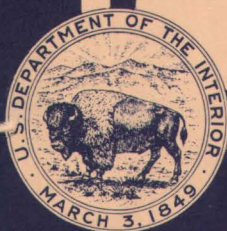
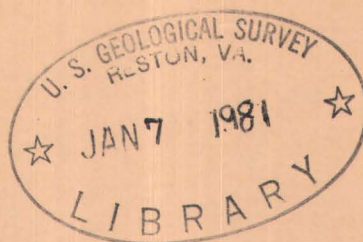


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Water Resources Data for Texas

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 1971

OCTOBER 1970

S	M	T	W	T	F	S
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AUGUST 1971

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1971

Water Resources Data

for

Texas

Part 2. Water Quality Records



UNITED STATES
DEPARTMENT OF THE INTERIOR
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FOR WHICH RECORDS ARE PUBLISHED

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WATER RESOURCES DATA FOR TEXAS, 1971

Part 2. Water Quality Records

INTRODUCTION

Water resources data for the 1971 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 Red Bluff Water Power Control District, the Sabine River Authority, 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 ⁺¹05544	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 is 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 epoxide 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 O,O-dimethyl O-p-nitrophenyl phosphorothioate.

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

Parathion O,O-diethyl O-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 chlorinate 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 indentation, each indentation 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). One sample can define adequately the

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.

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 AGUA 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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
DEC. 29...	1410	.37	26	25	31	56	243	5	56
JAN. 19...	1330	5.4	27	34	29	50	280	0	46
APR. 22...	1200	.49	56	32	61	220	568	39	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 CONSTIT- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICHO- MHOS)	PH (UNITS)
DEC. 29...	24	4.2	.20	347	190	0	1.8	571	8.3
JAN. 19...	20	3.0	.20	348	200	0	1.5	574	8.2
APR. 22...	94	4.6	.40	923	330	0	5.3	1460	8.5

ARKANSAS RIVER BASIN

07227470 CANADIAN RIVER NEAR 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 1971.

Biochemical analyses: October 1968 to September 1971.

Water temperatures: October 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	20	11	69	43	570	--	5.5	200	0	370
16...	136	8.7	39	18	--	300	--	199	0	190
17-19	136	11	69	43	570	--	5.5	200	0	370
20-22	160	8.7	39	18	--	300	--	199	0	190
23-31	66	11	69	43	570	--	5.5	200	0	370
NOV.										
01-30	21	13	74	48	--	660	--	192	0	400
DEC.										
01-31	13	13	92	51	--	550	--	228	0	450
JAN.										
01...	23	10	71	37	440	--	5.8	186	0	340
02-06	12	11	86	50	--	710	--	208	0	400
07-15	20	10	71	37	440	--	5.8	186	0	340
16-31	27	11	86	50	--	710	--	208	0	400
FEB.										
01-24	19	11	82	47	--	640	--	212	0	380
25-26	72	11	50	24	--	310	--	224	0	200
27-28	34	11	82	47	--	640	--	212	0	380
MAR.										
01-02	32	12	82	54	--	720	--	220	0	480
03...	25	11	96	70	--	1200	--	180	0	520
04-31	8.8	12	82	54	--	720	--	220	0	480
APR.										
01-04	.00	--	--	--	--	--	--	--	--	--
05-08	1.6	11	74	49	--	630	--	224	0	470
09-14	.00	--	--	--	--	--	--	--	--	--
15-16	193	12	34	12	--	200	--	208	0	140
17-30	33	11	74	49	--	630	--	224	0	470
MAY										
01-20	2.1	19	100	68	--	800	--	208	0	690
21-28	.00	--	--	--	--	--	--	--	--	--
29-31	2290	17	58	15	--	200	--	228	0	170
JUNE										
01-02	762	9.6	44	15	--	170	--	168	8	120
03-11	203	11	76	38	--	500	--	188	0	360
12-14	1420	9.6	44	15	--	170	--	168	8	120
15-30	281	11	58	23	--	320	--	204	0	270
JULY										
01-14	946	10	41	14	160	--	4.4	186	0	160
15-22	102	11	52	27	290	--	7.1	196	0	260
23-27	1330	10	41	14	160	--	4.4	186	0	160
28...	3800	10	21	6.8	68	--	3.1	145	0	46
29...	102	10	41	14	160	--	4.4	186	0	160
30-31	250	11	52	27	290	--	7.1	196	0	260
AUG.										
01-16	721	10	40	15	--	150	--	230	4	150
17...	2530	12	20	7.3	--	72	--	174	0	46
18-31	559	10	40	15	--	150	--	230	4	150
SEP.										
01-06	215	8.0	42	18	--	220	--	200	4	200
07-17	16	11	52	35	--	370	--	212	4	290
18...	63	9.0	24	8.8	--	130	--	158	0	88
19-21	26	11	52	35	--	370	--	212	4	290
22-23	354	9.0	24	8.8	--	130	--	158	0	88
24-30	302	8.0	42	18	--	220	--	200	4	200
WTD. AVG.	--	11	45	17	--	--	--	200	2	175
TIME WTD.										
AVG.	208	12	68	39	--	--	--	207	1	357
TOT. LOAD (TONS)	--	2210	9190	3560	--	--	--	41100	374	35900

ARKANSAS RIVER BASIN

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07227470 CANADIAN RIVER NEAR TASCOSA, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 3,780 mg/l Mar. 3; minimum, 276 mg/l July 28.
 Hardness: Maximum, 530 mg/l Mar. 3, May 1-20; minimum, 80 mg/l July 28, Aug. 17.
 Specific conductance: Maximum daily, 6,520 micromhos Mar. 3; minimum daily, 432 micromhos Aug. 17.
 Water temperatures: Maximum, 31.0°C June 18, 22; minimum, freezing point Jan. 3, Mar. 2.

EXTREMES, October 1968 to September 1971.--Dissolved solids: Maximum, 3,780 mg/l Mar. 3, 1971; minimum, 276 mg/l July 28, 1971.
 Hardness: Maximum, 530 mg/l Mar. 3, May 1-20, 1971; minimum, 77 mg/l Aug. 21, 1970.
 Specific conductance: Maximum daily, 6,520 micromhos Mar. 3, 1971; minimum daily, 432 micromhos Aug. 17, 1971.
 Water temperatures: Maximum, 35.0°C Aug. 5, 1969; 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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-15	740	.5	.3	1910	350	190	13	3230	7.9
16...	320	.5	1.1	979	170	8	10	1710	8.0
17-19	740	.5	.3	1910	350	180	13	3230	7.9
20-22	320	.5	1.1	979	170	8	10	1710	8.0
23-31	740	.5	.3	1910	350	180	13	3230	7.9
NOV.									
01-30	870	.7	.4	2160	380	220	15	3610	7.9
DEC.									
01-31	700	--	.4	1970	440	250	11	3860	7.8
JAN.									
01...	580	.4	.2	1570	330	180	11	2660	7.9
02-06	970	--	.2	2330	420	250	15	3900	7.8
07-15	580	.4	.2	1570	330	180	11	2660	7.9
16-31	970	--	.2	2330	420	250	15	3900	7.8
FEB.									
01-24	860	--	.5	2120	400	220	14	3600	7.8
25-26	360	.7	.9	1060	220	40	9.0	1830	7.9
27-28	860	--	.5	2120	400	220	14	3360	7.8
MAR.									
01-02	940	--	.2	2400	430	250	15	3990	7.7
03...	1800	--	.00	3780	530	380	23	6520	7.8
04-31	940	--	.2	2400	430	250	15	3990	7.7
APR.									
01-04	--	--	--	--	--	--	--	--	--
05-08	770	--	1.1	2120	390	200	14	3430	8.0
09-14	--	--	--	--	--	--	--	--	--
15-16	180	.5	2.3	684	130	0	7.5	1110	7.8
17-30	770	--	1.1	2120	390	200	14	3430	8.0
MAY									
01-20	970	--	.1	2800	530	360	15	4370	7.1
21-28	--	--	--	--	--	--	--	--	--
29-31	190	.8	.4	760	210	19	6.1	1230	7.9
JUNE									
01-02	180	.5	1.4	640	170	20	5.6	1100	8.4
03-11	630	--	.2	1710	350	190	12	2860	7.9
12-14	180	.5	1.4	640	170	20	5.6	1100	8.4
15-30	350	--	2.6	1140	240	72	9.2	1930	7.8
JULY									
01-14	130	.5	.9	614	160	8	5.5	1020	8.0
15-22	320	.5	.6	1070	240	80	8.3	1810	8.0
23-27	130	.5	.9	614	160	8	5.5	1020	8.0
28...	41	.4	2.0	276	80	0	3.3	455	8.1
29...	130	.5	.9	614	160	8	5.5	1020	8.0
30-31	320	.5	.6	1070	240	80	8.3	1810	8.0
AUG.									
01-16	100	.6	.9	587	160	0	5.2	966	8.3
17...	28	.4	1.7	279	80	0	3.5	432	8.0
18-31	100	.6	.9	587	160	0	5.2	966	8.3
SEP.									
01-06	190	.5	.6	783	180	10	7.1	1330	8.3
07-17	420	.6	.3	1290	270	94	9.8	2230	8.3
18...	110	.4	1.3	460	96	0	5.9	792	7.7
19-21	420	.6	.3	1290	270	94	9.8	2230	8.3
22-23	110	.4	1.3	460	96	0	5.9	792	7.7
24-30	190	.5	.6	783	180	10	7.1	1330	8.3
WTD. AVG.	197	--	1.0	757	183	29	6.4	1260	8.1
TIME WTD.									
AVG.	618	--	.6	1700	333	164	11	2880	7.9
TOT. LOAD (TONS)	40500	--	210	155000	--	--	--	--	--

ARKANSAS RIVER BASIN

07227470 CANADIAN RIVER NEAR TASCOSA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
14...	1225	19	15	82	49	--	700	--	232	12	370	950
DEC.												
08...	1615	8.3	12	88	44	--	650	--	275	6	400	830
JAN.												
06...	1550	5.0	1.0	150	73	--	860	--	452	0	590	1100
28...	1230	18	9.1	88	54	--	720	--	272	6	430	950
FEB.												
17...	1400	18	12	92	55	--	730	--	272	0	420	980
MAR.												
30...	1315	1.1	13	88	68	--	660	--	256	14	480	850
APR.												
20...	0740	58	9.7	95	59	--	760	--	142	24	580	1000
MAY												
18...	1500	.76	15	88	69	--	830	--	256	10	710	950
JUNE												
07...	1750	127	14	86	43	--	520	--	264	4	390	630
JULY												
20...	0930	290	13	57	28	230	--	8.7	182	0	220	260
AUG.												
11...	0900	760	13	37	14	--	150	--	235	0	110	120
SEP.												
14...	1500	2.5	14	58	42	--	470	--	228	8	340	560

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (PESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.												
14...	.5	.31	.000	.00	.00	.14	--	2290	1040	828	406	196
DEC.												
08...	--	.05	.010	.08	.20	.050	--	2170	44	24	400	160
JAN.												
06...	.7	.02	.000	.16	.10	.030	--	3000	17	2	670	300
28...	.6	.11	.000	.11	.10	.020	--	2390	55	0	440	210
FEB.												
17...	.6	.38	.000	.00	.10	.020	--	2430	49	8	460	230
MAR.												
30...	.7	.08	.000	.00	.10	.020	--	2290	41	15	500	270
APR.												
20...	.8	.40	.010	.21	.30	.20	--	2610	1280	128	480	320
MAY												
18...	.8	.38	.000	.00	.10	.11	--	2790	118	26	530	300
JUNE												
07...	.6	.27	.000	.02	1.1	.44	0	1830	396	56	390	170
JULY												
20...	.8	3.0	.000	.00	.20	1.4	--	902	4370	650	260	110
AUG.												
11...	.7	.21	.000	.05	.90	.060	--	558	39300	4120	150	0
SEP.												
14...	.6	--	.000	.00	.00	.070	--	1610	86	10	320	120

ARKANSAS RIVER BASIN

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07227470 CANADIAN RIVER NEAR TASCOSA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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)
OCT. 14...	15	3900	8.5	10.5	2	130	9.3	84	10	1.8	3	.07
DEC. 08...	14	3500	8.3	13.0	2	30	9.8	92	6	1.2	0	.01
JAN. 06...	14	4900	7.5	.0	0	10	11.8	82	8	.7	--	.00
28...	15	3980	8.2	10.0	0	20	12.2	108	8	.4	1	.01
FEB. 17...	15	4040	8.0	15.0	0	20	9.3	92	9	.7	--	.00
MAR. 30...	13	3750	8.5	23.0	0	20	8.1	94	10	.9	2	.03
APR. 20...	15	4300	8.2	6.5	0	280	11.2	90	20	3.8	0	.00
MAY 18...	16	4450	8.5	13.5	0	75	9.3	89	20	3.9	0	.00
JUNE 07...	11	2920	7.6	27.0	5	200	7.3	90	25	2.8	0	.02
JULY 20...	6.2	1550	8.2	17.5	10	280	7.8	81	8	4.6	0	.00
AUG. 11...	5.3	925	8.0	21.0	15	130	7.9	88	6	4.1	0	.05
SEP. 14...	12	2690	8.4	27.0	5	50	7.0	86	7	2.0	5	.00

ARKANSAS RIVER BASIN
07227470 CANADIAN RIVER NEAR TASCOSA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 08...	1615	8.3	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JAN. 28...	1230	18	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAY 18...	1500	.76	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 20...	0930	290	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 11...	0900	760	.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)
DEC. 08...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JAN. 28...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
MAY 18...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JULY 20...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
AUG. 11...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
DEC. 08...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JAN. 28...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
MAY 18...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JULY 20...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
AUG. 11...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOT- TOM DE- POSITS (UG/KG)
DEC. 08...	<.2	.0	<10	.00	<1.1	.00	<.1	.00	<.1
JAN. 28...	<.2	.0	<10	.00	<7.3	.00	<.7	.00	<.5
MAY 18...	<.2	.0	<10	.00	<1.0	.00	<.3	.00	<.3
JULY 20...	<.2	.0	<10	.07	<1.6	.00	<.4	.00	<.4
AUG. 11...	<.2	.0	<10	.00	<2.1	.00	<.6	.00	<.6

07227470 CANADIAN RIVER NEAR TASCOSA, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3240	3060	3840	2740	3900	3820	---	4070	1210	1070	1220	1050
2	3290	3190	3670	3360	2020	4800	---	3900	1310	914	1130	1100
3	3410	3340	3710	3570	3830	6520	---	3950	1800	887	1110	1110
4	3540	3420	3610	---	3280	3940	---	4160	2090	867	1100	1330
5	3670	3540	3640	---	3930	3280	3130	4740	2310	925	1120	1480
6	3560	3490	3620	4900	2940	3700	3280	4980	2660	1010	739	1470
7	3530	3550	3610	---	---	3690	3350	4680	2830	1070	1090	1740
8	3260	3680	3510	---	3430	3650	3560	4460	3180	1080	684	1890
9	3090	3790	3530	3420	3590	3820	---	4170	3390	1090	1070	1980
10	3180	3790	3580	2270	3510	3910	---	4310	3510	1100	987	2190
11	3470	3850	3710	2220	3460	4120	---	4220	3770	1100	895	2420
12	3610	3760	3670	---	2430	4280	---	4140	891	1110	916	2410
13	3870	3720	3640	2700	3700	4440	---	4280	1080	1130	864	2550
14	3910	3620	3600	2550	3980	4840	---	4500	996	1280	768	2650
15	3640	3590	3650	2670	4030	4370	---	4800	1970	1420	809	2710
16	1400	3590	3910	3080	3730	4140	1110	4860	1480	1610	827	2550
17	2670	3640	3870	3460	4080	4080	3130	4650	1460	1760	432	1920
18	3010	3610	3970	4180	4100	4640	3870	4570	2110	2000	732	958
19	3670	3640	4600	4710	4540	3900	4710	4110	2170	2020	991	1780
20	1890	3590	5610	4820	4280	4170	3420	4190	1780	1970	1060	1770
21	1690	3620	4080	3990	---	4150	3210	---	2520	1230	1020	2470
22	1930	3710	3850	3800	---	3840	4320	---	2310	2180	1150	593
23	2560	3630	3890	3770	---	3740	3240	---	2620	810	1160	827
24	2990	3650	3800	3820	3350	3730	2540	---	2140	1340	1080	1560
25	2380	3570	3820	3980	1980	3660	2450	---	1680	907	621	1320
26	2380	3740	3880	3980	1680	3620	2930	---	1460	880	979	1180
27	2530	3920	3930	3960	3340	3790	3390	---	2200	1100	1020	1350
28	3170	3740	3840	3930	4840	3750	3580	---	1570	455	974	1340
29	3480	3640	3900	3940	---	4620	3900	1690	1560	807	923	1430
30	3400	3580	3960	3910	---	3780	3930	1010	1590	1680	991	1560
31	3140	---	4200	3960	---	3920	---	1110	---	2250	1000	---
MONTH	3050	3610	3860	3600	3460	4060	---	---	2050	1260	950	1690

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	7.0	14.0	3.0	1.0	11.0	---	14.0	15.0	23.0	29.0	27.0
2	23.0	10.0	10.0	1.0	2.0	0.0	---	22.0	26.0	27.0	29.0	26.0
3	25.0	8.0	13.0	0.0	13.0	2.0	---	12.0	21.0	23.0	22.0	21.0
4	23.0	9.0	11.0	---	3.0	13.0	---	22.0	25.0	29.0	21.0	26.0
5	14.0	10.0	8.0	---	9.0	15.0	9.0	20.0	19.0	25.0	26.0	14.0
6	25.0	16.0	10.0	---	2.0	9.0	18.0	22.0	26.0	29.0	26.0	12.0
7	18.0	15.0	7.0	---	---	5.0	18.0	23.0	20.0	23.0	25.0	26.0
8	4.0	12.0	14.0	---	3.0	16.0	24.0	11.0	27.0	28.0	23.0	25.0
9	12.0	15.0	12.0	---	4.0	13.0	---	14.0	20.0	30.0	27.0	19.0
10	9.0	14.0	9.0	---	10.0	16.0	---	21.0	26.0	24.0	26.0	30.0
11	15.0	13.0	8.0	---	10.0	14.0	---	15.0	18.0	28.0	26.0	22.0
12	12.0	12.0	7.0	---	4.0	19.0	---	19.0	24.0	29.0	21.0	20.0
13	17.0	5.0	4.0	4.0	12.0	12.0	---	23.0	20.0	24.0	25.0	26.0
14	12.0	5.0	6.0	2.0	16.0	8.0	---	24.0	23.0	29.0	26.0	23.0
15	7.0	8.0	9.0	4.0	14.0	16.0	---	22.0	20.0	21.0	24.0	15.0
16	7.0	12.0	8.0	5.0	14.0	18.0	20.0	26.0	28.0	25.0	21.0	21.0
17	8.0	12.0	13.0	5.0	14.0	15.0	20.0	29.0	20.0	25.0	22.0	10.0
18	15.0	12.0	11.0	6.0	16.0	9.0	21.0	12.0	31.0	30.0	23.0	8.0
19	11.0	12.0	7.0	10.0	18.0	12.0	11.0	22.0	23.0	21.0	22.0	20.0
20	15.0	10.0	10.0	10.0	9.0	11.0	15.0	24.0	28.0	19.0	25.0	11.0
21	17.0	14.0	8.0	13.0	---	18.0	23.0	---	20.0	20.0	30.0	15.0
22	18.0	6.0	6.0	10.0	---	5.0	18.0	---	31.0	23.0	26.0	10.0
23	15.0	5.0	5.0	10.0	---	15.0	11.0	---	22.0	21.0	26.0	11.0
24	15.0	10.0	5.0	12.0	4.0	13.0	23.0	---	27.0	28.0	23.0	12.0
25	18.0	14.0	3.0	14.0	11.0	18.0	11.0	---	20.0	23.0	22.0	21.0
26	20.0	15.0	1.0	12.0	9.0	20.0	22.0	---	28.0	21.0	30.0	17.0
27	6.0	8.0	10.0	9.0	10.0	23.0	20.0	---	28.0	22.0	30.0	16.0
28	12.0	12.0	10.0	11.0	9.0	12.0	17.0	---	26.0	25.0	23.0	24.0
29	15.0	15.0	6.0	12.0	---	20.0	20.0	15.0	23.0	20.0	26.0	19.0
30	15.0	15.0	6.0	12.0	---	18.0	22.0	11.0	28.0	22.0	27.0	18.0
31	13.0	---	2.0	9.0	---	21.0	---	22.0	---	19.0	22.0	---
MONTH	15.0	11.0	8.5	---	9.5	13.5	---	---	23.5	24.5	25.0	19.0

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 1971.

Biochemical analyses: January 1969 to September 1971.

Pesticide analyses: October 1968 to September 1971.

Water temperatures: August 1949 to September 1971.

Sediment records: August 1949 to September 1952.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	71	16	93	42	480	--	8.2	218	0	380
NOV.										
01-30	31	17	130	45	--	530	--	220	0	460
DEC.										
01-31	15	19	130	43	--	510	--	222	0	460
JAN.										
01-08	9.8	16	130	50	600	--	12	232	0	490
09-17	17	16	120	40	--	460	--	196	0	430
18-31	32	16	130	50	600	--	12	232	0	490
FEB.										
01-09	15	13	76	23	--	280	--	175	0	240
10-28	34	14	130	44	--	520	--	200	0	460
MAR.										
01-02	29	24	96	32	--	340	--	232	0	340
03-18	15	19	130	48	--	610	--	224	0	550
19-31	5.6	24	96	32	--	340	--	232	0	340
APR.										
01-19	29	29	80	35	310	--	16	248	0	290
20-30	25	18	110	49	--	600	--	216	20	500
MAY										
01-03	4.8	40	130	41	--	480	--	237	0	440
04-29	100	48	100	31	--	270	--	273	0	260
30-31	1120	17	67	16	--	210	--	240	0	180
JUNE										
01-04	412	14	58	18	--	220	--	200	0	180
05-12	56	18	90	37	--	410	--	222	0	380
13-16	928	14	58	18	--	220	--	200	0	180
17...	898	16	34	11	--	140	--	224	0	91
18-19	426	14	58	18	--	220	--	200	0	180
20...	1480	16	34	11	--	140	--	224	0	91
21-22	212	14	58	18	--	220	--	200	0	180
23-30	137	18	90	37	--	410	--	222	0	380
JULY										
01-27	569	14	62	22	230	--	5.8	216	0	250
28-29	1570	14	40	11	--	120	--	211	0	75
30-31	64	14	62	22	230	--	5.8	216	0	250
AUG.										
01...	456	12	85	31	--	360	--	212	0	310
02-31	745	11	46	16	--	170	--	224	4	170
SEP.										
01-22	142	13	62	23	--	250	--	220	0	240
23-24	1080	9.5	31	10	--	130	--	176	0	91
25-30	561	13	62	23	--	250	--	220	0	240
WTD. AVG.	--	15	60	21	--	--	--	219	1	216
TIME WTD.										
AVG.	197	19	95	34	--	--	--	223	1	348
TOT. LOAD (TONS)	--	2830	11700	4060	--	--	--	42500	256	41800

ARKANSAS RIVER BASIN

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07227500 CANADIAN RIVER NEAR AMARILLO, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 2,260 mg/l Jan. 1-8, 18-31; minimum, 469 mg/l Sept. 23-24.

Hardness: Maximum, 540 mg/l Jan. 1-8, 18-31; minimum, 120 mg/l Sept. 23-24.

Specific conductance: Maximum daily, 4,880 micromhos Mar. 6; minimum daily, 663 micromhos Sept. 23.

Water temperatures: Maximum, 26.5°C Oct. 2; minimum, freezing point on several days during November to March.

EXTREMES, July 1948 to September 1971.--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 (1949-71): 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 1970 TO SEPTEMBER 1971

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 COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	600	.8	3.1	1740	400	230	10	2890	7.8
NOV.									
01-30	700	.7	3.4	2010	500	320	10	3290	7.8
DEC.									
01-31	640	1.4	7.7	1950	490	310	9.9	3120	7.4
JAN.									
01-08	820	.9	6.2	2260	540	350	11	3660	7.7
09-17	590	.9	8.7	1790	470	310	9.3	2900	7.3
18-31	820	.9	6.2	2260	540	350	11	3660	7.7
FEB.									
01-09	340	.8	4.5	1080	280	140	7.2	1840	7.5
10-28	690	.8	5.6	1980	500	330	10	3270	7.5
MAR.									
01-02	370	1.4	9.5	1350	370	180	7.7	2180	7.2
03-18	760	1.0	7.1	2260	530	340	12	3570	7.4
19-31	370	1.4	9.5	1350	370	180	7.7	2180	7.2
APR.									
01-19	350	1.7	12	1280	340	140	7.3	2070	7.7
20-30	720	1.2	4.8	2140	470	260	12	3420	8.5
MAY									
01-03	620	1.6	6.6	1900	500	310	9.4	2910	7.8
04-29	310	--	9.0	1200	390	160	6.0	1900	7.5
30-31	220	--	1.5	834	230	38	6.0	1360	7.9
JUNE									
01-04	240	.7	1.8	843	220	54	6.6	1440	7.9
05-12	480	.9	3.2	1540	380	190	9.2	2550	7.5
13-16	240	.7	1.8	843	220	54	6.6	1440	7.9
17...	100	.4	1.0	507	130	0	5.2	856	7.6
18-19	240	.7	1.8	843	220	54	6.6	1440	7.9
20...	100	.4	1.0	507	130	0	5.2	856	7.6
21-22	240	.7	1.8	843	220	54	6.6	1440	7.9
23-30	480	.9	3.2	1540	380	190	9.2	2550	7.5
JULY									
01-27	220	.8	1.5	917	240	68	6.3	1510	7.7
28-29	100	.5	1.6	474	140	0	4.3	831	7.7
30-31	220	.8	1.5	917	240	68	6.3	1510	7.7
AUG.									
01...	440	.5	1.4	1340	340	170	8.4	2290	7.9
02-31	130	.6	1.2	661	180	0	5.5	1110	8.3
SEP.									
01-22	250	.8	2.2	960	250	68	6.9	1600	8.2
23-24	110	.4	1.6	469	120	0	5.0	789	7.9
25-30	250	.8	2.2	960	250	68	6.9	1600	8.2
WTD. AVG.	230	.7	2.1	892	235	61	6.3	1480	8.0
TIME WTD.									
AVG.	467	.9	5.0	1490	377	194	8.4	2430	7.7
TOT. LOAD (TONS)	44500	126	413	173000	--	--	--	--	--

ARKANSAS RIVER BASIN

07227500 CANADIAN RIVER NEAR AMARILLO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 14...	1030	7.4	18	110	44	530	--	11	226	0
DEC. 08...	1455	12	16	120	34	--	490	--	216	0
JAN. 28...	0915	38	16	120	48	--	560	--	316	0
APR. 19...	1700	42	15	94	40	--	410	--	220	0
JUNE 08...	0700	31	13	100	39	--	470	--	212	0
AUG. 11...	1220	1850	12	42	14	--	180	--	236	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)	DIS-SOLVED NITRITE (N) (MG/L)	DIS-SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS-SOLVED 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)
OCT. 14...	480	670	.9	.62	.120	3.3	2.1	3.5	1980	1020
DEC. 08...	450	600	3.8	.34	.860	2.8	3.0	12	1840	30
JAN. 28...	440	720	1.2	3.5	.080	9.7	.60	4.1	2070	170
APR. 19...	380	510	1.1	1.3	.880	3.2	2.1	2.7	1580	848
JUNE 08...	420	590	.9	.34	.640	7.2	1.0	.96	1750	384
AUG. 11...	150	140	.5	.06	.010	.11	1.0	.070	653	19800

DATE	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPFCI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- CORALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
OCT. 14...	840	460	270	11	3150	8.1	10.5	6	54	8.9
DEC. 08...	17	440	260	10	2960	8.1	13.5	11	15	13.2
JAN. 28...	62	490	230	--	3280	8.1	1.5	11	40	11.8
APR. 19...	76	400	220	8.9	2570	8.2	14.0	0	270	8.6
JUNE 08...	28	410	240	--	2790	8.1	19.0	5	180	8.2
AUG. 11...	1900	160	0	6.1	1040	8.1	23.5	10	11000	7.5

DATE	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVFL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)	METHY- LNF FLUF 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)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)
OCT. 14...	80	20	8.0	3	.28	200	0	0	--	0
DEC. 08...	126	3	6.6	0	.18	--	--	--	--	--
JAN. 28...	84	99	46	6	.29	10	0	0	0	--
APR. 19...	83	34	17	0	.00	--	--	--	--	--
JUNE 08...	87	24	4.3	0	.00	30	0	0	2	--
AUG. 11...	87	--	16	0	.09	--	--	--	--	--

ARKANSAS RIVER BASIN

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07227500 CANADIAN RIVER NEAR AMARILLO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 14...	1	4	38	3	90	50	--	0	2400	40
DEC. 08...	--	--	--	--	--	--	--	--	--	--
JAN. 28...	0	6	34	0	100	110	<.5	0	2200	30
APR. 19...	--	--	--	--	--	--	--	--	--	--
JUNE 08...	0	4	30	4	90	6	.9	3	1900	30
AUG. 11...	--	--	--	--	--	--	--	--	--	--

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. 14...	1030	7.4	.00	<.2	.00	.2	.00	<.2	.01	.5
JAN. 28...	0915	38	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 08...	0700	31	.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)
OCT. 14...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.04	<.2
JAN. 28...	.00	1.1	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 08...	.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)	MALATHION IN BOTTOM DE-POSITS (UG/KG)	METHYL PARATHION (UG/L)	METHYL PARATHION IN BOTTOM DE-POSITS (UG/KG)	PARATHION (UG/L)	PARATHION IN BOTTOM DE-POSITS (UG/KG)	TOX-APHENE (UG/L)
OCT. 14...	.0	<1.0	.00	.00	<.2	.00	<.2	.00	<.2	.0
JAN. 28...	.0	<1.0	.25	.00	<.2	.00	<.2	.00	<.2	.0
JUNE 08...	.0	<1.0	.00	.00	<.2	.00	<.2	.00	<.2	.0

DATE	TOX-APHENE IN BOTTOM DE-POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE-POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE-POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE-POSITS (UG/KG)	PCB (UG/L)	PCB IN BOTTOM DE-POSITS (UG/KG)
OCT. 14...	<10	.08	<.6	.01	<.1	.00	<.1	--	--
JAN. 28...	<10	.00	<5.5	.02	<.7	.00	<.5	3.0	<10
JUNE 08...	<10	.00	<2.6	.00	<.8	.00	<.8	--	--

ARKANSAS RIVER BASIN

07227500 CANADIAN RIVER NEAR AMARILLO, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2920	3430	3060	3740	1690	2460	2070	2910	1320	1190	2290	1170
2	2970	3270	3210	3330	2110	1640	2120	3050	1400	1560	1550	1210
3	3080	3100	3230	3070	3660	3110	2160	2790	1590	1130	1360	1230
4	3120	3160	2910	4260	1900	3960	2100	1880	1780	1160	1260	1350
5	3270	4140	2940	3480	3370	4060	2030	1880	2120	1180	1280	1420
6	2820	3480	2860	3430	1350	4380	1950	2030	2440	1090	1270	1600
7	2890	3290	3000	3480	1360	4020	2050	1940	2670	1230	1310	1760
8	2900	3240	2930	3590	3580	3860	2090	2060	2770	1280	1090	1930
9	3080	3520	3410	2790	2140	3370	2150	1980	2940	1280	1240	2110
10	3000	3030	3060	2950	3120	3450	2110	1980	3020	1290	1060	2220
11	2970	3480	3100	2970	3270	3540	2050	1960	2800	1290	1130	2520
12	3240	3130	3010	2690	3280	3310	1930	1940	3040	1340	1110	2530
13	2880	3350	2810	2990	3500	3600	2530	2030	1430	1370	946	2340
14	3160	3380	3140	3080	3310	3810	1950	1880	1490	1390	966	2410
15	2910	3610	2940	2450	3150	3610	2000	2030	1320	1570	966	1990
16	3170	3430	2890	3250	3340	2950	1960	1940	1480	1860	983	2050
17	3230	3220	3010	2900	2630	3110	1980	1890	762	2090	1010	1800
18	1940	3330	3000	3160	3220	2770	1860	1950	1310	2220	792	1650
19	2710	3310	2890	3280	3010	2370	2230	1650	1740	2750	895	1260
20	3220	3470	3050	3720	1640	2470	3160	1810	946	1050	1040	1780
21	3170	3260	3300	3820	---	2320	4380	1940	1070	1650	1080	2070
22	2140	3400	3360	4060	1430	2220	3960	2010	1320	1740	1090	1130
23	2140	2720	3480	3960	3180	2250	3780	1830	2080	2110	1160	663
24	2320	2600	2590	3680	3520	2080	4200	2010	2520	2120	1200	916
25	2800	3200	2660	3750	3160	2170	3310	1920	3600	1710	1210	1800
26	3120	3680	3220	3730	3170	2240	3310	1790	2380	1410	836	1630
27	2660	3540	3460	3700	2130	2120	2870	1810	2030	1130	1100	1390
28	2700	3600	3610	3340	2090	2100	2870	1830	1890	862	1120	1630
29	2630	3250	3340	3910	---	2030	2770	1810	2290	806	1150	1630
30	2950	3250	3530	3950	---	2050	2850	1520	1960	1130	962	1670
31	3260	---	3980	3640	---	2000	---	1220	---	1440	1120	---
MONTH	2880	3300	3130	3440	2790	2900	2560	1980	1980	1470	1150	1700

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.5	6.0	4.0	0.0	0.0	4.0	10.0	15.0	17.0	20.0	20.0	20.0
2	26.5	2.0	5.0	1.0	1.0	0.0	14.0	13.0	19.0	22.0	20.0	20.0
3	6.5	7.0	7.0	1.0	4.0	2.0	18.0	12.0	20.0	22.0	20.0	20.0
4	11.0	2.0	6.0	0.0	5.0	6.0	8.0	10.0	20.0	21.0	21.0	19.0
5	23.5	1.0	3.0	0.0	1.0	7.0	9.0	12.0	20.0	22.0	19.0	18.0
6	14.5	5.0	11.0	0.0	0.0	3.0	8.0	11.0	18.0	23.0	19.0	21.0
7	11.0	8.0	5.0	0.0	1.0	3.0	13.0	12.0	16.0	22.0	19.0	20.0
8	5.0	9.0	8.0	1.0	2.0	9.0	14.0	16.0	22.0	21.0	19.0	19.0
9	17.0	7.0	8.0	2.0	1.0	8.0	16.0	17.0	21.0	21.0	20.0	17.0
10	8.0	6.0	8.0	3.0	2.0	7.0	17.0	13.0	20.0	22.0	20.0	20.0
11	---	6.0	2.0	3.0	6.0	11.0	19.0	14.0	19.0	21.0	23.0	18.0
12	12.0	5.0	2.0	2.0	6.0	11.0	21.0	14.0	16.0	22.0	20.0	18.0
13	11.0	3.0	2.0	7.0	7.0	13.0	13.0	12.0	19.0	21.0	20.0	17.0
14	11.0	3.0	3.0	4.0	11.0	12.0	17.0	12.0	21.0	20.0	21.0	18.0
15	7.0	2.0	6.0	2.0	11.0	9.0	16.0	13.0	21.0	20.0	22.0	14.0
16	7.0	1.0	6.0	4.0	9.0	12.0	9.0	18.0	20.0	22.0	21.0	14.0
17	7.0	5.0	8.0	4.0	8.0	10.0	14.0	16.0	18.0	21.0	20.0	13.0
18	8.0	4.0	5.0	4.0	12.0	7.0	13.0	14.0	19.0	20.0	21.0	9.0
19	7.0	6.0	3.0	9.0	9.0	6.0	15.0	12.0	20.0	20.0	20.0	9.0
20	10.0	11.0	3.0	5.0	3.0	6.0	11.0	25.0	19.0	19.0	20.0	12.0
21	11.0	9.0	6.0	5.0	---	10.0	15.0	19.0	21.0	18.0	21.0	13.0
22	17.0	3.0	6.0	6.0	1.0	5.0	14.0	20.0	20.0	21.0	23.0	12.0
23	10.0	1.0	1.0	4.0	3.0	12.0	9.0	14.0	21.0	21.0	21.0	10.0
24	8.0	0.0	1.0	2.0	4.0	6.0	14.0	13.0	20.0	22.0	22.0	12.0
25	11.0	4.0	0.0	4.0	5.0	11.0	13.0	17.0	20.0	22.0	20.0	12.0
26	10.0	9.0	1.0	3.0	10.0	8.0	12.0	18.0	21.0	20.0	20.0	17.0
27	6.0	4.0	5.0	4.0	5.0	17.0	10.0	23.0	20.0	20.0	20.0	15.0
28	2.0	6.0	2.0	4.0	3.0	11.0	11.0	16.0	20.0	19.0	22.0	17.0
29	4.0	7.0	2.0	5.0	---	15.0	9.0	16.0	21.0	20.0	22.0	19.0
30	5.0	10.0	4.0	6.0	---	13.0	13.0	16.0	20.0	17.0	20.0	18.0
31	1.0	---	2.0	3.0	---	17.0	---	15.0	---	19.0	20.0	---
MONTH	10.5	5.0	4.5	3.0	5.0	8.5	13.0	15.0	19.5	20.5	20.5	16.0

ARKANSAS RIVER BASIN

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07227900 LAKE MEREDITH NEAR SANFORD, TEX.

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

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 POTAS-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)
NOV. 04...	0925	3.6	63	24	240	6.6	214	0	240	260
JAN. 05...	1325	2.9	58	24	260	6.4	208	0	250	270

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED PHOSPHORUS (P) (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	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)
NOV. 04...	1.0	.00	--	943	260	80	6.5	1640	8.0	12.0
JAN. 05...	.8	.00	260	974	240	72	7.2	1650	7.7	7.0

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 PLUS POTAS-SIUM (MG/L)	BICAR-BONATE (HC03) (MG/L)	CAR-BONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)
OCT. 13...	1640	4.2	22	87	36	310	276	0	130
DEC. 08...	1115	47	14	86	35	280	268	0	150
JAN. 27...	1800	69	17	100	44	340	252	0	220
APR. 19...	1405	27	15	100	37	400	272	0	240
JUNE 08...	1245	430	30	60	18	95	308	0	13
AUG. 10...	1750	97	18	72	24	230	204	0	100

ARKANSAS RIVER BASIN

07228000 CANADIAN RIVER NEAR CANADIAN, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	DIS-SOLVED NITRITE (N) (MG/L)	DIS-SOLVED AMMONIA NITROGEN (N) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)
OCT. 13...	480	1.4	.16	.000	.00	.00	.030	1200	360
DEC. 08...	420	1.9	--	.020	.83	.20	.000	1120	360
JAN. 27...	520	4.1	--	.020	.18	.10	.060	1370	440
APR. 19...	560	4.6	--	.010	.18	.00	.11	1490	410
JUNE 08...	120	1.0	--	.010	.02	.10	.10	483	220
AUG. 10...	360	1.2	--	.010	.10	.60	.050	913	280

DATE	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)
OCT. 13...	140	--	2090	8.3	21.0	7.8	87	.5	--
DEC. 08...	140	6.4	1980	7.9	8.0	11.0	92	1.8	--
JAN. 27...	230	--	2350	8.4	7.5	10.3	86	2.3	--
APR. 19...	190	8.7	2550	8.1	16.0	8.9	89	2.5	--
JUNE 08...	0	--	868	8.3	26.0	8.8	107	1.4	--
AUG. 10...	110	6.0	1610	8.1	31.0	6.5	87	2.9	.04

DATE	TIME	ALDRIN (UG/L)	DDE (UG/L)	DDE (UG/L)	DDE (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR EPOXIDE (UG/L)	LINDANE (UG/L)
OCT. 13...	1640	.00	.00	.00	.01	.00	.00	.00	.00	.00
JAN. 27...	1800	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 08...	1245	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	CHLORDANE (UG/L)	DI-AZINON (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)	TOXAPHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT. 13...	.0	.00	.00	.00	.00	.0	.00	.00	.00
JAN. 27...	.0	.00	.00	.00	.00	.0	.00	.00	.00
JUNE 08...	.0	.00	.00	.00	.00	.0	.00	.00	.00

ARKANSAS RIVER BASIN

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07233500 PALO DURO CREEK NEAR SPEARMAN, TEX.

