	2710	480	290	17	4900	8.0
APR.									
01-26	1900	.5	.4	3400	530	350	21	6220	7.3
27...	1000	--	1.4	1880	300	150	15	3420	7.2
28-29	20	--	.7	133	62	0	1.4	278	6.9
30...	78	--	.6	243	96	8	2.4	439	6.6
MAY									
01-06	580	--	.5	1140	280	130	8.4	2130	8.3
07-11	13	.1	.6	115	81	4	.5	212	8.2
12-15	5.4	--	.4	70	40	0	.6	129	7.9
16-18	44	--	.3	193	140	37	.6	347	8.1
19-20	240	--	.2	579	210	55	4.0	1080	8.3
21-31	720	--	.3	1380	290	140	11	2690	8.1
JUNE									
01-10	820	--	.3	1540	300	160	12	2940	8.1
11...	240	.1	.4	549	180	50	4.4	1030	8.1
12-13	44	--	.4	148	71	11	1.3	284	8.0
14-19	240	.1	.4	549	180	50	4.4	1030	8.1
20-30	820	--	.3	1540	300	160	12	2940	8.1
JULY									
01-16	1000	.4	.2	1890	300	190	15	3620	8.1
17-19	54	--	.6	185	82	12	1.6	335	8.4
20...	250	--	.3	550	150	40	5.2	1050	8.2
21...	580	--	.3	1140	260	100	9.0	2180	8.3
22...	210	--	.4	487	160	42	4.2	918	8.3
23-24	54	--	.6	185	82	12	1.6	335	8.4
25-27	210	--	.4	487	160	42	4.2	918	8.3
28-29	580	--	.3	1140	260	100	9.0	2180	8.3
30-31	1000	.4	.2	1890	300	190	15	3620	8.1
AUG.									
01-02	1000	--	.3	1850	330	190	14	3530	8.0
03...	500	.2	.5	1040	270	91	7.5	1960	8.4
04-06	31	--	.3	134	66	2	1.2	248	7.1
07-08	220	--	.2	517	160	36	4.4	974	7.9
09-12	500	.2	.5	1040	270	91	7.5	1960	8.4
13-31	1000	--	.3	1850	330	190	14	3530	8.0
SEPT.									
01-23	1300	--	.4	2330	370	240	17	4410	7.8
24-26	680	.4	.5	1370	320	130	9.6	2510	7.9
27...	100	--	.5	296	120	14	2.6	542	7.4
28-29	16	--	.7	118	76	4	.6	203	7.3
30...	100	--	.5	296	120	14	2.6	542	7.4
WTD. AVG.	178	--	.4	402	119	37	2.8	748	7.6
TIME WTD.									
AVG.	951	--	.3	1780	335	186	12	3310	7.7
TOT. LOAD (TONS)	40800	--	110	92300	--	--	--	--	--

MISSION RIVER BASIN

08189500 MISSION RIVER AT REFUGIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
NOV. 02...	1115	78	38	160	25	--	520	--	348	0	27
JAN. 04...	1300	37	38	160	25	--	590	--	336	0	35
MAR. 21...	1225	17	35	160	28	--	770	--	284	0	37
MAY 02...	1340	50	21	70	11	--	220	--	162	0	16
JULY 11...	1330	26	43	140	23	--	620	--	310	0	30
SEP. 20...	0840	22	38	150	27	700	--	5.7	296	0	34

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
NOV. 02...	940	.2	5.6	.072	.10	.020	.16	.2	.050	800	1890
JAN. 04...	1000	.3	--	--	.11	.000	.00	.2	.020	--	2050
MAR. 21...	1400	.3	--	--	.20	.008	.25	.04	.047	--	2530
MAY 02...	390	.2	--	--	.38	.011	.19	.1	.050	--	810
JULY 11...	1100	.3	--	--	.18	.000	.21	.06	.053	--	2060
SEP. 20...	1200	.3	--	--	.21	.008	.18	.02	.038	--	2320

DATE	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- SETTLE- ABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
NOV. 02...	--	--	500	220	--	3420	7.7	23.0	15	--	--
JAN. 04...	23	0	500	220	12	3710	7.7	13.5	16	10	8.8
MAR. 21...	31	2	520	290	15	4680	7.8	25.0	25	10	8.1
MAY 02...	51	8	220	86	6.5	1560	7.5	29.0	60	20	6.5
JULY 11...	37	31	440	180	13	3780	7.7	30.0	15	20	7.5
SEP. 20...	49	7	480	240	14	4070	7.6	27.5	10	20	6.3

DATE	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)
NOV. 02...	--	12	1.0	--	.00	--	10	10	0	--	0
JAN. 04...	85	13	.8	0	.00	--	--	--	--	--	--
MAR. 21...	98	19	2.7	0	.00	--	10	10	0	0	--
MAY 02...	83	28	2.6	0	.00	--	30	0	0	0	--
JULY 11...	100	23	2.3	0	.00	--	10	10	0	0	--
SEP. 20...	80	--	1.6	--	--	.0	--	--	--	--	--

MISSION RIVER BASIN

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08189500 MISSION RIVER AT REFUGIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
NOV. 02...	0	1	4	0	80	310	<.5	0	3700	10
JAN. 04...	--	--	--	--	--	--	--	--	--	--
MAR. 21...	0	3	0	0	130	400	.3	0	5000	70
MAY 02...	0	4	100	0	40	100	.2	0	1600	50
JULY 11...	0	2	0	0	90	220	<.2	0	4600	70
SEP. 20...	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE-POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE-POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE-POSITS (UG/KG)
MAR. 21...	1225	17	.00	<.2	.00	87	.00	31	.00	5.1
MAY 02...	1340	50	.00	<.2	.00	3.8	.00	1.0	.00	8.4
JULY 11...	1330	26	.00	<.2	.00	8.7	.00	5.7	.00	5.4

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOTTOM DE-POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE-POSITS (UG/KG)
MAR. 21...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAY 02...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 11...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	DI-AZINON (UG/L)	MALA-THION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAR. 21...	.0	260	.00	.00	.00	.00	.00	.00	.00
MAY 02...	.0	5.2	.00	.00	.00	.00	.00	.02	.00
JULY 11...	.0	40	.00	.00	.00	.00	.00	.00	.00

MISSION RIVER BASIN

08189500 MISSION RIVER AT REFUGIO, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2080	3240	3710	4270	793	3910	---	1010	2920	---	2980	4310
2	2690	3220	3790	---	748	2690	6050	1590	3280	3710	3510	5500
3	2780	3200	3520	4470	---	2870	6210	1910	---	4040	1870	4070
4	3090	3370	3970	3610	1520	---	5910	2390	1910	3940	164	4310
5	1560	3460	3410	3680	2100	3730	6190	2820	2560	4330	196	4000
6	2030	3430	3340	3820	2500	4280	6380	3010	2760	3720	387	4060
7	2050	3410	888	4010	2610	4690	6150	228	3050	3650	769	4220
8	2680	3470	895	4120	2990	4600	6030	139	2990	3950	1180	4070
9	3020	3300	1600	---	3340	4310	---	238	2630	3680	1650	4110
10	3230	3290	2130	4150	3300	4750	6280	---	2620	3890	2160	4370
11	3460	3420	---	3790	3590	4990	6100	242	825	3920	2080	4600
12	3630	3510	3010	4130	3490	4870	5990	113	197	3810	---	4550
13	3720	3580	3070	4100	3530	4920	6120	121	372	2690	2480	6420
14	3700	3590	3420	3890	3570	4770	6710	122	962	---	---	5750
15	3710	3620	3320	4020	3980	5570	5620	165	773	3480	4170	3940
16	2860	3530	3540	---	3690	3830	5550	347	1110	3360	3030	3750
17	280	3600	3470	4590	4040	4370	6140	290	877	290	3130	---
18	153	3210	3880	4710	3910	---	6030	400	1270	210	3200	3160
19	164	3350	---	4440	4240	4650	6010	840	1410	401	---	3700
20	489	---	4100	4490	4480	4700	6270	1320	2140	1050	3300	4570
21	625	3460	3890	4420	4420	4830	6430	---	2500	2250	3250	4940
22	1180	---	4100	---	4600	4800	6140	2050	2800	773	3540	4420
23	1960	3360	4200	4440	4480	4650	6530	2310	---	301	3620	---
24	---	3040	4050	4510	---	4800	6950	2520	3210	466	3550	2970
25	2680	3330	4210	---	4700	4870	6810	2640	3220	549	3780	2570
26	2980	3570	4320	4710	4620	---	6970	2760	3170	799	3740	2040
27	3000	3410	4270	---	4620	5580	3420	---	3430	1540	4020	729
28	3210	3760	4270	4460	4720	5640	275	2690	3500	2110	4020	161
29	3160	3810	4260	---	6020	5450	285	3050	3420	---	3970	245
30	3210	---	4100	---	---	5970	439	3090	3770	2770	4010	362
31	---	---	---	978	---	5970	---	3120	---	2960	4160	---
MONTH	2390	3430	3450	---	3580	4680	5500	1480	2270	2450	2780	3640

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	24.0	18.5	21.0	9.5	21.0	---	28.0	23.5	---	31.0	29.5
2	28.0	26.0	18.0	---	9.5	18.0	23.0	26.5	26.0	28.0	28.0	26.5
3	26.5	23.5	---	19.0	---	16.5	22.0	23.0	---	27.0	25.0	31.0
4	26.0	21.0	20.0	13.5	11.5	---	21.0	23.0	26.0	28.5	28.5	28.0
5	25.0	21.0	18.0	13.0	10.5	19.0	23.0	23.0	26.5	27.0	30.0	30.5
6	25.5	22.0	22.0	11.5	15.0	20.0	23.5	24.0	26.0	29.5	30.0	30.5
7	24.0	20.0	20.0	13.0	13.5	20.5	26.5	22.0	25.0	29.5	29.5	28.5
8	25.5	18.5	24.0	20.0	12.0	22.0	24.0	23.0	25.5	28.0	29.5	29.0
9	24.0	22.0	---	---	14.0	18.5	---	25.0	24.5	29.5	29.5	30.5
10	21.0	20.5	---	19.0	13.5	19.5	23.0	---	25.5	26.5	28.5	28.5
11	21.5	19.5	---	19.0	14.5	21.5	24.5	21.5	27.0	27.0	29.5	29.5
12	23.0	18.5	---	19.0	13.5	23.0	24.5	22.0	28.5	27.0	---	28.0
13	22.0	20.5	---	18.5	16.5	21.0	24.5	22.0	27.0	26.0	28.5	30.0
14	22.0	21.5	---	15.5	16.0	21.5	25.5	22.0	28.5	---	---	26.5
15	25.0	22.0	---	13.0	20.5	24.5	25.5	24.0	28.5	28.0	28.5	26.5
16	24.5	23.0	---	---	18.0	20.5	24.0	25.5	29.0	26.5	30.0	31.0
17	24.0	23.5	19.0	14.0	18.0	24.5	22.0	23.0	28.0	26.5	29.5	---
18	26.0	22.0	16.0	15.5	18.0	---	24.0	25.5	30.0	29.5	30.0	28.5
19	26.5	19.5	---	19.5	17.0	16.0	27.0	25.5	29.0	28.5	---	29.0
20	26.0	---	18.0	19.5	18.0	21.5	25.5	25.5	30.5	29.5	29.0	30.0
21	24.0	20.0	18.5	19.0	21.5	23.0	25.0	---	29.5	30.0	30.5	28.5
22	24.0	---	16.5	---	20.5	23.5	23.0	25.0	30.0	27.0	28.0	26.0
23	23.5	18.5	16.5	20.0	21.5	22.0	26.0	26.0	---	29.0	31.0	---
24	---	17.0	19.5	20.0	---	23.5	23.5	25.0	28.5	29.5	30.0	24.5
25	21.5	18.0	20.5	---	21.0	23.5	24.5	26.0	31.0	29.0	30.0	26.0
26	24.0	19.5	23.5	20.0	21.5	---	24.0	25.5	31.5	30.0	30.5	27.0
27	24.0	19.5	23.5	---	23.0	24.0	23.5	---	28.5	30.5	28.0	25.0
28	24.5	19.0	21.5	19.0	21.0	26.0	22.0	28.0	28.5	30.5	27.0	25.5
29	24.0	---	23.5	---	20.0	21.5	23.5	25.5	31.5	---	30.5	28.0
30	23.5	---	22.0	---	---	20.0	24.5	24.5	28.5	28.5	30.0	25.5
31	---	---	---	10.0	---	18.5	---	24.5	---	31.0	28.0	---
MONTH	24.5	21.0	---	---	16.5	21.0	24.0	24.5	28.0	28.5	29.0	28.0

08189800 CHILTIPIN CREEK AT SINTON, TEX.

LOCATION.--Lat 28°02'48", long 97°30'13", San Patricio County, 100 ft downstream from sewage outfall, 400 feet downstream from bridge on U.S. Highway 77, and 0.8 mile north of Sinton.

DRAINAGE AREA.--128 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1969.
Chemical and biochemical analyses: October 1969 to September 1972.
Pesticide analyses: October 1969 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
20...	1710	444	11	17	2.8	53	4.9	57	0	3.6	87	.0
NOV.												
24...	1415	1.6	20	2100	340	20000	110	130	0	25	35000	.4
DEC.												
30...	1040	3.1	23	2300	360	22000	120	168	0	24	39000	.5
FEB.												
03...	1325	8.9	3.1	360	57	3400	22	56	0	19	5900	.2
MAR.												
08...	1705	3.5	.3	1300	190	12000	39	100	0	21	21000	.4
APR.												
12...	1345	1.6	21	2300	360	24000	88	146	0	31	41000	.4
MAY												
18...	1430	409	14	20	3.8	100	5.4	61	0	2.8	170	.2
JUNE												
21...	1335	18	26	120	17	1100	19	80	0	9.4	1900	.3
JULY												
27...	1255	22	30	110	17	1000	17	68	0	4.6	1800	.2
AUG.												
31...	1245	1.6	15	2000	370	18000	58	100	0	100	33000	.3

DATE	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.												
20...	--	--	.90	.019	.32	.3	.48	--	209	--	54	7
NOV.												
24...	--	--	.18	.034	3.8	.1	.13	--	57500	--	6800	6600
DEC.												
30...	260	15	.10	.000	5.0	.03	.039	40000	63900	29	7200	7000
FEB.												
03...	--	--	.37	.060	1.2	2.8	.40	--	9800	--	1100	1100
MAR.												
08...	--	--	.48	.033	1.7	.4	.12	--	34600	--	3900	3800
APR.												
12...	220	14	.34	.000	4.4	.04	.14	43000	68400	46	7200	7000
MAY												
18...	--	--	.50	.019	.06	.1	.40	--	347	--	66	16
JUNE												
21...	--	--	.48	.000	.25	.04	.79	--	3150	--	370	300
JULY												
27...	11	.460	.62	.000	.45	.03	.95	2000	3070	134	350	290
AUG.												
31...	--	--	.34	.000	2.3	.04	.10	--	53600	--	6400	6400

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
OCT.												
20...	3.1	380	7.4	26.0	250	7.3	89	54	5.0	--	--	--
NOV.												
24...	107	86500	7.4	20.0	6	13.4	223	119	6.8	--	--	--
DEC.												
30...	113	93400	6.8	24.8	6	1.1	21	39	2.6	0	0	0
FEB.												
03...	44	16900	7.2	12.0	--	11.0	108	36	3.6	--	--	--
MAR.												
08...	82	55600	7.8	23.0	8	15.8	226	48	6.9	--	--	--
APR.												
12...	123	99100	7.1	30.0	8	9.2	214	84	7.9	10	0	0
MAY												
18...	5.4	674	7.0	26.5	180	6.2	76	34	2.4	--	--	--
JUNE												
21...	24	5900	7.8	35.0	55	9.2	131	42	3.9	--	--	--
JULY												
27...	24	5840	7.4	34.0	60	7.4	106	48	3.1	20	10	0
AUG.												
31...	97	81600	7.5	33.0	8	13.1	279	67	6.0	--	--	--