LOCATION (revised).--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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.									
01...	1020	1.0	23	46	26	31	268	0	44
29...	1000	5.8	18	44	26	27	244	0	38
DEC.									
23...	1140	2.0	19	28	32	58	214	0	60
JAN.									
12...	1020	.13	24	42	50	49	320	8	76
FEB.									
11...	1045	.91	15	42	25	28	226	10	42
MAR.									
17...	1520	.36	7.4	36	21	31	210	0	38
APR.									
14...	1720	.79	12	26	25	28	179	0	49

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01...	13	1.7	.30	318	220	2	.9	530	7.5
29...	23	1.5	.20	298	220	17	.8	516	7.8
DEC.									
23...	58	2.2	.70	365	200	26	1.8	642	8.1
JAN.									
12...	37	2.6	.80	449	310	35	1.2	760	8.4
FEB.									
11...	14	1.2	.20	289	210	6	.8	479	8.5
MAR.									
17...	13	1.6	2.6	263	180	4	1.0	457	7.4
APR.									
14...	15	2.0	1.0	249	170	21	.9	456	7.8

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 1971.
Water temperatures: November 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.								
18...	.28	24	700	190	5800	108	0	2600
NOV.								
10...	.05	26	700	190	6000	204	0	2500
DEC.								
02...	.13	23	760	220	6700	182	0	2900
05...	.08	24	840	240	7300	176	0	2800
22...	.10	24	840	230	7900	148	0	2800
30...	.11	24	900	250	8600	172	0	3000
JAN.								
01...	.13	19	530	150	5400	106	0	2600
04...	.06	22	460	130	4600	140	0	2400
27...	.35	24	870	240	8100	170	0	2900
FEB.								
23...	1.0	15	640	150	3400	116	0	2000
27...	.85	24	850	230	7500	160	0	2800
MAR.								
10...	.35	24	900	230	8100	168	0	3000
14...	.28	26	980	260	9400	172	0	3300
APR.								
13...	.06	21	950	290	10000	102	0	3300
16...	2.9	18	490	110	1700	166	0	1500
20...	1.2	20	400	88	1700	196	0	1300
21...	.30	27	800	210	5800	182	0	2600
MAY								
09...	.66	--	900	260	7500	148	0	3200
27...	52	--	150	33	410	226	0	590
28...	.57	--	410	89	1400	154	0	1300
29...	.67	--	640	160	3300	152	0	2100
31...	.34	--	610	260	2500	184	0	1800
JUNE								
02...	.04	--	920	250	8800	168	0	3100
09...	57	--	150	40	250	272	0	380
13...	213	--	100	23	200	204	0	310
15...	.59	--	410	94	1400	152	0	1300
20...	9.7	--	220	37	320	176	0	690
21...	.55	--	520	110	2000	146	0	1600
JULY								
01...	4.7	--	120	63	270	360	0	330
28...	63	--	84	17	180	214	0	300
30...	.63	--	900	180	4700	152	0	2300
AUG.								
08...	235	--	120	22	350	150	0	270
14...	43	--	120	20	200	168	0	320
17...	821	14	78	14	110	178	0	230
23...	5.6	--	490	110	1800	148	0	1600
SEP.								
18...	20	--	180	39	700	176	0	610
21...	.01	--	640	150	3400	174	0	2000
22...	133	--	85	17	170	172	0	270
24...	856	9.0	66	12	140	134	0	230
29...	15	--	210	51	300	166	0	740

RED RIVER BASIN

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

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 47,300 micromhos May 5; minimum daily, 1,000 micromhos Aug. 17.

Water temperatures: Minimum, freezing point Nov. 23, Dec. 2, Jan. 4, 5, 7.

EXTREMES, November 1967 to September 1969, October 1970 to September 1971.--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 1970 TO SEPTEMBER 1971

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.									
18...	8800	--	--	18200	2500	2400	50	29100	7.7
NOV.									
10...	9100	--	--	18700	2600	2400	52	30100	7.3
DEC.									
02...	10000	--	--	20800	2800	2600	55	32200	7.6
05...	11000	--	--	22400	3000	2900	57	34500	7.5
22...	12000	--	--	24000	3000	2900	62	37500	7.8
30...	13000	--	--	26100	3300	3100	65	40100	7.7
JAN.									
01...	7700	--	--	16500	2000	1900	53	26000	7.4
04...	6500	--	--	14200	1700	1600	49	22600	7.6
27...	12000	--	--	24800	3200	3000	63	37700	7.6
FEB.									
23...	5300	--	--	11600	2200	2100	31	18000	7.4
27...	12000	--	--	23000	3100	3000	59	35200	7.7
MAR.									
10...	12000	--	--	24900	3200	3100	62	38200	7.8
14...	14000	--	--	28600	3500	3400	69	43100	7.7
APR.									
13...	15000	--	--	29900	3600	3500	73	45400	7.4
16...	2600	--	--	6530	1700	1500	18	10400	7.4
20...	2400	--	--	6010	1400	1200	20	9620	7.6
21...	8900	--	--	18400	2800	2700	47	28200	7.7
MAY									
09...	12000	--	--	23400	3300	3200	57	36000	7.7
27...	440	--	--	1740	520	340	7.9	2680	8.1
28...	2100	--	--	5480	1400	1300	16	8760	7.8
29...	5000	--	--	11200	2200	2100	30	17400	7.7
31...	4200	--	--	9550	2600	2400	21	15000	7.7
JUNE									
02...	14000	--	--	26600	3400	3200	66	40300	7.5
09...	320	--	--	1280	530	310	4.7	2030	7.8
13...	210	--	--	955	350	180	4.7	1560	7.8
15...	2000	--	--	5270	1400	1300	16	8330	7.6
20...	380	--	--	1730	700	610	5.3	2560	7.9
21...	3100	--	--	7400	1700	1600	21	11600	7.6
JULY									
01...	360	--	--	1320	560	260	5.0	2010	7.8
28...	120	--	--	808	280	100	4.7	1100	7.7
30...	7600	--	--	15800	3000	2900	37	24600	7.5
AUG.									
08...	520	--	--	1350	380	260	7.7	2310	7.6
14...	240	--	--	977	380	240	4.5	1570	7.6
17...	76	.7	1.0	618	250	110	3.0	930	7.9
23...	2600	--	--	6720	1700	1600	19	10500	7.8
SEP.									
18...	970	--	--	2590	620	480	12	4230	7.9
21...	5200	--	--	11400	2200	2100	31	17900	7.7
22...	160	--	--	788	280	140	4.4	1310	8.1
24...	110	.4	1.1	632	210	100	4.2	1010	8.0
29...	340	--	--	1710	730	590	4.8	2500	8.1

RED RIVER BASIN

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

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs-days)	Specific conductance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	1.77	28100	18200	2.8	87	8790	1.4	42	2600	0.4	12
November.....	1.99	31400	19700	3.5	106	9590	1.7	52	2670	.5	14
December.....	3.07	35800	23200	6.2	193	11500	3.1	95	2860	.8	24
January 1971..	9.31	35800	23400	19	589	11300	9.1	283	2790	2.3	70
February.....	17.59	31400	20500	35	976	10100	17	481	2440	4.1	116
March.....	10.60	37900	24900	23	712	12000	11	345	3140	2.9	90
April.....	11.34	24100	15700	16	480	7430	7.6	228	2180	2.2	67
May.....	60.01	5030	3270	17	530	1230	6.4	199	780	4.1	126
June.....	326.27	2440	1540	45	1360	470	14	414	440	13	385
July.....	89.00	4060	2590	20	624	990	7.7	239	580	4.5	139
August.....	1637.00	2240	1430	203	6310	480	69	2130	340	49	1510
September.....	1287.27	1240	780	91	2720	160	19	570	270	31	933
Total	3455.22	--	--	--	14700	--	--	5080	--	--	3490
Weighted average	9.47	2460	1570	40	--	540	14	--	370	9.6	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	31000	32500	25200	36700	32400	43700	45000	31800	2010	38200	41500
2	---	31000	32200	35000	36400	32900	43100	42100	40300	39700	39400	41500
3	---	30500	34100	27100	32300	34400	43100	46000	41700	40000	38800	---
4	---	31000	34500	21400	34500	30800	42900	46700	42400	---	39300	---
5	---	30100	34500	32200	37300	35500	41700	47300	30000	---	40000	---
6	---	29500	34900	29000	34200	39400	41500	43900	19500	---	10000	---
7	---	30500	35200	33500	32800	38500	42800	43400	40200	---	4000	---
8	---	32600	34900	36200	33800	37300	43600	41900	35100	---	1500	---
9	---	32300	35200	33100	36900	39200	43100	36000	1500	---	2530	---
10	---	30100	35900	36000	36900	38200	43600	42900	24500	---	11600	---
11	---	30500	35900	35300	31500	38700	40800	44200	24900	---	22800	---
12	---	30400	34700	36400	34400	38800	44000	45300	2300	---	19900	---
13	---	31300	35000	38600	36200	39700	45400	43900	1500	---	2500	---
14	---	30800	34900	37500	32700	43100	44400	42700	3530	---	1570	---
15	28100	30100	34600	37500	34000	40800	41900	41500	8330	---	1060	---
16	28100	30500	35600	37900	34800	40300	10400	41900	19900	---	3000	---
17	28100	30900	36300	38100	34700	41200	23900	41600	32600	---	1000	4660
18	28100	32900	35600	37300	32400	44600	28500	---	39100	---	1190	4230
19	27900	31600	36300	38000	37800	42600	9710	---	39600	---	3000	4590
20	28100	31000	36700	36800	36200	42200	9620	---	2000	26900	10400	17900
21	28000	33100	36800	37300	36000	42900	28200	---	11600	25000	13600	17900
22	---	33000	37500	37200	36000	42000	39700	36900	36300	41900	23200	1500
23	---	33700	37700	36700	18000	41300	40600	---	38800	2500	24000	1800
24	---	29500	35200	35000	24600	40900	35700	---	40000	17000	26500	1010
25	---	31300	36500	36800	25300	37900	40400	---	---	37200	26100	1090
26	---	32500	37400	37300	31100	40200	42800	36500	---	40000	30900	1210
27	---	32500	37800	37700	35200	38900	45500	2680	---	12000	34900	1520
28	---	32200	37100	37200	31400	40100	44000	8760	---	1500	35400	1990
29	---	32000	37500	34800	---	41000	43200	17400	---	12600	37700	2500
30	---	34000	40100	34300	---	42400	44800	2780	---	24600	39000	3100
31	---	---	38000	34500	---	43600	---	15000	---	38300	38100	---
MONTH	---	31410	35840	34920	33360	39410	37750	---	25310	---	20040	---

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	9.0	7.0	10.0	10.0	17.0	16.0	23.0	25.0	22.0	31.0	27.0
2	---	12.0	0.0	3.0	5.0	2.0	18.0	27.0	24.0	29.0	32.0	---
3	---	10.0	15.0	1.0	17.0	12.0	22.0	23.0	25.0	---	30.0	---
4	---	10.0	13.0	0.0	4.0	3.0	15.0	24.0	27.0	---	26.0	---
5	---	12.0	9.0	0.0	15.0	17.0	14.0	23.0	29.0	---	---	---
6	---	8.0	12.0	1.0	2.0	10.0	20.0	26.0	30.0	---	26.0	---
7	---	15.0	15.0	0.0	4.0	15.0	20.0	23.0	32.0	---	29.0	---
8	---	15.0	14.0	3.0	10.0	15.0	25.0	16.0	29.0	---	23.0	---
9	---	15.0	18.0	6.0	14.0	15.0	23.0	21.0	20.0	---	30.0	---
10	---	16.0	15.0	8.0	15.0	18.0	23.0	22.0	25.0	---	30.0	---
11	---	12.0	10.0	10.0	13.0	20.0	11.0	11.0	25.0	---	25.0	---
12	---	5.0	14.0	4.0	14.0	25.0	30.0	21.0	30.0	---	26.0	---
13	---	6.0	13.0	15.0	18.0	22.0	17.0	20.0	27.0	---	24.0	---
14	---	6.0	6.0	2.0	15.0	13.0	23.0	23.0	29.0	---	21.0	---
15	---	13.0	13.0	14.0	16.0	18.0	11.0	19.0	35.0	---	23.0	---
16	9.0	18.0	8.0	10.0	17.0	19.0	14.0	17.0	28.0	---	26.0	---
17	10.0	11.0	12.0	11.0	19.0	17.0	21.0	25.0	27.0	---	24.0	15.0
18	10.0	14.0	5.0	11.0	14.0	11.0	25.0	---	23.0	---	28.0	12.0
19	10.0	11.0	5.0	15.0	19.0	15.0	18.0	---	22.0	---	30.0	12.0
20	26.0	13.0	9.0	16.0	7.0	15.0	8.0	---	30.0	23.0	20.0	17.0
21	---	18.0	9.0	13.0	---	20.0	10.0	---	32.0	28.0	31.0	11.0
22	---	7.0	19.0	5.0	---	8.0	20.0	25.0	30.0	28.0	34.0	15.0
23	---	0.0	8.0	9.0	8.0	15.0	15.0	---	29.0	29.0	26.0	10.0
24	---	7.0	5.0	15.0	14.0	13.0	22.0	---	---	30.0	30.0	12.0
25	---	8.0	10.0	18.0	17.0	20.0	23.0	---	---	28.0	31.0	23.0
26	---	18.0	7.0	12.0	13.0	18.0	25.0	25.0	---	26.0	34.0	24.0
27	---	10.0	15.0	9.0	15.0	23.0	26.0	25.0	---	32.0	33.0	21.0
28	---	12.0	10.0	15.0	13.0	18.0	21.0	21.0	---	22.0	30.0	28.0
29	---	17.0	11.0	---	---	---	29.0	19.0	---	30.0	30.0	22.0
30	---	20.0	10.0	18.0	---	20.0	25.0	21.0	---	27.0	30.0	26.0
31	---	---	12.0	12.0	---	25.0	---	27.0	---	25.0	28.0	---
MONTH	---	11.5	10.5	9.0	12.5	16.0	19.5	---	---	---	28.0	---

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 1971.

Water temperatures: July 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.								
02...	.07	31	480	150	630	88	0	1500
NOV.								
06...	.15	30	440	140	610	84	0	1400
DEC.								
03...	.26	27	440	140	520	136	0	1400
31...	.10	31	520	200	920	184	0	1800
JAN.								
02...	.10	29	450	100	380	138	0	1300
12...	.56	29	440	130	540	158	0	1300
FEB.								
05...	.08	30	490	180	1100	144	0	1600
06...	.06	21	420	120	320	120	0	1100
23...	5.2	23	480	170	1800	144	0	1600
MAR.								
15...	.03	35	470	160	680	208	0	1600
APR.								
15...	.07	29	420	130	330	152	0	1300
17...	.17	19	640	260	3400	162	0	2600
19...	.05	24	490	200	1600	132	0	2100
MAY								
11...	.94	--	720	120	1400	148	0	2200
29...	90	--	370	43	510	110	0	1000
JUNE								
05...	.09	--	420	120	470	84	0	1400
12...	328	--	580	66	640	190	0	1600
14...	121	--	180	26	410	112	0	510
22...	3.8	--	710	130	2500	116	0	1800
JULY								
03...	18	--	440	37	340	72	0	1100
07...	.01	--	580	74	690	128	0	1500
25...	.10	--	810	100	2000	204	0	2100
AUG.								
08...	57	--	260	27	240	104	0	700
19...	40	--	280	40	710	144	0	800
27...	2.0	--	600	75	1300	110	0	1600
SEP.								
01...	.56	--	550	180	2100	184	0	1900
24...	6090	--	320	33	310	124	0	810
25...	454	--	290	48	750	152	0	850
29...	13	--	330	67	1200	148	0	940

RED RIVER BASIN

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

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 18,300 micromhos Apr. 17; minimum daily, 2,000 micromhos Aug. 8, 13.

EXTREMES, July 1968 to September 1971.--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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
02...	1100	.40	3940	1800	1700	6.4	5900	7.5
NOV.								
06...	1100	1.2	3700	1700	1600	6.5	5680	7.5
DEC.								
03...	880	.90	3440	1600	1500	5.5	4650	7.8
31...	1500	1.2	5060	2100	2000	8.7	7540	7.9
JAN.								
02...	660	.80	2960	1500	1400	4.2	3950	7.3
12...	900	1.2	3460	1600	1500	5.8	4640	7.7
FEB.								
05...	1800	1.1	5170	2000	1800	11	7720	7.7
06...	720	.50	2750	1600	1500	3.5	3860	7.9
23...	2900	--	7050	1900	1800	18	11300	7.9
MAR.								
15...	1100	1.0	4080	1800	1600	6.9	5800	7.5
APR.								
15...	580	.30	2880	1600	1500	3.6	3800	7.6
17...	5100	--	12200	2600	2500	29	18300	7.4
19...	2200	--	6680	2000	1900	15	9800	7.5
MAY								
11...	2200	--	6680	2300	2200	13	9700	7.5
29...	740	--	2740	1100	1000	6.7	3940	7.4
JUNE								
05...	720	--	3220	1600	1500	5.2	4330	7.6
12...	930	--	3890	1700	1600	6.7	5390	7.9
14...	590	--	1770	570	480	7.6	2910	7.9
22...	4100	--	9240	2300	2200	23	14400	7.8
JULY								
03...	530	--	2510	1200	1200	4.2	3400	7.5
07...	1100	--	4030	1800	1600	7.2	5780	7.6
25...	3200	--	8400	2400	2300	18	12600	7.8
AUG.								
08...	330	--	1600	760	680	3.8	2350	7.8
19...	1000	--	2930	850	730	11	4500	7.6
27...	2100	--	5700	1800	1700	13	8650	7.7
SEP.								
01...	3200	--	7950	2100	2000	20	12400	7.4
24...	460	--	1990	920	820	4.4	2860	7.3
25...	1100	--	3120	920	800	11	4860	7.3
29...	1900	--	4540	1100	980	16	7400	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 1971

Month	Discharge (cfs-days)	Specific conductance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970 ..	3.11	5810	4020	1.1	34	1150	0.3	9.7	1500	0.41	13
November.....	32.91	4170	2810	8.3	250	810	2.4	72	1030	3.1	92
December.....	7.37	4720	3480	2.2	69	900	.6	18	1410	.9	28
January 1971..	6.44	4750	3530	2.0	61	960	.5	17	1380	.8	24
February.....	32.00	7170	4660	14	403	1650	5.1	142	1380	4.3	120
March.....	7.55	4410	3180	2.1	65	620	.4	13	1470	1.0	30
April.....	.56	13900	9380	.47	14	3670	.18	5.5	2270	.11	3.4
May.....	299.10	4630	3200	83	2580	940	24	755	1100	29	885
June.....	1338.30	3540	2350	283	8480	812	98	2930	670	80	2410
July.....	255.11	6900	4750	106	3270	1420	32	978	1690	37	1160
August.....	2418.91	2880	1940	409	12700	500	105	3240	740	157	4860
September.....	6863.09	2720	1890	1170	35000	430	264	7910	770	478	14300
Total	11264.45	--	--	--	62900	--	--	16100	--	--	23900
Weighted average	30.9	3020	2070	172	--	530	44	--	790	66	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5690	5550	4700	5000	5110	4610	---	---	6500	5990	---	12400
2	5700	5580	4660	3950	5020	4580	---	---	6610	5380	---	9950
3	5670	5610	4650	4000	5120	4600	---	---	5000	3400	---	7710
4	5700	5690	4910	4000	6000	4400	---	---	6630	4000	---	7680
5	5780	5470	4980	---	7720	4280	---	---	4330	4990	---	7000
6	5870	5490	4700	---	3860	4900	---	---	4500	5550	4000	6870
7	5970	5560	4410	---	3900	4400	---	---	4370	5780	4460	6870
8	6000	5600	4560	4000	4000	4280	---	---	4500	---	2000	7000
9	6130	5660	4640	4100	4180	4390	---	4000	6000	---	6670	7400
10	5470	5490	4700	4200	4500	3860	---	7020	5800	---	2500	7270
11	5500	5900	4630	4480	4920	4190	---	9700	3260	---	4120	7620
12	5580	5530	4600	4640	4800	3900	---	6020	4000	---	5630	7800
13	5530	4000	4600	4880	4780	3970	---	5580	3000	---	2000	8050
14	5560	5520	4670	4850	4700	5800	---	5140	2900	---	6000	8210
15	5640	5600	4650	5500	4700	5800	3800	4690	2840	---	5000	8820
16	6340	5790	4870	4820	4720	4230	16700	4700	5390	---	3000	8710
17	5700	5500	4630	4900	4720	4310	18300	4750	6990	---	6600	5840
18	5880	5520	4530	4900	5840	---	14000	4900	8990	---	2500	6560
19	5730	6770	5530	4960	5840	---	9800	4380	9330	---	4500	8000
20	5600	5740	5000	4930	4590	---	9440	4300	10000	5420	6050	13300
21	5620	5500	4580	4790	4500	---	---	6450	10600	5850	8200	12700
22	5590	5600	4800	4840	6000	---	---	4540	14400	6040	8000	11700
23	5590	5790	4880	4910	11300	---	---	4500	7280	5600	7640	5530
24	5580	5120	4850	4900	9810	---	3840	---	5570	5680	2810	2380
25	5600	5680	4700	4800	8500	---	---	---	5600	5500	4760	4860
26	5640	5730	4610	4840	6910	---	---	4290	5120	5450	6710	5500
27	5530	5120	4700	4570	5340	---	---	7700	5000	5550	8650	6760
28	5620	4950	4720	4750	5000	---	---	4340	4700	7000	10200	6320
29	5520	4950	4660	4800	---	---	---	3940	4690	7850	11500	7400
30	5550	4910	4620	4830	---	---	---	5000	4660	7130	13400	8670
31	5550	---	7290	5000	---	---	---	6470	---	7280	13200	---
MONTH	5690	5500	4810	4680	5590	---	---	---	5950	---	6160	7830

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TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

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 1971.

Water temperatures: July 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.								
06...	.27	25	1500	370	12000	90	0	3700
16...	.27	21	1300	350	9800	246	0	3100
NOV.								
06...	.07	23	1500	370	11000	100	0	3600
DEC.								
10...	.24	23	1500	380	11000	138	0	3700
JAN.								
06...	.10	24	1400	370	11000	196	0	3500
FEB.								
08...	.05	22	1500	400	12000	254	0	3800
24...	.12	19	1300	330	9900	204	0	3200
MAR.								
09...	.08	20	1600	360	12000	192	0	3900
APR.								
19...	.08	21	1600	460	18000	206	0	4100
MAY								
10...	7.6	--	880	120	3800	78	0	2300
21...	113	--	800	98	3600	100	0	2100
27...	1.4	--	1200	180	6700	96	0	2900
31...	17	--	820	67	2100	72	0	2100
JUNE								
04...	1.7	--	1100	140	4600	84	0	2500
07...	.49	--	1300	210	7400	126	0	3000
11...	9.0	--	820	120	2200	122	0	2000
12...	19	--	520	49	1400	68	0	1300
JULY								
20...	.10	--	1400	360	10000	216	0	3400
AUG.								
08...	348	--	800	74	2900	110	0	2000
10...	63	--	620	52	980	112	0	1600
13...	214	--	620	47	1300	116	0	1500
24...	103	--	770	68	1900	120	0	2000
SEP.								
17...	94	--	810	91	3100	124	0	2000
24...	663	--	500	37	860	76	0	1300
25...	241	--	760	74	2300	78	0	1800
28...	12	--	1300	240	7700	128	0	3000

RED RIVER BASIN

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

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 78,600 micromhos Apr. 19; minimum daily, 7,660 micromhos Sept. 24.

EXTREMES, July 1968 to September 1971.--Specific conductance: Maximum daily, 118,000 micromhos Apr. 1, 1970; minimum daily, 7,660 micromhos Sept. 24, 1971.

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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.							
06...	19000	36000	5400	5300	72	53700	7.4
16...	16000	30800	4800	4500	62	46500	7.8
NOV.							
06...	18000	35500	5200	5100	66	52900	7.2
DEC.							
10...	18000	35500	5200	5100	66	53000	7.6
JAN.							
06...	18000	35300	5000	4800	68	52100	7.7
FEB.							
09...	19000	36500	5400	5200	71	54300	7.6
24...	16000	30800	4600	4400	64	46800	7.8
MAR.							
09...	20000	37500	5400	5200	71	56100	7.3
APR.							
19...	30000	54200	5900	5730	102	78600	7.5
MAY							
10...	6000	13000	2700	2600	32	20000	7.1
21...	5600	12300	2400	2300	32	19000	7.2
27...	11000	21800	3600	3600	48	33100	7.4
31...	3400	8450	2300	2300	19	13400	7.4
JUNE							
04...	7500	15900	3300	3200	35	24200	7.6
07...	12000	24000	4000	4000	50	36800	7.7
11...	3700	8960	2500	2400	19	13900	7.9
12...	2200	5440	1500	1400	16	8780	7.5
JULY							
20...	17000	33000	5100	4900	62	48900	7.8
AUG.							
08...	4600	10400	2300	2200	26	16000	7.6
10...	1500	4810	1800	1700	10	7130	7.7
13...	2100	5690	1700	1600	14	8930	7.6
24...	3000	7840	2200	2100	18	12000	7.5
SEP.							
17...	5000	11000	2400	2300	28	17300	7.4
24...	1400	4050	1400	1300	10	6390	7.4
25...	3800	8780	2200	2100	21	13600	7.3
28...	12000	24800	4200	4100	52	38600	7.5

RED RIVER BASIN

07299300 LITTLE RED RIVER NEAR TURKEY, TEX.

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Month	Discharge (cfs-days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	4.95	52000	34700	15	463	18000	7.8	241	3540	1.5	47
November.....	2.59	53100	35600	8.3	249	18600	4.3	130	3650	.85	26
December.....	5.95	52700	35300	18	567	18400	9.5	295	3660	1.9	59
January 1971..	3.52	51800	35100	11	333	18400	5.6	175	3460	1.1	33
February.....	1.88	51900	34700	6.3	176	18000	3.3	91	3610	.7	18
March.....	1.62	55000	36700	5.2	161	19600	2.8	86	3830	.5	17
April.....	1.81	56500	38200	6.2	187	20100	3.3	98	3610	.6	18
May.....	1182.83	11400	7080	729	22600	2620	270	8360	1860	192	5950
June.....	89.87	19900	13000	105	3160	5920	48	1440	2290	19	556
July.....	6.20	51900	35000	19	586	18300	9.9	306	3570	1.9	60
August.....	2055.71	10500	6730	1210	37400	2580	462	14300	1740	311	9650
September.....	1211.52	13400	8670	946	28400	3770	411	12300	1730	189	5670
Total	4568.45	--	--	--	94300	--	--	37800	--	--	22100
Weighted average	12.5	12000	7640	258	--	3070	104	--	1790	61	--

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51500	53000	52200	53000	51600	52900	57100	58900	20000	48700	52000	45900
2	51600	52800	53000	51100	52500	54300	54800	---	32100	52400	52100	47200
3	52200	52700	53000	51000	52900	54100	55200	---	34500	52100	54500	49100
4	52800	52500	51300	51000	52800	54500	55000	---	24200	53000	53200	48800
5	53300	52500	52700	51500	52700	54800	55000	---	41400	54300	52900	48800
6	53700	52900	52900	52100	52700	55300	54100	---	30000	55400	20000	47500
7	53800	53000	52900	53000	53000	55000	55300	---	36800	56200	20000	47900
8	53800	53000	52700	54500	54300	54500	57100	---	37000	54100	10000	45000
9	53700	53700	52600	52900	52600	56100	57700	11700	32200	55300	16200	48600
10	52500	53300	53000	52000	52000	54300	55800	20000	18000	53500	8000	49400
11	53600	54000	53000	50100	51800	54900	55800	35300	13900	54000	16500	49500
12	53600	53700	53100	50500	52000	54500	55800	41800	8780	54900	23300	50000
13	53400	53700	53000	49800	52900	54800	57600	46700	10000	57600	10000	51200
14	53400	52900	52700	50500	53000	55000	---	49300	28600	57300	9000	53300
15	51600	52000	52200	50500	53000	55800	---	47600	37700	55000	15000	52100
16	46500	52100	52600	50800	54200	54300	64200	50000	48900	56300	10000	51700
17	47300	52100	52500	52000	53400	55000	47500	51200	50400	55100	12000	15900
18	49000	52400	53100	52300	52700	56000	60000	52300	53300	55500	17600	20000
19	51100	53300	53300	51800	55000	56500	78600	51900	52200	55700	34000	30000
20	51600	53000	53000	52500	54200	54900	75500	51900	52200	48900	35000	38900
21	51600	52400	52300	52400	54000	55000	68700	18300	51800	48900	35900	47500
22	51800	53000	52200	52400	50000	55000	69600	21500	51700	51200	12000	48000
23	52000	53400	52900	52600	47700	54800	---	30000	52200	51700	14500	25000
24	52500	53300	52600	52500	46800	55800	---	47300	53500	51600	10000	7660
25	52700	53800	52600	52500	50000	54900	---	52400	55400	51700	8000	18000
26	52900	55000	52700	52500	52400	55500	---	52300	53900	52000	11200	20000
27	52900	53400	52600	52400	52700	55600	---	33100	53900	53000	16300	25000
28	53100	53400	52500	52200	52800	55600	---	40800	53700	48000	19700	38600
29	52900	53000	52300	52500	---	55500	60000	10300	53300	49500	20000	38800
30	52900	52500	52700	52500	---	55300	59300	8380	53500	50700	36200	40700
31	53100	---	53100	52500	---	57600	---	13400	---	52000	42900	---
MONTH	52210	53060	52690	51930	52350	55100	---	---	39840	53080	24130	40000

TEMPERATURE (C°) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	---	9.0	---	3.0	13.0	11.0	15.0	---	29.0	---	23.0
2	26.0	---	6.0	3.0	3.0	2.0	11.0	---	27.0	30.0	24.0	21.0
3	15.0	---	10.0	---	13.0	1.0	8.0	---	21.0	22.0	27.0	22.0
4	---	9.0	7.0	---	---	---	---	---	27.0	---	21.0	21.0
5	22.0	7.0	6.0	---	5.0	8.0	8.0	---	20.0	30.0	25.0	---
6	25.0	7.0	---	4.0	1.0	4.0	13.0	---	---	28.0	23.0	25.0
7	23.0	7.0	5.0	---	---	---	10.0	---	26.0	30.0	20.0	25.0
8	---	---	9.0	0.0	3.0	8.0	11.0	---	---	30.0	21.0	---
9	5.0	6.0	8.0	0.0	7.0	15.0	14.0	---	30.0	31.0	20.0	26.0
10	9.0	6.0	15.0	---	---	7.0	10.0	15.0	20.0	24.0	20.0	20.0
11	---	14.0	9.0	8.0	8.0	12.0	---	19.0	20.0	---	21.0	20.0
12	11.0	10.0	2.0	6.0	---	13.0	15.0	18.0	20.0	26.0	22.0	---
13	12.0	---	---	12.0	4.0	10.0	17.0	25.0	---	30.0	25.0	26.0
14	13.0	4.0	3.0	10.0	---	---	---	23.0	30.0	30.0	21.0	31.0
15	10.0	---	5.0	5.0	5.0	15.0	---	15.0	30.0	28.0	---	16.0
16	10.0	3.0	3.0	4.0	15.0	9.0	14.0	---	23.0	31.0	23.0	21.0
17	10.0	10.0	9.0	---	10.0	12.0	15.0	22.0	31.0	23.0	25.0	15.0
18	---	12.0	9.0	10.0	15.0	---	---	20.0	28.0	---	21.0	11.0
19	12.0	14.0	4.0	5.0	16.0	8.0	16.0	18.0	21.0	25.0	22.0	---
20	13.0	13.0	---	12.0	6.0	5.0	15.0	21.0	---	26.0	29.0	10.0
21	16.0	5.0	7.0	6.0	---	---	23.0	19.0	26.0	24.0	22.0	12.0
22	20.0	---	3.0	10.0	---	7.0	17.0	19.0	28.0	25.0	---	16.0
23	---	3.0	2.0	2.0	5.0	9.0	---	---	30.0	28.0	25.0	13.0
24	10.0	9.0	3.0	---	13.0	7.0	---	26.0	30.0	27.0	22.0	15.0
25	---	14.0	---	6.0	---	10.0	---	24.0	29.0	---	25.0	14.0
26	12.0	15.0	1.0	7.0	9.0	13.0	---	25.0	20.0	29.0	25.0	---
27	9.0	11.0	---	13.0	5.0	10.0	---	20.0	---	30.0	27.0	19.0
28	15.0	5.0	5.0	7.0	---	---	---	26.0	21.0	27.0	22.0	20.0
29	9.0	---	7.0	---	---	10.0	---	18.0	21.0	24.0	---	24.0
30	10.0	11.0	5.0	5.0	---	16.0	13.0	---	25.0	21.0	33.0	20.0
31	9.0	---	0.0	---	---	11.0	---	25.0	---	18.0	20.0	---
MONTH	14.0	---	6.0	---	---	9.5	---	---	25.0	27.0	23.5	19.5

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. Highways 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 1971.
Water temperatures: July 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.								
05...	2.5	7.5	1800	450	21000	118	0	4900
NOV.								
06...	.43	8.4	1700	390	20000	124	0	4700
DEC.								
05...	2.0	9.0	1700	380	20000	136	0	4600
JAN.								
14...	1.5	11	1600	380	20000	140	0	4600
FEB.								
08...	1.5	12	1900	450	24000	150	0	5200
23...	50	7.9	1100	230	11000	100	0	2600
MAR.								
01...	4.9	9.3	1700	380	20000	130	0	4700
29...	.92	12	1800	420	24000	126	0	5100
APR.								
10...	.07	8.6	1800	450	23000	120	0	5100
16...	163	8.9	1500	290	19000	104	0	4200
17...	78	10	1200	280	13000	104	0	3400
MAY								
10...	528	--	800	120	3800	156	0	2200
11...	63	--	940	140	5100	112	0	2500
23...	1.4	--	1400	290	12000	116	0	3900
31...	803	--	620	76	2200	116	0	1700
JUNE								
01...	312	--	760	98	3400	116	0	2000
09...	621	--	420	61	2300	168	0	1100
15...	501	--	400	59	1500	164	0	1100
19...	5.4	--	780	150	6000	116	0	2000
22...	.43	--	1400	310	14000	96	0	3700
JULY								
03...	24	--	700	98	4900	84	0	1800
04...	35	--	680	93	2600	112	0	1800
23...	21	--	1400	260	13000	104	0	3500
29...	8.9	--	500	60	2600	84	0	1200
AUG.								
09...	2440	--	240	20	680	110	0	580
13...	1630	--	190	15	420	140	0	420
26...	90	--	660	81	2100	102	0	1800
28...	5.4	--	920	140	5400	104	0	2400
SEP.								
09...	14	--	1200	250	13000	104	0	3200
18...	79	--	720	140	5400	98	0	1800
25...	2860	--	460	74	1400	140	0	1300
28...	74	--	560	72	2500	130	0	1400

RED RIVER BASIN

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

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 95,800 micromhos May 6; minimum daily, 3,000 micromhos Aug. 13.

Water temperatures: Maximum, 35.0°C July 2, 16, 28; minimum, freezing point on several days during winter months.

EXTREMES, July 1968 to September 1971.--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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.							
05...	34000	62000	6200	6100	115	86500	7.3
NOV.							
06...	32000	59200	5800	5700	114	83100	7.6
DEC.							
05...	32000	59200	5800	5700	114	85700	7.6
JAN.							
14...	32000	58300	5700	5600	117	81900	7.6
FEB.							
08...	38000	69000	6600	6400	129	93400	7.6
23...	17000	31900	3700	3600	79	49600	7.6
MAR.							
01...	32000	59100	5700	5600	114	81500	7.5
29...	37000	67900	6200	6100	132	90300	7.4
APR.							
10...	36000	66400	6400	6400	126	92200	7.1
16...	30000	54900	4900	4800	118	79100	7.1
17...	20000	37700	4200	4200	88	57000	7.2
MAY							
10...	5900	12800	2500	2400	33	19800	7.6
11...	8000	16800	2900	2800	41	25000	7.6
23...	20000	38000	4800	4700	76	56100	7.4
31...	3400	8140	1900	1800	22	12800	7.7
JUNE							
01...	5300	11600	2300	2200	31	18000	7.7
09...	3600	7450	1300	1200	28	12500	7.9
15...	2300	5450	1200	1100	19	8950	7.9
19...	9400	18400	2600	2500	52	28400	7.8
22...	22000	42200	4800	4700	88	62100	7.4
JULY							
03...	7800	15200	2200	2100	46	23600	7.3
04...	4000	9240	2100	2000	25	14500	7.5
23...	21000	39900	4600	4500	84	60200	7.4
29...	4100	8480	1500	1400	29	13800	7.7
AUG.							
09...	1000	2600	680	590	11	4160	7.6
13...	630	1740	520	410	7.9	2890	7.8
26...	3200	7840	2000	1900	21	12300	7.5
28...	8600	17600	2900	2800	44	26600	7.6
SEP.							
09...	20000	37400	4200	4100	89	53400	7.0
18...	8800	16900	2400	2300	48	26200	7.1
25...	2100	5380	1400	1300	16	8610	7.4
28...	4000	8650	1700	1600	26	13900	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 1971

Month	Discharge (cfs-days)	Specific conductance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970 ..	185.76	53000	33500	541	16800	18000	291	9020	2760	45	1380
November.....	88.59	82900	59000	471	14100	31900	254	7620	4700	37	1120
December.....	84.3	81200	55700	409	12700	30000	220	6830	4380	32	997
January 1971..	63.60	81900	58200	322	9990	31900	177	5480	4590	25	788
February.....	145.5	67700	47000	660	18500	25500	358	10000	3710	52	1460
March.....	61.02	85000	61900	329	10200	33600	179	5530	4880	26	804
April.....	404.46	71700	49200	1790	53800	26600	968	29100	4070	148	4450
May.....	3038.92	20900	13800	3660	113000	6430	1700	52800	2230	591	18300
June.....	8160.78	10900	6770	4970	149000	3050	2240	67300	1160	851	25500
July.....	252.76	23900	15700	345	10700	7720	170	5270	2050	45	1400
August.....	12274.2	7780	4850	5190	161000	1970	2100	65200	1090	1160	36100
September.....	7723.52	10900	6930	4820	145000	2950	2050	61500	1430	993	29800
Total	32483.41	--	--	--	715000	--	--	326000	--	--	122000
Weighted average	89.0	12700	8140	1960	--	3710	892	--	1390	335	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82900	77700	81500	80500	82700	81500	87200	85500	18000	62000	38900	43100
2	82700	82100	81900	78700	84400	84500	95000	91200	26900	84100	68500	58300
3	84100	81700	83600	78500	82400	84200	91700	92400	42300	23600	77400	64400
4	85400	84800	83900	94600	85100	82600	88300	88800	15800	14500	84900	66200
5	86500	82700	85700	80300	84700	82600	91400	95400	21900	25000	84200	67000
6	85100	83100	85700	85100	82700	83900	86500	95800	41600	46700	85200	72400
7	89500	82800	83000	81900	81200	86200	88000	91600	48700	59700	30000	70000
8	87200	83700	82100	81200	93400	85200	91400	75000	56400	76100	16300	70200
9	84000	88500	81700	80900	76800	85100	91000	25000	12500	75500	4160	53400
10	84500	87700	80300	77900	80600	90200	92200	19800	14100	78100	6000	69500
11	87600	85500	83300	79900	81900	86900	89500	25000	10400	83500	9800	65800
12	84400	85800	84300	81200	86200	83900	95100	38100	9420	88500	12800	66700
13	90200	81400	81100	80900	85800	84900	91800	53800	11600	90400	3000	67500
14	85500	81100	82100	81900	83700	90600	91400	72000	9510	92400	7500	76900
15	80000	81700	78200	81500	83700	87300	94600	76300	8950	91200	12400	78800
16	50000	81400	77600	82200	83400	85200	79100	79200	9290	91200	8000	78800
17	35000	83400	82100	82500	85400	84900	57000	81700	11900	89600	11500	35000
18	50000	80800	81400	81500	84400	85900	55800	89200	17300	93200	10000	26200
19	60000	85500	82100	80900	83800	87300	73400	87700	28400	94100	9560	24400
20	77500	85700	81400	81200	83500	88000	75400	88800	45800	90000	13900	29900
21	80000	84100	81700	83500	83000	85500	77900	86900	56700	84100	27600	38400
22	81500	86200	80100	83100	65000	86900	83800	88800	62100	76100	31100	44300
23	84400	86900	81300	83800	49600	86900	87200	75000	67700	60200	42000	20000
24	83500	83100	81700	81900	61700	85500	86900	81700	71700	55200	15000	10000
25	82700	83700	83300	81500	70100	83100	90200	91200	80900	65700	10000	8610
26	83800	87300	83600	83100	79600	83100	89500	91600	79000	81800	12300	10700
27	85500	86600	83300	82500	83100	83200	89100	88800	83500	87000	19100	12400
28	84100	83100	81700	81900	82500	88400	92600	90700	83500	20000	26600	13900
29	83500	82400	81100	81500	---	90300	88000	50000	86000	13800	37700	15800
30	83800	82400	82600	81900	---	87700	86200	20000	84600	13700	49300	18400
31	85100	---	89200	83100	---	89500	---	12600	---	20600	26400	---
MONTH	79810	83760	82340	81970	80370	85840	85910	71920	40550	65410	28750	45900

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 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	7.0	15.0	5.0	0.0	1.0	15.0	20.0	30.0	20.0	20.0	28.0
2	16.0	5.0	10.0	0.0	2.0	3.0	15.0	---	30.0	35.0	34.0	30.0
3	15.0	6.0	8.0	0.0	9.0	5.0	7.0	12.0	28.0	26.0	27.0	22.0
4	18.0	8.0	14.0	0.5	5.0	15.0	7.0	25.0	30.0	25.0	23.0	24.0
5	18.0	3.0	5.0	0.0	8.0	15.0	5.0	20.0	23.0	25.0	25.0	24.0
6	17.0	9.0	0.0	0.5	0.0	5.0	18.0	20.0	24.0	25.0	22.0	21.0
7	24.0	6.0	3.0	0.0	0.0	0.0	15.0	15.0	23.0	28.0	26.0	30.0
8	8.0	10.0	10.0	8.0	0.5	3.0	8.0	15.0	27.0	33.0	21.0	29.0
9	20.0	7.0	14.0	9.0	7.0	15.0	9.0	15.0	23.0	25.0	20.0	20.0
10	17.0	15.0	13.0	0.0	5.0	17.0	12.0	17.0	20.0	24.0	23.0	22.0
11	7.0	8.0	8.0	5.0	5.0	7.0	26.0	20.0	19.0	22.0	23.0	29.0
12	17.0	5.0	0.0	4.0	3.0	9.0	18.0	15.0	21.0	30.0	25.0	23.0
13	20.0	9.0	1.0	9.0	2.0	10.0	20.0	10.0	21.0	30.0	21.0	29.0
14	8.0	6.0	10.0	8.0	0.0	10.0	20.0	25.0	21.0	30.0	20.0	27.0
15	11.0	0.0	13.0	10.0	10.0	4.0	13.0	23.0	31.0	29.0	23.0	21.0
16	---	3.0	12.0	4.0	15.0	21.0	18.0	20.0	24.0	35.0	22.0	21.0
17	---	14.0	4.0	2.0	11.0	15.0	15.0	18.0	32.0	28.0	25.0	15.0
18	---	15.0	10.0	4.0	11.0	11.0	15.0	18.0	25.0	25.0	25.0	11.0
19	---	6.0	4.0	10.0	11.0	5.0	15.0	20.0	23.0	25.0	22.0	10.0
20	---	2.0	9.0	4.0	11.0	4.0	18.0	28.0	23.0	20.0	25.0	10.0
21	---	5.0	9.0	8.0	---	9.0	25.0	15.0	23.0	28.0	21.0	10.0
22	17.0	4.0	11.0	1.0	---	5.0	25.0	22.0	20.0	29.0	23.0	16.0
23	14.0	7.0	7.0	5.0	0.0	15.0	13.0	18.0	20.0	25.0	25.0	13.0
24	16.0	10.0	5.0	15.0	9.0	5.0	13.0	20.0	25.0	32.0	25.0	15.0
25	25.0	5.0	0.0	5.0	7.0	11.0	15.0	15.0	32.0	29.0	25.0	15.0
26	15.0	10.0	0.0	12.0	13.0	15.0	15.0	15.0	25.0	30.0	25.0	20.0
27	9.0	9.0	12.0	5.0	4.0	13.0	19.0	18.0	20.0	33.0	20.0	20.0
28	13.0	4.0	10.0	1.0	4.0	14.0	15.0	20.0	20.0	35.0	28.0	20.0
29	20.0	7.0	10.0	4.0	---	10.0	26.0	18.0	28.0	20.0	24.0	25.0
30	8.0	10.0	8.0	4.0	---	20.0	28.0	17.0	22.0	25.0	22.0	20.0
31	8.0	---	9.0	0.0	---	19.0	---	20.0	---	24.0	22.0	---
MONTH	15.5	7.0	8.0	4.5	6.0	10.0	16.0	18.5	24.5	27.5	23.5	20.5

RED RIVER BASIN

07299570 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 1971.

Pesticide analyses: March 1968 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 26...	1205	.38	14	980	280	4700	134	0	2700
NOV. 30...	1305	.94	9.3	880	480	3200	90	0	2600
JAN. 27...	1510	2.5	10	870	230	3300	162	0	2500
MAR. 15...	1320	1.3	12	910	270	3500	134	0	2800
APR. 20...	1210	2.9	14	1100	240	7200	106	0	3100
MAY 24...	1540	2.4	15	280	73	790	111	0	720
JUNE 07...	1430	6.2	--	880	140	4000	96	0	2400
10...	1310	166	18	500	120	2200	134	0	1400
JULY 01...	1410	79	--	640	120	1900	106	0	1800
AUG. 14...	1200	1900	11	300	23	990	116	0	770
19...	1620	1900	18	600	68	1600	143	0	1600
SEP. 25...	1645	4120	17	580	40	1700	184	0	1400

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 26...	7800	--	16500	3600	3500	34	23900	7.4	22.5
NOV. 30...	6000	--	13200	4200	4100	--	19700	7.5	19.0
JAN. 27...	5400	--	12400	3100	3000	--	17600	7.3	--
MAR. 15...	5600	--	13200	3400	3300	26	18800	7.3	17.0
APR. 20...	12000	.2	23200	3800	3700	51	36800	7.4	22.0
MAY 24...	1300	.6	3260	1000	910	11	5550	7.3	28.0
JUNE 07...	6300	--	13700	2800	2700	33	22000	7.4	34.0
10...	3400	--	7700	1700	1600	23	12200	7.4	23.0
JULY 01...	3000	--	7570	2100	2000	18	11800	7.8	34.0
AUG. 14...	1500	--	3600	830	740	--	5900	7.0	25.0
19...	2500	.7	6510	1800	1700	17	9950	7.0	29.0
SEP. 25...	2600	--	6430	1600	1400	18	10200	7.3	22.5

RED RIVER BASIN

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07299570 RED RIVER NEAR QUANAH, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 30...	1305	.94	.00	.00	.00	.01	.00	.00	.00	.00
JAN. 27...	1510	2.5	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 07...	1430	6.2	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 30...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
JAN. 27...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
JUNE 07...	.00	.0	.00	.00	.00	.00	.0	.00	.01	.00

RED RIVER BASIN

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 1971.

Water temperatures: October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
02...	3.2	20	520	98	120	60	0	1600	190
NOV.									
22...	9.8	24	520	93	120	70	0	1600	180
25...	11	18	510	99	220	98	0	1600	320
DEC.									
06...	13	17	500	95	160	116	0	1500	230
30...	14	18	510	110	200	128	0	1600	280
JAN.									
01...	15	12	470	65	120	140	0	1300	160
10...	12	16	460	81	160	188	0	1300	220
27...	10	16	510	94	190	164	0	1500	260
FEB.									
08...	6.0	17	470	94	140	120	0	1400	240
23...	8.0	15	510	110	210	178	0	1500	360
MAR.									
08...	12	16	510	67	230	168	0	1500	260
APR.									
01...	4.6	17	540	110	200	148	0	1700	270
06...	5.9	16	390	80	140	112	0	1200	210
16...	13	13	520	140	360	164	0	1700	510
MAY									
09...	4.6	--	560	110	220	130	0	1700	320
21...	1.8	--	540	91	130	140	0	1600	190
31...	5.0	--	560	98	200	164	0	1700	260
JUNE									
09...	248	--	290	42	95	136	0	760	140
11...	54	--	320	49	170	128	0	890	250
14...	38	--	390	65	170	140	0	1100	240
28...	5.9	--	540	110	100	83	0	1600	210
JULY									
03...	18	--	340	48	77	124	0	900	120
20...	2.5	--	550	85	130	108	0	1600	200
AUG.									
16...	3.2	19	470	80	140	98	0	1400	200
22...	2.2	21	320	51	89	164	0	870	110
23...	5.0	15	400	55	100	152	0	1100	140
SEP.									
09...	2.5	20	540	81	140	88	0	1600	200
24...	266	8.1	210	31	73	100	0	560	100
25...	146	16	260	51	140	140	0	770	180

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

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 4,080 micromhos Apr. 16; minimum daily, 1,000 micromhos Sept. 24.
Water temperatures: Maximum, 36.0°C July 5; minimum, freezing point Jan. 4-6.

EXTREMES, October 1967 to September 1971.--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; 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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
02...	.5	1.4	2570	1700	1700	1.3	3000	7.4
NOV.								
22...	--	1.3	2550	1700	1600	1.3	2940	7.8
25...	--	1.7	2790	1700	1600	2.3	3430	7.6
DEC.								
06...	--	1.5	2570	1600	1500	1.7	3080	7.5
30...	--	1.9	2770	1700	1600	2.1	3370	7.7
JAN.								
01...	.5	1.1	2200	1400	1300	1.4	2480	7.8
10...	.5	1.1	2330	1500	1300	1.8	2840	7.5
27...	--	1.5	2660	1700	1500	2.0	3250	7.8
FEB.								
08...	--	1.7	2390	1600	1500	1.5	3000	7.6
23...	--	1.2	2790	1700	1600	2.2	3490	7.7
MAR.								
08...	--	1.5	2640	1600	1400	2.5	3110	7.1
APR.								
01...	--	1.7	2880	1880	1700	2.1	3300	7.5
06...	.5	2.3	2080	1300	1200	1.7	2570	7.3
16...	--	.70	3360	1900	1800	3.6	4080	7.5
MAY								
09...	--	--	2980	1800	1700	2.2	3510	7.7
21...	--	--	2580	1700	1600	1.4	2990	7.5
31...	--	--	2870	1800	1700	2.1	3300	7.7
JUNE								
09...	--	--	1400	900	790	1.4	1880	7.8
11...	--	--	1740	1000	900	2.3	2190	7.9
14...	--	--	2050	1200	1100	2.1	2610	8.0
28...	--	--	2590	1800	1700	1.0	3120	7.6
JULY								
03...	--	--	1540	1000	940	1.0	1980	7.8
20...	--	--	2600	1700	1600	1.4	3000	7.7
AUG.								
16...	.5	1.5	2320	1500	1400	1.6	2740	7.7
22...	.5	4.0	1570	1000	940	1.2	1950	8.0
23...	.4	1.2	1850	1200	1100	1.2	2290	7.9
SEP.								
09...	.5	1.3	2600	1700	1600	1.5	3000	7.7
24...	--	1.1	1040	660	570	1.2	1460	7.9
25...	.5	1.3	1500	870	760	2.1	2040	7.9

RED RIVER BASIN

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

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (second- foot days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	148.8	3090	2660	34	1070	190	2.5	78	1640	21	657
November.....	306.4	3170	2770	76	2290	190	5.3	158	1710	47	1410
December.....	465	3180	2670	108	3350	240	9.7	301	1560	63	1960
January 1971..	324.5	3130	2560	72	2250	250	7.1	220	1450	41	1270
February.....	337.8	3190	2540	83	2320	260	8.5	237	1440	47	1310
March.....	287.0	3150	2680	67	2080	260	6.6	205	1500	37	1160
April.....	183.1	3220	2670	44	1320	270	4.4	133	1500	25	743
May.....	80.92	3130	2710	19	592	220	1.6	48	1620	11	353
June.....	913.0	2070	1580	130	3900	180	15	453	870	72	2160
July.....	136.7	2840	2430	29	896	190	2.2	68	1470	18	543
August.....	86.9	2950	2550	19	597	190	1.5	45	1540	12	361
September.....	557.8	1830	1390	70	2100	140	6.9	207	780	39	1170
Total	3827.92	--	--	--	22800	--	--	2150	--	--	13100
Weighted average	10.5	2690	2200	62	--	210	5.9	--	1270	36	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3010	3170	3210	2480	3060	3210	3300	2960	3140	2970	3010	3090
2	3000	3170	3200	3000	3120	3170	3200	2980	3010	2980	3010	3060
3	3070	3140	3180	3000	3130	3100	3040	3020	3030	1980	3000	3010
4	3050	3130	3090	3560	3220	3120	3000	2930	3160	2950	2980	2990
5	3090	3140	3240	3050	3080	3180	2990	2950	3070	2970	3020	3120
6	3010	3150	3080	3200	3150	3140	2570	2940	3080	1900	2990	3070
7	3090	3150	3150	3220	3080	3030	3090	2910	2980	3040	2990	3110
8	3040	3120	3170	3280	3000	3110	3100	3200	2960	3000	3020	3090
9	3030	3160	3160	3000	3120	3140	3250	3510	1200	3010	3040	3000
10	3090	3100	3100	2840	3100	3120	3080	3150	1500	3030	3060	3060
11	3090	3220	3150	3080	3230	3130	3100	3040	2190	3020	3030	3010
12	3080	3140	3110	3070	3150	3120	3120	3020	3170	3010	3010	3050
13	3080	3110	3170	3220	3120	3220	3330	3020	2500	2970	3020	3080
14	3070	3200	3210	3120	3150	3220	3020	3000	2610	2950	3090	3040
15	3070	3270	3160	3070	3130	3210	2990	2970	3150	2990	3020	3100
16	3050	3240	3240	3150	3130	3140	4080	3040	3200	2940	2740	3110
17	3150	3300	3200	3180	3080	3220	3740	3030	2790	3000	3000	3360
18	3190	3200	3170	3170	3190	3330	3400	2940	3120	3060	3090	2890
19	3170	3250	3180	3160	3320	3170	3270	2960	2270	2970	3090	2900
20	3120	3100	3180	3170	3130	3210	3340	2930	2700	3000	3100	2980
21	3010	3180	3210	3220	3250	3180	3190	2990	3160	2970	3120	3100
22	3020	2940	3180	3220	3490	3110	3020	3020	3080	3000	1950	3130
23	3090	3130	3170	3190	3490	3090	2990	3100	3120	3050	2290	3140
24	3070	3110	3060	3190	3150	3100	2950	3040	3090	2990	3050	1000
25	3080	3300	3100	3280	3410	3160	3090	3080	3080	2920	2980	2040
26	3090	3270	3110	3260	3260	3250	2990	3070	3170	3450	3020	3310
27	3090	3210	3150	3250	3120	3160	2990	3000	3170	3050	3020	3310
28	3080	3190	3190	3270	3200	3160	3030	3040	3120	2870	3030	3330
29	3150	3170	3170	3280	---	3130	3000	3400	3160	3010	3010	3330
30	3160	3190	3370	3220	---	3130	3000	3350	3110	2990	3020	3240
31	3160	---	3370	3220	---	3160	---	3300	---	2990	3050	---
MONTH	3080	3170	3180	3150	3180	3160	3140	3060	2870	2940	2960	3000

RED RIVER BASIN

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	---	16.0	11.0	5.0	13.0	20.0	20.0	30.0	25.0	28.0	30.0
2	22.0	13.0	---	5.0	4.0	5.0	17.0	29.0	31.0	25.0	31.0	31.0
3	28.0	9.0	14.0	---	12.0	5.0	9.0	26.0	32.0	22.0	32.0	30.0
4	25.0	12.0	12.0	0.0	5.0	15.0	---	18.0	22.0	35.0	29.0	25.0
5	25.0	7.0	11.0	0.0	12.0	14.0	10.0	22.0	30.0	36.0	30.0	31.0
6	32.0	19.0	12.0	0.0	5.0	12.0	18.0	29.0	32.0	29.0	27.0	32.0
7	24.0	---	14.0	3.0	---	12.0	12.0	19.0	27.0	30.0	32.0	31.0
8	8.0	19.0	15.0	---	5.0	16.0	10.0	---	26.0	30.0	30.0	31.0
9	15.0	16.0	15.0	5.0	6.0	18.0	20.0	24.0	20.0	27.0	31.0	24.0
10	20.0	7.0	14.0	5.0	10.0	18.0	24.0	29.0	20.0	35.0	26.0	29.0
11	20.0	15.0	9.0	9.0	10.0	10.0	---	18.0	21.0	30.0	32.0	30.0
12	25.0	9.0	6.0	2.0	10.0	20.0	25.0	22.0	27.0	34.0	30.0	---
13	24.0	6.0	12.0	15.0	5.0	23.0	20.0	26.0	29.0	34.0	31.0	31.0
14	19.0	---	10.0	10.0	10.0	---	22.0	27.0	27.0	25.0	33.0	30.0
15	15.0	13.0	10.0	8.0	11.0	19.0	21.0	26.0	35.0	35.0	28.0	29.0
16	12.0	15.0	6.0	8.0	15.0	20.0	18.0	30.0	34.0	32.0	26.0	27.0
17	12.0	16.0	---	---	12.0	15.0	20.0	30.0	32.0	33.0	28.0	15.0
18	15.0	14.0	9.0	9.0	15.0	10.0	---	26.0	32.0	34.0	31.0	12.0
19	21.0	14.0	7.0	---	10.0	12.0	18.0	18.0	33.0	35.0	32.0	---
20	24.0	15.0	8.0	6.0	10.0	12.0	12.0	20.0	---	28.0	---	24.0
21	20.0	14.0	10.0	15.0	---	20.0	28.0	27.0	30.0	32.0	30.0	28.0
22	24.0	7.0	15.0	12.0	---	10.0	20.0	33.0	24.0	---	30.0	15.0
23	20.0	5.0	9.0	6.0	5.0	12.0	15.0	27.0	35.0	30.0	26.0	9.0
24	12.0	8.0	10.0	15.0	12.0	10.0	18.0	26.0	23.0	32.0	32.0	17.0
25	23.0	10.0	---	14.0	10.0	8.0	24.0	28.0	24.0	29.0	26.0	18.0
26	23.0	18.0	10.0	11.0	10.0	20.0	18.0	32.0	31.0	31.0	30.0	26.0
27	15.0	8.0	15.0	10.0	8.0	17.0	20.0	20.0	---	33.0	30.0	25.0
28	16.0	15.0	12.0	13.0	---	---	27.0	25.0	25.0	26.0	31.0	25.0
29	15.0	17.0	10.0	14.0	---	16.0	21.0	17.0	32.0	28.0	28.0	29.0
30	20.0	12.0	11.0	15.0	---	15.0	27.0	---	22.0	22.0	32.0	21.0
31	---	---	7.0	---	---	14.0	---	31.0	---	20.0	30.0	---
MONTH	20.0	12.5	11.0	8.5	9.0	14.0	19.0	25.0	28.0	30.0	29.5	25.0

RED RIVER BASIN

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 22...	1010	1.6	23	66	20	130	204	0	130
DEC. 18...	1205	31	23	56	18	120	174	0	130
MAR. 10...	1300	31	20	66	19	120	212	0	130
30...	1030	9.6	20	58	19	120	198	0	130
APR. 15...	1455	7.5	29	40	27	100	134	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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 22...	160	.6	.00	630	250	80	3.6	1080	7.6
DEC. 18...	140	.7	.10	564	210	71	3.6	941	7.6
MAR. 10...	140	.7	.60	608	240	66	3.3	1070	7.6
30...	140	.7	.30	589	220	60	3.5	970	7.6
APR. 15...	130	.6	.00	527	210	100	3.0	923	7.7

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT. 06...	1115	1.0	31	170	41	77	228	0	460	63
NOV. 18...	1135	11	260	100	23	65	256	0	210	39
DEC. 09...	1240	11	23	100	20	56	284	0	160	34
MAR. 10...	0945	7.9	22	96	19	56	310	0	130	36
APR. 14...	1050	7.2	34	45	22	54	120	0	170	32

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 06...	.5	.9	95H	590	410	1.4	1350	7.7
NOV. 18...	.6	.8	593	350	140	--	887	7.8
DEC. 09...	.6	.9	540	330	100	1.3	825	7.6
MAR. 10...	.6	.6	510	320	64	1.4	780	7.7
APR. 14...	.5	.4	416	200	100	1.6	651	7.5

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 1971.

Water temperatures: July 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.								
03...	1.4	10	1000	200	4400	84	0	2700
27...	2.0	11	1100	240	6400	92	0	3000
NOV.								
03...	2.8	10	1400	270	5400	84	0	2900
10...	3.2	9.7	1600	320	7600	100	0	3300
DEC.								
05...	3.6	8.2	1400	290	5900	160	0	3000
JAN.								
02...	2.4	3.7	630	75	2600	74	0	2400
04...	2.4	10	1000	190	5100	144	0	2600
20...	2.8	9.0	1200	230	6800	162	0	3000
FEB.								
03...	4.0	8.0	1000	200	5700	124	0	2900
22...	1.6	8.7	1100	220	7700	136	0	2900
MAR.								
16...	2.4	11	1200	240	6400	180	0	3100
APR.								
13...	.63	11	1400	280	8700	142	0	3500
18...	32	8.4	1100	230	5700	114	0	2700
MAY								
04...	1.2	--	1200	230	5800	124	0	3000
21...	.63	--	1100	210	4900	148	0	2800
28...	.31	--	1300	270	9200	76	0	3500
29...	1250	--	370	32	700	104	0	930
31...	2030	--	230	31	370	164	0	560
JUNE								
01...	464	--	250	38	640	148	0	590
09...	42	--	380	56	1300	124	0	950
11...	.40	--	280	27	510	172	0	620
28...	.98	--	1000	200	4600	140	0	2600
JULY								
10...	.50	--	1300	240	7400	116	0	3300
24...	.19	--	980	210	3300	152	0	2500
AUG.								
05...	.07	--	1000	190	3600	132	0	2500
10...	235	--	520	49	1400	128	0	1300
16...	1010	--	230	16	330	132	0	530
25...	1290	--	270	42	1000	136	0	650
SEP.								
09...	119	--	380	37	1200	86	0	940
17...	173	--	540	110	2200	108	0	1300
24...	2160	--	270	31	630	84	0	660
25...	2560	--	160	20	410	132	0	400

RED RIVER BASIN

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07307800 PEASE RIVER NEAR CHILDRESS, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 42,900 micromhos May 28; minimum daily, 2,320 micromhos Sept. 18.

Water temperatures: Maximum, 33.0°C June 5, July 5, 7, 16; minimum, freezing point Feb. 7.

EXTREMES, July 1968 to September 1971.--Specific conductance: Maximum daily, 42,900 micromhos May 28, 1971; minimum daily, 2,300 micromhos Apr. 16, 1970.

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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.							
03...	7200	15600	3400	3300	33	24400	7.3
27...	10000	21000	3800	3700	46	32000	7.3
NOV.							
03...	9300	19300	4600	4500	35	29700	7.3
10...	13000	25900	5300	5200	45	38800	7.5
DEC.							
05...	10000	20900	4800	4600	38	32100	7.4
JAN.							
02...	3600	9310	1900	1800	26	14400	7.4
04...	8200	17100	3300	3200	39	26700	7.5
20...	11000	22100	3800	3700	47	33800	7.7
FEB.							
03...	9000	18900	3400	3300	43	28300	7.6
22...	12000	24200	3600	3500	55	36800	7.5
MAR.							
16...	10000	21300	3900	3800	44	32900	7.8
APR.							
13...	14000	27800	4500	4400	56	42400	7.4
18...	9300	19100	3700	3600	41	30500	7.2
MAY							
04...	9400	19700	3800	3700	40	29100	7.5
21...	7900	17000	3600	3500	36	25400	7.3
28...	15000	28900	4400	4300	61	42900	7.2
29...	1100	3160	1100	980	9.4	4670	7.2
31...	550	1820	700	570	6.1	2870	7.5
JUNE							
01...	1000	2600	780	660	10	4120	7.7
09...	2100	4910	1200	1100	17	8140	7.8
11...	820	2350	820	680	7.8	3690	7.9
28...	7400	15900	3400	3200	35	24100	7.8
JULY							
10...	12000	24300	4200	4200	50	36100	7.6
24...	5500	12600	3300	3200	25	19200	7.8
AUG.							
05...	6000	13400	3300	3200	27	20200	7.6
10...	2200	5410	1500	1400	16	8480	7.8
16...	490	1660	640	530	5.7	2580	7.9
25...	1600	3720	840	730	15	6290	7.8
SEP.							
09...	1800	4380	1100	1000	16	7210	7.8
17...	3600	7770	1800	1700	23	12500	7.6
24...	1000	2620	800	730	9.7	4170	7.6
25...	600	1650	480	370	8.1	2760	7.8

RED RIVER BASIN

07307800 PEASE RIVER NEAR CHILDRESS, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs-days)	Specific conductance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	133.06	29400	19400	225	6960	9290	108	3340	2960	34	1060
November.....	104.4	31900	21400	201	6040	10500	99	2960	3030	28	854
December.....	133.0	32700	21300	247	7650	10400	121	3740	2940	34	1060
January 1971..	83.6	32100	21100	154	4770	10300	75	2310	3020	22	681
February.....	79.2	33500	22100	169	4720	10700	82	2290	3100	24	663
March.....	86.2	34500	22200	167	5180	10500	79	2440	3210	24	747
April.....	192.62	34800	22800	396	11900	11200	194	5810	3160	55	1640
May.....	5003.44	3820	2460	1070	33200	880	383	11900	700	306	9470
June.....	5132.54	5240	3380	1560	46900	1320	609	18300	780	358	10700
July.....	24.21	28100	18700	39	1220	8860	19	579	2930	6.2	192
August.....	4680.15	6860	4510	1840	57000	1790	730	22600	1040	422	13100
September.....	11147.6	4870	3020	3030	90900	1190	1200	35900	700	700	21000
Total	26800.02	--	--	--	276000	--	--	112000	--	--	61200
Weighted average	73.4	5960	3820	757	--	1550	307	--	850	168	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24100	28600	34500	26000	27400	35800	34400	40100	4120	32700	33200	15000
2	24300	29000	35100	27000	32100	35800	34600	41200	13000	33200	33300	24500
3	23500	28700	32100	27600	28300	35800	34600	40400	26400	32700	30000	24600
4	23400	28600	32200	25800	32100	36000	33700	29100	29800	21900	34600	24600
5	33800	28500	32100	28600	32100	35500	33700	29200	29800	22400	33000	10000
6	32800	31500	32100	26900	32000	33900	33800	29100	25000	21900	33000	7500
7	32900	32500	33400	25200	34400	33800	33700	29200	28900	20800	34900	9950
8	32300	32500	33400	33200	34400	33800	33800	38800	35700	34500	34800	19400
9	22500	38600	33400	34300	34100	34800	33800	40300	20000	36100	34800	10000
10	22400	38800	33400	33100	34600	33900	33800	40900	4170	36100	10600	8000
11	23400	30500	33400	33200	34600	33700	33800	38200	3690	20600	8000	14500
12	23600	28800	33300	33200	34000	33600	33800	37900	4420	20400	10200	20300
13	23400	28800	32000	33600	33000	33700	42400	27100	6350	20000	18400	25500
14	36800	32000	31000	33700	33000	33700	40900	27400	10000	19800	18900	25400
15	33300	32200	30900	33300	33100	33700	40700	27200	20900	19200	4860	25500
16	33300	32200	33300	33300	33000	32900	35400	27000	28900	19000	2850	30000
17	22300	31600	33500	33300	33000	32900	35400	27000	28800	19000	4000	11300
18	22200	31600	34100	33300	34600	34700	30500	27100	28000	20100	10700	2320
19	34100	30800	31900	33800	34800	32800	38400	35900	28000	20100	15000	2500
20	34200	30800	31900	33800	34900	35100	38400	36300	27900	20100	20300	8000
21	34100	31200	31900	33800	36800	33700	38500	25400	31300	19200	20200	15000
22	34300	31200	32300	33900	36800	33700	38500	40000	31300	19200	22600	19500
23	34100	31300	32300	33900	36800	34000	34200	34300	34200	19200	22500	4430
24	28900	31100	32300	33200	38100	34100	37300	34500	35400	19200	20000	4200
25	28900	31600	32300	34000	37900	41900	37600	25100	26100	21800	7750	3000
26	28800	33900	32300	33300	35600	34000	33800	25100	25300	19400	6270	4000
27	32000	34000	32500	33300	35500	36200	41400	24200	24100	34800	8230	6000
28	32000	33900	32300	33300	34900	36200	31800	42900	24100	31600	10000	8700
29	32500	33900	33400	33300	---	34600	31400	3660	24000	19800	15800	11000
30	32500	35100	33400	34100	---	34600	33900	3670	32100	33700	10800	15400
31	28900	---	32600	34300	---	34500	---	2870	---	33700	10100	---
MONTH	29210	31790	32730	32020	34000	34630	35600	30360	23060	24590	18700	13670

RED RIVER BASIN

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07307800 PEASE RIVER NEAR CHILDRESS, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	9.0	15.0	9.0	4.0	14.0	13.0	27.0	25.0	30.0	26.0	27.0
2	27.0	12.0	17.0	8.0	10.0	11.0	19.0	26.0	23.0	29.0	23.0	26.0
3	28.0	8.0	13.0	5.0	14.0	12.0	16.0	21.0	25.0	26.0	---	29.0
4	26.0	5.0	13.0	3.0	4.0	8.0	13.0	28.0	28.0	32.0	29.0	27.0
5	22.0	7.0	10.0	1.0	11.0	13.0	12.0	29.0	33.0	33.0	27.0	29.0
6	20.0	19.0	10.0	3.0	7.0	13.0	16.0	28.0	23.0	28.0	26.0	---
7	22.0	17.0	13.0	1.0	0.0	10.0	18.0	24.0	28.0	33.0	23.0	32.0
8	9.0	15.0	15.0	8.0	1.0	11.0	24.0	18.0	27.0	29.0	24.0	30.0
9	9.0	17.0	10.0	8.0	13.0	12.0	18.0	20.0	22.0	32.0	23.0	26.0
10	20.0	19.0	9.0	10.0	7.0	13.0	23.0	22.0	---	29.0	26.0	25.0
11	22.0	15.0	6.0	11.0	8.0	18.0	28.0	20.0	24.0	28.0	28.0	29.0
12	23.0	---	9.0	6.0	6.0	17.0	27.0	18.0	28.0	28.0	27.0	28.0
13	20.0	8.0	---	9.0	14.0	17.0	20.0	18.0	26.0	30.0	26.0	29.0
14	9.0	7.0	---	6.0	11.0	14.0	21.0	22.0	27.0	27.0	25.0	28.0
15	9.0	9.0	9.0	8.0	13.0	16.0	23.0	23.0	25.0	28.0	26.0	28.0
16	12.0	15.0	10.0	10.0	19.0	16.0	16.0	22.0	27.0	33.0	26.0	21.0
17	16.0	15.0	8.0	9.0	15.0	13.0	18.0	21.0	24.0	31.0	25.0	18.0
18	16.0	14.0	8.0	8.0	15.0	9.0	19.0	18.0	29.0	25.0	28.0	---
19	18.0	12.0	9.0	8.0	12.0	8.0	21.0	23.0	22.0	29.0	27.0	---
20	20.0	14.0	8.0	9.0	14.0	14.0	22.0	18.0	31.0	27.0	28.0	---
21	---	11.0	10.0	7.0	6.0	15.0	24.0	22.0	27.0	26.0	28.0	19.0
22	19.0	10.0	8.0	14.0	8.0	12.0	21.0	26.0	28.0	28.0	31.0	20.0
23	12.0	7.0	6.0	11.0	12.0	10.0	24.0	18.0	27.0	29.0	24.0	---
24	---	10.0	4.0	12.0	13.0	9.0	25.0	23.0	25.0	29.0	29.0	15.0
25	---	10.0	4.0	14.0	12.0	10.0	27.0	27.0	29.0	29.0	25.0	22.0
26	---	17.0	4.0	12.0	9.0	14.0	30.0	22.0	26.0	28.0	24.0	24.0
27	10.0	15.0	11.0	13.0	13.0	25.0	28.0	20.0	27.0	30.0	26.0	28.0
28	17.0	12.0	12.0	14.0	8.0	19.0	18.0	20.0	28.0	25.0	27.0	23.0
29	15.0	11.0	10.0	15.0	---	18.0	19.0	18.0	30.0	23.0	24.0	24.0
30	16.0	16.0	9.0	15.0	---	20.0	18.0	20.0	29.0	28.0	27.0	23.0
31	15.0	---	11.0	6.0	---	19.0	---	21.0	---	26.0	25.0	---
MONTH	17.5	12.5	9.5	9.0	10.0	14.0	20.5	22.0	26.5	28.5	26.0	25.0

RED RIVER BASIN

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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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAR. 15...	0845	.02	5.8	70	110	880	452	0	400
APR. 21...	0845	.03	9.3	66	110	770	748	0	260
SEP. 05...	1130	19	8.2	54	13	200	124	0	16
06...	1130	1.2	8.2	160	61	610	114	0	50

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
MAR. 15...	1300	--	.40	2950	640	270	15	4940	7.7
APR. 21...	980	--	.90	2570	600	0	14	4480	7.9
SEP. 05...	360	.5	1.6	725	190	88	6.3	1290	8.0
06...	1300	--	1.1	2250	650	560	10	4100	7.2

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 1971.

Water temperatures: July 1968 to September 1971.

WATER QUALITY DATA: WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
02...	60	8.4	140	38	320	132	0	380	500
10...	28	7.7	220	73	710	128	0	670	1100
23...	36	14	320	120	1500	104	0	940	2400
NOV.									
10...	.28	12	400	130	1600	118	0	1200	2600
DEC.									
02...	1.6	7.2	360	130	1500	154	0	1100	2400
31...	4.3	1.1	300	110	1300	166	0	990	2000
JAN.									
07...	3.7	2.6	300	110	1200	164	0	930	2000
MAR.									
04...	18	2.6	380	140	1700	174	0	1200	2700
25...	2.0	1.3	400	170	2100	188	0	1300	3400
APR.									
21...	1.1	6.4	500	160	1800	120	0	1300	3100
22...	2.8	4.1	300	60	610	100	0	870	950
23...	.21	5.2	320	90	930	176	0	950	1400
MAY									
14...	118	--	820	170	3700	84	0	2500	5800
16...	9.1	--	360	140	1700	168	0	1200	2800
JUNE									
02...	3600	--	340	45	800	132	0	890	1200
11...	42	--	370	72	1200	84	0	1000	1800
16...	3770	--	460	66	1400	112	0	1300	2100
26...	80	--	250	38	750	108	0	640	1200
JULY									
04...	9.1	--	140	37	400	76	0	400	640
11...	13	--	410	97	1500	104	0	1100	2400
28...	70	--	160	39	440	104	0	260	830
31...	38	--	290	67	990	90	0	720	1600
AUG.									
15...	2540	--	140	21	470	88	0	360	720
18...	1410	--	400	56	1100	104	0	1100	1800
21...	1500	--	270	40	910	104	0	730	1400
SEP.									
06...	6010	--	120	21	320	150	0	230	520
08...	6040	--	64	12	130	116	0	120	180
26...	6530	--	240	32	760	100	0	540	1200
27...	5180	--	100	17	270	100	0	220	430

RED RIVER BASIN

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07308500 RED RIVER NEAR BURKBURNETT, TEX.--Continued

EXTREMES, July 1968 to September 1970.--Specific conductance: Maximum daily, 15,600 micromhos Apr. 21; minimum daily, 889 micromhos Sept. 24.