ARANSAS RIVER BASIN

08189800 CHILTIPI CREEK AT SINTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 20...	--	--	--	--	--	--	--	--	--	--	--
NOV. 24...	--	--	--	--	--	--	--	--	--	--	--
DEC. 30...	0	0	3	10	0	180	1600	<.2	0	180000	2800
FEB. 03...	--	--	--	--	--	--	--	--	--	--	--
MAR. 08...	--	--	--	--	--	--	--	--	--	--	--
APR. 12...	0	0	4	0	0	3900	1700	.0	0	200000	1100
MAY 18...	--	--	--	--	--	--	--	--	--	--	--
JUNE 21...	--	--	--	--	--	--	--	--	--	--	--
JULY 27...	0	0	4	100	0	170	90	.2	9	9600	90
AUG. 31...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 03...	1220	3.5	.00	<.2	.00	4.7	.00	2.7	.00	1.3
DEC. 30...	1040	3.1	.00	<.2	.00	1.1	.00	1.8	.00	<.2
APR. 12...	1345	1.6	.00	--	.00	--	.00	--	.00	--
JULY 27...	1255	22	.00	<.2	.00	1.0	.00	.8	.00	<.2

DATE	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
NOV. 03...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
DEC. 30...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 12...	.00	--	.00	--	.00	--	.00	--	.00	--
JULY 27...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM DE- POSITS (UG/KG)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 03...	.0	3.3	.00	.00	.00	.00	.00	.00	.00
DEC. 30...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00
APR. 12...	.0	--	.00	.00	.00	.00	.00	.00	.00
JULY 27...	.0	<.2	.00	.00	.00	.00	.00	.00	.00

ARANSAS RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE ARANSAS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08189700 ARANSAS RIVER NEAR SKIDMORE, TEX. (Lat 28°16'56", long 97°37'14")

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
APR. 05...	1130	2.6	24.5	46	.32
MAY 11...	1830	739	--	398	794
JUNE 20...	1646	6.2	--	29	.49
SEP. 26...	1045	1.7	28.0	73	.34

NUECES RIVER BASIN

08207000 FRIO RIVER AT CALLIHAM, TEX.

LOCATION.--Lat 28°29'31", long 98°20'47", McMullen County, at gaging station at upstream side of county bridge, 0.6 mile upstream from bridge on Farm Road 99, 0.8 mile north of Calliham, and 10.7 miles downstream from San Miguel Creek.

DRAINAGE AREA.--5,491 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1972.
Water temperatures: November 1967 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-05	103	21	160	31	180	--	6.5	242	0	230
06-07	1590	14	68	9.8	--	35	--	176	0	49
08-20	2250	16	60	7.4	--	30	--	160	0	42
21-23	4580	12	34	3.3	--	18	--	106	0	20
24-31	1520	14	68	9.8	--	35	--	176	0	49
NOV.										
01-07	467	14	88	17	--	56	--	192	0	86
08-30	204	1.3	140	29	--	130	--	200	0	190
DEC.										
01-31	120	11	190	41	--	220	--	205	0	310
JAN.										
01-31	79	4.4	200	53	280	--	5.2	162	0	410
FEB.										
01-29	63	9.4	220	53	--	330	--	196	0	450
MAR.										
01-31	37	4.0	250	62	--	380	--	212	0	510
APR.										
01-30	27	11	250	66	420	--	6.8	200	0	550
MAY										
01-08	38	7.3	240	69	--	450	--	206	0	560
09-12	499	7.9	90	15	--	90	--	184	0	120
13-20	866	7.5	54	7.2	--	35	--	140	0	40
21-31	118	7.9	90	15	--	90	--	184	0	120
JUNE										
01-08	44	14	120	24	--	200	--	200	0	210
09-11	40	14	140	22	--	510	--	192	0	300
10-30	44	14	120	24	--	200	--	200	0	210
JULY										
01-31	9.7	15	180	42	370	--	8.2	210	0	350
AUG.										
01-20	26	19	180	47	--	480	--	218	0	420
21-29	42	12	120	29	--	210	--	176	0	230
30-31	603	12	64	8.4	--	30	--	180	0	37
SEP.										
01-03	760	15	58	6.8	--	20	--	168	0	26
04-12	81	15	66	10	--	64	--	182	0	62
13-23	29	15	86	18	--	130	--	220	0	130
24-25	376	15	66	10	--	64	--	182	0	62
26-28	2490	12	31	2.2	--	25	--	100	0	24
29-30	290	15	66	10	--	64	--	182	0	62
WTD. AVG.	--	12	78	13	--	--	--	159	0	93
TIME WTD.										
AVG.	282	11	163	38	--	--	--	194	0	305
TOT. LOAD										
(TONS)	--	3470	21800	3760	--	--	--	44200	0	25800

NUECES RIVER BASIN

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08207000 FRIO RIVER AT CALLIHAM, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 2,210 mg/l May 1-8; minimum, 161 mg/l Oct. 21-23.
Hardness: Maximum, 890 mg/l Apr. 1-30, May 1-8; minimum, 86 mg/l Sept. 26-28.
Specific conductance: Maximum daily, 3,980 micromhos Aug. 19; minimum daily, 260 micromhos Oct. 23.
Water temperatures: Maximum, 32.0°C June 22, 25, 29; minimum, 10.0°C Feb. 4.

EXTREMES, November 1967 to September 1972.--Dissolved solids: Maximum, 3,320 mg/l Nov. 30, 1968; minimum, 70 mg/l Feb. 13, 1969.
Hardness: Maximum, 890 mg/l Apr. 1-30, May 1-8, 1972; minimum, 47 mg/l Feb. 13, 1969.
Specific conductance: Maximum daily, 5,750 micromhos Nov. 30, 1968; minimum daily, 104 micromhos Feb. 13, 1969.
Water temperatures: Maximum, 33.0°C July 17, 1971; minimum, 6.0°C Jan. 9, 1970.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-05	330	.2	2.6	1090	510	320	3.4	1820	8.0
06-07	60	--	2.0	332	210	66	1.0	559	8.2
08-20	46	--	1.3	286	180	49	1.0	488	8.2
21-23	19	--	.7	161	98	12	.8	278	7.6
24-31	60	--	2.0	332	210	66	1.0	559	8.2
NOV.									
01-07	110	.2	2.3	475	290	130	1.4	834	8.0
08-30	260	--	2.7	863	460	300	2.7	1500	8.1
DEC.									
01-31	430	.2	3.4	1310	630	460	3.8	2180	8.0
JAN.									
01-31	550	.2	4.0	1600	730	590	4.5	2670	7.2
FEB.									
01-29	600	.2	3.2	1780	780	620	5.1	2860	8.0
MAR.									
01-31	690	--	2.3	2000	870	700	5.5	3270	7.6
APR.									
01-30	780	.3	1.2	2190	890	730	6.2	3520	7.2
MAY									
01-08	780	.3	.3	2210	890	720	6.5	3650	7.4
09-12	150	.2	.9	559	290	140	2.3	987	7.7
13-20	57	--	1.0	274	160	50	--	498	7.2
21-31	150	.2	.9	559	290	140	2.3	987	7.7
JUNE									
01-08	310	.2	.9	981	400	240	4.2	1700	7.9
09-..	770	--	.7	1850	440	280	11	3170	7.9
10-30	310	.2	.9	981	400	240	4.2	1700	7.9
JULY									
01-31	660	.3	.6	1730	630	460	6.4	2890	7.0
AUG.									
01-20	750	--	.4	1990	640	460	8.2	3270	6.7
21-29	350	.3	.5	1040	420	280	4.5	1800	7.0
30-31	50	--	.7	291	190	46	.9	518	6.6
SEP.									
01-03	32	.2	1.3	246	170	35	.7	436	7.3
04-12	90	--	1.0	400	210	56	1.9	701	7.2
13-23	180	--	.6	671	290	110	3.4	1150	7.5
24-25	90	--	1.0	400	210	56	1.9	701	7.2
26-28	22	--	1.0	170	86	4	1.2	288	7.1
29-30	90	--	1.0	400	210	56	1.9	701	7.2
WTD. AVG.	122	--	1.5	474	250	121	1.7	803	7.8
TIME WTD.									
AVG.	445	--	1.8	1320	564	406	4.4	2180	7.6
TOT. LOAD (TONS)	33900	--	424	132000	--	--	--	--	--

08207000 FRIO RIVER AT CALLIHAM, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1410	748	1920	2490	2760	2950	---	3610	1290	2230	3050	414
2	1660	793	---	2490	2680	2880	3520	3490	1330	2510	3140	461
3	1820	770	1220	---	2720	2930	3530	3560	1420	2650	3230	---
4	1930	827	1790	2500	2690	3030	3510	3700	1480	2720	3330	544
5	2280	890	1940	2550	2740	2980	3510	3750	1530	2560	3270	600
6	827	967	2220	2530	2790	---	3460	3740	1580	2710	---	631
7	---	---	2100	2560	2790	3030	3420	3680	1630	2970	3260	670
8	444	1070	1880	2560	2810	3090	3400	3650	1650	3170	3270	720
9	373	---	2260	2560	2800	3180	3460	1240	3170	3320	3260	762
10	400	1190	---	2610	2840	3160	3470	583	1750	3260	3260	---
11	393	1230	2160	2600	2860	3220	3460	1010	1780	3250	3300	856
12	406	1260	2140	2640	2880	3240	---	1110	1870	3250	3270	879
13	424	1370	2130	2640	2880	3260	3450	490	2110	3220	3140	---
14	467	1360	2190	2660	2880	3280	3440	408	1460	3240	3130	951
15	519	1370	2110	2670	2850	3260	3450	617	1610	3200	3270	987
16	617	1450	2120	2620	2840	3260	3440	446	2120	2760	---	1050
17	677	1470	2080	2700	2870	3290	3480	425	2290	2690	3470	1090
18	---	1480	2170	2700	2890	3330	3510	462	1930	2500	---	1140
19	711	1500	2180	2720	2870	3360	3530	499	---	2530	3980	1190
20	427	1570	2180	2680	2870	3370	3560	549	1770	2580	3270	---
21	306	1000	2230	2740	2940	3360	3580	615	1460	2580	2330	1280
22	267	1410	2260	2720	2960	3410	3620	657	1500	2660	2340	1260
23	260	1500	2300	2670	2960	3470	3630	726	1210	3400	1890	1380
24	411	1650	2320	2660	2900	3440	3630	811	1370	3150	1590	681
25	593	1620	2380	2650	2940	3440	---	894	1710	2900	1360	530
26	423	1770	2420	2630	2940	---	3640	954	1750	2990	1380	---
27	455	1790	2430	2630	2990	3450	3660	1070	1960	2880	---	262
28	498	1810	2450	2700	2960	3480	3800	1130	1860	2920	1650	311
29	533	1810	2480	2750	2950	3500	3570	1180	1850	2930	1810	633
30	610	1970	2480	3660	---	3490	3650	1210	1970	2970	620	909
31	685	---	2500	2740	---	3500	---	1230	---	3040	422	---
MONTH	718	1350	2170	2670	2860	3260	3530	1530	1740	2890	2640	808

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	24.5	14.5	19.0	12.0	22.5	---	28.0	27.0	31.0	30.0	30.0
2	28.0	25.0	---	19.5	12.0	20.5	21.0	27.0	27.5	31.0	29.0	29.5
3	27.0	23.5	12.5	---	10.5	18.5	23.5	28.0	27.0	31.0	30.0	---
4	25.0	22.0	11.5	13.5	10.0	22.5	24.0	26.0	27.0	31.0	29.5	31.5
5	---	22.0	11.5	12.0	12.0	20.0	23.0	25.5	28.0	28.0	31.5	30.0
6	23.5	22.0	12.0	12.0	13.0	---	24.0	25.0	27.0	29.0	---	30.0
7	---	---	13.0	12.5	12.0	22.0	26.0	25.0	27.0	31.0	29.0	30.0
8	24.0	20.0	16.0	13.5	12.0	20.0	26.5	26.0	27.0	28.0	31.0	29.0
9	23.0	---	18.0	13.5	10.5	18.5	26.0	25.5	26.0	31.0	30.0	29.0
10	22.0	20.0	---	14.5	12.5	20.0	24.5	23.0	27.0	29.0	29.0	---
11	22.5	20.0	15.0	16.0	13.0	21.0	27.0	24.0	28.0	30.0	30.5	30.0
12	22.0	20.0	16.5	16.5	13.5	21.0	---	22.0	27.5	30.0	28.0	28.5
13	22.5	19.0	15.5	17.0	15.0	21.5	27.0	24.0	28.5	29.0	31.0	---
14	23.0	21.0	18.5	15.0	16.0	21.5	27.0	23.0	30.0	29.0	29.5	28.0
15	24.0	21.0	18.0	13.0	18.0	24.0	28.0	24.0	29.0	29.0	29.5	28.0
16	24.0	21.5	18.5	11.5	17.0	23.0	27.0	25.0	29.5	28.0	---	30.5
17	24.5	23.0	17.0	12.5	18.0	24.0	25.0	24.0	29.0	27.0	28.5	30.5
18	---	21.0	15.5	15.0	18.0	23.5	27.0	25.0	30.0	29.0	---	29.0
19	25.0	19.5	16.0	15.5	17.5	21.5	29.0	25.5	---	30.0	29.0	29.5
20	26.0	19.0	17.0	17.0	19.0	23.0	27.0	26.5	29.5	29.0	28.5	---
21	24.0	18.0	17.0	17.0	20.0	24.0	26.0	27.0	30.0	28.0	29.5	30.0
22	24.0	18.0	16.0	17.0	20.0	24.0	26.0	26.0	32.0	31.0	30.5	28.5
23	23.5	16.5	15.5	18.0	21.0	23.0	25.0	26.0	30.0	29.0	30.5	27.5
24	23.5	16.5	15.5	16.5	21.5	24.5	27.0	28.0	31.0	30.0	31.0	24.5
25	23.5	16.0	16.5	16.5	23.0	24.5	---	28.0	32.0	29.0	31.0	26.5
26	23.0	17.0	17.5	16.0	21.0	---	25.0	27.0	31.5	31.0	31.0	---
27	24.0	17.0	19.5	18.0	21.0	26.0	25.5	27.0	31.0	29.5	---	24.0
28	24.5	17.0	20.5	17.5	20.5	26.5	24.0	28.0	31.0	29.0	29.0	25.5
29	25.0	17.5	21.0	15.0	21.5	23.5	25.5	28.0	32.0	29.5	29.5	29.0
30	25.0	16.0	20.5	12.0	---	19.5	26.5	28.0	31.0	30.5	29.5	---
31	24.5	---	19.5	11.0	---	20.0	---	26.5	---	31.5	29.0	---
MONTH	24.0	20.0	16.5	15.0	16.0	22.0	25.5	26.0	29.0	29.5	30.0	28.5

NUECES RIVER BASIN

735

08210000 NUECES RIVER NEAR THREE RIVERS, TEX.

LOCATION.--Lat 28°26'10", long 98°11'06", Live Oak County, at gaging station on downstream side of San Antonio, Uvalde and Gulf (Missouri Pacific) Railroad bridge, 0.2 mile downstream from Frio River, and 1.7 miles south of Three Rivers.

DRAINAGE AREA.--15,600 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1941 to September 1947, September 1950 to September 1952.

Chemical and biochemical analyses: January 1968 to September 1972.