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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
02...	.4	.8	1460	510	400	6.2	2440	7.8
10...	--	.4	2890	8600	800	11	4620	7.7
23...	--	--	5330	1300	1200	18	9410	7.4
NOV.								
10...	--	--	5900	1500	1400	18	9860	7.6
DEC.								
02...	--	--	5590	1400	1300	17	9350	7.9
31...	--	.6	4730	1200	1100	16	7960	7.4
JAN.								
07...	--	.00	4590	1200	1400	15	7900	7.8
MAR.								
04...	--	--	6130	1500	1400	19	9950	7.7
25...	--	--	7480	1700	1600	22	11800	--
APR.								
21...	--	--	6900	1900	1800	18	11400	6.5
22...	--	.7	2850	1000	920	8.4	4290	7.1
23...	--	.6	3830	1200	1000	12	6250	7.7
MAY								
14...	--	--	13000	2700	2700	31	19600	7.0
16...	--	--	6220	1500	1300	19	10300	7.4
JUNE								
02...	--	--	3350	1000	910	11	5420	7.8
11...	--	--	4540	1200	1200	15	7420	7.3
16...	--	--	5310	1400	1300	16	8530	7.5
26...	--	--	2920	780	690	12	4660	7.8
JULY								
04...	--	--	1640	500	440	7.8	2840	7.4
11...	--	--	5590	1400	1300	17	9140	7.5
28...	--	--	1790	570	480	8.1	3100	7.5
31...	--	--	3760	1000	930	14	6270	7.3
AUG.								
15...	--	--	1760	450	380	9.8	2890	7.6
18...	--	--	4460	1200	1200	14	7210	7.6
21...	--	--	3400	840	760	14	5640	7.6
SEP.								
06...	--	--	1290	390	270	7.1	2260	7.3
08...	--	--	569	210	120	3.9	1030	7.8
26...	--	--	2850	720	640	12	4730	7.7
27...	--	--	1090	330	250	6.6	1980	7.8

RED RIVER BASIN

07308500 RED RIVER NEAR BURKBURNETT, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs-days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970 ..	677.6	5250	3120	184	5700	1310	78	2410	630	37	1160
November.....	28.8	8820	5460	14	425	2350	6.1	183	1110	2.9	86
December.....	92.4	8090	5010	40	1250	2130	17	531	1020	8.2	254
January 1971 ..	171.4	7450	4470	67	2070	1900	28	878	910	14	421
February.....	234.4	7500	4500	102	2850	1900	43	1200	910	21	576
March.....	247.01	9860	6100	131	4070	2710	58	1810	1170	25	781
April.....	4.38	6460	4090	1.6	48	1610	.6	19	990	.4	12
May.....	354.82	4880	3830	118	3670	1540	48	1480	890	27	852
June.....	38961	6300	3840	13500	404000	1480	5190	156000	960	3370	10100
July.....	650.16	5430	3170	180	5570	1370	78	2400	620	35	1080
August.....	23101.2	5610	3410	6860	213000	1440	2900	90000	690	1400	43300
September.....	82931	2400	1410	10500	316000	570	4270	128000	270	2020	60700
Total	147454.17	--	--	--	959000	--	--	385000	--	--	119000
Weighted average	404	4000	2410	2630	--	960	1050	--	530	327	--

07308500 RED RIVER NEAR BURKBURNETT, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2500	8420	8660	7440	---	7550	10000	---	4640	7960	9080	3210
2	2440	8680	9000	7630	---	8730	---	---	5150	12000	10600	2600
3	3330	9090	9000	7440	---	7080	---	---	7380	8310	11700	2350
4	2490	9130	9040	7990	---	9950	---	---	7250	8800	10700	2610
5	5360	8430	8960	7960	---	7980	---	---	6130	9500	11700	1870
6	5360	9130	8640	7380	---	10000	---	---	7560	10700	9120	2100
7	5450	8730	8290	7640	---	10000	---	---	7530	5000	11600	1310
8	4730	9520	8290	7650	---	11000	---	---	7120	4000	6360	1030
9	4720	9520	8290	8020	---	9670	---	---	7100	4620	7490	1100
10	4620	9520	8620	8200	---	11000	---	---	7280	7000	7140	1400
11	6750	9520	8290	8490	---	9630	---	---	6800	9140	11100	1660
12	7740	8610	9760	7330	---	11600	---	---	6130	8970	11000	2000
13	7780	9710	9560	7040	---	11600	---	10000	5430	9140	11000	2250
14	6270	8580	8560	7060	---	9620	---	7000	5290	6420	11000	3000
15	7780	8190	8000	7100	---	12100	---	9000	6330	10200	2310	3910
16	6990	8810	8010	7070	---	12100	---	10300	7520	9180	2860	4950
17	6410	8230	9010	7200	---	11500	---	19700	8530	11500	3050	5690
18	6350	8810	7950	7420	---	12100	---	---	7700	9140	3890	5000
19	6370	9090	8000	7220	---	12100	---	---	7110	9060	5600	2000
20	5450	9570	7930	7430	---	11300	---	---	6500	9180	4360	1580
21	6760	9610	7970	7450	---	11300	11400	---	6070	---	3750	1540
22	5420	9610	7700	7250	---	11300	4290	---	4810	---	5000	1950
23	9090	9570	7970	7440	---	10800	6250	---	5560	10000	7240	2280
24	9090	9570	7700	7180	---	10800	6190	---	5500	10100	7300	2120
25	6760	9510	7680	7410	---	11800	---	---	5500	9180	7320	1530
26	6730	9750	7880	7460	---	10200	---	---	4660	6000	7500	4000
27	8770	8770	7880	7380	---	10100	---	3960	6350	3150	8000	5360
28	7870	9800	7880	7660	---	10600	---	3920	7910	3100	8830	3750
29	8440	8580	7880	7420	---	10100	---	3960	6380	4320	6790	3890
30	8130	8580	7740	7480	---	10600	---	4250	8600	3120	8790	4920
31	8090	---	7660	7210	---	10100	---	4240	---	6270	6770	---
MONTH	6260	9090	8250	7490	---	10460	---	---	6530	7760	7710	2770

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.0	8.0	20.0	13.0	---	5.0	---	---	28.0	33.0	23.0	29.0
2	31.0	4.0	19.0	7.0	---	4.0	---	---	24.0	24.0	21.0	29.0
3	27.0	4.0	13.0	7.0	---	3.0	---	---	22.0	32.0	23.0	27.0
4	26.0	3.0	12.0	1.0	---	0.0	---	---	29.0	29.0	29.0	26.0
5	19.0	12.0	5.0	0.0	---	7.0	---	---	28.0	26.0	25.0	30.0
6	31.0	6.0	9.0	0.0	---	2.0	---	---	21.0	32.0	23.0	25.0
7	32.0	7.0	7.0	2.0	---	12.0	---	---	23.0	25.0	33.0	26.0
8	19.0	11.0	9.0	4.0	---	5.0	---	---	29.0	33.0	25.0	31.0
9	16.0	6.0	---	10.0	---	4.0	---	---	21.0	32.0	24.0	32.0
10	20.0	15.0	7.0	---	---	17.0	---	---	30.0	25.0	25.0	31.0
11	14.0	9.0	9.0	14.0	---	6.0	---	---	29.0	26.0	25.0	25.0
12	18.0	12.0	10.0	6.0	---	9.0	---	---	23.0	30.0	23.0	25.0
13	15.0	8.0	5.0	9.0	---	21.0	---	---	21.0	33.0	27.0	31.0
14	14.0	6.0	6.0	12.0	---	12.0	---	20.0	23.0	27.0	26.0	28.0
15	14.0	1.0	9.0	12.0	---	15.0	---	21.0	24.0	34.0	23.0	25.0
16	13.0	12.0	8.0	13.0	---	10.0	---	22.0	32.0	36.0	23.0	23.0
17	12.0	7.0	13.0	14.0	---	13.0	---	23.0	25.0	35.0	24.0	20.0
18	13.0	18.0	10.0	11.0	---	18.0	---	---	29.0	37.0	34.0	24.0
19	19.0	15.0	15.0	6.0	---	16.0	---	---	31.0	26.0	25.0	14.0
20	20.0	16.0	4.0	10.0	---	17.0	---	---	23.0	25.0	25.0	12.0
21	22.0	17.0	13.0	12.0	---	17.0	25.0	---	26.0	---	23.0	21.0
22	20.0	8.0	17.0	9.0	---	6.0	19.0	---	32.0	---	23.0	17.0
23	19.0	5.0	6.0	8.0	---	3.0	18.0	---	24.0	---	26.0	17.0
24	19.0	11.0	8.0	3.0	---	6.0	23.5	---	33.0	---	25.0	17.0
25	18.0	17.0	10.0	4.0	---	7.0	---	---	30.0	25.0	27.0	17.0
26	19.0	9.0	9.0	---	---	17.0	---	29.0	23.0	31.0	24.0	21.0
27	13.0	11.0	10.0	9.0	---	15.0	---	27.0	27.0	30.0	33.0	22.0
28	14.0	14.0	12.0	14.0	---	7.0	---	26.0	24.0	28.0	32.0	22.0
29	8.0	8.0	---	16.0	---	8.0	---	21.0	29.0	---	29.0	23.0
30	18.0	20.0	8.0	15.0	---	10.0	---	19.0	31.0	---	30.0	24.0
31	9.0	---	10.0	4.0	---	22.0	---	22.0	---	29.0	30.0	---
MONTH	19.0	10.0	10.0	8.5	---	10.0	---	---	26.5	29.5	26.0	24.0

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 1971.

Water temperatures: October 1967 to September 1971.

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 33,400 micromhos May 24; minimum daily, 710 micromhos Sept. 25.

Water temperatures: Maximum, 33.0°C June 16; minimum, freezing point Jan. 4, 6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTMBER 1971

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.								
02...	4.6	4.8	980	220	6400	100	0	2900
NOV.								
06...	9.0	7.2	980	220	6400	114	0	2900
DEC.								
07...	9.0	3.6	940	210	5900	168	0	2800
JAN.								
11...	8.4	9.8	900	200	5200	202	0	2600
FEB.								
04...	7.8	7.0	910	200	5400	180	0	2700
07...	7.2	5.8	750	160	4300	146	0	2300
MAR.								
11...	7.8	3.0	920	220	5600	172	0	2700
APR.								
07...	5.6	5.8	950	210	5800	168	0	2800
MAY								
18...	4.1	--	1000	230	6400	112	0	3100
JUNE								
01...	154	--	170	33	370	98	0	450
11...	1490	--	160	29	640	94	0	420
13...	29	--	320	65	1600	128	0	880
25...	6.7	--	840	180	4700	144	0	2500
JULY								
06...	4.6	--	980	160	5700	148	0	2700
AUG.								
11...	11	--	460	95	2600	126	0	1300
16...	857	--	69	15	130	96	0	150
25...	179	--	90	15	320	100	0	210
26...	33	--	160	30	760	106	0	420
SEP.								
06...	61	--	360	100	2300	122	0	990
07...	19	--	250	55	1300	116	0	680
20...	22	--	320	67	1700	124	0	860
27...	28	--	220	46	1100	116	0	610

RED RIVER BASIN

67

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

EXTREMES, October 1967 to September 1971.--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, Dec. 31, 1968, Jan. 1, 1969, Jan. 7, 1970, Jan. 4, 6, 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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.							
02...	10000	20700	3400	3300	48	32000	7.5
NOV.							
06...	10000	20600	3400	3300	48	31700	7.5
DEC.							
07...	9200	19200	3200	3100	45	29000	7.8
JAN.							
11...	8100	17100	3000	2900	41	26800	7.6
FEB.							
04...	8400	17700	3100	3000	42	26500	7.5
07...	6700	14300	2600	2400	37	21800	7.2
MAR.							
11...	8800	18300	3200	3100	43	27000	7.5
APR.							
07...	9000	18800	3200	3100	44	28200	7.4
MAY							
18...	10000	20800	3400	3400	48	31600	7.1
JUNE							
01...	570	1630	560	470	6.8	2670	7.8
11...	1000	2300	530	450	12	3880	7.6
13...	2400	5340	1100	980	21	8990	7.9
25...	7400	15700	2800	2700	38	24000	7.5
JULY							
06...	8900	18500	3100	3000	45	27300	7.6
AUG.							
11...	4100	8590	1500	1400	29	14000	7.7
16...	200	607	230	150	3.7	1050	7.7
25...	480	1160	280	200	8.2	1950	7.7
26...	1200	2600	540	450	15	4300	7.6
SEP.							
06...	3600	7440	1300	1200	28	12600	7.7
07...	2000	4310	850	760	19	7430	8.0
20...	2600	5650	1100	960	23	9490	7.5
27...	1800	3820	740	640	18	6500	7.7

RED RIVER BASIN

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

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs-days)	Specific conductance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	194.6	30600	20600	349	10800	10100	170	5280	2920	50	1540
November.....	249.7	29800	20200	453	13600	9780	220	6590	2870	64	1930
December.....	256.8	27200	18600	417	12900	8970	201	6220	2710	60	1880
January 1971..	251.5	26400	17400	382	11800	8260	181	5610	2690	59	1830
February.....	233.6	26100	17300	391	10900	8220	185	5180	2690	61	1700
March.....	210.9	26700	17900	329	10200	8600	158	4900	2620	48	1490
April.....	198.6	28100	18700	335	10000	8960	160	4800	2790	50	1490
May.....	1876.0	3510	2270	372	11500	970	159	4910	450	74	2300
June.....	2022.3	3870	2450	445	13400	1050	190	5710	510	93	2780
July.....	111.7	28700	19500	190	5890	9380	91	2830	2870	28	867
August.....	1385.3	5740	3560	429	13300	1640	198	6130	550	67	2080
September.....	1940.4	4060	2490	434	13000	1090	191	5730	440	78	2330
Total	8931.4	--	--	--	137000	--	--	63900	--	--	22200
Weighted average	24.5	8710	5700	376	--	2650	175	--	920	61	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30800	30600	28200	26500	26200	26200	28300	28500	2790	25900	30800	23700
2	30400	30600	28200	26500	26200	26300	27600	28800	7000	26300	31400	22000
3	30900	30600	27800	27000	26300	26100	27600	28700	13300	26300	30900	20900
4	30600	30600	27900	27000	26500	26000	28200	28800	17800	26200	30900	21500
5	30600	30500	27900	27000	26300	26200	27800	29200	20400	27300	31300	23400
6	30900	30500	28100	27500	26300	26700	28000	29800	21100	27300	31200	15800
7	31000	30100	28000	27200	25000	26600	28200	29000	21800	27600	31100	7430
8	30900	30400	27900	26600	26800	26600	28200	29800	22900	27600	31400	10600
9	30700	30200	27900	26400	26300	26600	28500	29400	23500	27800	24600	14100
10	30700	29900	27400	26300	25900	26500	28400	29800	24100	27900	12800	11700
11	30700	30400	27400	25900	25900	27000	28200	30800	1240	28300	14000	18500
12	30800	29900	27100	25900	26300	26300	29000	28900	3600	28700	24800	18700
13	31200	29700	26800	26000	26400	26300	29000	29400	8990	28700	24700	24000
14	30600	29600	26800	26300	26500	26600	28300	29500	12500	28800	22500	23600
15	30800	29800	29500	26000	26200	26800	28700	29800	15300	28900	20000	23600
16	30700	29300	26700	26300	26300	26600	28000	31400	17700	29000	2020	24600
17	30700	29200	26700	26500	25900	27200	27300	31200	19200	29000	3500	20000
18	30600	29200	26800	26400	26300	27300	27200	31600	21300	31100	10000	7650
19	30600	29300	26700	26400	26400	26900	27300	30700	21300	29600	14900	5000
20	28800	29300	26500	26200	26400	27500	27900	30700	22100	29500	17500	9490
21	30200	29300	26600	26200	26000	26800	27800	31000	22200	28500	19000	13000
22	30200	29300	26900	26300	25600	26900	28100	31600	22700	29700	19700	15900
23	30500	29200	26900	26600	25600	27000	28000	32700	23400	29700	21100	2110
24	30500	29200	26500	26200	25400	26900	28200	33400	23700	29600	21100	1300
25	30400	29100	26400	26300	25700	27200	28500	31100	24000	31400	7570	710
26	30700	30700	26500	26300	26000	26700	28400	28600	24400	31200	5000	3000
27	30600	30700	26500	26100	26200	26800	28300	29100	25400	31000	10000	6500
28	30800	29000	26600	26200	26100	27000	28500	4850	25700	29700	15000	14000
29	30700	29300	26800	26100	---	27100	28600	5610	25600	29900	19200	16000
30	30900	28700	26400	26400	---	27400	28700	960	25700	30000	18200	17400
31	30800	---	26400	26300	---	27800	---	1060	---	31400	19800	---
MONTH	30640	29810	27190	26420	26110	26770	28160	26640	18690	28840	19870	14540

RED RIVER BASIN

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	10.0	11.0	9.0	7.0	12.0	12.0	12.0	30.0	29.0	23.0	26.0
2	22.0	9.0	13.0	5.0	10.0	5.0	20.0	30.0	28.0	31.0	28.0	30.0
3	24.0	11.0	12.0	2.0	7.0	4.0	12.0	26.0	24.0	30.0	30.0	27.0
4	22.0	8.0	15.0	0.0	5.0	5.0	12.0	27.0	28.0	24.0	25.0	29.0
5	25.0	13.0	10.0	3.0	6.0	15.0	12.0	19.0	30.0	29.0	24.0	25.0
6	22.0	9.0	7.0	0.0	3.0	10.0	7.0	24.0	30.0	30.0	24.0	28.0
7	18.0	17.0	10.0	1.0	3.0	5.0	10.0	25.0	23.0	30.0	30.0	30.0
8	11.0	15.0	---	3.0	10.0	12.0	15.0	20.0	24.0	25.0	25.0	29.0
9	17.0	13.0	---	5.0	4.0	15.0	25.0	28.0	22.0	27.0	28.0	25.0
10	17.0	12.0	16.0	10.0	10.0	10.0	25.0	16.0	25.0	25.0	29.0	28.0
11	19.0	15.0	15.0	7.0	6.0	15.0	25.0	18.0	30.0	30.0	29.0	28.0
12	---	13.0	12.0	6.0	10.0	10.0	19.0	19.0	22.0	28.0	22.0	30.0
13	21.0	9.0	9.0	8.0	7.0	9.0	19.0	25.0	23.0	30.0	28.0	29.0
14	16.0	5.0	7.0	9.0	8.0	12.0	25.0	20.0	24.0	28.0	27.0	30.0
15	11.0	3.0	5.0	11.0	10.0	12.0	20.0	22.0	25.0	31.0	23.0	28.0
16	---	7.0	13.0	7.0	9.0	14.0	---	28.0	33.0	30.0	23.0	22.0
17	---	11.0	12.0	12.0	7.0	10.0	14.0	22.0	28.0	25.0	27.0	22.0
18	16.0	9.0	10.0	10.0	12.0	10.0	15.0	20.0	30.0	30.0	30.0	---
19	16.0	13.0	5.0	7.0	12.0	15.0	17.0	22.0	25.0	25.0	28.0	15.0
20	18.0	10.0	9.0	8.0	7.0	16.0	20.0	25.0	30.0	24.0	29.0	22.0
21	17.0	7.0	10.0	7.0	---	20.0	25.0	19.0	20.0	24.0	30.0	21.0
22	18.0	8.0	10.0	8.0	10.0	12.0	19.0	20.0	25.0	27.0	27.0	19.0
23	17.0	4.0	9.0	7.0	15.0	20.0	20.0	15.0	30.0	28.0	26.0	15.0
24	16.0	7.0	2.0	5.0	10.0	10.0	15.0	18.0	30.0	23.0	28.0	---
25	20.0	9.0	9.0	5.0	9.0	9.0	19.0	30.0	25.0	27.0	26.0	---
26	16.0	9.0	10.0	7.0	10.0	20.0	20.0	26.0	23.0	30.0	24.0	25.0
27	10.0	11.0	7.0	8.0	19.0	12.0	17.0	23.0	28.0	24.0	25.0	20.0
28	11.0	12.0	8.0	11.0	10.0	16.0	20.0	22.0	29.0	30.0	27.0	15.0
29	9.0	9.0	8.0	12.0	---	20.0	21.0	---	24.0	28.0	29.0	25.0
30	11.0	15.0	7.0	3.0	---	19.0	17.0	---	25.0	23.0	24.0	22.0
31	13.0	---	10.0	9.0	---	22.0	---	---	---	22.0	23.0	---
MONTH	17.0	10.0	9.5	6.5	8.5	13.0	18.0	22.0	26.5	27.5	26.5	24.5

RED RIVER BASIN

07311622 NORTH FORK WICHITA RIVER NEAR CROWELL, TEX.

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

DRAINAGE AREA.--535 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT.									
21...	7.4	.4	950	220	5900	--	23	79	0
29...	7.4	.6	1000	230	6400	--	23	62	0
NOV.									
03...	7.4	.3	1000	230	--	6200	--	76	0
24...	7.4	.8	1000	230	--	6200	--	114	0
DEC.									
09...	10	.8	970	220	--	5800	--	113	0
30...	9.1	4.1	930	210	--	5300	--	153	0
JAN.									
13...	9.1	8.8	930	210	5200	--	20	180	0
19...	9.1	3.2	930	210	--	5400	--	164	0
FEB.									
03...	9.1	2.5	920	220	--	5400	--	154	0
18...	10	.6	940	210	--	5500	--	138	0
MAR.									
10...	8.2	.5	950	220	--	5600	--	128	0
25...	10	.4	1000	220	--	5700	--	136	0
APR.									
14...	5.4	3.8	1100	240	--	6600	--	114	0
27...	6.7	--	1000	250	--	6300	--	85	0
MAY									
20...	2.6	--	1200	270	--	7000	--	68	0
JUNE									
03...	39	--	320	65	--	1300	--	110	0
11...	973	--	100	16	--	110	--	214	0
12...	131	--	140	21	--	380	--	94	0
23...	8.2	--	790	180	--	3900	--	116	0
JULY									
08...	3.6	--	1100	260	--	6100	--	98	0
27...	3.1	--	1100	240	--	6200	--	71	0
28...	2.6	--	1100	270	--	6400	--	68	0
AUG.									
11...	24	--	600	130	--	3600	--	102	0
SEP.									
02...	6.7	--	600	150	--	2700	--	112	0
14...	3.6	--	600	150	--	2900	--	80	0

RED RIVER BASIN

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

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 35,300 micromhos May 3; minimum daily, 1,170 micromhos Sept. 25.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
21...	2900	9400	19400	3300	3200	45	30000	7.2
29...	3100	10000	20800	3500	3500	48	31700	7.2
NOV.								
03...	2900	9900	20300	3500	3500	46	31800	7.3
24...	3100	9600	20200	3400	3400	46	30700	7.7
DEC.								
09...	2900	9000	18900	3300	3200	44	29000	7.3
30...	2800	8300	17600	3200	3100	41	26200	7.5
JAN.								
13...	2700	8300	17500	3200	3000	40	25500	7.5
19...	2800	8400	17800	3200	3000	42	26500	7.5
FEB.								
03...	2800	8400	17800	3200	3100	42	27500	7.6
18...	2800	8600	18100	3200	3100	42	26600	7.7
MAR.								
10...	2900	8700	18400	3300	3200	43	27100	7.6
25...	2900	9000	18900	3400	3300	43	27600	7.5
APR.								
14...	3400	10000	21600	3700	3600	47	32200	7.3
27...	3200	9800	20500	3600	3500	46	31500	7.0
MAY								
20...	3600	11000	23000	4000	3900	48	34700	7.9
JUNE								
03...	900	2000	4690	1100	990	17	7770	7.5
11...	170	140	645	320	150	2.7	1080	7.4
12...	350	600	1540	450	370	7.9	2630	7.6
23...	2200	6200	13400	2700	2600	33	20700	7.6
JULY								
08...	3200	9800	20500	3800	3700	43	30000	7.4
27...	3300	9900	20800	3800	3800	44	32100	6.8
28...	3400	1000	21400	4000	3900	45	31500	7.5
AUG.								
11...	1700	5700	11800	2000	2000	35	19100	7.6
SEP.								
02...	1700	4300	9480	2100	2000	26	15700	7.6
14...	1700	4700	10200	2100	2000	27	16200	7.5

RED RIVER BASIN

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

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs-days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970 ..	229.5	28300	19300	387	12000	9330	187	5780	2870	57	1780
November.....	215.0	30400	20000	386	11600	9720	188	5640	2850	55	1650
December.....	330.6	26700	18300	526	16300	8780	253	7830	2740	79	2450
January 1971..	250.3	25800	17700	387	12000	8410	183	5690	2780	61	1880
February.....	272.3	25800	17300	455	12700	8180	215	6010	2710	71	1990
March.....	291.9	27500	18700	476	14800	8890	226	7000	2890	73	2280
April.....	245.8	27400	18700	413	12400	8890	197	5900	2880	64	1910
May.....	2412.1	5630	3550	746	23100	1580	331	10300	620	130	4020
June.....	2029.0	4590	2720	496	14900	1190	216	6490	510	94	2820
July.....	93.5	29000	19900	162	5020	9450	77	2390	3100	25	782
August.....	1143.5	8510	5160	513	15900	2360	235	7280	880	88	2720
September.....	1703.2	4810	2890	442	13300	1160	178	5350	590	91	2730
Total	9216.7	--	--	--	164000	--	--	75700	--	--	27000
Weighted average	25.2	10200	6590	449	--	3040	207	--	1080	74	--

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 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31000	30900	30000	26000	25800	26000	29200	32200	2500	24200	33000	12400
2	31000	30900	30000	26000	25800	26800	29100	32200	3200	25100	33100	15300
3	31000	30900	30000	26000	26500	26000	29500	32300	7770	25000	33200	17000
4	31000	30900	29000	25900	26400	26500	30000	32300	10700	26200	33100	18400
5	31000	30700	29000	25900	26400	26600	29400	32200	13100	26600	33400	20300
6	31000	30700	28000	25800	26300	26800	29700	33000	14800	27500	33300	23600
7	31000	30600	28000	25800	26700	26800	30000	33500	15000	28200	32000	17500
8	31000	30600	28000	25800	27900	27000	30300	33000	10300	30000	31000	10800
9	31000	30600	27500	25700	25300	26700	30600	30000	13800	30200	28000	9300
10	31000	30500	27500	25700	25700	27100	31000	32200	16200	30100	13100	10200
11	31000	30500	27500	25600	25700	27600	31300	33000	2350	30100	16500	11400
12	31000	30400	27000	25600	25700	27200	31600	33500	1950	30200	18600	12500
13	31000	30400	26000	25500	25900	27800	31900	33400	5000	30400	14000	13700
14	31000	30400	26000	25500	25700	27900	32200	33400	8000	30500	14100	15100
15	31000	30400	26000	25500	25800	27900	32200	33800	10000	30500	9650	16500
16	24000	30300	26000	25600	25300	27900	28000	34700	12000	30500	6780	17900
17	22000	30300	26000	25600	25800	27900	20000	34700	14500	30500	1780	15000
18	24000	30300	26000	25700	25700	28600	21000	34700	16000	30700	5490	8880
19	25000	30200	26000	25700	26500	28200	23000	35300	16500	30900	8870	5040
20	26000	30200	26000	25800	26500	28200	25000	34700	18000	30800	10800	3370
21	28000	30100	26000	25800	24100	28200	26000	34300	19000	30000	12100	5630
22	28000	30100	26000	25800	25300	28800	27000	33500	20000	29500	13600	4000
23	28000	30100	26000	25900	25100	28000	29000	33400	20700	28000	14700	4640
24	28000	30000	26000	25900	25300	28000	30000	33400	21300	28500	12800	1810
25	28000	30000	26000	26000	25200	27600	31000	33700	21300	29000	10900	1170
26	29000	30100	26000	26000	25700	27000	31300	34000	21700	31000	1930	2600
27	29000	30100	26000	26100	25700	27200	31500	34000	22200	32100	5370	5770
28	30000	30100	26000	26100	25900	27300	20200	17300	22400	31500	7900	8270
29	30700	30000	26000	26200	---	27600	25000	6170	22600	31700	8070	10400
30	30700	30000	26200	26200	---	27900	28400	3450	22800	31700	7900	12100
31	30700	---	26000	26300	---	28100	---	1660	---	33000	10100	---
MONTH	29230	30380	26960	25840	25860	27460	28480	29970	14190	29490	16620	11050

RED RIVER BASIN

07311648 MIDDLE FORK WICHITA RIVER NEAR TRUSCOTT, TEX.

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

DRAINAGE AREA.--161 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT.									
21...	4.8	.6	790	170	--	2200	--	80	0
30...	5.0	.3	800	180	2300	--	12	68	0
NOV.									
03...	4.8	1.0	820	180	--	2400	--	48	0
25...	4.6	4.7	860	180	--	2400	--	103	0
DEC.									
10...	5.0	2.3	840	180	--	2400	--	103	0
30...	4.8	6.9	840	170	--	2400	--	126	0
JAN.									
13...	3.7	10	850	170	2400	--	13	161	0
19...	4.2	9.0	820	170	--	2300	--	136	0
FEB.									
03...	4.2	2.1	840	180	--	2400	--	128	0
18...	4.4	1.9	830	190	--	2400	--	120	0
MAR.									
10...	4.1	.0	840	180	--	2400	--	108	0
APR.									
14...	3.2	.2	920	200	--	2700	--	82	0
27...	3.7	--	840	190	--	2600	--	52	0
MAY									
21...	4.4	--	940	210	--	2900	--	52	0
JUNE									
03...	3.9	--	570	110	--	1200	--	120	0
23...	3.4	--	720	160	--	2000	--	50	0
JULY									
08...	2.0	--	980	260	--	2900	--	41	0
28...	3.7	--	940	200	--	2800	--	44	0
AUG.									
10...	50	--	500	86	--	1200	--	64	0
SEP.									
01...	5.2	--	690	160	--	2000	--	80	0
14...	4.4	--	700	160	--	2000	--	36	0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs-days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970 ..	144.8	13400	9230	118	3610	3580	45	1400	2390	30	936
November.....	145.5	14100	9800	128	3850	3770	49	1480	2570	34	1010
December.....	158.1	13900	9770	134	4170	3710	51	1590	2580	36	1100
January 1971.	133.3	13900	9710	113	3490	3690	43	1330	2510	29	902
February.....	123.8	14300	9690	116	3240	3710	44	1240	2530	30	844
March.....	113.3	14600	9790	97	2990	3820	38	1170	2500	25	764
April.....	116.2	14400	9840	103	3090	3830	40	1200	2520	26	791
May.....	806.9	4620	2820	198	6140	1090	77	2370	730	52	1600
June.....	146.3	8230	5340	70	2110	2010	26	794	1430	19	567
July.....	90.4	16300	11100	88	2720	4470	35	1090	2740	22	669
August.....	443.1	9000	5910	228	7070	2270	88	2720	1540	60	1850
September.....	326.8	7200	4590	135	4050	1690	50	1490	1270	37	1120
Total	2748.5	--	--	--	46500	--	--	17900	--	--	12200
Weighted average	7.53	9420	6270	127	--	2410	49	--	1640	33	--

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

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 18,400 micromhos July 30; minimum daily, 2,280 micromhos May 30.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
21...	2400	3600	9200	2700	2600	19	14100	7.3
30...	2500	3700	9530	2700	2700	19	14700	7.4
NOV.								
03...	2600	3800	9820	2800	2800	20	14900	7.4
25...	2600	3800	9900	2900	2800	19	14200	7.6
DEC.								
10...	2600	3800	9870	2800	2700	20	14700	7.6
30...	2500	3600	9580	2800	2700	20	13800	7.7
JAN.								
13...	2500	3700	9720	2800	2700	20	13900	7.6
19...	2300	3600	9310	2800	2600	19	13900	7.5
FEB.								
03...	2600	3800	9780	2800	2700	20	14900	7.6
18...	2600	3800	9770	2800	2700	20	14300	7.5
MAR.								
10...	2500	3800	9800	2800	2800	20	14600	7.3
APR.								
14...	2900	4200	11000	3100	3000	21	15900	7.4
27...	2700	4000	10400	2900	2800	21	15300	7.5
MAY								
21...	3000	4500	11600	3200	3200	22	16900	7.7
JUNE								
03...	1600	2000	5520	1900	1800	12	8380	7.6
23...	2200	3200	8370	2400	2400	18	12500	--
JULY								
08...	3000	4800	12000	3500	3500	21	17600	7.3
28...	2800	4500	11300	3200	3100	22	17500	7.9
AUG.								
10...	1400	2000	5210	1600	1600	13	8000	7.5
SEP.								
01...	2000	3200	8090	2400	2300	18	12100	7.4
14...	2100	3200	8250	2400	2400	18	12400	7.3

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13400	14000	14000	13800	14200	14000	15200	12000	6210	14600	17700	12100
2	13400	14000	14000	13300	14300	14100	15200	12900	7640	15000	17600	12900
3	13400	14000	14000	13500	14400	14000	15200	14000	8380	15200	17500	13300
4	13400	14000	14000	13500	14300	14100	15200	14500	8780	15600	17500	13500
5	13400	14000	14000	13500	14400	14000	15200	14800	9090	16000	17400	13600
6	13400	14000	14000	14000	14300	14200	15100	15200	9260	16500	17500	13900
7	13400	14000	14000	14000	14300	14200	15600	15300	9800	17000	17300	13900
8	13400	14000	14000	14000	14600	14200	15600	15300	3500	17600	17000	13900
9	13400	14000	14000	13800	14400	14100	15400	14600	3600	17500	14000	14000
10	13400	14000	14000	13600	14400	14600	15400	15200	4000	17400	13900	13100
11	13400	14000	14000	13400	14400	14500	15300	15600	3400	17400	10000	11800
12	13400	14000	14000	13600	14300	14500	15400	15800	4100	17400	10800	11100
13	13400	14000	14000	13900	14500	14500	15600	15900	4950	17400	10700	11000
14	13400	14100	14000	14100	14400	14700	15900	15900	5700	17600	10800	12400
15	13400	14100	14000	14000	14400	14800	15900	15900	8100	17500	9900	13600
16	13400	14100	14000	13900	14400	14800	12600	16000	10900	17500	11000	14400
17	13400	14100	14000	13800	14300	14800	12400	16000	13300	17600	8320	6000
18	13400	14100	14000	13800	14300	14900	12100	16100	13600	17700	3000	3710
19	13400	14100	14000	14000	14300	14900	14000	16200	14000	17800	3200	4300
20	13400	14200	14000	14100	14300	14900	14500	16300	14000	18000	3300	5680
21	13400	14200	13800	14100	14000	15000	15200	16400	11700	17600	3300	6000
22	13400	14200	13800	14100	14000	15000	14800	16200	13800	17400	3500	5680
23	13400	14200	13800	14200	14100	14900	15200	16100	12400	12000	3600	5350
24	13400	14200	13800	14200	14000	14900	15100	16200	10700	14500	2300	5270
25	13500	14200	13800	14200	14100	15000	15000	16200	10900	16400	3000	5100
26	13500	14200	13800	14200	14200	15000	15100	16300	12500	16500	3500	6720
27	13600	14200	13800	14100	14000	14900	15300	16300	13100	16500	4100	12000
28	13600	14200	13800	14000	14000	14900	12100	10900	13500	16600	4900	12100
29	13600	14200	13800	13900	---	14900	12400	3370	13900	17800	7760	11500
30	13700	14200	13800	13900	---	15000	12500	2280	14200	18400	10000	10000
31	13700	---	13800	13900	---	15000	---	3000	---	18200	11100	---
MONTH	13450	14090	13930	13880	14270	14620	14650	14090	9470	16780	9850	10260

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 1971.

Water temperatures: July 1968 to September 1971.

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 33,400 micromhos July 2; minimum daily, 1,400 micromhos Sept. 26.

Water temperatures: Maximum, 33.0°C July 7; minimum, freezing point Feb. 7, 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.								
05...	6.0	.6	1000	270	5000	88	0	3100
17...	55	3.4	540	130	2400	68	0	1600
NOV.								
03...	10	.5	1000	240	5200	84	0	3100
DEC.								
02...	13	.4	980	220	4900	104	0	3000
21...	14	1.0	920	220	4700	130	0	2800
JAN.								
14...	11	4.6	920	220	4400	166	0	2800
FEB.								
07...	11	.8	920	240	4500	134	0	2800
21...	13	.2	820	200	4000	110	0	2500
MAR.								
12...	12	.2	980	220	5000	108	0	3000
APR.								
13...	7.4	.6	1100	280	5600	120	0	3500
18...	25	.6	910	250	4600	102	0	2900
30...	12	4.6	760	160	3200	84	0	2200
MAY								
01...	10	--	720	160	3000	96	0	2100
08...	3.9	--	1100	270	5600	88	0	3400
29...	474	--	400	93	1600	96	0	1200
30...	1220	--	240	34	450	96	0	630
31...	1520	9.4	140	15	200	106	0	350
JUNE								
01...	174	--	180	23	240	80	0	450
03...	57	--	280	53	700	92	0	760
11...	601	--	390	65	1600	208	0	960
12...	740	--	100	15	190	102	0	230
13...	123	--	160	26	360	84	0	420
21...	42	--	230	37	570	96	0	570
24...	9.8	--	600	130	2200	104	0	1700
JULY								
03...	7.3	--	1000	230	4300	100	0	2800
23...	67	--	550	130	2300	68	0	1500
26...	7.2	--	900	160	3300	84	0	2500
AUG.								
15...	5.4	--	760	170	3500	86	0	2200
17...	600	--	130	20	360	88	0	360
19...	36	--	280	44	880	100	0	710
26...	135	--	140	24	490	116	0	430
30...	34	--	340	68	1300	108	0	960
SEP.								
14...	6.6	--	680	150	2800	102	0	1900
18...	643	--	230	35	630	88	0	620
25...	941	--	76	15	120	108	0	190
28...	49	--	320	54	1000	114	0	870

RED RIVER BASIN

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

EXTREMES, October 1968 to September 1971.--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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.							
05...	7900	17300	3600	3500	36	26500	7.4
17...	3800	8550	1900	1800	24	14000	7.6
NOV.							
03...	8200	17800	3500	3400	38	26400	7.6
DEC.							
02...	7700	16900	3400	3300	37	26300	7.4
21...	7400	16100	3200	3100	36	24300	7.7
JAN.							
14...	6800	15200	3200	3100	34	23300	7.5
FEB.							
07...	7200	15700	3300	3200	34	23500	7.7
21...	6400	13900	2900	2800	33	21200	7.6
MAR.							
12...	7800	17000	3400	3300	38	24500	7.3
APR.							
13...	8800	19400	4000	3900	39	28000	7.6
18...	7200	15800	3300	3200	35	23500	7.4
30...	5000	11400	2600	2500	28	17400	7.1
MAY							
01...	4700	10700	2400	2400	26	16700	7.6
08...	8800	19100	3800	3800	39	28100	7.4
29...	2400	5750	1400	1300	19	9290	7.4
30...	710	2120	750	670	7.2	3320	7.5
31...	270	1030	400	310	4.3	1650	7.5
JUNE							
01...	380	1300	550	480	4.5	2090	7.6
03...	1100	2960	930	850	10	4590	7.8
11...	2500	5640	1200	1100	20	9380	7.4
12...	290	875	320	240	4.7	1540	7.6
13...	560	1560	520	450	7.0	2600	7.7
21...	920	2360	720	650	9.2	3850	7.4
24...	3500	8200	2000	2000	21	13000	7.7
JULY							
03...	7000	15400	3500	3400	32	23000	7.4
23...	3700	8240	1900	1800	23	13200	7.4
26...	5300	12200	2900	2800	27	18400	7.3
AUG.							
15...	5600	12300	2600	2500	30	19400	7.5
17...	520	1430	400	330	7.8	2400	7.7
19...	1400	3370	880	800	13	5690	7.8
26...	690	1830	460	360	10	3030	7.7
30...	2100	4870	1100	1000	17	8050	7.8
SEP.							
14...	4500	10100	2300	2200	25	15800	7.3
18...	960	2520	720	650	10	4110	7.5
25...	160	623	250	160	3.3	1060	7.6
28...	1600	3850	1000	930	14	6200	7.5

RED RIVER BASIN

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

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs-days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970 ..	354.8	22500	15100	467	14500	6890	213	6600	2730	85	2620
November.....	332.6	25300	17500	523	15700	8040	241	7220	3040	91	2730
December.....	418	24100	16300	595	18400	7450	271	8410	2880	105	3250
January 1971..	369.0	23000	15500	499	15500	6990	225	6970	2800	90	2790
February.....	360.0	23100	15400	535	15000	7020	244	6820	2770	96	2690
March.....	337.7	24700	17100	502	15600	7790	229	7100	3020	89	2750
April.....	342.7	24500	16500	509	15300	7510	232	6950	3000	92	2770
May.....	3343.5	3840	2440	710	22000	890	258	7990	650	188	5830
June.....	2366	4460	2700	575	17200	1110	236	7070	600	127	3810
July.....	194.34	19200	12600	214	6620	5680	96	2980	2340	40	1230
August.....	1669.90	6210	3730	542	16800	1570	229	7100	760	111	3440
September.....	4335.8	3400	2090	816	24500	760	298	8950	560	219	6570
Total	14424.34	--	--	--	197000	--	--	84200	--	--	40500
Weighted average	39.5	7780	5060	540	--	2160	231	--	1040	111	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25700	25300	25200	23000	23200	23500	26700	16700	2640	33300	24800	8600
2	25800	25500	25300	23000	23600	23600	26500	16700	5400	33400	20500	8660
3	25500	25500	24600	23000	23400	22800	26700	26000	4590	23000	29600	11600
4	25700	25500	24900	22900	23700	22800	26600	25500	7270	22600	29600	12400
5	25600	25500	24800	22900	23500	22900	27000	27800	9200	21400	29600	13700
6	25600	25500	24900	22800	23600	24000	26600	27600	11100	27100	29500	22500
7	27000	25600	24600	22300	23500	23800	26900	27700	12600	26000	29500	13000
8	26600	25800	24600	22600	22800	24400	26800	28100	10600	26500	29500	12400
9	26400	25700	24200	22500	22800	24300	27100	26600	14100	25800	29500	5880
10	26400	26000	24400	22400	22900	24600	26900	26600	8000	25500	14200	18700
11	24400	26000	24300	22400	23800	24400	26800	27900	3990	26600	13800	15200
12	27000	26000	24400	22400	23700	24500	27700	28400	1490	27200	15000	14900
13	26900	26000	24400	22500	23600	24400	28000	28800	2760	26800	17000	15300
14	27000	24900	23900	22500	23500	25000	27800	28600	5000	26800	18000	15800
15	22400	24900	23900	22600	23800	24800	27600	29500	9420	27000	19400	16200
16	22300	25000	23900	23200	23600	26000	24000	31400	7290	27600	6900	16700
17	13500	25000	23900	23100	23400	25900	23500	31000	11200	25900	2790	8000
18	21500	24900	23900	23200	23300	25900	23500	31100	12600	22500	3000	3300
19	21400	25100	24000	23100	23700	25900	24100	31900	9470	26400	5690	7440
20	23100	25300	23600	23100	23600	26400	24100	31100	13700	26000	6900	5630
21	23300	25100	23500	23200	21200	25800	24100	31300	9000	32700	8390	6930
22	23900	25500	23600	23100	21200	25800	25500	32500	8310	32700	15000	5000
23	23700	25600	23600	23400	22000	25500	25200	32300	14700	10000	30600	2640
24	24300	25400	23700	23500	22300	24900	25200	32700	13300	22400	10600	1700
25	25400	25400	23700	23300	22300	24900	25200	32400	18200	23700	10300	1450
26	25300	25000	23700	23300	23000	24900	27700	32900	18200	18400	3000	1400
27	25300	24900	23700	23400	22900	25000	27400	32400	20100	17900	3160	4000
28	25300	24900	23600	23500	23400	24900	27400	30000	21300	18000	5250	6200
29	25300	24900	23500	23400	---	24800	17300	7330	21600	20500	7070	8040
30	25300	25000	23300	23400	---	26000	17400	2620	19300	23100	8050	8820
31	25300	---	23200	23300	---	25600	---	1720	---	24700	8680	---
MONTH	24590	25360	24090	22980	23120	24770	25580	26360	10880	24890	15640	9740

RED RIVER BASIN

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	10.0	13.0	---	4.0	9.0	19.0	16.0	22.0	26.0	23.0	25.0
2	18.0	9.0	10.0	---	5.0	5.0	18.0	15.0	21.0	25.0	21.0	24.0
3	24.0	9.0	13.0	5.0	7.0	11.0	14.0	23.0	20.0	23.0	22.0	24.0
4	25.0	7.0	8.0	---	8.0	8.0	13.0	23.0	20.0	25.0	20.0	25.0
5	20.0	6.0	---	---	7.0	12.0	14.0	15.0	24.0	25.0	19.0	25.0
6	19.0	11.0	11.0	---	10.0	9.0	12.0	14.0	24.0	26.0	22.0	22.0
7	---	12.0	10.0	---	0.0	7.0	14.0	17.0	24.0	33.0	---	30.0
8	10.0	20.0	9.0	---	5.0	15.0	15.0	---	23.0	25.0	20.0	23.0
9	11.0	12.0	8.0	---	0.0	15.0	15.0	21.0	24.0	26.0	21.0	28.0
10	9.0	13.0	17.0	---	12.0	17.0	15.0	19.0	24.0	25.0	25.0	25.0
11	15.0	11.0	5.0	---	11.0	18.0	14.0	20.0	24.0	25.0	26.0	23.0
12	22.0	8.0	10.0	---	10.0	12.0	15.0	15.0	22.0	25.0	---	24.0
13	21.0	9.0	9.0	---	9.0	11.0	14.0	16.0	24.0	26.0	---	32.0
14	20.0	9.0	9.0	20.0	10.0	15.0	13.0	15.0	23.0	26.0	---	29.0
15	22.0	5.0	11.0	6.0	12.0	---	13.0	---	25.0	28.0	28.0	26.0
16	10.0	6.0	13.0	11.0	13.0	11.0	22.0	29.0	25.0	28.0	20.0	27.0
17	10.0	12.0	12.0	7.0	18.0	12.0	25.0	25.0	29.0	28.0	23.0	18.0
18	12.0	11.0	9.0	10.0	18.0	11.0	25.0	16.0	15.0	24.0	30.0	13.0
19	19.0	10.0	9.0	9.0	12.0	10.0	16.0	17.0	25.0	22.0	31.0	12.0
20	23.0	6.0	9.0	11.0	17.0	9.0	14.0	18.0	24.0	23.0	25.0	21.0
21	22.0	11.0	7.0	12.0	4.0	11.0	15.0	20.0	27.0	26.0	25.0	13.0
22	---	12.0	8.0	15.0	5.0	9.0	15.0	14.0	23.0	24.0	25.0	19.0
23	18.0	7.0	5.0	9.0	---	8.0	12.0	17.0	25.0	22.0	26.0	20.0
24	15.0	7.0	8.0	12.0	9.0	8.0	13.0	21.0	25.0	25.0	24.0	20.0
25	17.0	9.0	9.0	14.0	12.0	11.0	12.0	21.0	24.0	23.0	27.0	21.0
26	19.0	8.0	8.0	10.0	12.0	10.0	29.0	20.0	25.0	22.0	25.0	24.0
27	---	7.0	10.0	10.0	15.0	10.0	14.0	20.0	23.0	24.0	26.0	28.0
28	---	9.0	8.0	12.0	16.0	9.0	19.0	18.0	28.0	25.0	23.0	24.0
29	---	6.0	9.0	9.0	---	8.0	20.0	20.0	29.0	23.0	26.0	26.0
30	---	8.0	10.0	7.0	---	---	15.0	18.0	24.0	20.0	24.0	22.0
31	---	---	11.0	8.0	---	13.0	---	22.0	---	18.0	24.0	---
MONTH	---	9.5	9.5	---	9.5	11.0	16.0	19.0	24.0	24.5	24.0	23.0

RED RIVER BASIN

07311780 SOUTH FORK WICHITA RIVER NEAR GUTHRIE, TEX.

LOCATION.--Lat 33°37'29", long 100°13'04", King County, on left bank 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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT.									
20...	3.0	11	1200	260	9100	--	39	148	0
NOV.									
06...	2.8	11	1200	260	--	9300	--	148	0
24...	2.8	12	1200	270	--	9000	--	130	0
DEC.									
11...	3.1	11	1200	270	--	9200	--	146	0
29...	2.8	11	1200	260	--	9000	--	159	0
JAN.									
12...	3.4	11	1100	260	8800	--	39	161	0
19...	3.4	10	1200	280	--	9200	--	164	0
FEB.									
02...	2.8	10	1200	280	--	9000	--	168	0
17...	2.8	9.4	1200	280	--	9200	--	164	0
MAR.									
09...	2.8	8.7	1200	280	--	9000	--	164	0
19...	2.8	90	1200	260	--	9800	--	160	0
26...	2.8	9.3	1200	260	--	9200	--	160	0
APR.									
06...	3.1	9.1	1200	280	--	9300	--	144	0
13...	2.1	10	1200	300	--	9400	--	156	0
26...	2.8	--	1200	280	--	9100	--	135	0
MAY									
19...	2.4	--	1200	320	--	9700	--	105	0
29...	7.3	--	1000	240	--	8200	--	132	0
30...	3.5	--	1000	240	--	7500	--	120	0
JUNE									
02...	3.7	--	820	190	--	4400	--	128	0
22...	3.1	--	1200	250	--	8800	--	110	0
JULY									
27...	2.6	--	1200	310	--	9900	--	112	0
AUG.									
09...	3.4	--	1300	280	--	9500	--	152	0
31...	5.0	--	800	180	--	5500	--	162	0
SEP.									
15...	3.3	--	1200	270	--	8900	--	156	0
28...	4.1	--	1000	270	--	7400	--	162	0

RED RIVER BASIN

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

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
20...	3200	15000	28900	4100	4000	62	43100	7.2
NOV.								
06...	3300	15000	29100	4100	4000	64	43200	7.4
24...	3200	14000	27700	4000	3900	61	42100	7.5
DEC.								
11...	3200	15000	29000	4200	4000	63	42700	7.5
29...	3200	14000	27700	4100	4000	61	42300	7.2
JAN.								
12...	3200	14000	27500	3900	3800	62	41500	7.3
19...	3200	15000	28700	4200	4000	62	42200	7.9
FEB.								
02...	3200	14000	28200	4200	4000	61	43300	7.5
17...	3200	15000	28600	4200	4000	62	43200	7.6
MAR.								
09...	3200	14000	28200	4200	4000	61	43300	7.5
19...	3300	16000	30200	4200	4100	67	44900	7.6
26...	2800	15000	28400	4200	4100	63	43900	7.6
APR.								
06...	3300	15000	29000	4200	4100	63	44400	7.6
13...	3300	15000	29300	4300	4200	63	44600	7.4
26...	3300	14000	28400	4200	4090	62	43200	7.3
MAY								
19...	3400	16000	30200	4400	4300	64	45700	7.5
29...	2800	13000	25300	3600	3500	60	38600	7.2
30...	2700	12000	23500	3600	3500	55	35700	7.4
JUNE								
02...	2200	7200	14900	2800	2700	36	23100	7.6
22...	3000	14000	27200	3900	3800	60	40100	7.7
JULY								
27...	3200	16000	30800	4400	4300	66	46500	7.6
AUG.								
09...	3200	15000	29700	4400	4300	62	44900	7.7
31...	2100	8800	17300	2700	2600	46	26000	7.7
SEP.								
15...	3000	14000	27600	4000	3900	60	42300	7.7
28...	2800	12000	23300	3600	3500	54	34900	7.6

RED RIVER BASIN

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

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs-days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	91.5	41700	28500	227	7040	14600	116	3600	3240	26	799
November.....	83.8	41100	28500	215	6440	14500	110	3290	3250	25	735
December.....	87.6	42100	28100	215	6650	14300	109	3390	3180	24	752
January 1971..	97.0	41900	28300	239	7420	14500	123	3800	3220	27	843
February.....	78.8	40600	27400	209	5840	14000	106	2980	3130	24	667
March.....	89.6	43400	28500	222	6890	14700	115	3560	3080	24	745
April.....	82.8	43800	28800	215	6440	14700	110	3290	3290	24	735
May.....	95.7	41000	27100	226	7010	13900	116	3600	3030	25	783
June.....	87.5	37400	24800	195	5860	12700	100	2990	2850	22	673
July.....	71.3	45300	29800	185	5740	15300	95	2950	3330	21	642
August.....	1284	6670	4790	536	16600	2470	276	8560	530	59	1820
September.....	137.8	34500	22800	282	8470	11600	144	4310	2690	33	999
Total	2287.4	--	--	--	90400	--	--	46300	--	--	10200
Weighted average	6.27	21600	14600	248	--	7500	127	--	1650	28	--

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41300	40600	40500	42300	41600	43300	43200	42800	17900	43900	46000	31900
2	41300	40200	40600	42300	41700	43700	44300	42500	23100	43900	46000	34300
3	41300	40200	40700	42200	40600	44800	44200	43200	31900	42000	46500	36200
4	41300	41000	40900	42200	40600	43300	44300	43500	37000	43200	46000	37000
5	41300	41500	41000	42200	41700	43300	44400	42400	40200	44900	46000	37600
6	41300	41800	41300	42100	41300	44100	44400	42400	40200	45400	45600	37600
7	42000	41800	41600	42000	42100	44800	45100	42800	40200	45400	45200	38300
8	42000	42100	41900	41900	41700	44100	44400	42500	41200	46800	44300	38800
9	42000	42400	42300	41800	40600	43300	43700	42100	41700	46800	44900	39300
10	42000	42800	42500	41700	40600	43700	43700	41700	43000	46400	45200	39800
11	42000	41800	42700	41600	39500	42900	43400	41700	39000	45900	47300	40300
12	42000	41800	42700	41500	40200	43700	43400	41700	40000	46400	46500	40800
13	42800	42100	42700	41400	39800	43300	44600	41700	40300	45900	46500	41300
14	43900	41800	42600	41500	40200	42400	43600	38900	39600	45000	38900	41800
15	45200	41200	42600	41600	40600	43300	43400	40200	40300	44200	43500	42300
16	42400	41000	42600	41700	39500	42600	43600	41000	41000	43500	30200	42400
17	41700	41000	42500	41800	39500	43200	43800	42500	40300	44200	40200	40200
18	40400	41000	42500	42000	40200	43200	44000	44000	40500	43900	40900	30000
19	40600	40900	42500	42200	39800	44000	43600	45700	40400	43100	42100	37000
20	41700	40800	42500	42200	41000	43600	43800	46000	40200	44600	42400	37600
21	41300	40700	42500	42300	41000	43600	43200	45200	40100	44200	41800	38600
22	41300	40700	42400	42400	41300	43600	43300	44800	40100	46300	41200	39600
23	41700	40700	42400	42200	40200	44000	43500	43900	41700	46500	42100	37000
24	41300	40700	42400	42100	39800	42500	43400	44800	43900	46500	4550	30000
25	40900	40700	42400	42000	39500	42900	43300	44800	43300	46400	2230	26200
26	40900	40600	42400	41900	39800	43900	43200	43900	43600	46500	9920	22000
27	40900	40600	42300	41900	41000	42400	43500	44300	43900	46500	7630	27900
28	41300	40600	42300	41800	40600	42400	43700	43500	44500	46500	3690	34900
29	39900	40600	42300	41700	---	43200	43800	34300	44500	46500	12500	35300
30	41300	40500	42300	41900	---	43500	43900	31900	45000	46000	18800	36000
31	40600	---	42300	41600	---	42400	---	37200	---	45200	26000	---
MONTH	41610	41140	42100	41940	40570	43390	43790	42190	39620	45240	34990	36400

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.--449 sq mi.

PERIOD OF RECORD.-- Chemical analyses: August 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT.									
20...	7.8	2.9	1100	280	6700	--	34	94	0
NOV.									
03...	4.6	7.0	1200	310	--	7500	--	89	0
27...	5.4	7.1	1100	300	--	7600	--	118	0
DEC.									
10...	6.3	3.5	1200	290	--	7300	--	108	0
13...	5.4	7.3	1200	290	--	7100	--	142	0
JAN.									
11...	6.3	8.6	1200	280	6800	--	33	152	0
15...	5.4	6.7	1200	300	--	7000	--	158	0
FEB.									
04...	5.4	5.8	1200	300	--	7100	--	158	0
16...	5.0	5.4	1200	300	--	7300	--	152	0
MAR.									
09...	4.2	3.8	1200	300	--	7400	--	144	0
24...	3.3	3.4	1300	300	--	8000	--	140	0
APR.									
13...	2.7	5.7	1400	350	--	8500	--	124	0
26...	4.6	--	1300	330	--	7800	--	102	0
MAY									
19...	2.7	--	1400	380	--	8600	--	84	0
JUNE									
02...	12	--	970	210	--	4800	--	96	0
24...	5.0	--	760	160	--	3500	--	84	0
JULY									
07...	.20	--	1600	350	--	8900	--	72	0
27...	.91	--	1400	350	--	7700	--	72	0
AUG.									
31...	23	--	600	110	--	2500	--	132	0
SEP.									
09...	5.8	--	980	260	--	5100	--	112	0
15...	5.0	--	1100	270	--	6000	--	108	0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs-days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970 ..	172.1	34800	23200	347	10800	11300	170	5260	3270	49	1520
November.....	136.2	36200	24600	301	9030	12100	148	4450	3400	42	1250
December.....	184.5	35600	23900	383	11900	11600	187	5790	3480	56	1730
January 1971 ..	163.0	34900	23200	329	10200	11300	161	4980	3240	46	1430
February.....	152.8	33500	22900	338	9460	11200	165	4630	3210	47	1320
March.....	115.8	36000	24200	244	7570	11900	120	3710	3310	33	1030
April.....	146.4	36200	24000	316	9480	11600	153	4600	3440	45	1360
May.....	506.70	11100	7420	328	10200	3060	135	4190	1650	73	2260
June.....	167.30	19500	12700	191	5740	5950	90	2690	2070	31	937
July.....	25.74	28800	19800	44	1370	9630	22	669	2860	6.4	199
August.....	1641.23	5360	3750	536	16600	1150	164	5080	1290	184	5710
September.....	498.7	14900	10100	453	13600	4540	204	6110	1850	83	2490
Total	3910.47	--	--	--	116000	--	--	52200	--	--	21200
Weighted average	10.7	16300	11000	318	--	4940	143	--	2010	58	--

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

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
20...	3100	11000	22300	4000	3900	47	34100	7.5
NOV.								
03...	3400	12000	24500	4400	4300	50	37500	7.3
27...	3400	12000	24500	4100	4000	52	36400	7.3
DEC.								
10...	3500	12000	24300	4200	4100	49	35300	7.6
13...	3200	11000	22900	4100	4000	48	34900	7.5
JAN.								
11...	3100	11000	22500	4000	3900	46	34300	7.6
15...	3200	11000	23100	4200	4000	47	34700	7.5
FEB.								
04...	3300	11000	23300	4200	4100	48	35300	7.6
16...	3300	12000	24100	4300	4200	49	36400	7.8
MAR.								
09...	3400	12000	24300	4300	4200	50	36600	7.6
24...	3500	13000	26000	4500	4400	52	38200	7.6
APR.								
13...	3800	14000	27600	4800	4700	53	40200	7.4
26...	3500	12000	25400	4500	4400	50	38500	7.1
MAY								
19...	3800	14000	28300	5000	4900	53	42000	7.2
JUNE								
02...	2600	7700	16400	3300	3200	36	24700	--
24...	2000	5800	12300	2600	2500	30	19000	7.4
JULY								
07...	4000	14000	29300	5300	5200	53	42400	7.4
27...	3500	13000	25500	4800	4700	48	37400	7.3
AUG.								
31...	1500	4000	8740	2000	1800	25	14000	7.8
SEP.								
09...	2600	8300	17300	3500	3400	37	26300	7.6
15...	2900	9800	20000	3800	3700	42	29100	7.4

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38000	35000	36500	34900	32900	34000	37200	42000	21600	30200	33100	16000
2	38000	35500	36600	34900	32900	34800	37400	42000	22600	30800	34800	18000
3	38000	36200	36900	34900	32400	35000	37500	42600	24800	31900	40100	19000
4	38000	36200	36500	35000	34000	33700	38200	42600	28300	33600	39800	20000
5	38000	36200	37000	35000	34000	33700	38400	42600	29400	34300	39200	21000
6	38000	36200	37100	35000	34000	34600	38800	43600	28800	35600	18000	22000
7	38000	36200	37000	35000	34800	35200	39200	43300	29800	37000	22000	24000
8	38000	36200	36900	34800	36200	35600	39200	43300	29800	39200	30000	26000
9	38000	36200	36100	34800	34500	36600	39400	42000	30400	40000	32000	26300
10	38000	36200	35300	34800	33600	36300	39600	42300	31300	40000	15000	26800
11	38000	36200	35400	34800	33600	36000	39800	43300	31500	---	14200	27000
12	38000	36400	35400	34700	33800	35600	40000	43900	31300	---	16000	27500
13	38000	36400	35300	34700	33800	35800	40200	43600	31500	---	25000	28000
14	38000	36400	35300	34700	33600	36100	40500	43000	31300	---	30000	28500
15	36000	36400	35300	34700	33600	36600	39600	43300	31300	---	20000	29100
16	34900	36400	35200	34700	33600	36100	33800	43900	31700	---	5500	29000
17	32000	36400	35200	34700	34000	36400	32800	43900	32100	---	5000	29000
18	34000	36400	35200	34700	34000	37700	33800	40600	32900	---	6000	27000
19	34200	36400	35200	34800	34400	37500	34100	42000	33600	---	8000	20000
20	33200	36400	35100	34800	34300	36900	33800	39900	33800	---	10000	15000
21	33200	36400	35100	34800	31100	35600	34800	41000	14900	---	16000	18000
22	33200	36400	35100	34800	31000	36900	34800	41000	16400	---	18000	16000
23	33200	36400	35100	34800	32400	36900	36200	40200	11700	20000	18000	10000
24	33500	36400	35100	34800	31100	38200	36700	41000	19000	30000	16000	5000
25	33500	36400	35000	34900	32900	37700	37300	41600	16600	33800	3000	5000
26	33500	36400	35000	34900	33100	37500	38500	42600	17200	33800	2500	6000
27	34000	36400	35000	35000	33600	37200	38600	43200	17700	37400	2300	10000
28	34000	36400	34900	35000	33800	36900	38700	5810	20100	38200	3500	15000
29	34500	36400	34900	35100	---	36900	39000	4730	26200	38800	5000	18000
30	34500	36400	34900	35100	---	37200	39200	5990	27400	39800	9000	20000
31	34500	---	34900	35100	---	37200	---	11000	---	38000	14000	---
MONTH	35740	36260	35600	34860	33530	36210	37580	37800	26170	---	17940	20070

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 1971.

Water temperatures: October 1967 to September 1971.

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 48,900 micromhos May 13; minimum daily, 1,050 micromhos May 28.

Water temperatures: Maximum, 36.5°C June 20; minimum, freezing point Nov. 24, Feb. 7, 8, 21.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.								
16...	35	5.7	340	98	1700	96	0	1100
17...	38	5.4	320	73	890	72	0	820
27...	5.1	2.1	1200	370	6900	116	0	3500
NOV.								
09...	4.3	5.1	1200	360	7700	118	0	3600
DEC.								
12...	5.0	2.1	1200	340	7300	128	0	3400
JAN.								
01...	5.3	3.8	1000	300	6200	130	0	2900
16...	5.5	4.4	1200	330	6900	152	0	3300
FEB.								
05...	5.0	3.1	1200	350	7400	158	0	3300
25...	5.8	2.3	1100	300	6500	140	0	3000
MAR.								
07...	4.3	.6	1300	370	7400	152	0	3600
23...	2.7	.4	1500	370	8800	140	0	4000
APR.								
14...	1.4	1.4	1500	480	9300	124	0	4100
22...	20	11	390	97	1500	116	0	1300
23...	5.4	6.4	850	210	4600	72	0	2400
25...	3.3	3.0	1200	310	6100	128	0	3200
MAY								
18...	3.8	--	880	250	4200	90	0	2500
20...	1.4	--	1200	340	6800	106	0	3200
29...	1240	--	250	34	250	104	0	710
30...	2340	9.2	130	12	52	72	0	320
31...	244	--	420	37	440	78	0	980
JUNE								
01...	40	--	630	80	1600	86	0	1600
04...	15	--	800	130	2200	108	0	2000
22...	160	--	460	64	830	104	0	1100
24...	24	--	880	170	3000	78	0	2200
JULY								
05...	1.1	--	1100	240	3600	156	0	2600
07...	--	--	1400	250	9500	108	0	3400
24...	19	--	310	38	440	80	0	740
29...	.10	--	820	150	2400	132	0	1900
AUG.								
10...	116	--	370	55	790	122	0	820
24...	78	--	390	75	1300	94	0	940
26...	574	--	250	30	280	118	0	720
30...	75	--	220	33	570	100	0	600
SEP.								
06...	15	--	820	200	3300	126	0	2100
09...	33	--	280	44	960	110	0	750
24...	109	--	240	37	550	86	0	720

RED RIVER BASIN

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

EXTREMES, October 1967 to September 1971.--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 (1968-71): 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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
16...	2600	--	5910	1200	1200	21	10200	7.5
17...	1500	.5	3650	1100	1000	12	6080	7.3
27...	11000	--	23200	4600	4500	45	35200	7.3
NOV.								
09...	12000	--	24900	4600	4500	50	37900	7.2
DEC.								
12...	12000	--	24300	4400	4300	48	36000	7.5
JAN.								
01...	10000	--	20500	3800	3700	44	31300	7.6
16...	11000	--	23000	4400	4300	46	35000	7.7
FEB.								
05...	12000	--	24100	4300	4200	48	36100	7.6
25...	10000	--	21500	4000	3900	45	33000	7.7
MAR.								
07...	12000	--	24700	4700	4600	47	37500	7.5
23...	14000	--	29000	5200	5100	53	42100	7.5
APR.								
14...	15000	--	30600	5700	5600	54	46000	7.3
22...	2200	--	5660	1400	1300	18	9100	7.5
23...	7400	--	15500	3000	2900	37	24000	7.1
25...	10000	--	20800	4200	4000	41	32000	7.4
MAY								
18...	6900	--	14900	3200	3200	32	22700	7.2
20...	11000	--	22500	4200	4200	45	34700	7.2
29...	340	--	1640	760	680	3.9	2330	7.6
30...	67	--	619	370	310	1.2	880	7.6
31...	760	--	2670	1200	1100	5.5	3760	7.2
JUNE								
01...	2500	--	6430	1900	1800	16	10000	7.3
04...	3700	--	8990	2600	2500	19	13600	7.4
22...	1400	--	3890	1400	1300	9.6	6110	7.3
24...	5000	--	11300	2900	2800	24	17000	7.3
JULY								
05...	6200	--	13800	3800	3700	26	20600	7.7
07...	15000	--	29800	4400	4300	62	45400	7.6
24...	740	--	2300	930	860	6.3	3450	7.6
29...	4100	--	9370	2700	2600	20	14500	7.7
AUG.								
10...	1400	--	3450	1200	1000	10	5700	7.5
24...	2100	--	4840	1300	1200	16	8060	7.6
26...	370	--	1710	750	650	4.5	2510	7.8
30...	860	--	2330	690	610	9.5	3700	7.6
SEP.								
06...	5600	--	12100	2900	2800	27	18800	7.4
09...	1500	--	3570	880	790	14	5960	7.5
24...	790	--	2370	740	670	8.7	3810	7.4

RED RIVER BASIN

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

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs-days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	205.9	22100	14200	255	7920	6700	120	3730	2270	41	1260
November.....	133.0	37000	25600	306	9190	12500	150	4490	3650	44	1310
December.....	154.7	35600	23800	321	9960	11700	157	4880	3340	45	1400
January 1971..	162.5	35000	23000	325	10100	11200	159	4920	3270	46	1440
February.....	129.2	35400	23100	288	8060	11300	141	3950	3230	40	1130
March.....	107.7	39200	26000	244	7560	12700	119	3700	3670	34	1070
April.....	115.8	32800	21700	226	6780	10500	110	3300	3160	33	987
May.....	4306.34	1990	1400	523	16200	370	139	4300	510	192	5960
June.....	787.6	9850	6420	455	13700	2580	183	5490	1520	108	3240
July.....	141.73	5560	3710	46	1420	1400	17	537	970	12	370
August.....	2271.4	5690	3640	720	22300	1360	270	8360	940	186	5750
September.....	832.0	12700	8050	603	18100	3610	270	8100	1480	111	3320
Total	9347.87	--	--	--	131000	--	--	55800	--	--	27200
Weighted average	25.6	7900	5200	360	--	2210	153	--	1080	75	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33700	36900	36600	31300	34400	36100	40500	42400	9500	19400	---	10000
2	33600	36700	36300	32500	35300	36400	43300	43700	9950	19100	---	12400
3	34700	36400	36000	34500	35600	35500	43800	44100	10800	19500	---	14400
4	36900	37400	36000	35100	35300	36100	43800	44500	13600	20400	---	16100
5	36600	36900	36100	35500	36100	36500	44300	44400	15400	20600	---	17600
6	37000	36500	36700	35300	35800	37600	44000	44700	17700	20900	10000	18800
7	37400	36500	36500	35500	36000	37500	44000	45700	17600	21500	5000	19900
8	37500	37400	36300	35100	35900	37500	44800	45900	19600	21300	15000	10100
9	38500	37900	35900	36400	36600	38200	44800	44900	21000	21400	5000	5000
10	38100	37500	35800	35300	35900	38400	44700	44800	22100	21600	3770	7000
11	38300	37900	36300	34700	35500	38900	44900	46700	22200	21700	11500	21100
12	37900	37700	36000	34200	36200	38600	45300	48100	23200	---	6900	24100
13	39300	37700	35700	34300	36100	39200	45400	48900	24000	---	7490	25100
14	39800	35400	35700	34800	36400	40000	46000	47900	24200	---	11900	25700
15	12100	36300	35000	35000	36600	40100	45800	47100	25200	---	14600	26800
16	10000	35600	35000	35000	36800	40000	42700	48400	25900	---	12000	27200
17	6710	36300	36100	35000	37000	40500	36400	48300	26900	---	9560	20000
18	15000	36200	35100	34700	36300	41300	33300	30000	27500	---	6000	20000
19	24000	36200	36000	34900	37300	42200	32500	45700	27900	---	9260	15000
20	28200	36900	35100	34800	36800	41800	34400	34300	28500	---	12700	12000
21	29800	36900	35000	35200	34800	41800	36200	44700	5890	---	15000	18400
22	30900	37500	34600	35300	34700	42200	9920	45200	3710	---	17700	18800
23	31900	37200	35000	35600	32500	42100	24000	31100	10200	3980	17700	6410
24	32900	37500	35400	35300	33100	41800	28400	30900	15000	3060	8060	4000
25	34300	37300	35400	35500	33000	41200	32000	33300	22100	6370	7010	7500
26	33900	38000	35400	35700	34100	40600	37600	36800	20600	7650	2510	11500
27	35200	37700	35300	35700	34900	41000	40000	39000	18900	10400	2470	14400
28	34800	37700	35300	35600	35300	41500	41600	1050	18600	13000	4750	16600
29	35500	37800	35300	35600	---	40800	42300	2180	18600	14500	5300	17900
30	37000	36900	34700	35500	---	41500	42800	1240	19000	19600	3700	19400
31	36900	---	35000	35900	---	41700	---	4690	---	---	6860	---
MONTH	31880	37030	35630	34990	35510	39630	39320	37440	18850	---	8910	16110

RED RIVER BASIN

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	10.0	15.5	9.5	8.0	13.0	20.0	15.0	23.0	24.0	---	24.0
2	17.0	12.0	9.0	10.5	5.0	5.0	21.0	34.5	24.5	25.0	---	24.5
3	19.0	6.0	11.5	6.5	10.0	7.0	22.0	15.5	24.5	24.0	---	23.5
4	29.0	11.0	6.0	0.5	6.5	11.0	15.5	18.5	26.5	30.0	---	23.0
5	20.0	11.5	13.5	2.0	10.5	15.0	18.5	19.0	24.5	24.0	---	30.0
6	19.5	17.0	9.5	0.5	3.5	14.5	18.5	16.0	29.5	24.0	---	25.5
7	18.0	10.0	11.0	1.0	0.0	15.5	18.5	16.0	24.0	24.5	20.5	24.5
8	11.0	18.0	8.5	0.5	0.0	14.5	20.5	16.5	24.5	24.5	29.0	24.5
9	17.0	14.5	8.5	5.0	5.0	15.5	21.5	24.5	23.0	25.5	21.5	23.0
10	18.5	16.0	11.5	10.0	8.0	15.5	21.0	17.0	23.5	25.0	22.0	24.5
11	22.0	16.0	9.0	8.0	11.0	18.0	26.5	15.5	24.0	34.0	24.0	23.0
12	13.5	14.0	1.0	5.0	10.0	10.0	23.5	20.0	25.0	---	24.0	31.5
13	24.5	8.0	10.5	11.0	12.0	20.5	16.0	18.0	25.5	---	23.5	20.0
14	20.5	5.5	8.0	13.0	14.0	18.0	31.5	11.5	22.0	---	23.5	20.0
15	10.5	10.0	5.0	5.0	13.0	18.0	22.0	14.5	24.5	---	23.5	24.5
16	10.0	11.0	9.5	10.0	15.5	18.0	16.5	31.5	25.0	---	24.5	19.0
17	9.0	10.0	10.5	10.5	14.5	18.0	16.5	17.0	24.0	---	23.5	18.0
18	16.5	12.0	10.0	9.0	15.5	16.0	23.0	19.0	23.0	---	24.5	13.0
19	16.0	13.0	8.5	3.5	15.0	14.5	19.5	14.5	24.0	---	24.0	13.5
20	18.5	11.5	7.0	7.0	15.5	17.0	14.0	15.0	36.5	---	24.0	10.0
21	21.5	15.5	6.5	6.5	0.0	21.5	14.5	19.0	25.5	---	23.0	14.0
22	23.5	11.0	11.0	10.0	5.0	13.5	15.0	22.0	23.0	---	31.5	20.0
23	18.0	0.5	6.5	7.0	9.5	15.5	14.0	33.5	24.0	24.5	23.5	16.0
24	22.0	0.0	3.5	11.5	9.5	10.5	15.0	13.0	25.0	24.0	23.0	15.0
25	24.0	1.5	---	10.5	15.5	10.0	33.5	13.5	23.5	30.5	23.0	17.0
26	14.5	11.5	8.5	9.0	16.5	18.5	19.0	18.0	24.0	30.5	24.0	27.0
27	12.0	8.5	11.0	9.0	14.5	24.0	17.0	19.0	29.5	24.5	25.0	22.0
28	15.5	10.0	9.0	10.0	16.5	18.5	16.0	18.5	24.0	31.5	25.5	21.5
29	15.0	10.5	8.5	12.0	---	20.5	15.0	19.0	24.0	23.5	29.5	21.5
30	14.5	19.5	11.0	13.5	---	21.5	15.5	18.0	24.5	20.0	24.5	21.0
31	14.0	---	5.0	10.0	---	23.5	---	20.0	---	18.5	24.5	---
MONTH	17.5	11.0	9.0	7.5	10.0	16.0	19.5	19.0	25.0	---	24.5	21.0

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 1971.
Water temperatures: October 1967 to September 1971.