Pesticide analyses: January 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED CAL- CIUM (CA) (MG/L)	DIS-SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS-SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	
NOV. 02...	0845	4340	11	63	7.2	--	29	--	184	0	
JAN. 04...	0900	278	12	140	26	--	140	--	252	0	
13...	0907	263	10	100	31	--	140	--	158	0	
FEB. 16...	0910	182	9.8	140	32	--	210	--	176	0	
MAR. 20...	1340	108	11	140	35	--	290	--	116	0	
21...	1600	100	10	260	42	--	440	--	188	0	
APR. 25...	1250	28	22	200	51	--	390	--	238	0	
MAY 03...	1200	31	18	190	50	--	430	--	230	0	
JULY 12...	0950	30	26	160	25	--	260	--	290	0	
12...	1435	30	24	150	31	--	280	--	246	0	
AUG. 07...	1517	71	20	72	12	--	130	--	160	0	
SEP. 07...	1115	250	14	54	13	--	40	--	171	0	
19...	1205	126	13	80	15	77	--	5.4	219	0	
DATE		DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	DIS-SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON-FILT- RABLE RESIDUE (MG/L)
NOV. 02...	33	44	.1	.17	.009	.00	.5	.11	280	85	
JAN. 04...	160	260	.2	.03	.000	.00	1.8	.055	856	52	
13...	180	260	.2	--	--	--	2.2	--	809	--	
FEB. 16...	220	380	.2	--	--	--	2.1	--	1090	--	
MAR. 20...	260	540	.2	--	--	--	.8	--	1340	--	
21...	300	940	.2	.27	.009	.08	.5	.088	2100	64	
APR. 25...	420	650	.3	--	--	--	.8	--	1860	--	
MAY 03...	400	720	.3	.57	.000	.00	.04	.28	1910	79	
JULY 12...	220	430	.3	.39	.000	.18	.2	.23	1270	40	
12...	230	460	.3	--	--	--	.4	--	1300	--	
AUG. 07...	110	190	.2	--	--	--	.7	--	617	--	
SEP. 07...	43	62	.1	--	--	--	.4	--	312	--	
19...	74	120	.2	.03	.008	.12	.2	.095	494	70	

NUECES RIVER BASIN

737

08210000 NUECES RIVER NEAR THREE RIVERS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)
NOV. 02...	0845	4340	.00	<.2	.00	.7	.01	2.3	.00	<.2
MAR. 21...	1600	100	.00	<.2	.00	<.2	.00	1.8	.00	<.2
MAY 03...	1200	31	.00	<.2	.00	<.2	.00	.6	.00	<.2
JULY 12...	0950	30	.00	<.2	.00	<.2	.00	.5	.00	<.2

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
NOV. 02...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAR. 21...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAY 03...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 12...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 02...	.0	<1.0	.01	.00	.00	.00	.00	.00	.00
MAR. 21...	.0	54	.00	.00	.00	.00	.00	.00	.00
MAY 03...	.0	42	.00	.00	.00	.00	.00	.00	.00
JULY 12...	.0	<1.0	.00	.00	.00	.00	.00	.00	.00

08211000 NUECES RIVER NEAR MATHIS, TEX.

LOCATION.--Lat 28°02'17", long 97°51'36", San Patricio County, at intake tower at Wesley E. Seale Dam, 0.6 mile upstream from gaging station at bridge on State Highway 359, and 4 miles southwest of Mathis.

DRAINAGE AREA.--16,660 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1972.

Chemical and biochemical analyses: October 1969 to September 1970.

Water temperatures: October 1947 to September 1964, October 1965 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
01-31	14900	13	36	2.9	17	--	5.0	124	0	15
NOV.										
01-30	1360	13	37	3.1	--	25	--	132	0	16
DEC.										
01-31	418	13	46	3.8	--	24	--	146	0	19
JAN.										
01-31	320	13	55	5.2	31	--	5.4	168	0	28
FEB.										
01-29	295	14	62	6.0	--	41	--	172	0	38
MAR.										
01-31	104	14	63	6.9	--	49	--	178	0	40
APR.										
01-30	138	14	70	7.7	47	--	6.0	181	0	46
MAY										
01-31	2520	14	74	8.5	--	61	--	176	0	56
JUNE										
01-30	256	14	74	8.8	--	65	--	160	0	62
JULY										
01-31	125	16	69	8.4	63	--	6.4	156	0	58
AUG.										
01-31	150	17	67	8.2	--	68	--	164	0	57
SEP.										
01-30	578	17	70	8.1	--	66	--	162	0	54
WTD. AVG.	--	13	44	4.0	--	--	--	135	0	23
TIME WTD.										
AVG.	1780	14	60	6.5	--	--	--	160	0	41
TOT. LOAD (TONS)	--	23500	76800	7060	--	--	--	238000	0	40600

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	253	---	342	413	517	555	622	653	778	730	719	719
2	255	293	340	422	519	554	619	666	779	733	724	724
3	256	292	348	422	521	577	624	658	758	727	722	727
4	255	296	346	412	531	565	624	665	756	745	722	717
5	257	295	343	433	517	566	614	669	764	727	719	758
6	255	299	346	446	527	571	619	665	767	728	719	729
7	257	301	345	441	523	568	621	657	764	726	719	734
8	256	298	370	456	536	561	634	669	775	728	722	727
9	259	307	372	463	536	578	634	664	767	728	720	724
10	265	309	359	442	539	579	635	671	766	725	719	729
11	276	308	355	443	531	577	638	658	761	728	722	727
12	329	329	353	449	552	577	636	678	764	724	719	732
13	424	333	359	447	532	576	636	693	749	726	721	728
14	354	330	372	451	532	573	634	693	752	729	723	757
15	373	317	364	457	535	581	634	706	752	729	723	725
16	354	315	363	465	535	587	648	675	735	724	723	725
17	346	314	364	474	540	609	648	691	735	729	718	722
18	316	322	378	472	540	596	643	748	755	726	721	724
19	298	328	370	464	544	590	645	748	740	726	723	727
20	267	341	422	478	545	593	641	798	747	726	722	727
21	249	340	374	478	545	595	650	815	779	721	724	724
22	225	338	376	484	553	598	654	801	743	724	722	731
23	274	331	399	466	549	595	648	801	731	722	724	720
24	276	346	384	512	546	589	650	782	724	716	722	720
25	267	327	369	523	559	598	652	784	735	717	724	727
26	271	330	374	521	548	593	659	773	737	717	726	722
27	278	328	388	516	560	595	648	804	735	720	724	717
28	280	345	389	516	563	598	659	790	735	722	724	727
29	280	352	397	516	556	609	656	779	735	720	722	727
30	286	337	400	509	---	619	654	782	727	718	725	779
31	286	---	397	513	---	620	---	782	---	718	722	---
MONTH	286	321	370	468	539	585	639	723	752	725	722	729

08211000 NUECES RIVER NEAR MATHIS, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 422 mg/l June 1-30; minimum, 170 mg/l Oct. 1-31.
 Hardness: Maximum, 220 mg/l May 1-31, June 1-30; minimum, 100 mg/l Oct. 1-31, Nov. 1-30.
 Specific conductance: Maximum daily, 815 micromhos May 21; minimum daily, 225 micromhos Oct. 22.
 Water temperatures: Maximum, 30.5°C Aug. 28, Sept. 1, 3, 4, 5; minimum, 13.0°C on several days during January and February.

EXTREMES, October 1947 to September 1972.--Dissolved solids: Maximum, 548 mg/l June 1-30, 1948; minimum, 120 mg/l Sept. 24-27, 1967.
 Hardness: Maximum, 220 mg/l May 1-31, June 1-30, 1972; minimum, 75 mg/l Sept. 24-27, 1967.
 Specific conductance: Maximum daily, 1,040 micromhos July 1, 1948; minimum daily, 216 micromhos Sept. 19, 1971.
 Water temperatures (1947-64, 1965-72): Maximum, 36.0°C Aug. 8, 1964; minimum, 3.0°C Jan. 19, 1968.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	20	.2	.06	170	100	0	.7	287	7.3
NOV. 01-30	24	.2	.3	185	100	0	1.1	320	7.6
DEC. 01-31	30	.2	.2	209	130	11	.9	369	6.9
JAN. 01-31	47	.2	.1	268	160	21	1.1	467	6.9
FEB. 01-29	62	.2	.07	308	180	38	1.3	539	8.0
MAR. 01-31	74	.1	.04	335	190	40	1.6	584	8.2
APR. 01-30	82	.1	.00	362	210	58	1.4	638	7.1
MAY 01-31	110	.2	.06	407	220	76	1.8	722	7.2
JUNE 01-30	120	.2	.4	422	220	90	1.9	753	7.2
JULY 01-31	110	.3	.2	410	210	78	1.9	724	7.9
AUG. 01-31	110	.1	.2	408	200	66	2.1	719	7.7
SEPT. 01-30	110	.2	.4	411	210	75	2.0	728	7.7
WTD. AVG. TIME WTD.	38	.2	.09	218	124	15	.9	375	7.3
AVG.	75	.2	.1	324	177	46	1.5	571	7.5
TOT. LOAD (TONS)	66300	351	164	384000	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	26.0	19.0	17.0	13.0	17.0	22.5	25.0	27.0	29.0	29.0	30.5
2	26.0	26.0	17.5	17.0	13.0	18.0	22.5	25.5	27.0	28.5	29.0	30.0
3	25.0	26.0	17.5	17.0	13.0	19.0	22.5	25.0	26.0	29.0	28.5	30.5
4	25.0	24.5	16.0	---	13.0	20.0	22.0	24.0	26.0	---	29.0	30.5
5	25.0	24.5	15.0	15.0	13.0	19.0	22.0	24.0	26.0	28.0	29.0	30.5
6	25.0	24.0	19.0	15.5	14.0	19.0	23.0	24.0	27.0	29.0	29.0	30.0
7	25.0	23.0	15.0	15.5	13.0	20.0	24.0	24.0	27.0	29.0	29.5	30.0
8	25.0	22.0	16.0	15.5	13.0	19.0	24.0	24.0	26.0	29.0	28.5	30.0
9	25.0	23.0	18.0	16.5	13.0	18.0	22.0	25.0	26.0	29.0	28.5	29.5
10	25.0	23.0	17.0	17.0	14.0	19.0	23.0	24.0	26.5	29.0	28.5	29.5
11	25.0	22.0	17.0	17.0	14.0	19.0	23.0	24.5	26.5	29.0	28.5	29.5
12	25.0	22.0	17.0	17.0	14.0	19.0	24.0	24.0	27.0	28.5	28.5	29.5
13	25.0	22.0	17.0	17.0	14.0	19.0	24.0	24.5	26.5	28.5	28.5	29.5
14	25.0	22.0	17.0	16.0	14.0	20.0	24.5	24.5	27.0	28.5	28.5	29.5
15	25.0	22.0	17.0	14.5	15.0	20.0	25.0	25.0	27.0	28.5	28.5	29.5
16	25.0	22.0	18.0	14.0	15.0	21.0	25.5	24.5	27.0	28.0	28.5	29.5
17	25.0	22.0	17.0	---	15.0	21.5	24.5	25.0	27.0	28.0	28.5	29.5
18	25.0	21.5	17.0	14.5	15.0	21.5	25.0	24.5	27.5	28.0	28.5	29.5
19	25.0	20.0	17.0	14.5	15.0	21.0	25.5	24.5	28.0	28.0	28.5	29.5
20	25.0	20.5	17.0	13.0	15.0	20.5	25.5	24.5	28.0	28.0	28.5	29.5
21	25.0	21.0	18.0	13.0	16.0	22.0	25.5	24.5	28.0	28.0	28.5	29.5
22	25.0	20.5	17.0	14.0	18.0	22.0	25.5	24.5	28.0	28.0	28.5	29.0
23	25.0	20.0	18.0	15.0	17.0	22.0	25.0	24.0	28.0	28.0	28.5	---
24	25.0	20.0	18.0	---	17.0	22.0	25.0	24.0	27.0	28.0	29.0	24.0
25	25.0	21.0	18.0	14.0	17.0	22.0	25.0	---	29.0	28.0	29.5	29.0
26	25.0	19.0	---	---	17.0	22.0	25.0	24.0	29.0	28.0	29.5	29.0
27	25.0	20.0	19.0	15.0	17.0	22.0	25.0	26.0	29.0	29.0	29.5	29.0
28	25.0	20.0	18.0	15.0	17.0	22.0	25.0	26.5	29.0	29.0	30.5	29.0
29	25.0	---	18.0	15.0	17.0	22.0	25.5	26.0	28.0	29.0	29.5	29.5
30	25.0	---	18.0	13.5	---	21.0	25.0	27.0	28.0	29.0	29.5	28.0
31	25.0	---	18.0	13.0	---	21.0	---	27.0	---	29.0	30.0	---
MONTH	25.0	22.0	17.5	15.0	15.0	20.5	24.0	25.0	27.5	28.5	29.0	29.5

NUECES RIVER BASIN

08211000 NUECES RIVER NEAR MATHIS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
JULY 12...	1200	132	29.0	0	1	0	0	8	0	.5	90
AUG. 08...	1035	136	27.5	0	2	0	0	5	0	.5	90
SEP. 20...	1120	108	29.0	0	1	0	0	<3	0	.8	90

DATE	TIME	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
NOV. 04...	1020	.00	<.2	.00	<.2	.01	2.6	.00	<.2	.00

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
NOV. 04...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 04...	.0	10	.00	.00	.00	.00	.02	.00	.00

OSO CREEK BASIN

741

08211520 OSO CREEK AT CORPUS CHRISTI, TEX.

LOCATION.--Lat 27°42'40", long 97°30'06", Nueces County, at bridge on Farm Road 763, 1.6 miles downstream from West Oso Creek, and 1.9 miles southwest of intersection of Farm Road 665 and State Highway 357, the city limits of Corpus Christi.

DRAINAGE AREA.--90.3 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: July 1972 to September 1972.
Pesticide analyses: July 1972 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	BROMIDE (BR) (MG/L)
JULY 27...	1455	24	320	32	1800	16	158	0	19	3400	.3	20
AUG. 31...	1430	21	1100	180	8900	48	164	0	190	16000	.3	--

DATE	IODIDE (I) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
JULY 27...	.760	.52	.15	.34	.4	1.2	4600	5690	188	930	800	26
AUG. 31...	--	.64	.000	.50	.01	.90	--	26700	--	3500	3300	66

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
JULY 27...	10400	7.5	34.0	75	4.3	62	42	4.7	10	40	0
AUG. 31...	44700	7.9	33.0	40	8.3	138	80	7.5	--	--	--

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
JULY 27...	0	0	7	30	0	320	130	.6	0	22000	120
AUG. 31...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
JULY 27...	1455	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
JULY 27...	.00	.0	.03	.00	.06	.19	.00	.00	.00

RIO GRANDE BASIN

08364000 RIO GRANDE AT EL PASO, TEX.

LOCATION.--Lat 31°48'10", long 106°32'25", at gaging station on the downstream side of the Courchesne Bridge, 5.6 miles upstream from the Santa Fe Street-Juarez Avenue bridge between El Paso, Texas, and Cd. Juarez, and 1.7 miles upstream from the American Dam.