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 27,200 micromhos Apr. 28; minimum daily, 1,340 micromhos May 31.
Water temperatures: Maximum, 36.0°C July 1; minimum, freezing point on Jan. 5.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 (SO4) (MG/L)
OCT.								
03...	7.3	7.6	650	180	2500	76	0	1900
17...	467	5.9	150	34	510	98	0	380
20...	52	5.1	380	93	1400	86	0	1100
NOV.								
23...	8.9	4.2	880	240	3800	136	0	2500
DEC.								
06...	11	3.4	900	230	3900	158	0	2500
JAN.								
10...	13	5.7	840	220	3600	168	0	2400
FEB.								
06...	14	1.8	600	150	2600	104	0	1700
14...	13	3.1	920	240	4100	156	0	2700
21...	9.0	3.7	490	140	2200	154	0	1500
MAR.								
09...	12	2.8	1000	240	4100	162	0	2600
APR.								
10...	5.0	3.6	1100	280	4600	142	0	3100
21...	15	3.2	870	230	3500	114	0	2500
MAY								
27...	.80	--	1000	310	4400	108	0	3100
29...	1420	--	140	21	180	114	0	370
30...	5140	--	160	29	310	118	0	450
31...	4720	--	150	19	110	86	0	410
JUNE								
01...	2190	--	170	18	130	160	0	390
02...	406	--	200	23	230	80	0	500
13...	422	--	220	39	560	98	0	570
23...	248	--	280	46	730	100	0	790
26...	39	--	520	100	1300	116	0	1200
JULY								
23...	41	--	48	15	190	156	0	140
25...	71	--	100	34	380	74	0	360
27...	21	--	240	56	810	92	0	680
29...	11	--	260	65	1000	116	0	970
30...	190	11	76	29	58	116	0	180
AUG.								
07...	72	--	95	15	220	90	0	250
18...	436	--	110	16	140	88	0	260
26...	382	--	380	49	840	88	0	940
30...	82	--	350	45	470	96	0	910
SEP.								
18...	418	--	260	48	730	112	0	610
24...	1300	--	180	31	410	88	0	440
25...	1060	--	120	21	180	76	0	340
29...	120	--	380	78	1300	116	0	1000

RED RIVER BASIN

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07311900 WICHITA RIVER NEAR SEYMOUR, TEX.--Continued

EXTREMES, October 1967 to September 1971.--Dissolved solids (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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
03...	4100	--	9430	2400	2300	22	15200	7.3
17...	810	.7	1940	520	440	9.8	3350	7.6
20...	2300	--	5330	1300	1200	17	8990	7.4
NOV.								
23...	6100	--	13500	3200	3000	29	21200	7.6
DEC.								
06...	6300	--	13900	3200	3100	30	21700	7.8
JAN.								
10...	5800	--	13000	3000	2900	29	20500	7.6
FEB.								
06...	4200	--	9330	2100	2000	25	14800	6.9
14...	6600	--	14700	3300	3200	31	22100	7.6
21...	3600	--	8000	1800	1700	23	12800	7.0
MAR.								
09...	6800	--	14900	3500	3400	30	22700	7.5
APR.								
10...	7400	--	16500	3800	3700	32	24500	7.7
21...	5700	--	12900	3100	3000	27	19500	7.4
MAY								
27...	7300	--	16200	3900	3800	31	23900	7.7
29...	240	--	1010	430	340	3.8	1600	8.0
30...	460	--	1470	530	430	5.9	2390	7.7
31...	150	--	883	460	390	2.2	1350	7.8
JUNE								
01...	180	--	966	500	370	2.5	1510	8.0
02...	360	--	1350	600	530	4.1	2130	7.5
13...	880	--	2320	710	630	9.1	3780	7.5
23...	1100	--	3020	900	820	11	4750	7.3
26...	2300	--	5550	1700	1600	14	9070	7.5
JULY								
23...	220	--	687	180	52	6.1	1160	7.7
25...	560	--	1480	400	340	8.4	2490	7.4
27...	1300	--	3140	840	760	12	4940	7.6
29...	1500	--	3860	910	820	14	5850	7.5
30...	110	--	519	310	210	1.4	896	7.6
AUG.								
07...	320	--	950	300	230	5.5	1610	7.6
18...	200	--	758	330	260	3.3	1280	7.4
26...	1400	--	3640	1200	1100	11	5760	7.3
30...	740	--	2560	1100	980	6.3	3770	7.4
SEP.								
18...	1200	--	2930	850	760	11	4770	7.4
24...	670	--	1770	590	520	7.4	2990	7.4
25...	240	--	943	380	320	4.0	1560	7.3
29...	2000	--	4830	1300	1200	16	7940	7.7

RED RIVER BASIN

07311900 WICHITA RIVER NEAR SEYMOUR, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs-days)	Specific conductance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	1228.8	6640	4100	439	13600	1760	189	5850	820	88	2720
November.....	278.7	19400	12800	311	9640	5770	145	4340	2370	60	1790
December.....	419	21200	14000	512	15900	6360	232	7200	2540	93	2880
January 1971..	451	20900	13800	542	16800	6160	242	7500	2570	101	3130
February.....	350	21300	14100	475	13300	6340	214	5990	2490	84	2350
March.....	263.7	21700	14900	342	10600	6850	157	4870	2600	60	1850
April.....	298.2	21500	14300	384	11500	6370	171	5130	2750	74	2210
May.....	11401.2	1820	1170	1160	35900	302	300	9300	417	414	12800
June.....	6299	3910	2470	1400	42000	880	500	15000	650	370	11100
July.....	709.96	4310	2670	165	5120	1100	68	2110	580	36	1120
August.....	3696.7	3290	2110	679	21000	710	228	7080	620	200	6210
September.....	6117.6	3020	1830	1010	30200	680	375	11200	470	261	7820
Total	31513.86	--	--	--	226000	--	--	85600	--	--	56000
Weighted average	86.3	4140	2650	618	--	1010	235	--	660	153	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12000	16700	20600	21000	21600	22100	24800	26300	1500	11600	3720	5710
2	14600	17000	20600	21100	21600	22200	24200	26500	2000	11800	6810	6040
3	14600	17600	20800	20500	21500	22100	23800	26500	3500	12100	6840	8760
4	14600	17600	21000	20700	21900	22100	23700	26600	4500	13200	7910	9000
5	15100	18200	21000	20500	21900	22300	23800	22000	5000	12600	8930	9480
6	15600	18000	21000	19500	14800	22300	23700	21900	6510	14000	9050	10900
7	16000	18300	21000	20700	20700	22300	23800	21900	6980	12500	2500	10800
8	5000	18700	20900	19700	20600	22300	23700	22000	8870	12400	4000	10600
9	7270	19100	21000	19700	20600	22700	23800	22000	8630	12500	3000	10200
10	9580	19200	21000	19700	21700	22700	24500	21900	9500	13100	2500	10600
11	11100	19200	21000	21200	21700	22400	24500	21900	10400	13400	7000	10600
12	12700	19200	21000	21100	21700	22500	24500	22700	4170	13900	10900	10200
13	15100	19200	21100	21100	22100	22600	24000	22700	2000	14100	10800	10000
14	13500	19000	21100	21200	22100	22500	24000	22700	3000	14100	5410	9480
15	9770	19100	21000	21200	22200	22400	23900	22800	4000	14200	3510	10900
16	4470	19200	21600	21200	22200	22700	23400	22700	7000	14200	3810	11000
17	3090	19500	21500	21200	22200	22800	23300	24100	10000	14300	4500	9000
18	3480	19900	21300	21100	22300	23100	23300	24100	13200	14200	1500	2140
19	7200	20700	21700	21000	22300	23100	23300	23900	14000	14300	2500	3040
20	8660	20400	21700	21100	22200	23200	19700	23900	15000	14100	4000	3500
21	13100	20600	21200	21100	12800	23200	19500	22400	11500	12100	5000	4000
22	13100	20600	21200	21100	20600	23200	19500	24000	4740	13300	6550	6690
23	13200	20400	21500	21100	21400	22600	19500	23900	5000	3000	7560	2940
24	13200	20400	21400	21100	21500	22800	19700	23900	4500	2000	6000	2010
25	14800	20600	21500	21100	22500	22900	19700	24000	5780	2490	1830	1730
26	14700	20800	21500	21100	22400	22900	19700	23900	9070	2550	1830	1640
27	15000	20600	21500	21100	22500	22900	19700	23900	9120	4000	3120	2500
28	15300	20500	21400	21100	22600	22900	27200	23400	9120	6000	3500	3500
29	15900	20400	21400	21100	---	23900	26000	2410	10300	4000	5740	5000
30	16300	20500	21300	21400	---	23800	26100	1580	10700	2260	4500	7000
31	16800	---	21000	21400	---	23900	---	1340	---	2480	7830	---
MONTH	12090	19370	21190	20880	21220	22750	23010	21410	7320	10350	5250	6930

RED RIVER BASIN

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07311900 WICHITA RIVER NEAR SEYMOUR, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	11.0	16.0	12.0	8.0	12.0	19.0	26.0	22.0	36.0	23.0	28.0
2	22.0	13.0	16.0	8.0	9.0	8.0	8.0	25.0	23.0	26.0	29.0	29.0
3	24.0	14.0	15.0	7.0	15.0	7.0	17.0	25.0	27.0	28.0	27.0	30.0
4	26.0	13.0	15.0	4.0	9.0	10.0	15.0	24.0	27.0	32.0	29.0	27.0
5	26.0	15.0	13.0	0.0	12.0	13.0	18.0	24.0	27.0	30.0	26.0	29.0
6	21.0	17.0	15.0	1.0	9.0	14.0	16.0	26.0	28.0	35.0	25.0	30.0
7	21.0	9.0	14.0	3.0	5.0	15.0	19.0	25.0	27.0	33.0	27.0	30.0
8	13.0	16.0	17.0	7.0	3.0	12.0	20.0	26.0	30.0	31.0	25.0	28.0
9	19.0	11.0	16.0	10.0	9.0	16.0	23.0	27.0	29.0	32.0	26.0	28.0
10	20.0	16.0	16.0	11.0	12.0	18.0	24.0	19.0	27.0	33.0	26.0	29.0
11	19.0	14.0	11.0	13.0	13.0	19.0	24.0	20.0	30.0	33.0	29.0	29.0
12	19.0	12.0	10.0	9.0	9.0	20.0	20.0	21.0	---	32.0	28.0	26.0
13	23.0	8.0	12.0	14.0	14.0	21.0	21.0	19.0	29.0	30.0	26.0	26.0
14	19.0	8.0	10.0	12.0	13.0	17.0	20.0	18.0	30.0	29.0	20.0	25.0
15	12.0	12.0	12.0	10.0	12.0	18.0	19.0	19.0	29.0	34.0	25.0	25.0
16	12.0	13.0	12.0	11.0	15.0	19.0	17.0	21.0	29.0	33.0	26.0	26.0
17	13.0	13.0	13.0	13.0	16.0	14.0	22.0	22.0	28.0	33.0	28.0	23.0
18	17.0	13.0	16.0	10.0	14.0	13.0	21.0	22.0	28.0	32.0	26.0	16.0
19	15.0	13.0	10.0	7.0	15.0	12.0	18.0	23.0	27.0	30.0	32.0	14.0
20	18.0	14.0	8.0	9.0	14.0	13.0	22.0	25.0	25.0	24.0	30.0	16.0
21	21.0	15.0	10.0	10.0	5.0	15.0	23.0	27.0	25.0	31.0	---	18.0
22	24.0	10.0	14.0	10.0	6.0	12.0	25.0	25.0	26.0	---	31.0	19.0
23	22.0	9.0	11.0	11.0	10.0	12.0	24.0	26.0	28.0	28.0	27.0	16.0
24	21.0	7.0	10.0	11.0	12.0	10.0	25.0	30.0	27.0	31.0	24.0	17.0
25	22.0	13.0	8.0	13.0	13.0	14.0	---	32.0	25.0	32.0	24.0	22.0
26	20.0	15.0	10.0	12.0	12.0	18.0	22.0	28.0	23.0	27.0	25.0	25.0
27	14.0	13.0	13.0	9.0	14.0	22.0	24.0	25.0	29.0	29.0	26.0	---
28	17.0	12.0	13.0	8.0	14.0	16.0	21.0	30.0	25.0	29.0	26.0	26.0
29	16.0	13.0	12.0	9.0	---	19.0	23.0	22.0	32.0	25.0	28.0	26.0
30	19.0	15.0	12.0	14.0	---	21.0	24.0	22.0	25.0	27.0	30.0	25.0
31	18.0	---	11.0	11.0	---	24.0	---	24.0	---	27.0	27.0	---
MONTH	19.0	12.5	12.5	9.5	11.0	15.5	20.5	24.0	27.0	30.5	26.5	24.5

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 1971.

Water temperatures: October 1966 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.									
05...	14	6.4	260	68	760	102	0	770	1200
NOV.									
14...	15	5.4	270	65	770	108	0	790	1200
DEC.									
07...	13	5.2	270	67	780	108	0	810	1200
30...	412	5.0	280	68	800	106	0	830	1200
JAN.									
09...	34	6.2	280	69	800	110	0	810	1300
FEB.									
07...	54	5.8	280	68	820	116	0	840	1300
MAR.									
12...	16	5.4	280	62	800	132	0	780	1200
21...	210	5.3	290	72	860	122	0	840	1400
APR.									
28...	272	6.4	300	76	880	116	0	860	1400
MAY									
11...	579	--	300	78	920	124	0	890	1400
JUNE									
08...	30	--	300	82	910	122	0	890	1400
26...	435	--	280	70	830	104	0	840	1300
JULY									
02...	442	--	280	76	780	124	0	800	1200
24...	13	--	280	75	830	114	0	840	1300
AUG.									
04...	14	--	290	67	880	114	0	870	1400
SEP.									
08...	15	--	280	68	810	112	0	810	1300
23...	17	--	160	42	460	108	0	440	710
24...	37	5.3	32	12	71	92	0	63	100

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs-days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	1613	4930	3140	441	13700	1210	170	5270	770	108	3350
November.....	439	5000	3170	125	3760	1200	47	1420	790	31	936
December.....	1687	5340	3290	483	15000	1240	182	5650	840	123	3830
January 1971..	4312	5390	3300	1240	38400	1310	492	15300	810	304	9430
February.....	3911	5490	3380	1270	35700	1310	494	13800	850	321	8980
March.....	4584	5660	3400	1360	42100	1370	547	17000	830	331	10300
April.....	8704	5820	3510	2750	82500	1380	1080	32400	840	658	19700
May.....	13031	6060	3740	4240	132000	1420	1610	50000	900	1020	31700
June.....	8760	5740	3490	2750	82500	1360	1070	32200	850	670	20100
July.....	10541	5570	3380	3100	96200	1310	1200	37300	830	762	23600
August.....	3137	5520	3460	945	29300	1330	363	11300	860	235	7280
September.....	506	5470	3260	148	4450	1270	58	1740	790	36	1080
Total	61225.0	--	--	--	576000	--	--	223000	--	--	140000
Weighted average	168	5690	3480	1580	--	1350	612	--	850	384	--

RED RIVER BASIN

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07312100 WICHITA RIVER NEAR MABELLE, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 6,190 micromhos May 25; minimum daily, 4,790 micromhos Oct. 15.

Water temperatures: Maximum, 31.0°C July 25; minimum, 4.0°C Jan. 7, Feb. 9.

EXTREMES, October 1968 to September 1971.--Specific conductance: Maximum daily, 6,190 micromhos May 25, 1971; minimum daily, 2,420 micromhos Feb. 13, 1969.

Water temperatures: Maximum, 31.0°C July 25, 1971; 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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
05...	--	.40	3120	930	850	11	4900	7.6
NOV.								
14...	--	.30	3170	940	850	11	5000	7.9
DEC.								
07...	--	1.1	3220	950	860	11	4990	7.5
30...	--	.20	3270	960	880	11	5480	7.5
JAN.								
09...	--	.20	3280	970	880	11	5550	7.7
FEB.								
07...	--	.00	3350	980	890	19	5450	7.7
MAR.								
12...	--	.20	3240	940	830	11	5380	8.0
21...	--	.30	3470	1000	920	12	5760	7.6
APR.								
28...	--	.00	3570	1100	960	12	5900	7.4
MAY								
11...	--	--	3700	1100	980	12	6000	7.5
JUNE								
08...	--	--	3700	1100	1000	12	6090	7.9
26...	--	--	3380	1000	920	12	5550	7.7
JULY								
02...	--	--	3250	1000	900	11	5380	7.9
24...	--	--	3400	1000	930	11	5600	7.5
AUG.								
04...	--	--	3510	1000	910	12	5600	7.9
SEP.								
08...	--	--	3300	980	890	11	5540	7.9
23...	--	--	1860	560	470	8.4	3150	7.5
24...	.3	.40	330	130	52	2.7	619	7.8

07312100 WICHITA RIVER NEAR MABELLE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4840	4930	4950	5320	5450	5500	5740	5910	5960	5390	5590	5950
2	4930	4980	4900	5340	5450	5470	5750	5950	6090	5380	5560	5700
3	4920	4980	4960	5350	5450	5500	5760	5910	6090	5530	5600	5700
4	4920	4990	4860	5180	5440	5550	5760	5960	6140	5550	5600	5650
5	4900	4980	4980	5360	5440	5550	5760	5980	6090	5560	5670	5640
6	4940	5000	4990	5380	5440	5560	5780	5960	6090	5540	5590	5590
7	4920	5000	4990	5360	5450	5560	5800	5960	6090	5540	5200	5560
8	4910	4990	4920	5360	5450	5550	5800	5960	6090	5560	5170	5540
9	4960	5000	4990	5360	5460	5550	5780	6000	6070	5540	5620	5540
10	4920	5000	5240	5360	5460	5590	5830	6020	6050	5600	5590	5540
11	4910	4990	5240	5360	5460	5410	5800	6000	6050	5560	5610	5540
12	4920	4970	4940	5380	5480	5380	5800	6020	5940	5590	5600	5560
13	4920	4990	5230	5360	5480	5580	5830	6020	5890	5570	5600	5560
14	4920	5000	4950	5400	5480	5580	5830	6020	5850	5570	5540	5560
15	4790	5000	4940	5400	5480	5590	5830	6130	5910	5650	5570	5530
16	4950	5000	4960	5380	5480	5640	5830	6150	5810	5600	5570	5500
17	4930	5010	4960	5380	5490	5640	5830	6120	5800	5620	5570	5420
18	4930	5000	4970	5400	5490	5640	5850	6140	5840	5600	5590	5340
19	4930	5010	4980	5390	5490	5650	5850	6150	5750	5600	5590	5400
20	4940	5010	5240	5420	5510	5680	5830	6140	5690	5630	5810	5440
21	4940	5010	5240	5410	5550	5760	5860	6150	5690	5630	5790	5440
22	4930	5020	5260	5420	5540	5660	5850	6160	5660	5630	5740	5340
23	4940	5010	5260	5400	5520	5670	5870	6170	5660	5630	5730	5300
24	4900	5010	5260	5420	5540	5670	5870	6160	5660	5600	5590	5300
25	4890	5010	5250	5420	5520	5690	5870	6190	5590	5600	5590	5270
26	4920	5010	5240	5390	5490	5690	5870	6180	5550	5540	5670	5310
27	4920	5040	4990	5410	5490	5690	5870	6170	5560	5590	5650	5270
28	4900	5050	5490	5420	5490	5690	5900	6160	5530	5400	5650	5270
29	4940	4990	5380	5420	---	5710	5870	6180	5530	5330	5730	5250
30	4950	5000	5300	5420	---	5730	5890	6040	5540	5320	5670	5280
31	4940	---	5520	5450	---	5700	---	6050	---	5540	5670	---
MONTH	4920	5000	5110	5380	5480	5610	5830	6070	5840	5550	5600	5480

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	13.0	---	9.0	8.0	5.0	13.0	19.0	23.0	25.0	27.0	27.0
2	21.0	11.0	14.0	8.0	6.0	5.0	12.0	17.0	25.0	26.0	28.0	29.0
3	24.0	11.5	9.5	7.0	6.0	9.0	14.0	18.0	24.0	26.0	26.0	---
4	22.0	10.5	13.0	5.0	8.0	10.0	15.0	17.0	27.0	---	27.0	26.0
5	24.5	12.0	11.5	5.0	8.0	11.0	12.0	18.0	24.0	26.0	26.0	25.0
6	24.0	13.5	11.5	5.0	7.0	---	---	18.0	25.0	26.0	26.0	24.0
7	---	14.0	9.5	4.0	6.0	12.0	13.0	20.0	25.0	27.0	---	26.0
8	21.0	15.5	11.5	---	5.0	13.0	13.0	19.0	24.0	26.0	26.0	25.0
9	20.0	---	12.0	7.0	4.0	13.0	14.0	19.0	23.0	26.0	27.0	25.0
10	19.5	15.5	10.0	6.0	---	14.0	14.0	21.0	24.0	27.0	26.0	26.0
11	20.0	12.0	9.0	10.0	8.0	12.0	14.0	20.0	24.0	27.0	25.0	25.0
12	20.0	11.5	10.0	10.0	8.0	13.0	15.0	17.0	23.0	26.0	---	28.0
13	20.5	10.5	10.5	10.0	8.0	13.0	14.0	19.0	25.0	26.0	24.0	26.0
14	18.5	10.5	11.5	6.0	10.0	10.0	---	20.0	24.0	28.0	25.0	27.0
15	16.5	12.0	9.5	5.0	8.0	10.0	16.0	21.0	24.0	25.0	23.0	27.0
16	15.5	14.0	7.0	7.0	11.0	13.0	16.0	18.0	24.0	27.0	26.0	---
17	16.0	10.5	6.5	8.0	14.0	11.0	15.0	22.0	24.0	27.0	---	23.0
18	15.5	11.0	---	6.0	---	12.0	16.0	---	24.0	---	26.0	21.0
19	16.0	11.0	11.0	7.0	11.0	11.0	16.0	18.0	25.0	27.0	27.0	20.0
20	16.5	---	9.0	7.0	8.0	12.0	17.0	21.0	25.0	27.0	28.0	21.0
21	17.0	10.0	10.0	7.0	7.0	12.0	16.0	22.0	24.0	28.0	29.0	---
22	18.5	8.5	12.0	8.0	9.0	11.0	17.0	23.0	24.0	---	29.0	20.0
23	17.0	9.0	10.0	8.0	11.0	12.0	18.0	23.0	---	27.0	24.0	18.0
24	18.5	8.5	13.0	8.0	10.0	11.0	18.0	23.0	25.0	29.0	24.0	17.0
25	20.0	7.0	---	7.0	10.0	10.0	19.0	20.0	25.0	31.0	25.0	19.0
26	12.0	10.0	11.0	7.0	13.0	---	---	22.0	27.0	27.0	26.0	25.0
27	16.0	11.5	16.0	7.0	12.0	13.0	16.0	---	26.0	28.0	27.0	22.0
28	15.5	13.0	9.0	7.0	12.0	12.0	16.0	19.0	25.0	---	26.0	23.0
29	18.0	13.0	---	---	---	11.0	17.0	20.0	27.0	23.0	28.0	24.0
30	18.5	13.0	9.0	8.0	---	13.0	16.0	26.0	25.0	22.0	27.0	23.0
31	16.0	---	8.0	8.0	---	13.0	---	25.0	---	24.0	26.0	---
MONTH	18.5	11.5	10.5	7.0	9.0	11.5	15.5	20.0	24.5	26.5	26.0	24.0

RED RIVER BASIN

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07312200 BEAVER CREEK NEAR ELECTRA, TEX.

LOCATION.--Lat 33°54'21", long 98°54'17", Wichita County, at gaging station at bridge on Farm Road 2326, 6.5 miles northwest of Kamay, 8 miles upstream from Wichita River, and 9 miles south of Electra.

DRAINAGE AREA.--652 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1971.

Water temperatures: July 1968 to September 1970.

Sediment records: July 1968 to September 1971.

EXTREMES, July 1968 to September 1969.--Dissolved solids: Maximum, 5,480 mg/l May 2-3; minimum, 264 mg/l Sept. 23.

Hardness: Maximum, 1,680 mg/l May 2-3; minimum, 112 mg/l Sept. 23.

Specific conductance: Maximum daily, 10,700 micromhos Sept. 13; minimum daily, 419 micromhos Aug. 27.

Water temperatures: Maximum, 37.0°C July 7, Aug. 11; minimum, freezing point Jan. 9, 10, 24.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 26...	0930	1.8	.4	250	110	930	104	0	66

DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 26...	2100		.10	3490	1100	980	12	6750	7.6

DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
MAR., 1970							
07...	1115	1960	10.0	3340	17700		
07...	1435	1850	10.5	2800	14000		
07...	1715	1720	10.5	2480	11500		
08...	1022	390	12.0	3180	3350		
08...	1230	322	12.0	2580	2240		
DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- SED. DIAM. % FINER THAN .062 MM	SUS- SED. DIAM. % FINER THAN .125 MM	SUS- SED. DIAM. % FINER THAN .250 MM
AUG., 1971							
17...	1605	18	26.0	563	99	99	100
26...	1145	457	25.5	9820	90	99	100

DATE	TIME	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	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
AUG., 1971							
17...	77	82	86	91	94	27	
26...	48	59	68	78	85	12100	

RED RIVER BASIN

07312700 WICHITA RIVER NEAR CHARLIE, TEX.

LOCATION.--Lat 34°03'11", long 98°17'41", 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 1971.

Chemical and biochemical analyses: October 1968 to September 1971.

Water temperatures: October 1967 to September 1971.

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 3,780 mg/l July 1-23; minimum, 304 mg/l Aug. 16, 17.

Hardness: Maximum, 1,200 mg/l July 1-23; minimum, 120 mg/l Aug. 16, 17.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
01-09	102	5.0	230	90	690	180	0	580	1200
10...	101	5.0	120	27	360	104	0	290	560
11-24	102	5.0	230	90	690	180	0	580	1200
25...	130	6.6	180	64	510	140	0	440	880
26-31	94	4.0	240	90	730	172	0	610	1300
NOV.									
01-30	95	3.1	260	87	770	188	0	680	1300
DEC.									
01-16	77	3.7	260	93	740	204	0	640	1300
17-31	126	4.0	270	92	780	180	0	720	1300
JAN.									
01-05	162	3.0	200	63	540	124	0	530	900
06-18	111	5.3	250	87	720	184	0	640	1200
19-31	68	4.4	260	96	770	196	0	640	1300
FEB.									
01-17	96	4.8	270	100	780	187	0	600	1400
18-21	88	5.2	240	89	690	192	0	580	1200
22-23	235	4.2	120	46	340	124	0	280	590
24-28	114	6.5	190	83	580	170	0	450	1000
MAR.									
01-12	78	10	220	95	650	196	0	530	1200
13-31	95	7.0	260	99	800	200	0	680	1400
APR.									
01-30	159	9.2	280	100	870	172	0	810	1400
MAY									
01-31	146	7.1	300	98	890	160	0	850	1500
JUNE									
01-04	262	6.0	240	71	700	136	0	570	1200
05-30	129	4.9	290	96	860	140	0	740	1500
JULY									
01-23	152	6.8	310	100	900	122	0	850	1500
24-31	226	7.6	270	79	820	120	0	690	1400
AUG.									
01-14	159	9.0	260	91	800	132	0	690	1400
15...	977	9.5	110	38	330	124	0	240	560
16-17	4290	6.0	36	7.3	63	64	0	55	100
18-19	1050	9.5	110	38	330	124	0	240	560
20-24	232	10	200	71	580	160	0	500	980
25-27	1880	7.0	64	18	150	124	0	91	260
28-31	645	10	200	71	580	160	0	500	980
SEP.									
01-04	232	9.6	220	90	600	160	0	490	1100
05-06	1150	8.5	120	41	320	116	0	260	560
07-08	980	10	68	21	170	108	0	100	300
09-22	275	9.6	220	90	600	160	0	490	1100
23-25	849	8.5	120	41	320	116	0	260	560
26-27	2480	7.2	47	11	110	106	0	46	180
28-31	938	8.1	140	41	450	120	0	330	740
WTD. AVG.	--	7.1	184	63	531	138	0	454	906
TIME WTD.									
AVG.	218	6.3	251	89	742	165	0	649	1270
TOT. LOAD (TONS)	--	1530	39500	13500	114000	29700	0	97700	195000

RED RIVER BASIN

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07312700 WICHITA RIVER NEAR CHARLIE, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Continued.

Specific conductance: Maximum daily, 6,770 micromhos July 20; minimum daily, 384 micromhos Aug. 16.

Water temperatures: Maximum, 31.5°C on several days during July; freezing point Feb. 8.

EXTREMES, October 1967 to September 1971.--Dissolved solids: Maximum, 3,780 mg/l July 1-23, 1971; minimum, 304 mg/l Aug. 16-17, 1971.

Hardness: Maximum, 1,200 mg/l July 1-23, 1971; minimum, 120 mg/l Aug. 16-17, 1971.

Specific conductance: Maximum daily, 6,770 micromhos July 20, 1971; 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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-09	--	1.6	2890	940	790	9.8	4670	7.9
10...	1.1	1.6	1420	400	260	7.7	2440	7.6
11-24	--	1.6	2890	940	790	9.8	4670	7.9
25...	--	2.0	2160	700	590	8.3	3560	7.9
26-31	--	1.5	3050	980	840	10	5140	7.6
NOV.								
01-30	--	1.9	3190	1000	870	11	5450	8.0
DEC.								
01-16	--	3.0	3100	1000	850	10	5340	7.8
17-31	--	1.9	3260	1000	900	11	5590	7.5
JAN.								
01-05	--	1.2	2300	760	660	8.5	3730	7.6
06-18	--	3.1	3030	980	830	10	4780	7.8
19-31	--	2.8	3220	1000	880	10	5480	7.9
FEB.								
01-17	--	4.4	3290	1100	950	10	5600	7.5
18-21	--	3.9	2900	960	800	9.7	4630	8.0
22-23	.3	7.3	1480	500	400	6.7	2480	7.6
24-28	--	3.3	2450	820	680	8.8	4040	7.8
MAR.								
01-12	--	3.1	2780	940	780	9.2	4450	7.7
13-31	--	2.8	3330	1100	910	11	5540	8.0
APR.								
01-30	--	--	3580	1100	960	11	5840	7.6
MAY								
01-31	.0	1.7	3690	1100	1000	11	6090	7.8
JUNE								
01-04	--	1.1	2850	880	770	10	4590	7.7
05-30	--	1.6	3560	1100	1000	11	5960	7.8
JULY								
01-23	--	1.5	3780	1200	1100	11	6230	7.7
24-31	--	1.2	3330	1000	900	11	5620	7.5
AUG.								
01-14	--	1.6	3270	1000	900	11	5330	7.4
15...	.4	2.0	1360	430	330	6.9	2270	7.3
16-17	.3	1.3	304	120	68	2.5	574	7.3
18-19	.4	2.0	1360	430	330	6.9	2270	7.3
20-24	--	1.4	2420	780	650	9.0	3810	7.5
25-27	.3	1.6	654	230	130	4.3	1160	7.4
28-31	--	1.4	2420	780	650	9.0	3810	7.5
SEP.								
01-04	.3	1.2	2610	920	790	8.6	4300	7.9
05-06	.3	1.5	1370	470	380	6.4	2400	7.7
07-08	.2	1.7	734	260	170	4.6	1350	7.7
09-22	.3	1.2	2610	920	790	8.6	4300	7.9
23-25	.3	1.5	1370	470	380	6.4	2400	7.7
26-27	.2	1.1	462	160	77	3.8	860	7.5
28-30	.3	1.0	1770	520	420	8.6	2920	7.7
WTD. AVG.	--	1.7	2220	710	602	8.0	3700	7.6
TIME WTD.								
AVG.	--	2.1	3100	982	855	10	5140	7.7
TOT. LOAD (TONS)	--	348	477000	--	--	--	--	--

RED RIVER BASIN

07312700 WICHITA RIVER NEAR CHARLIE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 13...	0745	79	6.4	230	80	700	188	0	570
DEC. 07...	1240	66	1.7	230	79	730	196	0	610
JAN. 27...	1200	55	1.2	280	100	780	220	0	610
APR. 19...	0830	212	4.0	280	93	840	160	0	790
JUNE 07...	1130	59	7.3	280	93	860	144	0	610
AUG. 10...	1315	192	7.0	200	62	590	116	0	380

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED 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. 13...	1180	.4	.34	.350	.86	1.2	1.8	2870	900
DEC. 07...	1200	--	--	.260	1.3	1.0	.27	2970	900
JAN. 27...	1400	.4	--	.120	.37	.90	1.7	3290	1100
APR. 19...	1400	.4	--	.320	.94	.50	1.2	3470	1100
JUNE 07...	1600	.5	--	.020	.00	.00	1.0	3480	1100
AUG. 10...	1100	--	--	.150	.14	1.3	.36	2380	740

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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. 13...	750	10	4550	8.0	14.5	8.5	83	2.3	--
DEC. 07...	740	11	4770	7.6	9.5	10.8	95	3.6	--
JAN. 27...	920	10	5680	8.7	7.5	15.0	125	4.3	--
APR. 19...	950	11	5740	7.3	20.5	6.4	70	7.6	--
JUNE 07...	960	11	5930	7.6	27.0	11.4	141	6.5	--
AUG. 10...	640	9.3	4090	7.4	29.0	6.4	82	4.2	.08

RED RIVER BASIN

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07312700 WICHITA RIVER NEAR CHARLIE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4530	5530	5560	3030	4730	4020	5670	5930	5800	6280	3920	4370
2	4440	5230	5400	4080	4870	4420	6020	5990	4830	6390	5780	4230
3	4370	5560	5500	3150	4460	4630	5710	6020	4220	4520	5850	4330
4	5000	5380	5010	4090	5380	4520	5780	6310	4710	6150	6010	4460
5	4860	5590	4930	4440	5840	4310	5920	5930	5870	6250	6110	2540
6	4910	5530	5400	4900	4770	3860	5800	5860	6160	6500	6050	2290
7	4910	5400	4810	4980	5760	4210	5730	6040	6060	6300	4210	1350
8	4510	5270	4940	5460	5470	4340	5680	6120	6070	---	4710	2570
9	4880	5410	5470	5620	5560	4640	5760	6010	5520	5960	6490	3790
10	2440	5440	4980	5500	5860	4860	5780	5930	5040	6150	4100	3970
11	4900	5260	5560	5580	6100	4860	5900	6210	---	6370	5400	3900
12	5000	4520	4980	5610	5990	4770	5780	6180	5740	6420	5550	4050
13	5000	4890	4860	5410	5870	5450	5780	6050	6020	6480	5240	4080
14	5620	4860	4850	4750	5980	5510	5890	6010	6070	6320	5550	4290
15	5440	5560	4810	4810	5600	5160	5900	6030	6190	6340	1600	4460
16	4740	5390	4840	4610	5120	5370	5850	6010	6060	6240	384	4460
17	4780	5470	5720	4860	5200	5410	5900	6010	5700	6280	672	4550
18	4820	5470	5690	4900	4670	5200	5750	6300	6270	6380	1930	4600
19	4260	5410	5570	5450	4730	5260	5850	6140	6540	6530	2070	4370
20	5620	5560	5540	5540	4670	5610	5880	6190	5930	6770	3110	4200
21	4370	5730	5620	5510	4340	5440	5450	6270	6060	6330	3790	4000
22	4170	5700	5570	5490	2370	5520	5670	6290	5590	6290	4150	4860
23	4150	5650	5670	5420	2590	5630	5900	6200	6180	6040	4450	2030
24	4320	5830	5360	5340	3210	5540	6130	---	5640	4240	4690	2440
25	3560	5800	5460	5370	4390	5410	5970	6310	5610	5970	1810	2780
26	4550	5770	5630	5670	4580	5440	6100	6320	6060	6280	977	882
27	5360	5620	5670	5670	4000	5550	6170	6160	6060	6170	1050	849
28	4750	5470	5670	5280	4000	5800	5930	6160	6130	5810	2470	2740
29	5520	5480	5660	5440	---	5660	5730	5950	6370	5370	3280	3010
30	5530	5400	5670	5500	---	5720	5870	5920	6210	5670	4100	3080
31	5490	---	5640	5510	---	6060	---	5770	---	5100	4290	---
MONTH	4740	5440	5360	5060	4860	5100	5840	6090	5820	6060	3860	3450

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.5	13.5	14.5	7.0	5.5	11.0	16.5	21.0	27.0	26.5	24.0	29.5
2	23.5	9.5	14.5	7.0	4.5	6.5	14.5	23.5	28.0	29.0	25.5	29.0
3	24.0	9.0	13.5	8.5	5.5	5.5	16.5	23.5	28.5	28.5	27.0	29.0
4	24.0	8.0	13.0	4.5	7.0	8.0	14.0	22.0	25.5	31.0	28.0	28.5
5	24.0	11.0	11.5	1.5	6.0	9.0	12.0	24.0	28.5	31.0	26.5	26.0
6	24.5	12.0	10.0	0.5	5.0	10.0	15.0	24.5	25.0	31.0	26.5	29.0
7	24.5	13.5	10.0	1.5	2.0	8.0	15.5	24.5	28.5	31.0	26.5	28.0
8	16.5	14.5	11.5	1.5	0.0	8.5	17.0	21.0	28.0	---	29.0	30.0
9	13.5	12.0	14.0	1.5	0.5	11.0	19.0	21.0	27.0	31.0	28.0	30.0
10	14.0	13.0	14.0	5.5	2.0	10.0	21.0	24.0	29.0	31.5	29.5	29.5
11	16.5	12.0	9.5	7.0	6.5	11.5	17.0	23.5	---	31.5	31.0	29.0
12	17.0	11.0	8.0	5.5	7.0	16.5	20.5	20.5	25.5	31.0	30.0	28.5
13	19.0	9.5	8.5	5.0	7.0	14.0	18.5	20.5	28.0	31.0	26.5	25.5
14	19.0	8.0	6.0	6.0	8.5	15.5	17.0	21.5	29.0	31.5	25.5	29.0
15	14.5	7.0	9.5	4.5	8.5	15.5	19.0	23.0	29.0	31.5	24.5	28.5
16	14.0	8.0	8.5	---	13.0	13.0	18.5	23.5	29.5	31.5	23.5	28.5
17	12.0	9.5	9.5	7.0	11.0	14.5	19.5	24.5	29.0	31.0	24.5	23.5
18	14.5	11.5	11.0	5.5	15.0	13.0	20.5	25.0	30.0	31.5	27.0	19.0
19	15.5	11.5	8.5	4.0	13.0	9.5	21.0	23.5	30.5	28.5	28.0	17.0
20	15.5	11.0	7.0	4.5	11.0	9.5	20.5	22.0	26.5	26.5	29.0	18.5
21	---	12.0	9.0	6.0	8.5	11.0	21.0	23.5	26.5	27.0	30.0	20.0
22	19.0	10.0	8.5	7.0	4.5	11.0	21.0	23.5	28.5	28.5	29.5	11.5
23	19.0	6.5	7.0	7.0	6.5	10.0	20.5	24.0	29.5	26.5	29.5	16.5
24	19.0	4.5	4.5	5.5	6.5	10.0	19.0	---	30.0	28.0	29.0	18.5
25	20.5	7.0	4.0	7.0	10.0	9.5	21.0	22.0	31.0	29.0	25.5	19.0
26	20.0	11.0	4.0	6.5	11.0	10.0	24.0	25.0	30.0	29.5	25.5	20.0
27	15.5	10.5	5.0	5.0	10.0	13.5	22.0	25.5	31.0	28.5	24.5	20.5
28	14.0	12.0	6.5	8.5	8.5	16.5	20.0	24.0	28.5	28.0	27.0	23.5
29	14.0	13.5	7.0	8.0	---	14.5	21.0	24.0	30.5	28.0	27.0	24.5
30	15.0	15.5	8.0	8.5	---	13.0	19.0	23.5	30.0	25.5	26.0	25.0
31	14.5	---	8.0	6.5	---	15.0	---	26.0	---	23.5	28.5	---
MONTH	18.0	10.5	9.0	5.5	7.5	11.5	18.5	23.5	28.5	29.5	27.0	24.5

RED RIVER BASIN

103

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 1971.
Sediment records: October 1965 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 27...	1505	2.9	12	13	4.7	20	79	0	8.4
APR. 21...	1330	.02	17	78	72	66	520	0	14
AUG. 17...	1445	4.0	6.8	11	3.1	9.7	44	0	6.0

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 27...	14	.4	.50	114	52	0	1.2	196	7.2
APR. 21...	140	.4	.70	642	490	64	1.3	1120	7.9
AUG. 17...	10	.0	1.4	75	40	4	.7	127	6.9

DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
APR., 1970					
30...	1345	431	20.0	1090	1270
30...	1655	635	19.5	845	1450
AUG., 1971					
17...	1420	4.1	25.5	954	11

RED RIVER BASIN

07315500 RED RIVER NEAR TERRAL, OKLA.

LOCATION.--Lat 33°52'43", long 97°56'03", Jefferson County, at gaging station of 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 of which is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1971.

Water temperatures: October 1967 to September 1971.

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 5,260 mg/l June 17-22; minimum, 482 mg/l Aug. 17-18.

Hardness: Maximum, 1,400 mg/l June 17-22; minimum, 170 mg/l Aug. 17-18.

Specific conductance: Maximum daily, 9,580 micromhos June 17; minimum daily, 750 micromhos Aug. 17.