DRAINAGE AREA.--29,267 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1930 to September 1972.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1971 to September 1972 given in International Boundary and Water Commission Water Bulletins 41 and 42.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.								
01-31	112	24	282	6.9	278	0	432	220
NOV.								
01-30	120	28	354	8.9	308	0	536	276
DEC.								
01-31	120	28	354	9.7	304	0	528	284
JAN.								
01-31	125	30	384	19	324	0	578	305
FEB.								
01-29	121	30	429	7.8	336	0	598	335
MAR.								
01-31	86	16	128	7.0	212	0	227	116
APR.								
01-30	95	18	156	7.4	240	0	284	128
MAY								
01-31	96	19	209	8.1	244	0	334	172
JUNE								
01-30	96	22	289	8.9	244	0	426	240
JULY								
01-31	81	14	138	7.5	228	0	223	112
AUG.								
01-31	79	13	130	7.0	208	0	218	105
SEP.								
01-30	100	17	247	9.0	236	0	372	202

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	.00	1210	1350	378	150	6.3	1920	7.5
NOV.								
01-30	.2	1480	1540	414	162	7.6	2270	7.9
DEC.								
01-31	.06	1470	1610	414	166	7.6	2310	7.8
JAN.								
01-31	.4	1600	1670	436	170	8.0	2450	7.7
FEB.								
01-29	.08	1690	1890	426	150	9.1	2600	7.8
MAR.								
01-31	.2	685	757	280	107	3.3	1120	7.5
APR.								
01-30	.2	807	840	311	114	3.9	1300	7.4
MAY								
01-31	.5	961	1010	318	118	5.1	1540	7.4
JUNE								
01-30	.3	1200	1260	330	130	6.9	1890	7.8
JULY								
01-31	.9	692	730	260	72	3.7	1120	8.1
AUG.								
01-31	1.0	659	688	250	80	3.6	1060	7.8
SEP.								
01-30	1.0	1070	1100	320	126	6.0	1720	7.9

RIO GRANDE BASIN

743

08370500 RIO GRANDE AT FORT QUITMAN, TEX.

LOCATION.--Lat 31°05'05", long 105°36'25", at gaging station on the rectified channel of the Rio Grande, 1.5 miles downstream from Old Fort Quitman and 81.1 river miles downstream from the American Dam at El Paso.

DRAINAGE AREA.--32,035 sq mi (United States and Mexico; from International Boundary and Water Commission Water Bulletin Number 31).

PERIOD OF RECORD.--Chemical analyses: February 1930 to September 1972.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1971 to September 1972 given in International Boundary and Water Commission Water Bulletin Numbers 41 and 42.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 01-31	475	150	1680	10	242	0	1580	2600
NOV. 01-30	150	38	484	7.5	198	0	510	640
DEC. 01-31	288	72	860	13	320	0	904	1210
FEB. 01-29	455	146	1570	14	254	0	1490	2460
MAR. 01-31	538	176	1820	16	252	0	1690	2980
APR. 01-30	578	198	2100	18	246	0	1900	3320
JUNE 01-30	385	119	1370	15	232	0	1320	1980
AUG. 01-31	198	50	690	10	212	0	654	980
SEP. 01-30	152	37	434	7.0	196	0	460	610

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH
OCT. 01-31	.2	6620	6990	1800	1600	17	10300	7.8
NOV. 01-30	1.2	1930	2080	530	368	9.1	3190	7.6
DEC. 01-31	3.3	3520	3690	1010	752	12	5600	8.0
FEB. 01-29	.1	6260	7310	1740	1530	16	9630	7.5
MAR. 01-31	.2	7350	8560	2070	1860	17	11300	7.8
APR. 01-30	.7	8240	9200	2260	2060	19	12600	7.4
JUNE 01-30	.6	5310	5590	1450	1260	16	8220	7.7
AUG. 01-31	2.2	2700	2760	700	526	11	4330	8.1
SEP. 01-30	1.6	1800	1800	531	370	8.2	3000	8.0

RIO GRANDE BASIN

08371500 RIO GRANDE ABOVE RIO CONCHOS NEAR PRESIDIO, TEX.

LOCATION.--Lat 29°37'15", long 104°28'50", at gaging station 7.8 river miles above the junction of the Rio Conchos, and about 10 miles northwest of the towns of Presidio, Texas and Ojinaga, Chihuahua, and 285.7 river miles below the American Dam at El Paso.

DRAINAGE AREA.--34,988 sq mi (United States and Mexico; from International Boundary and Water Commission Water Bulletin Number 31).

PERIOD OF RECORD.--Chemical analyses: February 1935 to September 1972.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1971 to September 1972 given in International Boundary and Water Commission Water Bulletin Numbers 41 and 42. Records prior to 1964 were published under the title "Rio Grande at Upper Presidio."

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NESIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 01-31	--	--	74	--	147	0	--	53
NOV. 01-30	--	--	602	--	208	0	--	810
DEC. 01-31	--	--	875	--	232	0	--	1050
JAN. 01-31	--	--	912	--	286	0	--	1260
FEB. 01-29	398	100	1060	15	256	0	1380	1470
MAY 01-31	--	--	63	--	166	0	--	35
JUNE 01-30	84	7.3	92	7.8	174	0	217	61
JULY 01-31	--	--	67	--	142	0	--	36
AUG. 01-31	--	--	74	--	156	0	--	47
SEP. 01-30	--	--	92	--	160	0	--	87

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	--	--	530	233	112	2.1	792	7.7
NOV. 01-30	--	--	2950	945	774	8.5	4240	7.4
DEC. 01-31	--	--	3740	1080	890	12	5670	7.5
JAN. 01-31	--	--	3830	1150	916	12	5810	7.8
FEB. 01-29	.2	4550	5000	1400	1190	12	6820	7.3
MAY 01-31	--	--	846	510	374	1.2	1180	7.1
JUNE 01-30	.08	556	583	240	97	2.6	883	7.3
JULY 01-31	--	--	567	268	152	1.8	833	7.4
AUG. 01-31	--	--	508	234	106	2.1	786	7.2
SEP. 01-30	--	--	560	230	99	2.6	898	7.8

RIO GRANDE BASIN

745

08375000 RIO GRANDE AT JOHNSON RANCH, TEX.

LOCATION.--Lat 29°02'05", long 103°23'30", Brewster County, at gaging station about 2 miles upstream from Johnson Ranch, 14 miles downstream from Castolon, and 392.9 river miles below the American Dam at El Paso.

DRAINAGE AREA.--70,715 sq mi (United States and Mexico; from International Boundary and Water Commission Water Bulletin Number 31).

PERIOD OF RECORD.--Chemical analyses: June 1947 to September 1972.

REMARKS.--Records of specific conductance and records of discharge for water year October 1971 to September 1972 given in International Boundary and Water Commission Water Bulletin Numbers 41 and 42.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.								
01-31	--	--	80	--	176	0	--	35
NOV.								
01-30	--	--	246	--	192	0	--	180
DEC.								
01-31	--	--	147	--	188	0	--	75
JAN.								
01-31	--	--	140	--	200	0	--	63
FEB.								
01-29	118	17	175	6.3	208	0	440	90
MAR.								
01-31	--	--	160	--	188	0	--	81
APR.								
01-30	--	--	167	--	166	0	--	80
MAY								
01-31	--	--	134	--	176	0	--	54
JUNE								
01-30	116	10	102	5.7	204	0	315	42
JULY								
01-31	--	--	121	--	210	0	--	44
AUG.								
01-31	--	--	91	--	202	0	--	34
SEP.								
01-30	--	--	97	--	176	0	--	39

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	--	--	582	304	160	2.0	909	7.5
NOV.								
01-30	--	--	1390	495	338	4.8	1930	7.6
DEC.								
01-31	--	--	871	316	162	3.6	1240	7.2
JAN.								
01-31	--	--	816	308	144	3.5	1190	7.3
FEB.								
01-29	.5	951	966	364	194	4.0	1410	7.3
MAR.								
01-31	--	--	994	328	174	3.8	1330	7.3
APR.								
01-30	--	--	964	324	188	4.0	1340	7.5
MAY								
01-31	--	--	798	318	174	3.3	1150	7.2
JUNE								
01-30	.8	694	736	330	164	2.4	1040	7.9
JULY								
01-31	--	--	796	346	174	2.8	1150	7.6
AUG.								
01-31	--	--	672	304	138	2.3	954	7.4
SEP.								
01-30	--	--	673	288	144	2.5	974	7.8

RIO GRANDE BASIN

747

08377500 RIO GRANDE AT LANGTRY, TEX.

LOCATION.--Lat 29°46'50", long 101°45'20", at gaging station at Langtry, 24.1 river miles above the confluence with the Pecos River, and 614.1 river miles below the American Dam at El Paso.

DRAINAGE AREA.--84,795 sq mi (United States and Mexico; from International Boundary and Water Commission Water Bulletin Number 31).

PERIOD OF RECORD.--Chemical analyses: April 1944 to September 1972.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1971 to September 1972 given in International Boundary and Water Commission Water Bulletin Numbers 41 and 42.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.								
01-31	101	8.0	48	3.5	192	0	193	19
NOV.								
01-30	90	15	116	4.9	178	0	280	76
DEC.								
01-31	94	15	117	4.8	200	0	298	59
JAN.								
01-31	96	16	131	5.0	202	0	334	60
FEB.								
01-29	93	18	128	5.1	200	0	318	67
MAR.								
01-31	93	18	130	5.9	184	0	333	71
APR.								
01-30	87	18	134	6.3	172	0	334	70
MAY								
01-31	91	14	114	6.1	188	0	279	60
JUNE								
01-30	98	10	88	5.4	200	0	248	36
JULY								
01-31	112	12	114	6.0	212	0	337	46
AUG.								
01-31	109	11	80	5.4	196	0	275	35
SEP.								
01-30	95	8.9	92	5.4	186	0	265	38

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	.8	470	488	285	128	1.2	729	7.9
NOV.								
01-30	.6	673	717	286	140	3.0	1070	7.3
DEC.								
01-31	.6	689	740	296	132	3.0	1080	7.3
JAN.								
01-31	.8	745	792	306	140	3.3	1100	7.3
FEB.								
01-29	.6	730	793	306	142	3.2	1110	7.3
MAR.								
01-31	.6	744	837	306	160	3.2	1160	7.4
APR.								
01-30	.9	738	817	291	150	3.4	1150	7.3
MAY								
01-31	.6	659	746	284	130	2.9	1050	7.2
JUNE								
01-30	1.9	592	609	286	122	2.3	900	7.7
JULY								
01-31	.9	735	785	329	156	2.7	1100	7.7
AUG.								
01-31	1.0	616	643	317	156	2.0	931	7.5
SEP.								
01-30	.8	599	634	274	121	2.4	924	7.6

08412500 PECOS RIVER NEAR ORLA, TEX.

LOCATION.--Lat 31°52'21", long 103°49'52", Reeves County, at gaging station at bridge on Farm Road 652, 5.5 miles downstream from Salt (Screwbean) Draw, 5.9 miles northeast of Orla, and 8.5 miles downstream from Red Bluff Reservoir.

DRAINAGE AREA.--21,210 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1937 to September 1972.
Water temperatures: March 1953 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (CO ₃) (MG/L)	CAR- BONATE (CO ₃) (SO ₄) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01-09	109	9.6	650	190	2100	--	41	146	0	2100
10...	758	7.5	290	22	--	230	--	82	0	730
11-31	40	9.6	650	190	2100	--	41	146	0	2100
NOV.										
01-30	24	8.8	710	270	--	3100	--	130	0	2600
DEC.										
01-31	18	9.4	720	280	--	3200	--	172	0	2500
JAN.										
01-31	15	7.5	690	280	3100	--	51	170	0	2700
FEB.										
01-29	14	6.8	720	300	--	3200	--	153	0	2600
MAR.										
01-31	12	5.2	740	310	--	3500	--	147	0	2700
APR.										
01-13	13	6.3	740	290	3600	--	82	150	0	2700
14-30	224	2.6	600	200	--	2500	--	130	0	2000
MAY										
01-31	52	2.5	660	250	--	2900	--	140	0	2100
JUNE										
01-30	47	2.3	660	260	--	2700	--	126	0	2200
JULY										
01-31	119	4.1	680	250	--	3000	--	118	0	2300
AUG.										
01-15	51	6.2	680	220	--	2700	--	108	0	2300
16...	227	10	340	50	--	630	--	104	0	920
17-23	135	6.2	680	220	--	2700	--	108	0	2300
24...	329	10	340	50	--	630	--	104	0	920
25-31	135	6.2	680	220	--	2700	--	108	0	2300
SEP.										
01-30	124	8.1	590	180	--	2300	--	114	0	1900
WTD. AVG.	--	5.7	630	214	--	2560	--	125	0	2100
TIME WTD.										
AVG.	62	6.2	677	251	--	2910	--	138	0	2350
TOT. LOAD (TONS)	--	347	38600	13100	--	140000	--	7670	0	129000

SPECIFIC CONDUCTANCE (MICROMHMS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972											
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	SEP
1	11400	15700	19500	18100	17300	17200	19100	13900	15700	15300	16900
2	11500	15800	14900	18000	17800	17500	19100	14100	15800	15300	16700
3	11500	15800	17600	17900	17900	17300	19400	14700	15900	15300	16700
4	11000	16000	18000	17600	18200	17300	19600	14700	15700	15400	16600
5	13000	16000	18000	17800	17600	17200	19400	14700	15700	15600	16500
6	12000	16000	18000	17500	16400	17000	19300	14700	15500	15400	16600
7	11600	16100	18500	17400	17600	17200	19300	14800	15500	15400	16600
8	11400	16300	19000	17300	17800	17000	19300	14900	15300	15400	16600
9	11200	16100	18600	18000	17800	17000	19300	16000	15400	15400	16700
10	2340	16500	18300	18100	17800	17200	19400	15000	15600	15400	16600
11	6050	17000	17100	17900	17900	18200	19300	15100	15900	15400	16500
12	8180	16900	17100	17600	17900	18700	19900	15000	18200	15400	16700
13	9710	17200	17400	17400	17400	18900	20000	15100	18600	15400	16500
14	11000	17500	17000	17400	17700	19100	14000	15200	16400	15400	16600
15	11700	17500	16900	16900	17900	19800	13500	15200	15800	15600	18800
16	12000	17500	17700	16900	17700	20400	14400	15100	15400	15600	3940
17	12200	17500	17200	16700	17600	20800	14200	15100	15100	15600	11300
18	12500	17500	17500	16600	17600	20700	14200	17100	15300	15700	13300
19	12900	17600	16600	16900	17500	20600	14100	19500	---	15700	15000
20	13100	17500	16700	17200	17500	20400	13900	18900	15300	15600	15100
21	12900	17300	16900	17200	17300	20300	13800	16600	15200	15800	15200
22	13500	17300	17400	17000	17300	20200	13800	17000	15200	29100	15300
23	14000	17500	17700	16700	17500	20200	13800	16600	15300	26400	12700
24	14400	17500	17600	16800	17500	20200	13700	22600	15200	23600	5150
25	14600	17500	17300	16800	17500	20000	13800	21700	15200	20100	9910
26	14700	17600	17400	16900	17600	20000	14100	19300	15200	17900	11900
27	15300	17800	17900	16600	17500	20200	13900	17500	15300	17000	14200
28	16000	17900	18200	16400	17200	20200	13800	16600	15300	16700	14800
29	16400	18100	18400	16600	17200	19800	13800	15800	15100	17900	14300
30	15900	18000	18300	16900	---	19900	13900	15400	15300	17200	11500
31	15900	---	18300	17000	---	19500	---	15500	---	17000	13500
MONTH	12250	17020	17650	17230	17570	19030	16300	16240	15670	17030	14470

08412500 PECOS RIVER NEAR ORLA, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Dissolved solids: Maximum, 13200 mg/l Apr. 1-13; minimum, 1,680 mg/l Oct. 10.

Hardness: Maximum, 3,100 mg/l Mar. 1-31; minimum, 820 mg/l Oct. 10.

Specific conductance: Maximum daily, 29,100 micromhos July 22; minimum daily, 2,340 micromhos Oct. 10.

Water temperatures: Maximum, 28.0°C June 22; minimum, 2.0°C Jan. 5, 6.