Water temperatures: Maximum, 29.0°C Sept. 8; minimum, freezing point Jan. 5, 7, 8, Feb. 8, 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.										
01-03	317	9.3	120	31	--	260	6.2	130	0	250
04-31	214	6.2	170	55	--	470	--	168	0	380
NOV.										
01-30	130	3.9	230	68	--	680	--	212	0	550
DEC.										
01-31	127	3.1	230	75	--	640	--	227	0	550
JAN.										
01-31	139	3.9	230	74	640	--	11	214	0	540
FEB.										
01-20	132	2.9	220	82	--	700	--	160	0	540
21-28	266	4.8	150	49	--	420	--	184	0	300
MAR.										
01-05	157	3.2	180	60	--	540	--	216	0	390
06-31	104	3.4	220	80	--	720	--	204	0	540
APR.										
01-24	140	2.1	270	88	830	--	11	184	0	770
25-26	208	5.7	190	62	--	570	--	234	0	460
27-30	116	4.9	250	78	--	720	--	228	0	620
MAY										
01-31	134	4.3	330	95	--	740	--	172	0	730
JUNE										
01-03	1450	8.6	280	60	--	850	--	120	0	730
04...	3410	14	150	26	--	340	--	122	0	360
05...	1720	9.6	250	46	--	720	--	108	0	640
06-13	397	8.6	280	60	--	850	--	120	0	730
14-16	2460	9.6	250	46	--	720	--	108	0	640
17-22	1240	11	440	68	--	1400	--	104	0	1200
23-30	571	8.6	280	60	--	850	--	120	0	730
JULY										
01-26	217	7.9	310	89	960	--	13	132	0	860
27-31	393	9.6	200	54	--	590	--	132	0	490
AUG.										
01-08	232	9.9	200	57	--	570	--	114	0	480
09-14	409	8.2	280	67	--	930	--	140	0	700
15...	2040	9.9	200	57	--	570	--	114	0	480
16...	22800	8.6	98	18	--	280	--	124	0	190
17-18	20000	8.0	55	7.5	--	110	--	116	0	82
19-20	4000	8.6	98	18	--	280	--	124	0	190
21-22	1670	8.2	280	67	--	930	--	140	0	700
23-25	1650	9.9	200	57	--	570	--	114	0	480
26-29	3160	8.6	98	18	--	280	--	124	0	190
30-31	1180	9.9	200	57	--	570	--	114	0	480
SEP.										
01-06	610	10	240	51	--	740	--	126	0	620
07...	5290	9.4	120	29	--	330	--	128	0	290
08-11	5690	8.6	88	18	--	220	--	116	0	180
12-15	806	9.4	120	29	--	330	--	128	0	290
16-20	1580	10	190	53	--	580	--	168	0	440
21-26	6910	8.6	88	18	--	220	--	116	0	180
27-30	11600	9.4	150	26	--	490	--	114	0	360
WTD. AVG.	--	8.4	150	33	--	416	--	128	0	350
TIME WTD.										
AVG.	840	5.6	233	69	--	639	--	171	0	572
TOT. LOAD (TONS)	--	6940	124000	27700	--	329000	--	106000	0	289000

RED RIVER BASIN

105

07315500 RED RIVER NEAR TERRAL, OKLA.--Continued

EXTREMES, October 1967 to September 1971.--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 January 1968, 1970, 1971 and February 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	440	.4	1.9	1190	420	310	5.5	2030	7.3
04-31	800	--	1.9	1970	640	510	8.0	3320	7.7
NOV.									
01-30	1100	--	.8	2740	860	680	10	4440	7.8
DEC.									
01-31	1100	--	2.2	2720	890	700	9.4	4400	7.6
JAN.									
01-31	1100	--	3.5	2710	880	700	9.4	4400	7.7
FEB.									
01-20	1200	--	1.3	2840	890	760	10	4680	7.5
21-28	720	.4	2.6	1750	570	420	7.6	2990	7.7
MAR.									
01-05	910	--	4.3	2210	700	520	8.9	3670	7.5
06-31	1200	--	.8	2880	880	720	11	4730	7.3
APR.									
01-24	1400	--	.9	3450	1000	890	11	5550	7.6
25-26	910	--	2.9	2320	730	540	9.2	3760	7.8
27-30	1200	--	1.6	2960	940	750	10	4700	7.8
MAY									
01-31	1400	--	.3	3300	1200	1100	9.2	5880	7.2
JUNE									
01-03	1400	--	1.0	3360	940	840	12	5500	7.1
04...	520	.4	1.7	1480	490	390	6.6	2430	7.4
05...	1100	--	.9	2860	810	720	11	4610	7.0
06-13	1400	--	1.0	3360	940	840	12	5500	7.1
14-16	1100	--	.9	2860	810	720	11	4610	7.0
17-22	2100	--	--	5260	1400	1300	16	8160	7.0
23-30	1400	--	1.0	3360	940	840	12	5500	7.1
JULY									
01-26	1600	--	1.1	3910	1100	1000	12	6190	6.9
27-31	980	--	1.4	2390	710	600	9.7	3970	7.5
AUG.									
01-08	970	.4	1.9	2350	720	630	9.3	3950	7.3
09-14	1500	.4	1.1	3580	960	850	13	5960	7.7
15...	970	.4	1.9	2350	720	630	9.3	3950	7.3
16...	440	.3	1.2	1100	320	220	6.8	1880	7.3
17-18	160	.2	1.0	482	170	73	3.7	848	7.7
19-20	440	.3	1.2	1100	320	220	6.8	1880	7.3
21-22	1500	.4	1.1	3580	960	850	13	5960	7.7
23-25	970	.4	1.9	2350	720	630	9.3	3950	7.3
26-29	440	.3	1.2	1100	320	220	6.8	1880	7.3
30-31	970	.4	1.9	2350	720	630	9.3	3950	7.3
SEP.									
01-06	1200	.4	.9	2910	800	700	11	4750	7.8
07...	520	.3	.9	1370	430	320	6.9	2380	8.0
08-11	340	.3	1.3	914	300	200	5.5	1640	8.0
12-15	520	.3	.9	1370	430	320	6.9	2380	8.0
16-20	960	.3	.6	2320	690	550	9.6	3890	8.1
21-26	340	.3	1.3	914	300	200	5.5	1640	8.0
27-30	760	.3	1.0	1860	480	390	9.7	3120	7.8
WTD. AVG.	693	--	1.2	1730	512	407	7.9	2900	7.6
TIME WTD.									
AVG.	1140	--	1.5	2770	857	723	9.8	4570	7.5
TOT. LOAD									
(TONS)	574000	--	975	1436000	--	--	--	--	--

RED RIVER BASIN

07315500 RED RIVER NEAR TERRAL, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1740	4090	4280	4650	4350	3490	5650	5400	4770	5560	3970	4750
2	2060	4110	4110	4730	4310	---	5600	5470	4870	5660	4050	4910
3	2280	4330	4110	4600	4330	3620	5490	5340	4340	5710	3190	5220
4	2550	4400	4350	4010	4210	3870	5650	5660	2430	6000	2990	5740
5	2710	4370	4300	4460	4480	3780	5570	5630	3910	6070	3230	4450
6	2990	4430	4290	4230	4530	4070	5510	5470	6600	5820	4210	3530
7	3080	4370	4400	4830	4820	4460	5570	5740	6570	5430	4410	2410
8	3280	4450	4360	4730	4730	4980	5510	5710	6070	6210	4680	1740
9	3020	4510	4410	4520	4720	5160	5650	5890	5910	5890	5830	1320
10	2730	4490	4370	4510	5000	4420	5590	5280	5780	7170	5590	1300
11	3130	4550	4330	4480	4870	4040	5520	5560	5700	6820	5830	1800
12	3560	4500	4320	4480	4740	4210	5570	5380	6110	5870	6010	1950
13	3710	4510	4310	4360	4580	4720	5730	5970	6030	5650	6080	2170
14	3660	4320	4450	4370	4580	4450	5570	5710	3940	5880	7460	2490
15	2910	4370	4360	4330	4940	4560	5600	5800	5360	6180	4200	2840
16	3550	4360	4380	4430	4930	4460	5540	5570	5380	6310	1580	3260
17	3710	4190	4280	4180	4890	4500	5170	5510	9580	6460	750	3610
18	3780	4160	4260	4100	4770	4990	5360	5710	9000	6560	946	3970
19	4030	4340	4460	4320	4810	4900	---	6700	8120	6620	1240	4420
20	4100	4390	4420	4260	4920	4690	5430	7570	7840	6630	2640	4190
21	3980	4430	4350	4190	---	4610	5460	6990	7310	6460	5390	1830
22	4210	4510	4570	3990	---	4970	5490	6760	7110	6370	5320	1410
23	3220	4610	4610	4380	---	4720	5620	6660	5460	6310	3890	1590
24	2060	4610	4520	4450	3360	4820	5560	6390	5730	6090	3960	1790
25	3240	4850	4420	4570	3280	4830	3810	6270	4490	5900	4010	2200
26	3390	4830	4450	4430	2430	4970	3720	6500	4360	6040	1730	1380
27	2870	4890	4630	4460	2930	4920	4250	5260	5190	3890	2560	3090
28	3060	4600	4620	4370	3310	5330	4700	5710	5660	4100	1880	3020
29	3080	4510	4630	4220	---	5360	4820	5630	5660	3180	1520	3120
30	3430	4390	4470	4100	---	5310	5000	5000	5490	4180	3820	3250
31	3820	---	4550	4190	---	5370	---	5110	---	4500	4660	---
MONTH	3190	4450	4400	4380	4350	4620	5300	5850	5830	5790	3790	2960

RED RIVER BASIN

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07315500 RED RIVER NEAR TERRAL, OKLA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	12.0	16.0	10.5	3.5	8.5	10.5	15.0	21.0	26.5	23.0	25.5
2	20.0	11.0	12.0	7.0	4.5	---	5.5	15.5	24.5	26.5	22.0	25.5
3	22.0	11.0	16.0	10.5	5.5	8.5	13.0	18.0	24.5	26.5	22.0	25.0
4	21.0	7.0	15.0	4.5	9.5	10.5	13.0	16.5	24.0	26.0	24.0	25.5
5	22.0	9.0	14.0	0.0	4.0	6.5	10.0	19.5	24.5	27.0	24.0	26.0
6	22.0	10.0	9.0	1.5	3.5	11.0	9.0	20.0	24.5	26.5	24.5	26.5
7	23.0	11.0	12.0	0.0	1.5	7.0	13.0	20.5	24.0	26.5	25.0	26.0
8	17.0	15.0	10.0	0.0	0.0	6.5	9.5	25.5	24.5	28.0	24.5	29.0
9	11.0	12.0	12.0	1.5	0.0	9.0	14.5	19.5	23.5	27.0	24.0	28.0
10	12.0	12.0	15.0	4.0	1.5	9.0	16.5	19.5	24.0	26.5	25.0	28.0
11	14.0	12.0	7.0	4.5	5.5	9.5	16.0	21.0	24.5	27.0	26.5	27.0
12	16.0	10.0	7.0	4.5	6.5	13.0	17.0	17.0	25.0	26.0	25.5	27.0
13	16.0	10.0	6.0	6.5	4.5	13.5	18.0	15.0	25.5	25.5	25.0	25.0
14	17.0	8.0	5.0	6.5	6.5	16.0	14.5	16.5	24.5	25.5	25.0	25.0
15	15.0	4.0	9.0	4.0	7.0	10.0	17.0	18.5	25.0	25.0	24.0	26.0
16	13.0	5.0	7.0	3.0	9.5	11.5	17.0	20.0	26.5	26.5	23.0	25.0
17	13.0	8.0	11.0	5.5	10.0	11.0	16.5	21.0	26.5	26.5	24.5	22.0
18	14.0	9.0	9.5	6.5	14.5	11.5	18.0	20.5	26.5	25.0	25.0	19.0
19	13.0	12.0	7.0	2.0	10.0	8.0	---	17.0	26.0	25.5	25.5	26.0
20	15.0	9.0	7.0	1.5	10.0	8.5	17.0	19.5	26.0	24.0	26.5	15.0
21	16.0	10.0	8.0	6.5	---	9.0	16.0	20.0	25.0	23.5	26.5	27.0
22	19.0	12.0	8.0	6.5	---	9.5	16.5	21.0	25.5	24.5	26.5	19.0
23	19.0	3.0	6.0	6.5	---	11.5	16.5	22.0	26.5	24.5	27.0	18.0
24	18.0	3.0	4.0	5.5	8.5	8.0	15.5	19.5	28.0	25.5	26.5	18.0
25	18.0	6.0	4.0	8.0	11.0	9.0	15.0	20.0	26.0	26.0	25.0	19.0
26	21.0	8.0	2.0	5.5	11.5	8.5	19.5	21.0	25.5	28.0	24.5	18.0
27	15.0	12.0	4.5	6.0	8.5	12.0	20.5	20.5	25.0	26.0	26.5	22.0
28	11.0	10.0	7.0	4.5	8.5	18.0	15.5	23.5	25.0	25.5	26.5	24.0
29	12.0	15.0	7.0	8.0	---	12.0	16.0	23.0	24.0	24.0	26.5	24.0
30	12.0	15.0	8.5	8.5	---	11.5	16.0	21.0	25.0	23.0	24.5	25.0
31	13.0	---	5.0	5.5	---	12.0	---	22.0	---	21.0	25.0	---
MONTH	16.5	9.5	8.5	5.0	6.5	10.5	15.0	19.5	25.0	25.5	25.0	24.0

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 1971.

Pesticide analyses: April 1968 to September 1971.

Water temperatures: October 1952 to September 1963, October 1966 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	889	7.2	56	15	110	--	4.6	102	0	87
03-26	434	8.3	140	42	--	340	--	176	0	250
27...	267	7.2	56	15	110	--	4.6	102	0	87
28...	3970	7.0	38	8.4	--	49	--	92	0	35
29-31	991	7.2	56	15	110	--	4.6	102	0	87
NOV.										
01-02	390	6.6	76	20	--	190	--	136	0	120
03-06	272	6.4	130	40	--	350	--	188	0	230
07-30	189	5.4	200	62	--	550	--	248	0	390
DEC.										
01-31	161	2.4	220	68	--	580	--	260	0	430
JAN.										
01-31	184	6.7	200	64	530	--	9.6	248	0	390
FEB.										
01-28	194	5.7	200	67	--	560	--	240	0	390
MAR.										
01-12	215	6.4	150	55	--	450	--	196	0	320
13-31	124	4.9	210	73	--	640	--	258	0	400
APR.										
01-30	153	1.2	250	78	740	--	13	232	0	600
MAY										
01-09	192	3.7	230	80	--	540	--	217	0	460
10-12	476	4.2	130	58	--	250	--	157	0	180
13-17	183	3.7	230	80	--	540	--	217	0	460
18-31	162	6.5	330	82	--	670	--	224	0	580
JUNE										
01-02	260	12	340	59	--	970	--	136	0	850
03-08	1460	9.6	190	45	--	510	--	152	0	410
09-30	987	12	340	59	--	970	--	136	0	850
JULY										
01-31	197	7.7	260	80	920	--	13	80	0	760
AUG.										
01-15	281	9.2	180	46	--	590	--	140	0	450
16-18	8890	10	95	18	--	280	--	116	0	180
19...	10700	9.5	68	12	--	170	--	160	0	91
20-26	3060	9.2	180	46	--	590	--	140	0	450
27-31	3020	10	95	18	--	280	--	116	0	180
SEP.										
01...	1510	8.9	88	17	--	220	--	110	0	180
02-09	1300	11	220	45	--	650	--	126	0	530
10-15	3030	8.9	88	17	--	220	--	110	0	180
16-20	803	10	140	31	--	360	--	144	0	300
21-22	3280	9.6	160	32	--	500	--	131	0	370
23-28	6540	8.9	88	17	--	220	--	110	0	180
29-30	8440	9.6	160	32	--	500	--	131	0	370
WTD. AVG.	--	8.9	155	36	--	--	--	141	0	342
TIME WTD.										
AVG.	739	6.5	207	60	--	--	--	191	0	452
TOT. LOAD (TONS)	--	6450	113000	26200	--	--	--	103000	0	249000

RED RIVER BASIN

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07316000 RED RIVER NEAR GAINESVILLE, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 3,850 mg/l June 1-2, 9-30; minimum, 273 mg/l Oct. 28.

Hardness: Maximum, 1,200 mg/l May 18-31; minimum, 130 mg/l Oct. 28.

Specific conductance: Maximum daily, 9,490 micromhos June 20; minimum daily, 502 micromhos Oct. 28.

Water temperatures: Maximum, 29.0°C July 26.

EXTREMES, May 1944 to April 1946, October 1952 to September 1963, October 1966 to September 1971.--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, 9,920 micromhos Sept. 12, 1963; minimum daily, 176 micromhos Nov. 4, 1958.

Water temperatures (1952-63, 1966-1971): Maximum, 35.0°C July 13, 1954; minimum, freezing point 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 1970 TO SEPTEMBER 1971

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- SOPP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-02	200	.3	.7	533	200	120	3.4	966	7.2
03-26	600	--	.6	1470	510	370	6.5	2540	7.7
27...	200	.3	.7	533	200	120	3.4	966	7.2
28...	86	--	1.0	273	130	54	1.9	502	7.7
29-31	200	.3	.7	533	200	120	3.4	966	7.2
NOV.									
01-02	320	.3	.6	803	270	160	5.0	1420	7.5
03-06	600	--	.6	1450	490	340	6.9	2500	7.9
07-30	960	--	.6	2290	760	560	8.7	3810	8.0
DEC.									
01-31	1000	--	.8	2430	820	610	8.8	4070	7.6
JAN.									
01-31	940	--	1.1	2270	770	560	8.4	3760	7.9
FEB.									
01-28	980	--	1.4	2330	760	570	8.8	3950	8.0
MAR.									
01-12	780	--	.4	1860	600	440	8.0	3140	7.6
13-31	1100	--	.4	2580	830	620	9.7	4280	7.8
APR.									
01-30	1300	--	.4	3090	950	760	11	5170	7.7
MAY									
01-09	1000	--	.3	2420	900	730	7.8	4120	7.5
10-12	560	.4	.4	1250	560	430	--	2140	7.5
13-17	1000	--	.3	2420	900	730	7.8	4120	7.5
18-31	1300	--	1.0	3090	1200	980	8.6	5570	7.4
JUNE									
01-02	1600	--	1.4	3850	1100	970	13	6140	7.6
03-08	830	--	1.8	2080	660	530	8.7	3430	7.1
09-30	1600	--	1.4	3850	1100	970	13	6140	7.6
JULY									
01-31	1500	--	1.7	3600	990	920	13	5800	7.1
AUG.									
01-15	950	.4	1.3	2300	650	540	10	3780	7.4
16-18	450	.3	.9	1100	310	220	6.9	1890	7.4
19...	250	.3	1.1	679	220	89	4.9	1220	7.6
20-26	950	.4	1.3	2300	650	540	10	3780	7.4
27-31	450	.3	.9	1100	310	220	6.9	1890	7.4
SEP.									
01...	350	.4	1.0	931	290	200	5.7	1650	7.8
02-09	1000	.4	.6	2550	720	620	10	4250	7.9
10-15	350	.4	1.0	931	290	200	5.7	1650	7.8
16-20	580	.4	.6	1490	460	350	7.3	2510	8.1
21-22	800	.3	.8	1940	540	440	9.2	3310	7.9
23-28	350	.4	1.0	931	290	200	5.7	1650	7.8
29-30	800	.3	.8	1940	540	440	9.2	3310	7.9
WTD. AVG.	724	--	.0	1780	536	421	8.0	2990	7.6
TIME WTD.									
AVG.	999	--	.9	2410	764	606	9.1	4020	7.6
TOT. LOAD (TONS)	528000	--	727	1297000	--	--	--	--	--

RED RIVER BASIN

07316000 RED RIVER NEAR GAINESVILLE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	ALDRIN (UG/L)	DDO (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- FLORIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)	LINDANE (UG/L)
JAN. 30...	1330	.00	.00	.00	.00	.00	.00	.00	.00	.00
OCT. 21...	1700	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 21...	1355	.00	.00	.02	.00	.00	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
JAN. 30...	.0	.00	.00	.00	.00	.0	.00	.02	.00
OCT. 21...	.0	.00	.00	.00	.00	.0	.00	.00	.00
JUNE 21...	.0	.00	.00	.00	.00	.0	.00	.01	.01

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	898	1280	4290	4020	4000	3080	4600	4510	5570	4250	4680	1690
2	1220	1540	4330	4020	4090	2990	4570	3910	5190	4870	3770	3150
3	1780	2050	4380	4020	4060	---	4680	5360	3370	5230	2950	4530
4	1700	2520	4350	2160	3950	2460	4840	4120	3270	4770	3740	4190
5	1970	2650	4310	3820	3940	2750	4900	4470	3970	4810	4620	4330
6	2040	2830	4190	3220	3960	2970	4980	3390	3470	5190	4200	4690
7	2040	3110	4140	3750	3900	3170	5280	2300	2650	5430	3320	4810
8	2010	3320	4100	3200	4030	3250	5200	4210	3780	5690	3270	4580
9	2330	3490	4040	3470	3960	3240	5380	3840	5590	6090	3260	3660
10	2420	3560	3950	3470	4000	3420	5350	2230	6280	5710	3370	1940
11	2400	3710	3970	3770	3970	3630	5290	3540	6150	5780	3830	1450
12	2420	3780	3980	3960	4050	3600	5390	1970	6000	5770	4310	1310
13	2900	3720	4110	3670	4180	4210	5390	3370	5750	5770	4180	1820
14	2990	3730	4100	4040	4350	4320	5340	3950	5390	6090	---	1840
15	2720	3730	4060	4030	4330	4320	5260	3840	5190	6310	4630	1940
16	2540	3840	4040	3900	4240	4170	5280	4230	5220	6100	1250	2080
17	2570	3840	4100	3470	4300	4070	5140	4830	5180	6290	3850	2300
18	2870	3830	4080	3970	4370	3990	5030	5200	5870	7070	2090	2560
19	3090	3960	4060	4000	4140	3950	5040	5280	6280	6440	1180	2700
20	3200	3980	4070	4000	3990	4130	5010	5600	9490	6090	3880	2930
21	3300	3920	4050	3980	3900	4330	4580	5590	8880	5980	3330	3230
22	3100	3960	3790	3920	3660	4310	4920	5600	8110	6060	1960	3670
23	3060	4050	4150	3960	3840	4340	4620	5620	7860	6090	4700	1880
24	3070	4050	4110	3850	3950	4290	4790	5440	6060	5600	4180	1500
25	2250	3950	4140	3670	3710	4310	5200	5500	6820	5970	3710	1390
26	1970	4030	4130	3760	3450	4290	5280	6040	6360	6020	3760	1380
27	966	4020	3380	3900	2920	4520	5340	5320	6090	5970	2590	1720
28	502	4080	4130	3890	2960	4500	5420	5820	4590	6190	1230	1700
29	801	4190	4140	3860	---	4420	5520	5530	3830	6090	2460	3400
30	727	4250	4160	3790	---	4350	5320	5590	4380	5940	1780	2950
31	1180	---	4160	3930	---	4480	---	5370	---	4620	1720	---
MONTH	2160	3500	4100	3760	3940	3860	5100	4570	5550	5750	3260	2710

RED RIVER BASIN

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07316000 RED RIVER NEAR GAINESVILLE, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	13.0	13.0	---	9.0	10.0	14.0	17.0	23.0	25.0	24.0	26.0
2	19.0	10.0	14.0	---	8.0	8.0	16.0	18.0	24.0	27.0	23.0	27.0
3	21.0	12.0	15.0	---	7.0	---	13.0	18.0	24.0	26.0	23.0	25.0
4	20.0	10.0	10.0	---	9.0	9.0	13.0	18.0	24.0	27.0	24.0	25.0
5	21.0	11.0	13.0	---	6.0	8.0	15.0	19.0	24.0	28.0	25.0	24.0
6	18.0	10.0	14.0	---	5.0	8.0	12.0	20.0	24.0	26.0	24.0	25.0
7	18.0	11.0	9.0	---	4.0	7.0	11.0	19.0	25.0	27.0	24.0	26.0
8	14.0	14.0	10.0	---	4.0	---	12.0	20.0	26.0	28.0	25.0	25.0
9	15.0	12.0	13.0	---	5.0	11.0	14.0	18.0	26.0	28.0	26.0	27.0
10	18.0	9.0	15.0	---	5.0	12.0	17.0	20.0	26.0	27.0	26.0	26.0
11	16.0	11.0	10.0	---	6.0	13.0	17.0	19.0	26.0	26.0	26.0	24.0
12	15.0	10.0	8.0	---	9.0	15.0	17.0	18.0	27.0	28.0	25.0	26.0
13	16.0	12.0	7.0	---	6.0	---	16.0	18.0	24.0	27.0	25.0	25.0
14	17.0	8.0	7.0	---	8.0	14.0	17.0	19.0	24.0	27.0	---	24.0
15	16.0	4.0	8.0	---	9.0	13.0	14.0	18.0	24.0	26.0	24.0	25.0
16	14.0	8.0	9.0	---	---	12.0	17.0	19.0	27.0	28.0	26.0	24.0
17	15.0	9.0	8.0	---	12.0	---	16.0	19.0	26.0	26.0	27.0	23.0
18	14.0	9.0	9.0	---	16.0	9.0	18.0	21.0	27.0	26.0	24.0	19.0
19	18.0	11.0	9.0	---	17.0	11.0	19.0	18.0	26.0	27.0	26.0	17.0
20	14.0	10.0	7.0	---	13.0	12.0	17.0	18.0	26.0	24.0	25.0	16.0
21	15.0	9.0	9.0	---	12.0	15.0	16.0	20.0	27.0	24.0	25.0	17.0
22	18.0	12.0	12.0	---	4.0	---	19.0	20.0	27.0	24.0	26.0	18.0
23	---	9.0	8.0	8.0	5.0	14.0	16.0	21.0	28.0	23.0	25.0	16.0
24	18.0	5.0	5.0	7.0	8.0	9.0	18.0	19.0	27.0	24.0	25.0	17.0
25	16.0	10.0	8.0	9.0	14.0	8.0	19.0	23.0	26.0	26.0	24.0	19.0
26	22.0	13.0	9.0	9.0	9.0	11.0	19.0	22.0	26.0	29.0	26.0	21.0
27	18.0	13.0	---	8.0	11.0	16.0	22.0	22.0	27.0	26.0	26.0	20.0
28	14.0	15.0	---	8.0	12.0	12.0	18.0	24.0	25.0	24.0	25.0	24.0
29	13.0	17.0	---	8.0	---	12.0	17.0	21.0	25.0	23.0	---	25.0
30	12.0	10.0	---	9.0	---	14.0	18.0	20.0	25.0	22.0	24.0	24.0
31	16.0	---	---	7.0	---	13.0	---	23.0	---	25.0	---	---
MONTH	16.5	10.5	10.0	---	8.5	11.5	16.0	19.5	25.5	26.0	25.0	22.5

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 1971.
Sediment analyses: January 1968 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 07...	0930	.52	10	63	15	83	202	3	98
NOV. 04...	1250	.33	8.2	74	17	130	310	6	100
DEC. 09...	0925	.37	6.5	77	21	180	416	0	120
JAN. 14...	1255	.78	8.8	68	18	120	278	8	110
FEB. 23...	1550	.82	14	47	15	170	333	9	97
APR. 06...	1155	.40	3.0	87	25	180	395	0	130
MAY 11...	1545	5.5	7.5	33	7.7	51	116	0	48
JUNE 07...	1400	.05	4.0	66	15	130	286	0	75

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 07...	87	.6	.60	464	220	50	2.4	767	8.3
NOV. 04...	120	.4	.50	616	260	2	3.5	1000	8.3
DEC. 09...	140	.9	2.3	762	280	0	4.7	1230	8.2
JAN. 14...	100	1.0	2.4	586	240	2	3.3	958	8.3
FEB. 23...	110	.5	11	676	180	0	5.5	1090	8.4
APR. 06...	170	.5	.00	792	320	0	--	1310	8.2
MAY 11...	50	.3	2.7	268	110	19	2.1	463	7.1
JUNE 07...	130	.6	1.8	568	230	0	3.8	919	7.6

DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
NOV., 1969					
13...	1230	.21	16.0	11	.01
DEC. 16...	1030	.58	7.0	8	.01
JAN., 1970					
14...	1240	1.1	3.0	12	.04
FEB. 19...	1200	2.4	5.5	31	.20
MAR. 24...	1400	8.0	17.0	21	.45
MAY 02...	1550	13	--	161	5.7
JUNE 03...	0910	2.0	--	31	.17
NOV. 04...	1250	3.8	--	32	.33
APR., 1971					
06...	1154	.40	--	12	.01

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 07...	0810	.10	9.4	110	35	120	62	0	84
DEC. 08...	1430	.06	12	410	150	440	127	0	240
JAN. 14...	1120	.12	9.0	300	96	370	103	0	180
FEB. 23...	1640	.76	8.2	66	23	83	110	0	55
APR. 06...	1308	.06	5.8	420	150	470	155	0	260
MAY 11...	1010	1.5	6.0	56	20	92	62	0	37

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 COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 07...	390	.2	.10	780	420	370	2.6	1480	7.4
DEC. 08...	1600	--	.00	2880	1600	1500	4.7	5330	7.2
JAN. 14...	1190	.0	.00	2200	1200	1100	4.8	3830	7.5
FEB. 23...	200	.3	.40	496	260	170	2.2	938	7.9
APR. 06...	1600	.0	.00	--	1700	1400	--	5530	7.7
MAY 11...	230	.3	1.3	479	220	170	2.7	948	7.3

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 1971.
Water temperatures: October 1945 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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 (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. 01-31	1040	4.7	85	26	200	--	4.7	130	0	180
NOV. 01-30	2020	4.8	80	24	--	180	--	126	0	170
DEC. 01-31	3320	5.8	81	24	--	180	--	128	0	170
JAN. 01-31	2570	6.0	79	23	170	--	6.3	131	0	160
FEB. 01-28	1200	3.5	79	22	--	170	--	134	0	160
MAR. 01-31	1310	4.2	79	23	--	170	--	136	0	150
APR. 01-30	1570	5.5	79	21	170	--	6.2	140	0	160
MAY 01-31	1490	6.1	80	22	--	170	--	144	0	160
JUNE 01-30	1540	5.7	80	23	--	170	--	146	0	160
JULY 01-31	2000	5.5	80	23	170	--	4.6	144	0	150
AUG. 01-31	2440	6.0	82	25	--	180	--	148	0	160
SEP. 01-30	857	5.6	82	23	--	190	--	154	0	160
WTD. AVG. TIME WTD. AVG.	--	5.4	80	23	--	--	--	137	0	162
TOT. LOAD (TONS)	1790	5.3	81	23	--	--	--	138	0	162
	--	9580	142000	41200	--	--	--	242000	0	285000

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 887 mg/l Oct. 1-31; minimum, 773 mg/l June 1-30.
Hardness: Maximum, 320 mg/l Oct. 1-31; minimum, 280 mg/l Apr. 1-30.

EXTREMES, May 1944 to September 1971.--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 (1945-1969): 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.

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED 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. 01-31	320	3	60	887	320	210	4.9	1530	7.3
NOV. 01-30	300	2	100	825	300	200	4.5	1450	7.7
DEC. 01-31	290	3	80	818	300	200	4.5	1450	7.7
JAN. 01-31	280	3	40	793	290	180	4.3	1400	7.8
FEB. 01-28	270	3	90	783	290	180	4.4	1370	7.5
MAR. 01-31	280	3	90	778	290	180	4.3	1360	7.3
APR. 01-30	270	3	50	778	280	170	4.4	1350	7.4
MAY 01-31	270	3	40	783	290	170	4.3	1350	7.5
JUNE 01-30	260	3	30	773	290	170	4.3	1340	7.4
JULY 01-31	270	3	30	776	290	180	4.2	1380	7.7
AUG. 01-31	280	2	50	803	310	190	4.3	1430	7.2
SEP. 01-30	300	3	60	850	300	170	4.9	1490	7.7
WTD. AVG. TIME WTD. AVG.	282	3	60	802	296	185	4.4	1410	7.5
TOT. LOAD (TONS)	497000	492	1050	1412000	--	--	--	--	--

[illegible]

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 1281, 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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 06...	1230	7.9	7.2	70	3.7	23	232	0	32
JAN. 13...	1500	73	6.6	74	3.3	33	244	0	41
FEB. 27...	1440	16	6.3	68	1.5	29	216	0	37
APR. 13...	1145	3.2	3.1	61	4.3	38	228	0	36
MAY 12...	1105	1.2	8.2	49	3.8	48	194	0	40
JUNE 09...	1245	.04	4.0	54	3.7	34	174	0	46
AUG. 25...	1225	3.7	6.0	38	1.3	11	124	0	9.2

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
NOV. 06...	11	.4	.10	262	190	0	.7	437	7.9
JAN. 13...	15	.8	1.2	299	200	0	1.0	484	7.8
FEB. 27...	12	.4	1.2	266	180	0	1.0	450	7.7
APR. 13...	18	.5	.00	--	170	0	--	466	8.0
MAY 12...	28	.5	.30	274	140	0	1.8	463	7.7
JUNE 09...	20	.5	1.0	253	150	7	1.2	414	7.3
AUG. 25...	5.3	.4	1.1	137	100	0	.5	238	7.4

RED RIVER BASIN

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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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 13...	1000	76	5.0	8.0	1.2	6.1	24	0	12
MAR. 03...	1340	201	6.4	16	2.7	10	36	0	28
MAR. 31...	1035	2.8	8.8	29	7.7	26	51	0	76
JUNE 07...	1445	1.4	8.9	22	3.2	21	60	0	37
JULY 26...	0850	50	5.5	5.0	2.6	6.4	21	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 CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC CONDO- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 13...	3.0	.3	.30	49	25	5	.5	82	6.8
MAR. 03...	9.0	.0	.50	92	51	22	.6	163	7.0
MAR. 31...	28	.1	.00	--	100	62	--	346	7.4
JUNE 07...	17	.1	.40	141	68	19	1.1	234	6.8
JULY 26...	3.6	.2	.50	48	23	6	.6	81	6.3

RED RIVER BASIN

119

07336800 PECAN BAYOU NEAR CLARKSVILLE, TEX.

LOCATION.--Lat 33°41'07", long 94°59'41", Red River County, at gaging station at bridge on 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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.									
12...	1515	.75	12	48	6.4	17	8	0	140
21...	1250	.60	5.8	32	6.8	40	84	0	38
NOV.									
05...	1000	.78	3.5	7.5	1.8	7.8	11	0	24
DEC.									
11...	1120	.20	1.0	14	2.4	10	35	0	22
JAN.									
14...	1100	2.8	3.8	10	2.7	11	18	0	27
MAR.									
02...	1100	22	7.4	12	2.9	17	24	0	32
02...	1730	28	5.8	12	2.4	15	22	0	30
30...	1520	2.2	.7	15	4.3	18	40	0	33
MAY									
04...	1025	.18	4.4	21	4.3	22	82	0	11
JUNE									
09...	1620	1.6	4.9	15	2.3	17	76	0	6.8

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
12...	13	.1	3.8	253	150	140	.6	406	6.5
21...	60	.2	.00	225	110	39	1.7	400	7.5
NOV.									
05...	5.9	.0	.20	56	26	17	.7	99	6.6
DEC.									
11...	9.8	.0	.40	78	45	16	.6	146	7.0
JAN.									
14...	12	.0	.10	76	36	21	.8	140	6.8
MAR.									
02...	17	.0	.30	102	42	22	1.1	173	6.7
02...	16	.0	.30	94	40	22	1.0	166	6.7
30...	18	.0	.00	--	55	22	--	203	7.1
MAY									
04...	27	.1	.40	132	70	3	1.1	246	6.9
JUNE									
09...	8.9	.1	.30	93	47	0	1.1	142	6.8

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 1971.

Chemical and biochemical analyses: January 1968 to September 1971.

Water temperatures: January 1968 to September 1971.

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 720 mg/l Aug. 22-31; minimum, 106 mg/l Oct. 13-16, 28-29.

Hardness: Maximum, 300 mg/l Sept. 1-25; minimum, 72 mg/l Oct. 13-16, 28-29.

Specific conductance: Maximum daily, 1,470 micromhos Sept. 12; minimum daily, 154 micromhos Oct. 15.