EXTREMES, July 1937 to September 1972.--Dissolved solids: Maximum, 15,700 mg/l Sept. 17-30, 1953; minimum, 1,090 mg/l June 1-2, 1948.

Hardness: Maximum, 3,450 mg/l July 1-31, Oct. 1-16, 1953; minimum, 602 mg/l June 1-2, 1948.

Specific conductance: Maximum daily, 29,100 micromhos Sept. 2, 1969, July 22, 1972; minimum daily, 1,610 micromhos June 2, 1948.

Water temperatures (1953-61, 1968-72): Maximum, 28.0°C June 22, 1972; minimum, 0.5°C Jan. 6, 1971.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

		DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- TENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)		
DATE												
OCT.												
	01-09	3400	--	--	8480	2400	2300	19	12600	7.2		
	10...	350	.3	.6	1680	820	750	3.5	2340	6.7		
	11-31	3400	--	--	8480	2400	2300	19	12600	7.2		
NOV.												
	01-30	4800	--	--	11500	2900	2800	25	17100	7.2		
DEC.												
	01-31	5000	--	--	11800	3000	2800	26	17600	7.0		
JAN.												
	01-31	4900	--	--	11800	2900	2700	25	17200	7.2		
FEB.												
	01-29	5000	--	--	11900	3000	2900	--	17700	7.8		
MAR.												
	01-31	5600	--	--	12900	3100	3000	--	19100	7.8		
APR.												
	01-13	5800	--	--	13200	3000	2900	28	19500	7.8		
	14-30	3900	--	--	9250	2300	2200	--	14000	7.7		
MAY												
	01-31	4600	--	--	10600	2700	2600	--	16300	8.1		
JUNE												
	01-30	4400	--	--	10300	2700	2600	--	15800	8.0		
JULY												
	01-31	4800	--	--	11200	2700	2600	--	17100	6.8		
AUG.												
	01-15	4200	--	--	10200	2600	2500	--	15300	7.3		
	16...	980	--	1.0	2990	1000	970	8.5	4500	7.6		
	17-23	4200	--	--	10200	2600	2500	--	15300	7.3		
	24...	980	--	1.0	2990	1000	970	8.5	4500	7.6		
	25-31	4200	--	--	10200	2600	2500	--	15300	7.3		
SEP.												
	01-30	3600	--	--	8570	2200	2100	--	13200	6.9		
WTD. AVG.		4020	--	--	9580	2440	2340	--	14500	7.3		
TIME WTD.												
	AVG.	4560	--	--	10800	2720	2600	--	16200	7.4		
TOT. LOAD (TONS)		247000	--	--	588000	--	--	--	--	--		
TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	18.0	10.0	9.5	6.5	14.5	14.5	18.0	20.0	25.5	26.0	24.0
2	20.5	16.0	8.0	8.5	6.5	14.0	16.5	18.0	23.5	26.0	25.0	24.0
3	18.5	15.0	8.0	9.5	5.5	15.0	19.5	19.0	23.5	26.5	24.0	23.5
4	19.5	13.5	7.0	4.0	4.5	14.0	19.5	21.0	23.0	24.5	25.0	24.0
5	20.0	19.0	7.0	2.0	6.0	14.0	17.0	21.0	22.0	24.0	24.5	24.0
6	19.0	15.0	6.5	2.0	8.5	13.5	19.5	21.0	23.0	24.0	25.5	23.5
7	19.0	13.0	8.0	6.5	8.5	16.0	19.5	20.0	23.0	24.0	25.0	23.5
8	20.0	11.5	6.5	6.5	6.5	17.0	19.5	18.0	21.0	24.0	24.0	23.5
9	19.0	13.0	8.0	8.5	8.0	15.0	21.0	22.0	23.5	23.5	25.0	24.0
10	16.5	12.0	6.5	8.5	8.0	17.0	21.5	21.0	25.0	23.5	25.0	23.5
11	16.5	13.0	6.5	8.0	8.5	17.0	23.0	21.0	21.5	23.5	24.5	23.5
12	20.0	15.0	8.0	8.0	8.0	19.0	21.5	21.0	24.0	24.0	25.0	---
13	19.5	14.5	7.0	8.0	8.0	18.0	---	22.0	24.0	23.5	24.5	24.0
14	19.5	14.0	8.0	6.5	8.5	18.5	18.0	21.0	24.5	24.0	25.5	24.0
15	20.0	14.5	7.0	4.5	9.5	18.0	17.0	20.0	24.5	24.0	25.5	23.5
16	20.0	15.0	9.0	4.0	8.5	19.0	18.0	22.0	25.0	24.0	20.0	24.0
17	21.5	15.0	8.0	4.5	10.0	16.5	16.5	23.0	24.0	24.0	24.5	24.0
18	20.0	12.0	6.5	6.0	12.0	16.5	16.5	21.0	25.0	25.0	24.5	23.5
19	18.0	10.5	6.5	7.0	12.0	17.0	17.0	22.0	---	24.5	25.5	25.0
20	15.5	9.5	8.0	8.5	13.0	16.5	18.0	21.0	25.0	24.0	25.0	26.0
21	15.5	12.0	8.5	9.5	13.0	16.5	19.0	22.0	26.0	24.0	25.5	24.0
22	16.0	13.0	9.0	9.5	13.5	17.0	18.5	23.0	24.0	25.0	26.0	20.5
23	16.0	11.0	8.0	10.0	13.5	20.0	16.0	23.0	26.5	24.5	24.0	19.5
24	16.5	10.0	9.5	10.5	15.0	20.0	18.0	21.0	26.5	24.5	24.0	21.0
25	18.0	10.5	10.0	9.5	14.0	19.5	18.0	22.0	27.0	24.0	24.5	22.0
26	18.0	11.5	11.0	9.0	13.5	20.0	18.0	22.0	26.0	24.5	24.0	21.5
27	14.5	10.5	11.5	10.5	13.5	18.5	18.0	22.0	26.0	24.5	24.5	23.0
28	15.0	11.5	11.5	11.0	12.0	20.0	18.0	23.0	21.5	24.0	24.5	23.5
29	17.0	11.5	12.0	10.5	13.5	14.5	18.5	21.0	26.0	26.5	24.0	23.0
30	18.5	11.0	10.5	9.0	---	14.5	18.5	21.0	25.0	26.0	23.5	21.0
31	16.0	---	9.5	7.0	---	13.0	---	19.0	---	26.5	24.0	---
MONTH	18.0	13.0	8.5	7.5	10.0	17.0	18.5	21.0	24.5	24.5	24.5	23.0

RIO GRANDE BASIN

08414000 PECOS RIVER NEAR MENTONE, TEX.

LOCATION.--Lat 31°40'07", long 103°37'34", Loving County, at bridge on State Highway 302, 3.0 miles southwest of Mentone.

DRAINAGE AREA.--21,650 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1972.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT. 19...	6900	26	1.5	590	130	1400	57	0	1800
NOV. 29...	1400	18	2.2	760	290	3200	116	0	2600
JAN. 10...	1510	17	3.6	640	290	3400	158	0	2700
FEB. 14...	1450	12	.8	760	300	3400	114	0	2800
MAR. 27...	1400	8.4	.0	790	340	4000	66	0	3100
MAY 01...	1540	248	.5	590	260	2500	120	0	2000
JUNE 05...	1400	44	.0	620	280	3000	56	0	2300
JULY 10...	1440	96	.0	650	270	3000	55	0	2300
AUG. 14...	1410	44	.8	670	310	3000	66	0	2400
SEP. 18...	1450	203	4.1	480	170	2000	100	0	1600

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 19...	2200	--	6140	2000	2000	14	9280	7.2	18.0
NOV. 29...	5100	--	12100	3100	3000	25	18000	7.5	11.0
JAN. 10...	5200	--	12300	2800	2700	--	18000	7.8	10.0
FEB. 14...	5200	--	12600	3100	3000	--	18200	7.8	10.0
MAR. 27...	6200	--	14500	3400	3300	--	21300	8.3	21.0
MAY 01...	4100	.2	9540	2600	2400	--	13800	7.7	21.0
JUNE 05...	4800	.08	11000	2700	2600	--	15700	7.3	23.0
JULY 10...	4800	.1	11000	2800	2700	--	15700	7.4	25.0
AUG. 14...	5000	.00	11400	3000	2900	--	16600	7.7	26.5
SEP. 18...	3200	.3	7560	1900	1800	--	11300	7.5	26.0

RIO GRANDE BASIN

751

08435600 PAISANO CREEK NEAR ALPINE, TEX.

LOCATION.--Lat 30°21'30", long 103°42'48", Brewster County, on right bank 200 ft upstream from bridge on Farm Road 1703 and 3.4 miles west of Alpine.

DRAINAGE AREA.--27.9 sq mi.

PERIOD OF RECORD.--Chemical analyses: May to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
MAY											
29...	1955	54	18	17	2.2	1.9	--	5.3	58	0	3.8
29...	2045	14	15	--	--	--	--	--	47	0	--
29...	2150	.26	14	--	--	--	--	--	44	0	--
30...	1030	84	18	22	2.0	2.9	--	5.8	76	0	4.0
30...	1100	52	18	--	--	--	--	--	64	0	--
30...	1240	12	16	--	--	--	--	--	54	0	--
JULY											
08...	1630	2.9	--	--	--	--	--	--	--	--	--
08...	1700	2.9	--	--	--	--	--	--	--	--	--
08...	1730	.01	10	8.8	1.3	1.6	--	5.8	30	0	2.2
12...	1600	.01	--	--	--	--	--	--	--	--	--
17...	1500	4.2	12	--	--	--	--	--	28	0	--
17...	1530	71	24	24	2.0	1.4	--	5.5	90	0	1.2
17...	1600	105	--	--	--	--	--	--	--	--	--
20...	1900	71	--	--	--	--	--	--	--	--	--
20...	2010	1.8	12	7.5	1.5	1.1	--	5.5	25	0	1.0
SEP.											
05...	1920	--	--	18	--	--	--	--	63	0	--
07...	0820	285	20	19	1.6	--	3.1	--	63	0	3.2
07...	1955	285	20	15	2.0	1.6	--	4.8	48	0	2.8
10...	1615	14	--	12	--	--	--	--	36	0	--
10...	1650	4.2	12	7.8	1.3	1.2	--	5.7	24	0	2.2

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
MAY										
29...	1.6	.4	1.0	84	51	4	.1	119	6.3	24.0
29...	1.7	--	--	--	39	0	--	106	6.3	15.0
29...	2.2	--	--	--	38	2	--	104	6.3	14.0
30...	1.3	.4	1.8	101	63	1	.2	158	6.7	15.0
30...	1.2	--	--	--	52	0	--	127	6.5	16.0
30...	1.7	--	--	--	42	0	--	115	6.5	17.0
JULY										
08...	--	--	--	--	--	--	--	98	--	18.0
08...	--	--	--	--	--	--	--	81	--	18.0
08...	.9	.3	.6	49	27	3	.1	70	6.3	18.0
12...	--	--	--	--	--	--	--	62	--	22.0
17...	.7	--	--	--	24	1	--	59	6.4	20.0
17...	.9	.3	.4	105	68	0	.1	151	6.7	20.0
17...	--	--	--	--	--	--	--	121	--	20.0
20...	--	--	--	--	--	--	--	109	--	18.0
20...	.7	.3	.6	44	25	4	.1	50	6.4	19.0
SEP.										
05...	--	--	--	--	--	--	--	117	8.0	16.0
07...	.9	.4	1.0	84	54	2	.2	127	7.8	16.5
07...	.8	.3	1.0	76	46	6	.1	99	7.5	16.5
10...	--	--	--	--	--	--	--	81	7.5	19.0
10...	1.2	.3	.9	48	25	5	.1	60	6.6	19.0

RIO GRANDE BASIN

753

08435660 WEST MOSS CREEK NEAR ALPINE, TEX.

LOCATION.--Lat 30°20'10", long 103°38'24", Brewster County, on right bank 0.3 mile upstream from State Highway 118 and 1.8 miles south of Alpine.

DRAINAGE AREA.--11.3 sq mi.

PERIOD OF RECORD.--Chemical analyses: May to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
MAY											
27...	1725	73	24	34	5.0	4.9	--	5.3	135	0	3.6
30...	1305	4.8	13	11	2.7	2.2	--	4.5	43	0	4.8
JULY											
08...	1620	21	--	--	--	--	--	--	--	--	--
08...	1700	26	18	14	2.8	3.2	--	6.5	52	0	3.6
08...	1730	29	--	--	--	--	--	--	--	--	--
13...	1445	156	--	--	--	--	--	--	--	--	--
13...	1520	73	--	--	--	--	--	--	--	--	--
13...	1650	9.0	--	--	--	--	--	--	--	--	--
17...	1605	12	--	--	--	--	--	--	--	--	--
17...	1640	4.8	17	9.0	2.6	2.3	--	4.8	35	0	.8
17...	1715	1.7	--	--	--	--	--	--	--	--	--
20...	1845	4.8	--	--	--	--	--	--	--	--	--
AUG.											
09...	1645	46	--	--	--	--	--	--	--	--	--
09...	1715	39	--	--	--	--	--	--	--	--	--
09...	1745	12	18	23	3.4	7.8	--	4.0	110	0	2.6
10...	1700	54	--	--	--	--	--	--	--	--	--
10...	1730	36	--	--	--	--	--	--	--	--	--
10...	1800	22	--	--	--	--	--	--	--	--	--
SEP.											
21...	1115	1.7	--	8.2	--	--	--	--	32	0	--
21...	1200	1.2	12	7.8	2.4	--	2.1	--	32	0	2.4

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
MAY										
27...	2.3	.3	.6	148	100	0	.2	232	6.7	15.0
30...	1.3	.2	.8	64	39	3	.2	88	6.2	--
JULY										
08...	--	--	--	--	--	--	--	128	--	19.0
08...	1.6	.2	1.1	81	46	4	.2	109	6.4	19.0
08...	--	--	--	--	--	--	--	107	--	19.0
13...	--	--	--	--	--	--	--	82	--	19.0
13...	--	--	--	--	--	--	--	74	--	20.0
13...	--	--	--	--	--	--	--	78	--	23.0
17...	--	--	--	--	--	--	--	81	--	21.0
17...	.7	.2	1.2	60	33	4	.2	72	6.7	22.0
17...	--	--	--	--	--	--	--	72	--	22.0
20...	--	--	--	--	--	--	--	81	--	22.0
AUG.										
09...	--	--	--	--	--	--	--	131	--	20.0
09...	--	--	--	--	--	--	--	137	--	20.0
09...	2.1	.3	.5	117	71	0	.4	181	6.7	23.0
10...	--	--	--	--	--	--	--	107	--	19.0
10...	--	--	--	--	--	--	--	101	--	19.0
10...	--	--	--	--	--	--	--	91	--	19.0
SEP.										
21...	--	--	--	--	--	--	--	74	7.2	18.0
21...	1.2	.2	.8	48	29	3	.2	71	6.8	18.0

RIO GRANDE BASIN

08446500 PECOS RIVER NEAR GIRVIN, TEX.

LOCATION.--Lat 31°06'40", long 102°25'00", Pecos County, on right bank 2.4 miles upstream from Comanche Creek, 2.6 miles northwest of Girvin, and 7.8 miles upstream from bridge on Highway 67.

DRAINAGE AREA.--29,560 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1939 to June 1941, October 1946 to September 1947, October 1953 to September 1972.

Pesticide analyses: October 1968 to September 1972.

Water temperatures: October 1953 to January 1959, March 1964 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 20...	44	.3	610	310	2500	--	38	60	0	2600
NOV. 13...	26	.8	700	390	--	3200	--	58	0	3200
DEC. 01...	25	.3	710	420	--	3400	--	72	0	3400
JAN. 12...	32	4.0	760	410	3400	--	45	154	0	3300
FEB. 16...	31	2.2	780	440	--	3700	--	162	0	3400
MAR. 28...	19	1.5	830	500	--	4200	--	78	0	3800
APR. 10...	16	.0	890	520	4200	--	54	68	0	4100
MAY 06...	216	23	120	10	--	76	--	164	0	210
JUNE 07...	20	.0	900	540	--	4100	--	72	16	3900
JULY 12...	8.7	2.4	800	450	--	3700	--	77	0	3600
AUG. 16...	38	1.0	1000	480	--	4500	--	64	0	4100
SEPT. 20...	36	.7	660	230	--	2500	--	59	0	2300

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16800	15900	18800	16700	20300	21000	22100	23600	19400	16400	22300	17200
2	14500	---	18600	17200	19900	21000	22000	24900	18200	18500	20000	18800
3	11300	16200	18600	17500	19900	---	22100	24800	19400	18800	19800	17900
4	9060	16200	18700	17800	19700	21200	---	24600	21800	19000	20200	17600
5	8090	16500	18900	18100	19300	21800	22100	25100	22200	19700	20400	16000
6	7600	16900	18700	18100	19700	21400	22100	1010	---	---	20200	---
7	7280	17100	18900	18200	19900	21600	22400	7220	22700	19000	20400	12700
8	---	17500	18800	18400	19900	21700	22400	11700	23500	19700	20800	11500
9	8390	17600	---	18700	19900	21400	21600	23200	23100	19700	20800	10700
10	9230	17600	18800	18600	20200	21400	22400	22000	23200	20100	22500	11100
11	10100	17800	18900	18700	20100	21500	22100	24000	12800	20300	---	9380
12	10600	18100	19000	18700	20400	21400	21100	24500	12800	19300	---	11000
13	10400	18400	19200	19100	20400	21400	21300	4640	12900	19500	24400	11400
14	11600	18200	19200	19400	20200	21300	20900	4800	12800	19500	24200	12900
15	12800	17600	18800	---	20400	21400	21000	14100	10900	20700	24200	15200
16	13200	17600	15400	19300	20300	21400	22400	20300	10900	20300	17900	15100
17	13500	17700	14800	19300	20400	21700	23000	20500	---	21100	21400	13500
18	14600	17700	14700	19400	20000	21500	22800	20600	13500	21300	21900	12800
19	14900	17700	14500	19400	20100	21900	21800	---	16200	20500	21800	13500
20	14400	17700	14500	---	---	21900	---	22000	17100	20500	22000	14000
21	14500	17800	14200	19400	20300	22100	22900	20800	14100	20500	20600	12700
22	14500	17700	---	19400	20500	21800	21700	21300	11300	20500	21900	12400
23	14600	17700	14400	19600	20500	21800	21700	20000	14700	20900	19600	12600
24	14700	18100	14500	19400	20300	21600	21400	20300	15400	---	19800	13000
25	14200	18100	14800	19600	20300	22100	24300	19900	15500	21600	20200	13000
26	14600	18200	15000	19600	20700	22200	24300	20100	16200	25600	20000	13500
27	15500	18400	15100	20000	20600	21700	24400	21300	16500	25200	19300	13900
28	15700	18200	15400	19800	20600	22200	23700	21600	17100	25200	19300	14800
29	16200	18500	15700	20200	20800	22900	24500	21300	17500	24100	20400	15400
30	16200	18800	16100	---	---	22500	24900	19700	17600	23500	22200	14600
31	15900	---	16500	20000	---	22700	---	18600	---	22700	20800	---
MONTH	12830	17640	16880	18910	20200	21720	22480	18950	16760	20820	21010	13730

08446500 PECOS RIVER NEAR GIRVIN, TEX.--Continued

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 25,600 micromhos July 26; minimum daily, 1,010 micromhos May 6.
Water temperatures: Maximum, 33.0°C June 21; minimum, 7.0°C Jan. 4.

EXTREMES, October 1939 to June 1941, October 1946 to September 1947, October 1953 to September 1972.--Dissolved solids (1960-70): Maximum, 29,400 mg/l Sept. 1-19, 1964; minimum, 1,410 mg/l Mar. 28-29, 1961.
Hardness (1960-70): Maximum, 7,150 mg/l Sept. 1-19, 1964; minimum, 330 mg/l May 18, 1957.
Specific conductance: Maximum daily, 38,900 micromhos Aug. 6, 1965; minimum daily, 790 micromhos Apr. 26, 1957.
Water temperatures (1953-59, 1964-68, 1970-72): Maximum, 34.0°C July 21, 1971; minimum, 3.0°C Feb. 3, 4, 1956.

REMARKS.--See Part 1 of this report for remarks on diversions and return flows.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
20...	3900	--	.03	10000	2800	2800	21	14600	6.8
NOV.									
13...	5000	--	--	12500	3400	3300	24	18400	6.6
DEC.									
01...	5300	--	--	13200	3500	3500	25	18800	6.8
JAN.									
12...	5400	--	.09	13300	3600	3500	25	19100	7.3
FEB.									
16...	5800	--	.08	14200	3700	3600	--	20300	8.0
MAR.									
28...	6500	--	.2	15800	4100	4100	--	22300	7.6
APR.									
10...	6500	--	.2	16200	4400	4300	28	22400	7.5
MAY									
06...	110	.2	1.8	639	350	210	1.8	1010	6.8
JUNE									
07...	6500	--	--	15900	4400	4400	--	22500	8.7
JULY									
12...	5700	--	--	14200	3800	3800	--	20000	7.1
AUG.									
16...	7100	--	--	17200	4600	4500	--	24100	7.5
SEP.									
20...	3900	--	--	9580	2600	2500	--	14300	7.0

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	24.0	9.0	16.0	11.0	22.0	20.0	20.0	28.0	31.0	29.0	29.0
2	26.0	---	12.0	17.0	11.0	17.0	20.0	20.0	24.0	32.0	28.0	29.0
3	27.0	19.0	13.0	14.0	11.0	---	25.0	25.0	28.0	31.0	28.0	26.0
4	22.0	20.0	12.0	7.0	14.0	22.0	---	24.0	28.0	29.0	28.0	25.0
5	24.0	20.0	15.0	8.0	16.0	26.0	24.0	23.0	27.0	26.0	29.0	28.0
6	25.0	18.0	12.0	15.0	15.0	20.0	25.0	27.0	---	---	30.0	---
7	25.0	16.0	13.0	17.0	14.0	21.0	27.0	24.0	26.0	28.0	30.0	31.0
8	---	18.0	13.0	15.0	15.0	17.0	25.0	25.0	28.0	28.0	29.0	29.0
9	24.0	19.0	---	17.0	15.0	20.0	24.0	27.0	28.0	29.0	26.0	31.0
10	24.0	19.0	12.0	17.0	11.0	20.0	23.0	23.0	27.0	28.0	27.0	29.0
11	24.0	19.0	12.0	15.0	12.0	21.0	25.0	23.0	28.0	29.0	---	29.0
12	22.0	20.0	12.0	16.0	17.0	22.0	25.0	28.0	31.0	28.0	---	28.0
13	24.0	16.0	12.0	12.0	15.0	22.0	23.0	16.0	30.0	27.0	27.0	27.0
14	24.0	20.0	13.0	11.0	15.0	23.0	25.0	16.0	27.0	28.0	31.0	29.0
15	27.0	20.0	20.0	---	16.0	23.0	21.0	25.0	26.0	27.0	27.0	29.0
16	25.0	19.0	18.0	21.0	16.0	24.0	21.0	28.0	28.0	25.0	26.0	29.0
17	27.0	18.0	14.0	11.0	19.0	23.0	25.0	27.0	---	30.0	26.0	28.0
18	22.0	19.0	11.0	17.0	19.0	22.0	24.0	27.0	29.0	28.0	28.0	27.0
19	22.0	15.0	15.0	14.0	19.0	20.0	22.0	---	30.0	27.0	29.0	27.0
20	22.0	12.0	10.0	---	---	24.0	---	30.0	32.0	29.0	30.0	29.0
21	23.0	16.0	11.0	13.0	22.0	24.0	23.0	24.0	33.0	29.0	29.0	25.0
22	23.0	15.0	---	15.0	21.0	23.0	22.0	27.0	29.0	30.0	31.0	24.0
23	24.0	16.0	15.0	12.0	21.0	25.0	24.0	28.0	32.0	29.0	29.0	25.0
24	21.0	16.0	15.0	15.0	20.0	22.0	25.0	28.0	32.0	---	29.0	26.0
25	23.0	15.0	15.0	22.0	21.0	22.0	24.0	25.0	28.0	29.0	29.0	27.0
26	21.0	16.0	18.0	19.0	23.0	20.0	26.0	27.0	32.0	29.0	29.0	26.0
27	22.0	17.0	17.0	17.0	20.0	24.0	25.0	29.0	31.0	30.0	30.0	27.0
28	23.0	16.0	20.0	14.0	26.0	20.0	25.0	27.0	32.0	30.0	29.0	28.0
29	22.0	15.0	19.0	15.0	23.0	19.0	25.0	25.0	31.0	30.0	29.0	28.0
30	23.0	12.0	19.0	---	---	16.0	26.0	26.0	31.0	29.0	29.0	25.0
31	23.0	---	16.0	10.0	---	23.0	---	26.0	---	31.0	30.0	---
MONTH	23.5	17.5	14.0	14.5	17.0	21.5	24.0	25.0	29.5	29.0	28.5	27.5

RIO GRANDE BASIN

08446500 PECOS RIVER NEAR GIRVIN, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
JUNE 06...	1110	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 16...	1300	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
JUNE 06...	.00	.0	.00	.00	.00	.00	.00	.00	.00
AUG. 16...	.00	.0	.00	.00	.00	.00	.00	.00	.00

RIO GRANDE BASIN

757

08447000 PECOS RIVER NEAR SHEFFIELD, TEX.

LOCATION.--Lat 30°39'34", long 101°46'11", Pecos County, at bridge on U.S. Highway 290, 3.5 miles southeast of Sheffield, and 4 miles upstream from Live Oak Creek.

DRAINAGE AREA.--31,600 sq mi, approximately (contributing area).

PERIOD OF RECORD.--Chemical analyses: November 1939 to June 1941, October 1946 to September 1947, October 1968 to September 1972.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	RICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 26...	1200	38	9.7	420	190	1600	196	0	1300	2700
DEC. 06...	1110	35	8.0	440	230	1800	196	0	1700	2900
JAN. 11...	1130	38	5.5	540	220	1900	192	0	1800	3000
FEB. 14...	1145	31	5.8	570	370	2400	208	0	2200	4000
MAR. 21...	1100	23	7.2	480	260	2100	181	0	1800	3400
APR. 24...	1140	14	13	330	180	1400	170	0	1200	2200
JUNE 01...	1330	24	10	220	130	860	124	0	770	1500
JULY 05...	1400	17	9.7	360	240	1700	99	0	1400	2800
AUG. 08...	1100	16	10	340	190	1500	152	0	1200	2500
SEP. 14...	1100	22	6.9	380	170	1700	110	0	1300	2700

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 26...	--	--	6350	1800	1700	16	10200	7.3	20.0
DEC. 06...	--	--	8770	2100	1900	17	11000	7.8	10.0
JAN. 11...	1.3	--	7550	2300	2100	17	11600	7.6	10.5
FEB. 14...	--	--	9560	3000	2800	19	14500	8.0	12.0
MAR. 21...	--	--	8100	2300	2100	--	12500	7.8	18.0
APR. 24...	--	6.4	5500	1600	1400	15	8640	8.1	22.0
JUNE 01...	--	.4	3520	1100	1000	11	5740	7.9	22.5
JULY 05...	--	.2	6560	1900	1800	--	10000	7.9	25.0
AUG. 08...	--	.4	5760	1600	1500	16	9140	7.7	26.5
SEP. 14...	--	.2	6370	1600	1600	18	9810	8.0	26.5

RIO GRANDE BASIN

08447410 PECOS RIVER NEAR LANGTRY, TEX.

LOCATION.--Lat 29°48'10", long 101°26'45", at gaging station 7.5 miles east of Langtry, Tex., 15.0 river miles upstream from its confluence with the Rio Grande, which is 638.2 river miles downstream from the American Dam at El Paso.

DRAINAGE AREA.--35,179 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1954 to September 1972.

REMARKS.--Records of specific conductance and records of discharge for water year October 1971 to September 1972 given in International Boundary and Water Commission Water Bulletin Numbers 41 and 42.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 01-31	132	50	325	5.2	212	0	310	548
NOV. 01-30	120	47	292	6.5	204	0	284	490
DEC. 01-31	130	52	330	5.9	214	0	320	550
JAN. 01-31	158	68	443	7.6	206	0	426	720
FEB. 01-29	156	66	454	7.5	200	0	424	740
MAR. 01-31	137	57	384	6.3	180	0	360	645
APR. 01-30	134	59	376	7.4	180	0	364	640
MAY 01-31	157	68	483	9.4	184	0	444	800
JUNE 01-30	123	54	344	6.2	178	0	328	580
JULY 01-31	114	49	324	5.9	166	0	312	538
AUG. 01-31	99	37	232	5.4	178	0	218	388
SEP. 01-30	142	57	414	8.3	180	0	368	700

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	1.0	1480	1640	535	362	6.1	2540	7.8
NOV. 01-30	1.2	1340	1570	493	326	5.7	2350	7.3
DEC. 01-31	1.2	1500	1610	538	363	6.2	2570	7.3
JAN. 01-31	1.6	1930	2220	674	504	7.4	3200	7.2
FEB. 01-29	1.1	1950	2210	660	496	7.7	3220	7.2
MAR. 01-31	1.0	1680	1950	576	429	7.0	2870	7.4
APR. 01-30	.03	1670	1930	577	430	6.8	2860	7.6
MAY 01-31	2.1	2060	2380	671	520	8.1	3480	7.3
JUNE 01-30	.7	1530	1600	529	383	6.5	2630	7.6
JULY 01-31	.7	1430	1620	486	350	6.4	2460	7.5
AUG. 01-31	1.1	1070	1210	399	253	5.1	1930	7.7
SEP. 01-30	1.0	1780	1840	589	442	7.4	3060	7.7

RIO GRANDE BASIN

759

08450900 RIO GRANDE BELOW AMISTAD DAM, NEAR DEL RIO, TEX.

LOCATION.--Lat 29°25'00", long 101°02'00", 2.2 river miles downstream from Amistad Dam.

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1972.

REMARKS.--The flow is controlled largely by releases from Amistad Reservoir. Records of mean daily discharge for water year October 1971 to September 1972 given in International Boundary and Water Commission Water Bulletins 41 and 42.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.								
01-31	100	12	73	2.4	162	0	184	88
NOV.								
01-30	87	11	69	3.2	174	0	160	72
DEC.								
01-31	85	10	64	3.3	176	0	150	66
JAN.								
01-31	79	12	68	3.7	174	0	155	70
FEB.								
01-29	80	12	71	3.6	176	0	157	74
MAR.								
01-31	79	12	77	4.0	178	0	164	78
APR.								
01-30	79	12	76	4.1	174	0	165	76
MAY								
01-31	78	12	75	4.1	170	0	162	76
JUNE								
01-30	83	12	75	3.8	180	0	163	76
JULY								
01-31	76	12	74	3.9	164	0	162	76
AUG.								
01-31	83	12	71	3.7	184	0	159	74
SEP.								
01-30	75	12	74	4.1	170	0	157	74

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	1.2	545	584	299	166	1.8	916	7.7
NOV.								
01-30	.7	491	534	262	120	1.9	814	7.6
DEC.								
01-31	.6	468	514	253	109	1.7	786	7.2
JAN.								
01-31	.5	476	514	246	104	1.9	785	7.1
FEB.								
01-29	.4	487	526	249	105	2.0	809	7.3
MAR.								
01-31	.3	503	579	246	100	2.1	850	7.4
APR.								
01-30	.9	502	544	246	104	2.1	832	7.2
MAY								
01-31	.8	495	543	244	104	2.1	830	7.5
JUNE								
01-30	.4	504	526	256	109	2.0	836	7.7
JULY								
01-31	.2	486	503	239	104	2.1	809	7.7
AUG.								
01-31	.6	496	520	256	106	1.9	834	8.1
SEP.								
01-30	.2	481	505	236	97	2.1	811	7.8

RIO GRANDE BASIN

08459000 RIO GRANDE AT LAREDO, TEX.

LOCATION.--Lat 27°29'50", long 99°29'40", at gaging station 0.9 mile downstream from the highway bridge between Laredo, Texas and Nuevo Laredo, Tamaulipas, and 890.8 river miles below the American Dam at El Paso.

DRAINAGE AREA.-- 135,976 sq mi (United States and Mexico; from International Boundary and Water Commission Water Bulletin Number 31).

PERIOD OF RECORD.--Chemical analyses: July 1955 to September 1972.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1971 to September 1972 given in International Boundary and Water Commission Water Bulletin Numbers 41 and 42.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.								
01-31	--	--	41	--	128	0	--	49
NOV.								
01-30	--	--	82	--	144	0	--	102
DEC.								
01-31	--	--	80	--	163	0	--	100
JAN.								
01-31	--	--	88	--	159	0	--	104
FEB.								
01-29	86	23	99	2.4	172	0	219	115
MAR.								
01-31	--	--	128	--	164	0	--	149
APR.								
01-30	--	--	122	--	172	0	--	140
MAY								
01-31	--	--	87	--	156	0	--	101
JUNE								
01-30	92	22	118	4.3	162	0	248	140
JULY								
01-31	--	--	112	--	168	0	--	122
AUG.								
01-31	--	--	43	--	164	0	--	50
SEP.								
01-30	--	--	54	--	163	0	--	59

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	--	--	306	166	61	1.4	540	7.7
NOV.								
01-30	--	--	584	248	130	2.3	896	7.1
DEC.								
01-31	--	--	610	284	150	2.1	929	7.2
JAN.								
01-31	--	--	653	300	170	2.2	949	7.4
FEB.								
01-29	1.0	634	700	309	168	2.4	1030	7.4
MAR.								
01-31	--	--	859	306	172	3.2	1240	7.4
APR.								
01-30	--	--	760	350	209	2.8	1220	7.3
MAY								
01-31	--	--	606	256	128	2.4	911	7.2
JUNE								
01-30	.3	706	716	320	187	2.9	1150	7.6
JULY								
01-31	--	--	714	302	164	2.8	1100	7.6
AUG.								
01-31	--	--	388	205	70	1.3	592	7.2
SEP.								
01-30	--	--	447	214	80	1.6	695	8.0

RIO GRANDE BASIN

761

08461300 RIO GRANDE BELOW FALCON DAM, TEX.

LOCATION.--Lat 26°33'25", long 99°10'05", U.S. Tailrace at Falcon Dam.

DRAINAGE AREA.--164,482 sq mi (United States and Mexico; from International Boundary and Water Commission Water Bulletin Number 31).

PERIOD OF RECORD.--Chemical analyses: July 1955 to September 1972.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1971 to September 1972 given in International Boundary and Water Commission Water Bulletin Numbers 41 and 42.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 01-31	56	10	48	3.8	130	0	103	51
NOV. 01-30	57	9.2	42	4.0	135	0	97	49
DEC. 01-31	62	10	46	3.8	145	0	106	52
JAN. 01-31	62	11	50	4.0	145	0	115	56
FEB. 01-29	66	12	60	3.8	154	0	127	63
MAR. 01-31	72	15	62	3.8	160	0	147	74
APR. 01-30	72	15	64	4.0	146	0	159	76
MAY 01-31	70	16	70	4.2	142	0	160	82
JUNE 01-30	70	16	73	4.0	141	0	169	83
AUG. 01-31	73	18	85	4.3	138	0	192	98
SEP. 01-30	71	19	89	4.5	128	0	200	103

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH
OCT. 01-31	.09	336	353	180	74	1.6	588	7.7
NOV. 01-30	.2	325	363	180	70	1.4	569	7.3
DEC. 01-31	.3	352	388	196	76	1.4	628	7.3
JAN. 01-31	.4	371	415	200	80	1.5	638	7.1
FEB. 01-29	.3	409	463	214	88	1.8	687	7.2
MAR. 01-31	.2	454	536	241	110	1.7	777	7.1
APR. 01-30	.2	463	518	241	122	1.8	778	7.4
MAY 01-31	.8	476	540	240	124	2.0	784	7.4
JUNE 01-30	.00	484	522	240	125	2.1	815	8.1
AUG. 01-31	.2	540	573	256	143	2.3	924	7.6
SEP. 01-30	.06	550	574	255	150	2.4	925	7.4

RIO GRANDE BASIN

08464700 RIO GRANDE AT FORT RINGGOLD, RIO GRANDE CITY, TEX.

LOCATION.--Lat 26°22'05", long 98°48'20", Starr County, at gaging station about one mile downstream from Rio Grande City, 3.9 miles below the mouth of the Rio San Juan, and 1,014.3 river miles below the American Dam at El Paso.

DRAINAGE AREA.--180,396 sq mi (United States and Mexico; from International Boundary and Water Commission Water Bulletin Number 31).

PERIOD OF RECORD.--Chemical analyses: January 1959 to September 1972.

REMARKS.--Records of specific conductance and daily samples and records of discharge for water year October 1971 to September 1972 given in International Boundary and Water Commission Water Bulletin Numbers 41 and 42.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.								
01-31	64	11	61	3.4	136	0	126	69
NOV.								
01-30	62	10	56	3.8	144	0	112	64
DEC.								
01-31	76	14	77	3.7	162	0	150	96
JAN.								
01-31	67	12	60	3.8	158	0	124	69
FEB.								
01-29	75	15	86	3.9	163	0	160	102
MAR.								
01-31	100	22	150	4.5	188	0	245	192
APR.								
01-30	75	16	70	4.1	157	0	164	84
MAY								
01-31	95	17	162	4.5	168	0	238	205
JUNE								
01-30	79	15	83	3.5	164	0	166	99
JULY								
01-31	75	17	92	3.4	152	0	178	112
AUG.								
01-31	78	19	101	4.0	156	0	197	122
SEP.								
01-30	73	15	71	4.1	152	0	160	82

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	.2	402	428	204	93	1.9	701	7.7
NOV.								
01-30	.2	380	423	196	78	1.7	665	7.3
DEC.								
01-31	.6	500	547	247	114	2.1	862	7.5
JAN.								
01-31	.3	415	463	216	87	1.8	705	7.7
FEB.								
01-29	.5	524	571	248	115	2.4	882	7.2
MAR.								
01-31	.6	809	920	340	186	3.5	1360	7.2
APR.								
01-30	.2	491	537	253	124	1.9	826	7.3
MAY								
01-31	.4	807	838	307	170	4.0	1360	7.0
JUNE								
01-30	.4	528	571	258	124	2.2	859	7.3
JULY								
01-31	.2	554	591	257	132	2.5	930	7.6
AUG.								
01-31	.2	599	628	272	144	2.7	1000	7.9
SEP.								
01-30	.08	481	500	244	119	2.0	807	7.5

RIO GRANDE BASIN

763

08469200 RIO GRANDE AT ANZALDUAS DAM, TEX.

LOCATION.--Lat 26°08'00", long 98°20'05", Hidalgo County, at gaging station 0.5 mile below Anzalduas Dam, 12.2 miles from Hidalgo, and 1,077.1 river miles below the American Dam at El Paso.

DRAINAGE AREA.--182,138 sq mi (United States and Mexico; from International Boundary and Water Commission Water Bulletin Number 31).

PERIOD OF RECORD.--Chemical analyses: March 1959 to September 1972.

Pesticide analyses: October 1968 to September 1972.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1971 to September 1972 given in International Boundary and Water Commission Water Bulletin Numbers 41 and 42.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.								
01-31	62	11	62	3.8	134	0	121	72
NOV.								
01-30	75	14	86	4.3	156	0	145	113
DEC.								
01-31	86	17	113	4.3	172	0	176	156
JAN.								
01-31	80	17	94	4.3	164	0	168	124
FEB.								
01-29	92	21	139	4.4	174	0	212	182
MAR.								
01-31	113	28	175	4.7	168	0	282	248
APR.								
01-30	74	17	97	4.4	140	0	182	124
MAY								
01-31	111	30	316	5.6	138	0	356	442
JUNE								
01-30	86	20	152	3.9	148	0	223	202
JULY								
01-31	80	20	131	3.7	148	0	213	167
AUG.								
01-31	91	25	146	4.3	154	0	238	205
SEP.								
01-30	68	16	87	4.3	127	0	176	105

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	1.1	403	413	200	90	1.9	697	7.3
NOV.								
01-30	.4	516	546	244	116	2.4	896	6.9
DEC.								
01-31	.7	641	705	284	144	2.9	1100	7.5
JAN.								
01-31	.7	572	641	270	135	2.5	957	7.3
FEB.								
01-29	.6	739	754	316	174	3.4	1250	7.5
MAR.								
01-31	.6	937	1080	397	260	3.8	1580	7.5
APR.								
01-30	.4	569	619	254	140	2.6	970	7.2
MAY								
01-31	.9	1330	1430	400	288	6.9	2260	7.2
JUNE								
01-30	.09	761	784	297	176	3.8	1280	7.6
JULY								
01-31	.4	690	702	282	160	3.4	1140	7.4
AUG.								
01-31	.3	787	830	330	204	3.5	1330	7.6
SEP.								
01-30	.4	520	554	236	132	2.5	892	7.7

RIO GRANDE BASIN

084692 RIO GRANDE AT ANZALDUAS DAM, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
OCT. 15...	1155	40000	.00	.00	.02	.00	.00	.00	.00	.00
NOV. 23...	1310	5000	.00	.00	.00	.00	.00	.00	.00	.00
FEB. 10...	1010	600	.00	.00	.00	.00	.00	.00	.00	.00
MAR. 31...	0950	300	.00	.00	.00	.00	.00	.00	.00	.00
JULY 10...	0845	2000	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE (UG/L)	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT. 15...	.00	.0	.00	.00	.00	.00	.00	.00	.00
NOV. 23...	.00	.0	.00	.00	.00	.00	.00	.00	.00
FEB. 10...	.00	.0	.01	.00	.00	.00	.00	.00	.00
MAR. 31...	.00	.0	.00	.00	.00	.00	.00	.00	.00
JULY 10...	.00	.0	.00	.00	.00	.00	.00	.00	.00

RIO GRANDE BASIN

765

08470200 NORTH FLOODWAY NEAR SEBASTIAN, TEX.

LOCATION.--Lat 26°18'51", Long 97°46'36", Cameron County, at International Boundary and Water Commission gaging station on U.S. Highway 77, approximately 2 miles south of Sebastian, Texas.

PERIOD OF RECORD.--Sediment records: February 1966 to September 1972.

REMARKS.--Records of discharge given in International Boundary and Water Commission Bulletin Number 41 and 42.

MONTHLY AND ANNUAL SUMMARY OF WATER AND SUSPENDED-SEDIMENT DISCHARGE

WATER YEAR, OCTOBER 1971 TO SEPTEMBER 1972

DATE	DISCHARGE (CFS-DAYS)	SUSPENDED SEDIMENT CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS)
OCT., 1971...	61721	536	89300
NOV.....	3974	252	2700
DEC.....	3262.8	246	2170
JAN., 1972...	3687.9	181	1800
FEB.....	3832	213	2200
MAR.....	6746	259	4710
APR.....	3878	200	2100
MAY.....	4602.6	219	2720
JUNE.....	18846.2	350	17900
JULY.....	3637.2	246	2420
AUG.....	2702	255	1860
SEP.....	3107.1	224	1880
TOTAL.....	119996.8	407	131760

RIO GRANDE BASIN

08470300 ARROYO COLORADO FLOODWAY AT EL FUSTE SIPHON, SOUTH OF MERCEDES, TEX.

LOCATION.-- Lat 26°07'45", long 97°54'45", at International Boundary and Water Commission gaging station, 50 feet above Mercedes Canal Fuste Siphon on Arroyo Colorado, 1.5 miles south of Mercedes, and approximately 1.4 miles downstream from Arroyo Colorado heading on the main floodway.

PERIOD OF RECORD.--Chemical analyses: November 1967 to February 1968.

Pesticide analyses: May 1968 to September 1972.

Sediment records: February 1966 to September 1971.

REMARKS.--Records of discharge given in International Boundary and Water Commission Bulletin No. 41 and 42.

WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN (UG/L)
FEB. 02...	1525	.00	<.2	.00	.5	.01	4.3	.00	<.2	.00
JUNE 06...	1400	.00	<.2	.00	<.2	.03	5.2	.00	<.2	.03
SFP. 07...	1300	.00	--	.01	--	.02	--	.00	--	.02

DATE	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE- POSITS (UG/KG)
FEB. 02...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 06...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
SFP. 07...	--	.00	--	.00	--	.00	--	.00	--

DATE	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
FEB. 02...	.0	<1.0	.01	.00	.00	.00	.00	.00	.00
JUNE 06...	.0	<1.0	.02	.00	.70	.18	.00	.00	.00
SEP. 07...	.0	--	.01	.00	.00	.00	.00	.02	.00

MONTHLY AND ANNUAL SUMMARY OF WATER AND SUSPENDED-SEDIMENT DISCHARGE

WATER YEAR, OCTOBER 1971 TO SEPTEMBER 1972

DATE	DISCHARGE (CFS-DAYS)	SUSPENDED SEDIMENT CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS)
OCT., 1971...	24880	261	17500
NOV.....	2921.8	114	900
DEC.....	2618.4	96	680
JAN., 1972...	3065.3	78	640
FEB.....	2572.1	71	490
MAR.....	5198.1	175	2450
APR.....	3098.5	143	1190
MAY.....	6654.3	181	3260
JUNE.....	10587.1	187	5340
JULY.....	4487	142	1720
AUG.....	3966	144	1550
SEP.....	2811	130	990
TOTAL.....	72859.6	187	36710

RIO GRANDE BASIN

767

08475000 RIO GRANDE NEAR BROWNSVILLE, TEX.

LOCATION.--Lat 25°52'35", long 97°27'15", Cameron County, at International Boundary and Water Commission gaging station, 1,000 feet downstream from El Jardin pumping plant, 6.8 river miles below International Bridge between Brownsville, Texas and Matamoros, Tamps., and 48.8 river miles above the Gulf of Mexico.

PERIOD OF RECORD.--Chemical analyses: October 1967 to January 1968.

Specific conductance: April 1967 to October 1969, October 1970 to September 1972.

Water temperatures: October 1966 to September 1969, October 1970 to September 1972.

Sediment records: February 1966 to September 1972.

EXTREMES, October 1971 to September 1972.--Specific conductance: Maximum daily, 4,130 micromhos May 29; minimum daily, 633 micromhos Oct. 16.

Water temperatures: Maximum, 32.0°C July 3, 4, 5; minimum, 14.0°C Feb. 4.

Sediment concentrations: Maximum daily, 1,300 mg/l Sept. 28; minimum daily, 16 mg/l Jan. 28.

Sediment loads: Maximum daily, 29,100 tons Oct. 11; minimum daily, 1.2 tons Jan. 22.

EXTREMES, February 1966 to September 1972.--Specific conductance (April 1967 to September 1969, October 1970 to September 1972): Maximum daily, 4,130 micromhos May 29, 1972; minimum daily, 337 micromhos Sept. 3, 1967.

Water temperatures (October 1966 to September 1969, October 1970 to September 1972): Maximum, 33.0°C on several days during August 1968; minimum, 8.0°C Jan. 10, 1967.

Sediment concentrations: Maximum daily, 3,560 mg/l Sept. 16, 1971; minimum daily, 4 mg/l Apr. 26, 1970.

Sediment loads: Maximum daily, 83,500 tons Sept. 16, 1971; minimum daily, 0.58 tons Apr. 30, 1970.

REMARKS.--Records of discharge given in International Boundary and Water Commission Water Bulletins Nos. 41 and 42.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	750	753	809	1290	1070	1430	1780	975	3090	1180	967	2100
2	750	825	929	1290	990	1410	1820	990	2830	1210	986	---
3	751	878	945	1240	967	1520	1880	1110	2400	1260	972	---
4	775	819	1070	1180	995	1520	1740	1180	2200	1310	995	---
5	800	776	1070	1150	1070	1570	1730	1070	1910	1330	---	1360
6	812	912	1080	1090	1160	1590	1760	1300	1940	1350	---	1120
7	819	916	1220	1050	1150	1800	1860	1510	2030	1380	1130	1060
8	788	916	1330	1150	1150	1860	1890	1470	1220	---	1190	1070
9	779	805	1390	1050	1300	1970	1920	1360	1380	---	1250	---
10	684	892	1430	1130	1300	1950	1930	1340	---	1280	1460	---
11	639	1010	1460	1160	1360	1590	1920	1400	---	1270	1350	1070
12	641	809	1460	1220	1340	1720	1900	1380	1210	1210	---	1040
13	645	855	1230	1270	1320	1910	2100	1710	1400	1310	---	1090
14	639	860	798	1310	1380	1660	2050	1770	1130	1320	1500	1090
15	639	878	757	1310	1240	1580	1990	1790	862	---	1460	1130
16	633	920	745	1370	1280	1300	1230	1540	889	---	1550	1100
17	640	1020	749	1330	1100	1250	1200	1720	1320	---	1790	1070
18	641	1120	771	1220	1130	1240	1160	1620	1500	1310	1770	1070
19	645	920	851	1360	1520	1220	1150	1680	1570	1330	---	1050
20	657	773	866	1470	1460	1300	1210	2410	1770	1410	---	1070
21	672	822	1160	1530	1380	1360	1300	2710	1710	1350	1780	1000
22	690	835	1110	1560	1220	1380	1340	2720	1610	---	1740	1040
23	704	860	1110	1630	1240	1500	1310	2670	1340	---	1800	---
24	704	1030	1110	1570	1330	1580	1140	3060	1080	1360	1800	1040
25	668	1090	1180	1250	1400	1660	990	2500	1030	1450	1900	972
26	681	1090	1200	1250	1470	1750	1000	2380	1050	1260	---	945
27	655	1010	1230	1230	1470	1770	985	2860	1070	1420	---	1010
28	666	862	1220	1200	1510	1780	980	3130	1080	1200	2050	690
29	689	746	1430	1070	1570	1750	947	4130	1100	1440	2090	1070
30	702	748	1270	1060	---	1740	980	4120	1130	1100	1970	1130
31	721	---	1250	1000	---	1770	---	3320	---	1010	2080	---
MONTH	699	892	1100	1260	1270	1590	1510	2030	1530	---	---	1100

08475000 RIO GRANDE NEAR BROWNSVILLE, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	26.5	22.0	24.5	15.5	24.0	22.0	23.5	29.5	30.0	30.0	31.0
2	28.0	26.5	20.5	24.5	16.0	23.5	23.0	27.0	29.5	30.0	30.0	---
3	29.0	26.5	15.5	24.0	15.5	21.0	24.0	26.5	29.5	32.0	30.0	---
4	29.0	26.5	25.5	24.0	14.0	23.5	25.5	26.5	28.5	32.0	30.5	---
5	28.0	24.5	26.5	18.0	15.5	25.0	26.0	26.5	29.5	32.0	29.5	30.5
6	28.0	26.0	18.0	16.0	15.5	23.5	26.0	27.0	29.5	31.0	---	30.0
7	27.0	23.5	19.0	17.0	20.0	24.0	26.5	24.0	29.5	31.0	---	30.0
8	27.0	23.0	20.5	18.5	15.0	24.5	28.0	26.5	29.0	---	30.0	30.5
9	27.0	24.0	20.5	20.0	15.5	24.0	26.5	27.0	29.5	---	30.0	---
10	26.0	23.5	21.0	21.0	18.5	24.0	27.0	28.5	---	31.0	30.0	---
11	25.0	23.5	23.5	21.5	19.5	24.0	28.0	29.0	---	31.0	30.0	30.5
12	25.0	23.0	25.5	21.5	18.5	24.0	23.5	29.5	23.5	31.5	---	31.0
13	25.5	24.0	23.0	23.5	19.5	24.0	23.5	24.0	24.0	30.5	---	31.0
14	26.0	24.5	23.5	23.5	20.0	23.5	28.0	26.5	23.5	31.0	---	31.0
15	26.5	24.0	23.5	18.5	21.5	23.5	28.0	29.5	23.5	---	31.0	31.0
16	27.0	24.0	23.5	15.0	24.0	24.0	29.5	29.0	24.0	---	30.0	31.0
17	28.0	25.0	23.5	17.0	20.0	23.5	29.5	28.5	25.0	---	31.0	30.5
18	28.0	25.5	17.0	17.0	21.0	24.0	29.0	28.5	24.0	30.5	31.0	30.5
19	28.0	23.0	19.5	17.0	21.0	24.5	29.5	28.5	24.0	31.0	---	30.5
20	28.0	23.0	20.5	21.0	20.5	25.0	28.5	24.0	24.0	30.0	---	30.5
21	26.5	22.0	20.5	22.0	20.0	25.0	28.5	23.5	25.0	30.5	31.0	31.0
22	26.5	23.0	21.0	23.0	21.0	26.5	26.5	24.0	24.5	---	31.0	30.0
23	26.0	24.0	21.0	24.0	22.0	26.0	28.5	24.0	25.0	---	31.0	---
24	26.5	20.5	21.0	24.5	24.0	26.0	27.0	23.5	24.0	30.0	30.5	30.0
25	26.5	23.5	21.0	25.0	23.0	26.5	27.0	24.5	25.5	29.5	30.5	30.0
26	26.5	24.0	21.5	18.0	24.5	26.5	27.0	24.0	25.5	29.5	---	30.0
27	26.5	24.0	22.0	24.0	24.0	26.5	26.5	28.0	25.5	30.0	---	30.0
28	26.5	23.0	23.0	24.0	24.0	28.0	25.5	29.5	29.0	29.5	31.0	29.5
29	26.5	24.5	24.0	22.0	25.0	28.0	26.5	29.5	28.5	30.0	31.0	30.0
30	26.5	24.5	24.0	24.0	---	25.5	23.0	29.5	29.0	29.5	31.0	29.5
31	31.0	---	24.5	18.5	---	22.0	---	29.5	---	29.5	30.5	---
MONTH	27.0	24.0	22.0	21.0	20.0	24.5	26.5	27.0	26.5	---	---	30.5

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	14800	466	18600	10700	513	14800	5090	93	1280
2	14500	349	13700	9920	442	11800	4460	123	1480
3	13800	316	11800	9910	381	10200	3780	195	1990
4	12500	242	8170	9740	509	13400	3120	194	1630
5	11100	384	11500	8430	348	7920	2910	247	1940
6	10800	436	12700	7860	390	8280	2940	155	1230
7	11400	594	18300	8050	391	8500	2940	127	1010
8	12400	820	27500	7550	400	8150	2810	324	2460
9	13200	767	27300	6880	337	6260	2700	309	2250
10	13600	780	28600	7330	382	7560	2770	249	1860
11	14000	769	29100	7520	487	9890	3390	210	1920
12	14500	570	22300	7200	342	6650	4570	293	3620
13	15100	524	21400	6840	337	6220	5490	323	4790
14	15400	503	20900	6520	300	5280	5970	334	5380
15	15600	562	23700	5680	303	4650	5970	297	4790
16	15800	435	18600	5220	330	4650	5810	279	4380
17	16000	427	18400	5340	288	4150	4940	255	3400
18	16100	330	16500	6350	280	4800	4060	147	1610
19	16200	405	17700	6930	613	11500	3720	86	864
20	16200	291	12700	6840	390	7200	3690	75	747
21	16100	438	19000	6170	238	3960	3690	69	687
22	15800	396	16900	5440	247	3630	3350	226	2040
23	15500	296	12400	5040	315	4290	2850	94	723
24	15300	473	19500	4690	195	2470	2600	68	477
25	15100	398	16200	4550	170	2090	2700	104	758
26	15100	459	18700	5060	138	1890	3040	90	739
27	15100	371	15100	6070	334	5470	3110	85	714
28	15000	361	14600	6930	391	7320	3040	94	772
29	14700	300	11900	6390	205	3540	2630	53	376
30	14000	301	11400	5590	144	2170	2270	63	386
31	12600	288	9800	---	---	---	2060	83	462
TOTAL	447300	--	544970	206740	--	198690	112470	--	56765

08475000 RIO GRANDE NEAR BROWNSVILLE, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2150	59	342	1220	134	441	300	47	38
2	2610	52	366	1550	144	603	345	107	100
3	2930	78	617	1420	156	598	252	50	34
4	2880	87	677	829	203	454	194	51	27
5	2520	101	687	282	61	46	169	49	22
6	2140	124	716	171	61	28	213	55	32
7	1720	116	539	553	55	82	614	54	90
8	1590	97	416	568	46	71	708	85	162
9	1350	45	346	338	52	47	587	192	304
10	1130	109	333	173	41	19	510	24	33
11	899	108	262	151	40	16	969	32	84
12	592	43	69	128	116	40	1300	108	379
13	254	31	21	94	106	27	1550	96	402
14	173	32	15	130	45	16	1870	131	661
15	124	42	14	869	88	206	1990	178	956
16	144	20	7.8	1330	102	366	1810	164	801
17	599	48	78	1230	167	555	1130	109	333
18	632	44	75	975	108	284	708	165	315
19	408	58	64	731	34	67	690	84	156
20	70	31	5.9	533	55	79	674	62	113
21	25	37	2.5	489	40	53	619	55	92
22	14	31	1.2	482	38	49	509	62	85
23	13	44	1.5	357	43	41	344	134	124
24	32	59	5.1	214	30	18	275	71	53
25	128	72	25	131	43	15	305	85	70
26	124	50	17	83	32	7.2	312	45	38
27	109	43	13	62	53	8.9	304	38	31
28	149	16	6.4	53	45	6.4	306	54	45
29	190	44	23	71	38	7.3	222	52	31
30	208	64	36	--	--	--	126	52	18
31	563	49	74	--	--	--	86	50	12
TOTAL	26470	--	5855.4	15221	--	4250.8	19991	--	5641
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	79	49	10	1600	601	2600	621	35	59
2	113	47	14	890	222	534	606	136	223
3	155	44	18	696	126	237	560	70	106
4	223	59	36	769	80	166	598	52	84
5	246	64	43	1170	194	613	432	88	103
6	172	55	26	1160	270	846	50	134	18
7	105	70	20	708	293	560	11	138	4.1
8	81	60	13	536	93	135	15	67	2.7
9	77	51	11	372	172	173	683	400	738
10	415	72	81	223	93	56	1200	600	1940
11	404	49	53	311	56	47	1830	575	2840
12	180	48	23	560	55	83	2920	550	4340
13	167	68	31	894	38	92	2980	530	4260
14	286	55	42	1120	130	393	2750	550	4080
15	447	62	75	1020	386	1060	2770	1170	8750
16	87	77	18	908	110	270	3030	810	6630
17	36	72	7.0	851	148	340	2980	475	3820
18	36	66	6.4	844	69	157	2940	420	3330
19	25	68	4.6	748	94	190	3240	410	3590
20	14	67	2.5	747	120	242	3590	430	4170
21	12	75	2.4	682	57	105	3810	460	4730
22	13	63	2.2	672	78	142	3910	450	4750
23	29	59	4.6	508	362	497	3940	470	5000
24	89	66	16	606	69	113	4060	610	6690
25	502	56	76	1160	73	229	4150	560	6270
26	380	62	64	1390	68	255	4180	460	5190
27	127	59	20	1080	101	295	4080	420	4630
28	415	67	75	700	79	149	4000	390	4210
29	1000	146	394	502	81	110	3530	360	3430
30	1740	523	2460	491	25	33	2890	370	2890
31	--	--	--	620	68	114	--	--	--
TOTAL	7655	--	3648.7	24538	--	10836	72356	--	96877.8

RIO GRANDE BASIN

08475000 RIO GRANDE NEAR BROWNSVILLE, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2250	410	2490	2310	235	1470	50	45	6.1
2	1520	440	1810	2000	220	1190	51	50	6.9
3	1150	251	779	1580	220	939	54	50	7.3
4	1120	154	466	1230	148	492	135	200	73
5	1030	134	373	1040	130	365	908	390	956
6	928	124	311	963	120	312	970	340	890
7	720	81	157	889	115	276	602	160	260
8	445	85	102	852	175	403	276	96	72
9	541	95	139	823	93	207	401	80	87
10	777	103	216	676	43	78	399	75	81
11	862	144	335	421	35	40	197	74	39
12	609	81	133	245	40	26	417	74	83
13	358	49	47	197	50	27	217	82	48
14	287	52	40	461	150	187	123	63	21
15	445	60	72	668	106	191	137	61	23
16	691	70	131	539	62	90	943	250	637
17	819	75	166	214	109	63	1420	350	1340
18	611	86	142	134	54	20	1320	300	1070
19	300	71	58	114	50	15	1330	308	1110
20	149	57	23	128	40	14	1100	265	787
21	85	30	6.9	138	37	14	842	145	330
22	103	40	11	121	56	18	739	115	229
23	109	50	15	129	17	5.9	1600	200	864
24	639	300	518	101	84	23	2540	500	3430
25	1640	670	2970	75	80	16	3060	630	5210
26	2010	710	3850	69	75	14	3480	600	5640
27	2020	470	2560	64	70	12	4720	1220	15500
28	2110	375	2140	60	67	11	5110	1300	17900
29	2480	416	2790	60	61	9.9	5420	1080	15800
30	2600	390	2740	58	69	11	6200	1100	18400
31	2510	310	2100	53	44	6.3	--	--	--
TOTAL	31918	--	27690.9	16412	--	6546.1	44761	--	90900.3
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)									1025832
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)									1052672.0

RIO GRANDE BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE RIO GRANDE BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1971 TO SEPTEMBER 1972

08431700 LIMPIA CREEK ABOVE FORT DAVIS, TEX. (Lat 30°36'55", long 104°00'10")

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	ATCAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
JULY										
13...	1235	26	31	16	2.6	7.8	3.3	50	0	22
20...	1410	53	27	15	2.4	7.0	3.0	43	0	20
AUG.										
10...	1600	3.3	28	20	3.3	8.1	3.1	66	0	20
SEP.										
22...	1145	27	33	19	3.2	7.7	3.4	64	0	18
DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- TUNTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JULY										
13...	3.8	.4	.2	113	51	10	.5	143	6.5	24.0
20...	3.6	.4	.2	100	47	12	.4	131	6.5	28.5
AUG.										
10...	4.5	.4	.08	120	63	9	.4	170	7.3	25.5
SEP.										
22...	4.0	.4	.3	121	61	8	.4	159	7.2	16.0

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