Water temperatures: Minimum, 4.0°C Feb. 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.									
01-03	3690	5.0	26	4.2	20	76	0	22	28
04-12	3510	6.2	55	13	76	152	0	68	110
13-16	25300	5.7	23	3.5	10	77	0	12	11
17-27	12900	6.2	30	7.1	26	80	0	30	43
28-29	26900	5.7	23	3.5	10	77	0	12	11
30-31	27500	5.0	26	4.2	20	76	0	22	28
NOV.									
01-07	8940	8.0	29	5.8	18	100	0	18	22
08-20	5750	6.0	50	10	58	144	0	50	84
21-30	5500	7.8	66	19	120	138	0	110	190
DEC.									
01-04	3210	7.2	68	18	100	176	0	94	160
05-31	4510	5.3	72	22	130	160	0	120	210
JAN.									
01-04	7700	4.6	60	19	130	116	0	120	210
05-07	16800	5.6	40	11	64	96	0	60	100
08-13	9230	4.6	60	19	130	116	0	120	210
14-23	4680	7.7	43	11	57	119	0	54	86
24-27	3500	7.0	60	18	100	140	0	96	160
28-31	1850	9.2	57	15	69	176	0	64	100
FEB.									
01-16	2720	6.8	57	16	79	168	0	71	118
17-20	2590	6.8	44	10	59	120	0	54	87
21-26	12900	6.6	29	5.8	28	88	0	29	36
27-28	8980	6.8	44	10	59	120	0	54	87
MAR.									
01-05	5260	3.3	38	8.1	45	116	0	42	60
06-10	5630	2.4	52	14	90	134	0	76	140
11-24	4950	3.3	38	8.1	45	116	0	42	60
25-27	2560	2.4	52	14	90	134	0	76	140
28-31	3420	2.7	65	18	110	157	0	110	170
APR.									
01-21	2100	7.5	66	21	100	200	0	90	150
22...	9040	6.5	32	7.3	46	86	0	47	62
23-27	25400	6.2	24	3.9	23	68	0	25	30
28-30	9660	6.5	32	7.3	46	86	0	47	62
MAY									
01-09	4010	5.6	50	13	81	132	0	72	120
10-11	11300	8.1	30	7.1	34	100	0	31	44
12-13	17000	6.0	22	5.1	23	76	0	22	27
14-21	5010	8.1	30	7.1	34	100	0	31	44
22-31	4070	5.6	50	13	81	132	0	72	120
JUNE									
01-06	4700	4.8	45	11	61	134	0	56	85
07-11	5020	5.8	32	8.1	37	109	0	33	49
12-21	2390	1.8	52	16	83	160	0	73	120
22-30	1440	3.0	66	18	94	199	0	86	135
JULY									
01-24	2630	1.1	72	23	140	168	0	120	230
25-31	3230	5.2	46	12	77	134	0	65	110
AUG.									
01-07	2140	4.2	47	13	74	142	0	62	110
08-17	3640	5.1	54	16	100	132	0	90	160
18-21	4850	4.2	47	13	74	142	0	62	110
22-31	3640	5.5	73	24	160	158	0	140	250
SEP.									
01-25	1390	3.9	80	23	150	210	0	120	230
26-28	681	7.6	73	21	99	260	0	69	140
29-30	5020	6.4	39	9.4	49	144	0	34	60
WTD. AVG.	--	5.6	44	12	65	119	0	60	99
TIME WTD.									
AVG.	5300	5.3	54	15	87	145	0	77	133
TOT. LOAD (TONS)	--	29300	232000	60300	340000	620000	0	313000	516000

RED RIVER BASIN

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07336820 RED RIVER NEAR DeKALB, TEX.--Continued

EXTREMES, January 1968 to September 1971.--Dissolved solids: Maximum, 846 mg/l Aug. 1-24, 31, 1970; minimum, 105 mg/l Feb. 1-5, 1968.
 Hardness: Maximum, 320 mg/l Aug. 1-24, 31, 1970; minimum, 72 mg/l Oct. 13-16, 28-29, 1970.
 Specific conductance: Maximum daily, 1,530 micromhos Nov. 3, 1968; 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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-03	.4	.2	144	82	20	1.0	257	6.9
04-12	.6	.4	408	190	66	2.4	710	7.2
13-16	.4	.5	106	72	9	.5	189	7.0
17-27	.3	.5	184	100	38	1.1	341	7.0
28-29	.4	.5	106	72	9	.5	189	7.0
30-31	.4	.2	144	82	20	1.0	257	6.9
NOV.								
01-07	1.0	.2	152	96	14	.8	264	7.1
08-20	1.3	.3	332	168	50	2.0	584	7.7
21-30	1.4	.3	582	240	130	3.3	1030	7.7
DEC.								
01-04	.2	.2	538	240	100	2.8	963	7.7
05-31	.2	.00	644	270	140	3.4	1150	7.6
JAN.								
01-04	.2	.3	591	230	130	3.7	1050	7.5
05-07	.2	.4	330	140	66	2.3	599	7.1
08-13	.2	.3	591	230	130	3.7	1050	7.5
14-23	.1	.6	320	150	54	2.0	570	7.4
24-27	.2	.3	520	220	110	2.9	935	7.2
28-31	.2	.4	403	200	60	2.1	707	8.0
FEB.								
01-16	.2	.4	433	210	68	2.4	761	7.4
17-20	.1	.5	322	150	54	2.1	569	7.7
21-26	.1	.5	180	96	24	1.2	315	7.4
27-28	.1	.5	322	150	54	2.1	569	7.7
MAR.								
01-05	.3	.3	255	130	33	1.7	450	7.3
06-10	.4	.8	440	190	76	2.9	755	7.7
11-24	.3	.3	255	130	33	1.7	450	7.3
25-27	.4	.8	440	190	76	2.9	755	7.7
28-31	.5	.2	553	240	110	3.1	980	7.7
APR.								
01-21	.2	.2	535	250	86	2.7	935	7.8
22...	.1	.6	246	110	40	1.9	419	7.2
23-27	.1	.7	148	76	20	1.1	261	7.2
28-30	.1	.6	246	110	40	1.9	419	7.2
MAY								
01-09	.2	.3	408	180	72	2.6	720	7.6
10-11	.1	.3	205	100	22	1.4	366	7.8
12-13	.1	.7	145	76	14	1.1	254	7.6
14-21	.1	.3	205	100	22	1.4	366	7.8
22-31	.2	.3	408	180	72	2.6	720	7.6
JUNE								
01-06	--	.3	330	160	48	2.1	582	7.8
07-11	--	.2	220	110	24	1.5	387	7.6
12-21	--	.2	426	200	65	2.6	764	8.1
22-30	--	.2	501	240	76	2.6	908	8.1
JULY								
01-24	--	.1	672	280	140	3.7	1210	7.7
25-31	--	.3	380	160	54	2.6	663	7.8
AUG.								
01-07	.2	.2	377	170	56	2.5	671	7.5
08-17	.2	.3	490	200	92	3.1	846	7.3
18-21	.2	.2	377	170	56	2.5	671	7.5
22-31	.2	.3	720	280	150	4.2	1260	7.9
SEP.								
01-25	.3	.4	710	300	120	3.8	1260	7.5
26-28	.3	.9	540	270	55	2.6	947	7.3
29-30	.2	.8	272	140	18	1.8	475	7.2
WTD. AVG.								
TIME WTD.	.3	.3	345	158	61	2.1	612	7.4
AVG.								
TOT. LOAD	.3	.3	444	198	79	2.6	786	7.5
(TONS)	1630	1920	1803000	--	--	--	--	--

07336820 RED RIVER NEAR DeKALB, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS-	DIS-	DIS-	DIS-	RICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS-	DIS-	ORGANIC NITRO- GEN (N) (MG/L)	
			SOLVED SILICA (S102) (MG/L)	SOLVED CAL- CIUM (CA) (MG/L)	SOLVED NF- STUM (MG) (MG/L)	SOLVED SODIUM PLUS POTAS- SIUM (MG/L)			SOLVED SULFATE (S04) (MG/L)	SOLVED CHLO- RIDE (CL) (MG/L)		SOLVED FLUO- RIDE (F) (MG/L)
OCT. 21...	1250	6600	5.8	32	6.8	40	84	0	38	60	.2	.18
DEC. 10...	1650	2270	4.7	67	23	120	166	0	110	190	.2	.15
FEB. 02...	1215	2350	4.7	76	22	110	208	0	100	170	.3	.14
APR. 22...	1030	7360	3.6	58	16	98	156	0	86	140	.2	.30
JUNE 23...	1810	1910	.5	64	20	110	148	0	110	180	.3	.06
AUG. 24...	1430	3930	4.0	75	22	160	148	0	140	260	.3	.26

DATE	DIS-SOLVED NITRITE (N) (MG/L)	DIS-SOLVED AMMONIA NITROGEN (N) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILT- RABLE RESIDUE (MG/L)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD-SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 21...	.020	.00	.20	.13	225	116	2	110	39	1.7	400	7.5
DEC. 10...	.000	.00	.20	.030	597	19	15	260	120	3.2	1090	7.7
FEB. 02...	.000	.04	.10	.11	590	25	0	280	110	--	1070	8.1
APR. 22...	.000	.14	.30	.070	485	428	42	210	84	2.9	886	7.8
JUNE 23...	.000	.00	.10	.040	560	33	6	240	120	3.1	1010	8.4
AUG. 24...	.010	.00	.00	.13	741	98	23	280	150	4.2	1270	8.3

DATE	TEMPERATURE (DEG C)	COLOR (PLAT-INUM-CORALT 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)
OCT. 21...	16.5	10	70	9.2	93	4	1.7	0	.02	200	0	0
DEC. 10...	16.0	7	10	11.7	117	0	2.6	0	.02	--	--	--
FEB. 02...	6.0	0	10	11.6	93	15	4.1	1	.06	0	0	0
APR. 22...	20.0	0	80	8.2	89	15	2.2	0	.00	--	--	--
JUNE 23...	29.0	5	15	8.8	113	15	2.3	1	.00	20	0	0
AUG. 24...	30.5	6	40	8.2	108	3	2.0	0	.01	--	--	--

[illegible]

RED RIVER BASIN

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07336820 RED RIVER NEAR DeKALB, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1250	6600	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 02...	1215	2350	.00	<.2	.00	7.8	.00	17	.00	8.3
JUNE 23...	1810	1910	.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)
OCT. 21...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
FEB. 02...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JUNE 23...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
OCT. 21...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
FEB. 02...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JUNE 23...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
OCT. 21...	<.2	.0	<10	.00	<3.8	.01	<.5	.00	<.3
FEB. 02...	<.2	.0	<10	.00	<.9	.01	<.1	.00	<.1
JUNE 23...	<.2	.0	<10	.00	<.6	.00	<.2	.00	<.2

RED RIVER BASIN

07336820 RED RIVER NEAR DeKALB, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	236	237	923	1270	805	475	971	767	423	1030	518	1380
2	255	206	861	1210	1080	483	962	679	513	1160	505	1360
3	328	214	1100	1210	985	445	831	618	659	1180	726	1190
4	444	227	962	1150	835	425	971	641	601	1190	865	---
5	752	268	1250	692	748	524	971	658	603	1180	790	1190
6	985	319	1150	557	685	915	874	669	703	1170	684	1200
7	806	365	1190	547	714	819	804	---	406	1060	668	1120
8	683	500	1200	803	671	794	767	860	319	1060	926	1140
9	---	513	1240	887	614	739	801	767	913	1060	930	1210
10	795	438	1040	986	584	608	1280	363	308	1290	551	1390
11	875	458	990	1100	620	501	---	363	514	1320	442	1370
12	378	541	1190	1100	867	499	1190	242	---	1300	482	1470
13	190	627	1230	840	754	377	1070	265	---	1160	1140	1400
14	180	437	1200	664	676	320	995	350	713	1030	1140	1190
15	154	520	1210	669	906	424	943	360	691	962	1120	---
16	210	871	1180	596	647	492	882	324	---	1200	865	---
17	310	724	1090	450	563	369	885	326	---	1210	861	---
18	312	583	---	490	537	311	824	349	995	1360	732	---
19	297	501	868	528	555	336	897	370	718	1350	410	---
20	465	837	1210	571	605	342	905	396	716	1390	---	---
21	383	933	1340	602	284	412	794	465	734	1390	787	---
22	362	1100	1150	567	327	496	384	769	1140	1330	1180	---
23	375	1190	1000	560	281	563	238	1140	985	1290	1270	1210
24	371	1170	1110	1050	320	593	234	845	975	1290	1290	1150
25	280	986	1090	995	284	731	275	845	900	778	1360	1090
26	339	761	1100	864	377	734	282	905	858	775	1290	981
27	242	758	1130	833	643	703	263	783	840	607	---	985
28	164	1170	1190	794	513	1020	326	754	843	776	1320	860
29	183	1190	1190	690	---	1020	385	754	797	532	1310	625
30	276	1050	1200	639	---	981	561	569	840	567	1120	311
31	202	---	1220	713	---	928	---	509	---	535	1230	---
MONTH	394	656	1130	794	624	593	744	590	720	1080	914	---

RED RIVER BASIN

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07336820 RED RIVER NEAR DeKALB, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	15.0	18.0	10.0	11.0	11.0	17.0	---	26.0	---	27.0	28.0
2	25.0	14.0	18.0	10.0	7.0	10.0	17.0	---	27.5	---	26.0	28.0
3	24.0	12.0	17.0	10.0	6.5	9.0	17.5	---	27.0	---	26.5	29.0
4	24.0	13.0	16.0	8.0	6.5	9.5	17.0	---	28.0	---	26.5	---
5	24.0	12.0	16.0	8.0	8.5	11.5	16.5	22.0	28.5	---	27.0	30.0
6	23.0	13.0	13.5	7.0	6.0	---	14.0	23.0	32.0	---	27.0	31.0
7	23.0	14.0	12.0	6.0	8.5	11.0	16.0	---	28.5	---	27.5	31.5
8	22.0	15.0	12.0	5.0	5.0	11.0	17.0	24.0	28.5	---	29.0	31.0
9	---	15.0	16.0	5.0	4.0	11.5	18.5	22.0	33.5	---	31.0	31.0
10	18.0	15.0	16.0	7.0	7.5	13.0	20.0	21.0	29.0	---	32.0	29.0
11	17.0	12.0	13.0	7.0	7.5	14.0	---	21.0	29.0	---	31.0	29.5
12	17.0	13.0	11.0	9.0	8.0	15.0	---	19.5	---	---	29.5	30.0
13	17.0	11.0	11.0	9.0	7.0	16.0	---	21.5	---	---	28.0	29.0
14	17.0	11.0	10.0	10.0	9.0	17.0	---	22.0	31.5	---	27.5	28.0
15	18.0	10.0	10.0	10.0	9.0	17.0	---	24.0	32.0	---	28.5	---
16	17.0	9.0	10.0	10.0	13.0	---	---	24.5	---	---	30.0	---
17	16.0	11.0	10.0	9.0	13.5	---	---	25.0	---	---	30.0	---
18	16.0	11.0	---	7.5	14.0	---	---	21.0	33.5	---	30.0	---
19	17.0	15.0	12.0	7.0	15.5	---	---	25.0	31.0	---	30.0	---
20	18.0	12.0	10.0	7.0	15.0	---	---	26.0	29.0	29.5	---	---
21	17.0	13.0	11.0	7.0	11.0	---	---	25.0	30.5	31.0	30.0	---
22	18.0	13.5	13.0	7.0	9.0	14.5	---	24.0	31.0	25.5	30.0	---
23	19.0	9.0	12.0	8.0	11.0	13.5	---	25.0	---	26.0	30.0	22.0
24	20.0	8.0	10.0	9.0	10.5	12.5	---	25.0	---	27.0	31.0	---
25	19.0	10.0	9.0	10.5	11.0	10.5	---	26.0	---	29.0	31.0	29.0
26	20.0	13.0	9.0	10.5	12.0	13.0	---	27.0	---	29.0	32.0	26.0
27	18.0	14.0	8.0	10.0	12.5	14.5	---	27.0	---	28.0	---	27.0
28	17.0	16.0	9.0	10.0	12.5	15.0	---	25.0	---	27.0	30.0	27.0
29	18.0	17.0	9.0	11.0	---	16.0	---	24.0	---	27.5	29.0	26.0
30	17.0	16.0	10.0	13.0	---	17.0	---	23.0	---	26.0	29.0	26.0
31	17.0	---	10.0	11.0	---	18.0	---	24.5	---	27.0	29.0	---
MONTH	19.0	13.0	12.0	8.5	9.5	---	---	23.5	---	---	29.0	---

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 1971.
Water temperatures: October 1958 to September 1966, October 1967 to September 1971.

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 685 mg/l June 1-30; minimum, 93 mg/l Oct. 7-16.
Hardness: Maximum, 250 mg/l Apr. 14-24; minimum, 50 mg/l July 26.
Specific conductance: Maximum daily, 1,370 micromhos June 3; minimum daily, 110 micromhos Oct. 13.
Water temperatures: Maximum, 32.0°C July 8; minimum, 1.0°C Jan. 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN DIS- CHARGE (CFS)	DIS- SOLVED SILICA (STO2) (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 (HC03) (MG/L)	CAR- BONATE (C03) (S04) (MG/L)	DIS- SOLVED SULFATE (S04) (CL) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
01-06	16	8.8	33	3.8	24	100	0	28	26
07-16	1880	8.0	20	2.0	10	69	0	13	3.7
17-23	49	8.8	33	3.8	24	100	0	28	26
24-26	1060	7.8	30	1.7	13	96	0	18	7.2
27-31	84	9.0	38	2.7	19	128	0	24	9.2
NOV.									
01-13	5.4	8.8	49	5.3	26	170	0	31	17
14-16	649	6.6	31	3.6	18	100	0	28	11
17-30	16	8.8	49	5.3	26	170	0	31	17
DEC.									
01-22	8.2	11	66	6.7	42	250	0	41	25
23-25	182	10	43	2.8	26	139	0	35	15
26-31	14	12	50	4.6	110	280	0	59	66
JAN.									
01-15	33	7.4	48	4.9	48	172	0	51	34
16-31	4.8	6.3	59	6.1	54	200	0	56	46
FEB.									
01-04	9.5	5.5	44	4.4	72	196	8	55	35
05-12	44	5.4	37	4.8	35	136	0	42	21
13-14	286	4.0	19	2.6	22	68	0	33	7.8
15-17	15	6.5	35	4.1	21	116	0	32	13
18-21	94	5.4	37	4.8	35	136	0	42	21
22-28	408	6.7	30	3.7	17	100	0	28	9.4
MAR.									
01-07	261	4.9	36	3.5	25	120	0	38	12
08-17	11	6.2	47	5.5	33	168	0	38	22
18-31	2.3	7.1	70	7.9	50	256	0	57	30
APR.									
01-13	.61	9.8	80	8.9	62	308	0	62	36
14-24	2.1	8.2	84	9.4	75	340	0	68	43
25-30	1.4	7.8	78	10	100	384	0	61	58
MAY									
01-12	1.3	1.3	68	8.4	140	424	0	55	64
13-31	1.9	6.6	58	8.6	200	536	0	50	80
JUNE									
01-30	2.2	4.1	48	4.4	220	464	14	68	97
JULY									
01-12	.23	3.8	44	4.4	220	460	28	56	80
13-23	.00	--	--	--	--	--	--	--	--
24-25	.91	3.8	44	4.4	220	460	28	56	80
26...	28	7.8	18	1.2	67	174	0	32	12
27-29	14	3.8	44	4.4	220	460	28	56	80
30...	47	4.9	34	1.7	120	127	0	24	150
31...	41	4.7	--	--	--	106	0	--	--
AUG.									
01-06	25	7.2	21	3.3	67	170	0	35	22
07-14	59	4.6	18	2.7	21	87	0	17	6.8
15-17	1390	7.2	19	1.8	13	78	0	11	3.2
18-31	31	9.2	24	2.9	19	104	0	16	6.4
SEPT.									
01-04	.72	7.2	25	2.8	21	110	0	16	7.4
05-24	.29	9.2	33	3.3	27	144	0	20	9.2
25...	348	11	28	5.3	200	420	0	78	63
26-30	118	9.2	33	3.3	27	144	0	20	9.2
WTD. AVG. TIME WTD.	--	7.5	25	2.5	18	93	0	20	8.2
AVG.	107	7.2	47	5.2	76	244	3	42	37
TOT. LOAD (TONS)	--	796	2670	268	1900	9850	7	2100	863

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

EXTREMES, October 1958 to September 1966, October 1967 to September 1971.--Dissolved solids: Maximum, 1,150 mg/l Nov. 9, 1962; 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, 2,130 micromhos Nov. 9, 1962; 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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-06	.7	.2	167	98	16	1.1	312	6.9
07-16	1.6	.2	93	58	1	.6	155	7.2
17-23	.7	.2	167	98	16	1.1	312	6.9
24-26	.6	.4	127	82	3	.6	214	6.9
27-31	.7	.5	168	110	1	.8	281	7.1
NOV.								
01-13	1.9	.2	224	144	5	.9	373	7.5
14-16	1.1	.6	151	92	10	.8	258	7.3
17-30	1.9	.2	224	144	5	.9	373	7.5
DEC.								
01-22	.2	.00	315	190	0	1.3	518	8.0
23-25	.4	.9	204	120	5	1.0	338	8.0
26-31	.4	1.3	449	140	0	4.0	738	8.2
JAN.								
01-15	.3	.4	280	140	0	1.8	476	7.4
16-31	.3	.5	328	172	8	1.8	564	7.0
FEB.								
01-04	.3	.8	324	130	0	2.8	525	8.3
05-12	.3	.7	216	110	1	--	356	7.7
13-14	.2	1.2	127	58	2	1.3	182	7.5
15-17	.2	.8	172	100	9	.9	286	--
18-21	.3	.7	216	110	1	1.4	356	7.7
22-28	.2	.8	148	90	8	.8	243	7.5
MAR.								
01-07	.5	.5	181	100	6	1.1	290	7.9
08-17	.6	.4	237	140	2	1.2	412	7.7
18-31	.6	.5	351	210	0	1.5	573	7.9
APR.								
01-13	.3	.3	411	240	0	1.8	651	8.1
14-24	.3	.3	456	250	0	2.1	734	8.1
25-30	.4	.5	511	240	0	2.8	824	8.1
MAY								
01-12	.5	.3	541	200	0	4.3	889	8.0
13-31	.6	.5	667	180	0	6.5	1080	8.1
JUNE								
01-30	--	.5	685	140	0	8.2	1070	8.4
JULY								
01-12	--	.6	661	130	0	--	1040	8.6
13-23	--	--	--	--	--	--	--	--
24-25	--	.6	661	130	0	8.5	1040	8.6
26...	--	.7	227	50	0	4.1	390	7.8
27-29	--	.6	661	130	0	8.5	1040	8.6
30...	--	4.7	425	92	0	5.4	718	7.5
31...	--	5.0	--	--	--	--	273	7.6
AUG.								
01-06	.4	1.0	244	66	0	3.6	396	7.4
07-14	.3	.5	116	56	0	1.2	195	7.0
15-17	.2	.7	96	55	0	.8	152	6.9
18-31	.2	.6	131	72	0	1.0	211	6.9
SEP.								
01-04	.2	.7	137	74	0	1.1	226	7.9
05-24	.2	.4	175	96	0	1.2	283	7.4
25...	.5	2.1	600	92	0	9.1	941	8.2
26-30	.2	.4	175	96	0	1.2	283	7.4
WTD. AVG.	1.0	.4	130	73	2	.9	214	7.3
TIME WTD.								
AVG.	.6	.4	339	140	2	2.6	551	7.7
TOT. LOAD (TONS)	106	46	13700	--	--	--	--	--

RED RIVER BASIN

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	231	297	435	529	520	276	628	815	1100	1090	321	214
2	240	311	448	421	577	312	632	845	1080	1040	620	227
3	246	325	456	440	587	300	627	853	1370	1060	480	231
4	250	337	467	757	484	246	629	842	1340	990	356	231
5	265	350	476	384	379	262	643	883	1250	1050	307	240
6	268	363	486	429	283	279	658	912	1230	1090	274	250
7	139	378	490	531	599	293	660	929	1170	1070	149	262
8	167	387	495	464	434	325	660	929	1090	1090	199	274
9	167	393	501	422	359	330	680	952	1080	1090	183	290
10	181	406	505	412	332	338	681	908	1080	1060	179	260
11	192	414	521	406	327	374	692	895	1070	---	195	261
12	113	421	525	405	341	383	694	934	1070	---	202	266
13	110	428	525	417	118	382	699	1030	1050	---	211	272
14	155	267	528	420	235	445	707	1050	1030	---	201	297
15	160	270	542	541	259	465	712	1070	1020	---	144	284
16	136	232	546	639	263	489	719	1070	995	---	136	339
17	189	321	556	634	284	499	725	1080	975	---	176	282
18	207	305	558	575	306	511	719	1090	961	---	193	280
19	214	310	564	562	324	523	719	1100	947	---	202	283
20	220	323	566	575	369	528	722	1110	947	---	206	287
21	232	344	573	567	417	535	742	1110	947	---	216	292
22	246	362	570	534	252	547	766	1110	951	---	224	306
23	253	372	318	525	229	556	791	1110	952	---	228	299
24	198	379	334	515	317	565	797	1110	---	935	232	304
25	208	391	348	529	321	568	806	1120	970	935	243	941
26	238	402	580	525	298	579	806	1120	1010	390	125	256
27	257	416	657	534	254	589	823	1060	1080	1070	212	258
28	273	427	700	550	268	598	833	1060	1110	1170	223	277
29	322	438	716	561	---	604	847	1050	1110	931	214	307
30	265	447	713	570	---	617	851	1050	1090	718	216	307
31	284	---	919	577	---	629	---	1050	---	273	218	---
MONTH	214	361	536	515	348	450	722	1010	1070	---	235	296

RED RIVER BASIN

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	15.0	16.0	8.0	7.0	13.0	17.0	17.0	22.0	28.0	22.0	23.0
2	20.0	13.0	16.0	9.0	7.0	12.0	13.0	19.0	24.0	26.0	22.0	24.0
3	21.0	11.0	18.0	11.0	6.0	7.0	13.0	18.0	24.0	27.0	23.0	24.0
4	20.0	10.0	15.0	8.0	9.0	5.0	14.0	18.0	24.0	27.0	23.0	25.0
5	20.0	9.0	14.0	6.0	8.0	6.0	13.0	20.0	24.0	27.0	23.0	26.0
6	21.0	10.0	13.0	4.0	8.0	10.0	13.0	21.0	25.0	27.0	23.0	26.0
7	22.0	11.0	10.0	3.0	7.0	9.0	12.0	21.0	25.0	28.0	23.0	25.0
8	23.0	13.0	10.0	2.0	3.0	8.0	13.0	20.0	25.0	32.0	24.0	25.0
9	17.0	13.0	12.0	1.0	3.0	10.0	15.0	21.0	25.0	28.0	24.0	25.0
10	15.0	11.0	14.0	4.0	3.0	10.0	15.0	21.0	29.0	31.0	25.0	25.0
11	15.0	11.0	12.0	5.0	5.0	10.0	18.0	20.0	25.0	---	27.0	29.0
12	15.0	10.0	9.0	5.0	8.0	12.0	18.0	20.0	26.0	---	27.0	24.0
13	15.0	10.0	7.0	7.0	7.0	14.0	19.0	17.0	26.0	---	25.0	23.0
14	16.0	10.0	6.0	10.0	7.0	16.0	17.0	16.0	26.0	---	24.0	23.0
15	16.0	8.0	9.0	8.0	8.0	15.0	17.0	18.0	26.0	---	23.0	23.0
16	16.0	7.0	8.0	7.0	10.0	15.0	17.0	19.0	25.0	---	25.0	23.0
17	15.0	8.0	8.0	7.0	12.0	14.0	19.0	20.0	25.0	---	26.0	23.0
18	14.0	8.0	9.0	8.0	13.0	15.0	19.0	21.0	26.0	---	25.0	23.0
19	14.0	10.0	10.0	5.0	14.0	13.0	20.0	20.0	26.0	---	25.0	20.0
20	14.0	10.0	10.0	4.0	13.0	11.0	20.0	20.0	25.0	---	25.0	17.0
21	15.0	9.0	10.0	6.0	15.0	12.0	17.0	20.0	25.0	---	25.0	18.0
22	16.0	12.0	12.0	8.0	10.0	14.0	19.0	21.0	25.0	---	26.0	19.0
23	17.0	7.0	14.0	9.0	7.0	14.0	20.0	23.0	25.0	---	26.0	19.0
24	17.0	6.0	11.0	9.0	8.0	12.0	18.0	22.0	---	28.0	26.0	20.0
25	18.0	6.0	10.0	9.0	10.0	11.0	18.0	20.0	26.0	26.0	25.0	21.0
26	19.0	10.0	7.0	8.0	12.0	9.0	20.0	20.0	26.0	25.0	24.0	21.0
27	19.0	13.0	6.0	8.0	12.0	11.0	21.0	22.0	27.0	25.0	25.0	22.0
28	16.0	15.0	7.0	7.0	13.0	15.0	20.0	23.0	27.0	25.0	25.0	23.0
29	10.0	15.0	9.0	8.0	---	15.0	20.0	22.0	26.0	24.0	25.0	24.0
30	14.0	15.0	9.0	10.0	---	14.0	18.0	20.0	26.0	23.0	23.0	23.0
31	14.0	---	8.0	10.0	---	20.0	---	22.0	---	22.0	23.0	---
MONTH	17.0	10.5	10.5	7.0	9.0	12.0	17.0	20.0	25.5	---	24.5	23.0

RED RIVER BASIN

07343000 NORTH SULPHUR RIVER NEAR COOPER, TEX.

LOCATION.--Lat 33°28'24", 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 1971.

Water temperatures: October 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.									
01-05	3.6	6.7	72	4.5	--	33	178	0	95
06-12	1260	--	50	1.8	--	14	138	0	39
13-22	57	6.7	72	4.5	--	33	178	0	95
23-31	370	6.8	50	1.8	--	27	134	0	60
NOV.									
01-13	40	6.5	--	--	--	--	--	--	110
14-15	1740	9.0	52	2.5	--	19	140	0	44
16-17	33	8.5	64	6.9	--	13	180	0	38
18-30	5.5	6.5	--	--	--	--	--	--	110
DEC.									
01-21	3.9	6.0	--	--	--	--	--	0	150
22-23	526	7.9	51	4.1	--	23	136	0	60
24-26	16	8.2	75	6.6	--	37	196	0	98
27-31	33	6.0	--	--	--	--	--	0	150
JAN.									
01-08	80	7.2	77	7.3	--	40	186	0	120
09-31	21	4.6	88	8.4	--	55	210	0	150
FEB.									
01-11	16	5.0	86	9.1	--	66	208	0	150
12-14	174	6.2	58	4.7	--	26	160	0	62
15-18	16	5.0	86	9.1	--	66	208	0	150
19-21	534	7.2	76	6.9	--	4.2	192	0	110
22-23	210	6.7	58	6.6	--	29	153	0	79
24-28	140	7.2	76	6.9	--	4.2	192	0	110
MAR.									
01...	40	1.5	84	8.4	--	70	220	0	150
02-04	248	7.8	76	5.5	--	37	208	0	83
05-31	33	1.5	84	8.4	--	70	220	0	150
APR.									
01-30	12	6.8	81	11	97	97	174	0	200
MAY									
01-09	.29	1.5	86	11	--	120	180	0	240
10-11	172	7.0	52	3.5	--	37	127	0	78
12-24	25	4.2	65	5.3	--	66	144	0	130
25-31	73	7.0	52	3.5	--	37	127	0	78
JUNE									
01-08	4.3	2.1	46	5.2	--	38	108	0	84
09-24	.10	.6	49	6.7	--	35	102	0	140
25-29	.00	--	--	--	--	--	--	--	--
30...	.17	.5	62	6.2	--	86	104	0	200
JULY									
01...	.17	4.9	67	9.0	--	220	156	0	190
02-07	57	3.3	34	4.7	--	48	90	0	84
08...	.00	--	--	--	--	--	--	--	--
09-10	.31	3.3	34	4.7	--	48	90	0	84
11-23	.00	--	--	--	--	--	--	--	--
24-31	121	7.7	52	4.4	--	40	93	0	120
AUG.									
01-04	19	6.0	50	5.7	--	37	94	0	110
05...	238	7.2	40	3.0	--	18	114	0	41
06-12	26	6.0	50	5.7	--	37	94	0	110
13-15	1460	7.2	40	3.0	--	18	114	0	41
16-30	5.9	8.5	56	7.9	--	43	102	0	140
31...	.00	--	--	--	--	--	--	--	--
SEP.									
01...	.00	--	--	--	--	--	--	--	--
02-10	1.1	6.7	70	8.6	--	71	99	0	200
11-21	.00	--	--	--	--	--	--	--	--
22-30	124	19	63	7.5	--	42	130	0	130
WTD. AVG.	--	7.5	55	3.7	--	25	144	0	70
TIME WTD.									
AVG.	92	5.7	68	7.0	--	54	157	0	132
TOT. LOAD (TONS)	--	501	4860	328	--	2190	12700	0	6310

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

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 831 mg/l July 1; minimum, 178 mg/l Aug. 5, 13-15.
 Hardness: Maximum, 260 mg/l May 1-9; minimum, 100 mg/l July 2-7, 9-10.
 Specific conductance: Maximum daily, 1,940 micromhos July 24; minimum daily, 210 micromhos Aug. 5.
 Water temperatures: Maximum, 27.0°C July 6, 7, 9, Aug. 17; minimum, freezing point Jan. 5, 7, 8, Feb. 8, 9.

EXTREMES, October 1968 to September 1971.--Dissolved solids: Maximum, 1,520 mg/l Oct. 1-8, 1969; minimum, 147 mg/l May 7, 1969.
 Hardness: Maximum, 628 mg/l Oct. 1-8, 1969; minimum, 100 mg/l July 2-7, 9-10, 1971.
 Specific conductance: Maximum daily, 2,290 micromhos Sept. 17, 1969; minimum daily, 210 micromhos Aug. 5, 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 1970 TO SEPTEMBER 1971

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 AN- SORP- TION RATIO	SPE- CIFIC CON- DUCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-05	15	.4	.6	317	200	52	1.0	519	7.7
06-12	5.3	.5	.3	187	130	19	.5	7	7.7
13-22	15	.4	.6	317	200	52	1.0	519	7.7
23-31	10	.5	.6	225	130	22	1.0	360	7.9
NOV.									
01-13	27	1.4	.4	--	--	--	--	620	--
14-15	8.4	1.7	1.2	211	140	25	.7	347	7.8
16-17	15	1.8	1.0	238	190	40	.4	467	8.0
18-30	27	1.4	.4	--	--	--	--	620	--
DEC.									
01-21	40	.3	.1	--	--	--	--	723	7.7
22-23	12	.4	.9	229	140	33	.8	379	7.8
24-26	21	.4	.7	345	210	54	1.1	551	7.9
27-31	40	.3	.1	--	--	--	--	723	7.7
JAN.									
01-08	24	.4	.7	365	220	70	1.2	614	7.9
09-31	34	.4	.3	441	250	80	1.5	703	7.7
FEB.									
01-11	46	.3	.3	467	250	82	1.8	735	8.2
12-14	17	.4	.00	253	160	33	.9	416	7.6
15-18	46	.3	.3	467	250	82	1.8	735	8.2
19-21	23	.4	1.2	365	220	60	.1	568	7.9
22-23	15	.4	1.3	276	170	47	1.0	434	7.5
24-28	23	.4	1.2	365	220	60	.1	568	7.9
MAR.									
01...	41	.8	.1	463	240	64	1.9	724	8.0
02-04	22	.8	.5	336	210	42	1.1	561	8.0
05-31	41	.8	.1	463	240	64	1.9	724	8.0
APR.									
01-30	72	.4	.2	559	250	100	2.7	863	7.6
MAY									
01-09	84	--	.1	622	260	110	3.2	966	7.8
10-11	21	--	2.8	272	140	40	1.3	434	7.6
12-24	45	--	1.9	398	180	66	2.1	642	7.9
25-31	21	--	2.8	272	140	40	1.3	434	7.6
JUNE									
01-08	28	--	1.0	261	140	48	1.4	471	7.9
09-24	42	--	.3	329	150	66	1.2	588	7.9
25-29	--	--	--	--	--	--	--	--	--
30...	53	--	.7	459	180	95	2.8	719	7.6
JULY									
01...	260	--	.6	831	200	76	6.7	1430	7.7
02-07	32	--	.6	253	100	30	2.0	418	--
08...	--	--	--	--	--	--	--	--	--
09-10	32	--	.6	253	100	30	2.0	418	--
11-23	--	--	--	--	--	--	--	--	--
24-31	20	--	2.7	299	150	72	1.4	456	7.6
AUG.									
01-04	20	.4	1.1	284	150	71	1.3	458	7.2
05...	7.7	.4	1.1	178	110	19	.7	288	7.5
06-12	20	.4	1.1	284	150	71	1.3	458	7.2
13-15	7.7	.4	1.1	178	110	19	.7	288	7.5
16-30	28	.5	.4	331	170	88	1.4	530	7.5
31...	--	--	--	--	--	--	--	--	--
SEP.									
01...	--	--	--	--	--	--	--	--	--
02-10	54	.4	.3	459	210	130	2.1	716	7.5
11-21	--	--	--	--	--	--	--	--	--
22-30	21	.4	1.8	355	190	82	1.3	547	7.6
WTD. AVG.	14	--	.8	251	152	35	.8	331	7.7
TIME WTD.									
AVG.	36	--	.6	384	197	69	1.6	617	7.7
TOT. LOAD (TONS)	1300	--	76	22100	--	--	--	--	--

RED RIVER BASIN

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	476	557	668	617	765	673	780	905	461	939	468	---
2	471	576	682	666	771	599	789	943	454	451	499	618
3	482	588	691	688	774	522	795	938	443	347	512	618
4	500	592	696	423	785	558	815	957	468	381	504	771
5	519	593	700	510	577	645	814	971	468	395	210	786
6	328	619	710	551	700	671	824	966	484	384	562	783
7	330	612	715	593	740	673	855	990	499	365	369	792
8	382	623	722	646	798	692	842	1010	519	---	390	831
9	312	634	729	680	820	711	871	1030	533	354	422	815
10	347	636	739	694	826	706	886	437	551	359	435	828
11	384	645	729	716	851	694	898	393	566	---	453	---
12	273	654	746	729	308	699	910	518	566	---	462	---
13	337	662	754	747	426	701	922	568	575	---	246	---
14	422	327	754	588	506	699	918	616	571	---	379	---
15	478	364	765	650	587	689	935	647	576	---	296	---
16	511	436	759	682	641	671	935	652	585	---	360	---
17	540	501	773	703	688	689	939	644	596	---	429	---
18	569	556	770	721	707	714	939	644	599	---	456	---
19	579	588	776	726	510	724	910	658	607	---	431	---
20	592	614	779	742	560	745	810	647	636	---	462	---
21	582	631	785	728	618	743	835	684	635	---	477	---
22	582	645	319	725	392	751	852	716	638	---	506	882
23	575	658	432	731	470	768	841	728	---	---	531	501
24	324	658	505	729	545	783	834	661	---	1940	553	519
25	383	658	556	729	608	789	845	406	---	445	564	391
26	448	654	599	731	454	789	841	431	---	841	577	564
27	316	676	678	736	598	789	845	450	---	390	598	564
28	368	671	642	742	658	774	863	354	---	245	607	587
29	444	671	710	756	---	783	874	395	---	528	614	598
30	489	668	714	763	---	798	885	495	754	314	632	599
31	529	---	627	772	---	805	---	512	---	384	---	---
MONTH	447	599	685	684	632	711	863	676	---	---	467	---

RED RIVER BASIN

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	16.0	16.0	7.0	5.0	12.0	17.0	17.0	22.0	24.0	22.0	---
2	22.0	10.0	17.0	10.0	5.0	8.0	---	19.0	25.0	---	23.0	25.0
3	22.0	9.0	18.0	14.0	5.0	7.0	13.0	16.0	25.0	24.0	23.0	25.0
4	20.0	8.0	17.0	5.0	12.0	5.0	13.0	14.0	24.0	25.0	23.0	25.0
5	21.0	6.0	14.0	0.0	5.0	4.0	12.0	20.0	22.0	26.0	23.0	25.0
6	21.0	8.0	11.0	1.0	7.0	12.0	7.0	21.0	24.0	27.0	22.0	25.0
7	22.0	10.0	7.0	0.0	5.0	8.0	9.0	21.0	27.0	27.0	25.0	25.0
8	23.0	15.0	9.0	0.0	0.0	9.0	11.0	20.0	23.0	---	24.0	26.0
9	12.0	12.0	13.0	1.0	0.0	10.0	14.0	18.0	22.0	27.0	26.0	25.0
10	13.0	11.0	15.0	5.0	2.0	8.0	17.0	19.0	24.0	26.0	25.0	25.0
11	15.0	19.0	9.0	6.0	6.0	7.0	18.0	18.0	25.0	---	25.0	---
12	15.0	10.0	5.0	7.0	9.0	13.0	18.0	20.0	26.0	---	25.0	---
13	16.0	18.0	7.0	8.0	3.0	16.0	18.0	14.0	24.0	---	23.0	---
14	15.0	9.0	9.0	11.0	5.0	18.0	14.0	15.0	25.0	---	23.0	---
15	16.0	6.0	8.0	8.0	10.0	13.0	16.0	18.0	25.0	---	23.0	---
16	16.0	4.0	8.0	6.0	13.0	13.0	16.0	18.0	25.0	---	26.0	---
17	15.0	10.0	8.0	7.0	14.0	12.0	18.0	19.0	25.0	---	27.0	---
18	13.0	15.0	9.0	7.0	15.0	13.0	18.0	20.0	25.0	---	26.0	---
19	15.0	12.0	11.0	3.0	14.0	7.0	20.0	18.0	25.0	---	25.0	---
20	14.0	11.0	9.0	3.0	13.0	8.0	19.0	22.0	24.0	---	26.0	---
21	18.0	10.0	9.0	7.0	14.0	10.0	16.0	20.0	24.0	---	26.0	---
22	18.0	12.0	15.0	9.0	4.0	13.0	18.0	20.0	24.0	---	26.0	19.0
23	14.0	5.0	9.0	9.0	4.0	12.0	21.0	21.0	---	---	26.0	18.0
24	17.0	4.0	6.0	10.0	8.0	9.0	19.0	21.0	---	23.0	25.0	20.0
25	15.0	4.0	8.0	11.0	13.0	8.0	21.0	19.0	---	25.0	25.0	22.0
26	22.0	14.0	---	7.0	14.0	8.0	21.0	20.0	---	25.0	25.0	18.0
27	20.0	15.0	6.0	7.0	10.0	11.0	23.0	21.0	---	25.0	25.0	19.0
28	13.0	16.0	4.0	7.0	14.0	7.0	20.0	26.0	---	23.0	25.0	24.0
29	14.0	16.0	9.0	---	---	14.0	17.0	21.0	---	23.0	24.0	24.0
30	13.0	16.0	10.0	11.0	---	12.0	16.0	18.0	24.0	21.0	22.0	23.0
31	13.0	---	7.0	9.0	---	13.0	---	22.0	---	21.0	---	---
MONTH	17.0	11.0	10.0	6.5	8.0	10.5	16.5	19.0	---	---	24.5	---

RED RIVER BASIN

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 1971.

Chemical and biochemical analyses: October 1967 to September 1971.

Pesticide analyses: January 1969 to September 1971.

Water temperature: October 1966 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.									
01-09	324	8.7	45	2.8	22	140	0	38	9.6
10-12	2690	6.3	37	2.8	15	120	0	24	6.0
13-18	7700	9.3	33	.9	13	108	0	18	3.4
19-24	454	8.0	47	2.6	20	140	0	40	9.2
25-28	1920	--	41	2.4	16	124	0	28	11
29-31	243	8.0	47	2.6	20	140	0	40	9.2
NOV.									
01-04	57	9.9	56	4.0	23	156	0	50	15
05-14	240	9.8	74	5.7	33	208	0	74	21
15-19	2410	8.0	48	3.0	16	130	0	32	16
20-22	78	9.9	56	4.0	23	156	0	50	15
23-30	32	9.8	74	5.7	33	208	0	74	21
DEC.									
01-21	21	7.3	--	--	--	--	--	120	40
22-26	567	7.5	56	4.9	38	164	0	62	30
27-31	67	7.8	56	4.9	30	166	0	61	17
JAN.									
01-19	131	8.1	65	5.8	42	180	0	90	24
20-31	27	6.4	82	7.7	56	220	0	120	34
FEB.									
01-06	50	4.3	--	--	--	--	--	140	53
07-12	144	5.8	58	5.2	40	164	0	75	27
13-19	318	7.0	45	3.8	22	134	0	41	13
20-21	368	5.8	58	5.2	40	164	0	75	27
22-28	1120	7.0	45	3.8	22	134	0	41	13
MAR.									
01-06	776	6.5	47	3.6	24	140	0	46	12
07-12	98	6.0	58	4.7	32	168	0	64	18
13-31	28	4.4	79	8.0	55	220	0	110	37
APR.									
01-08	6.2	5.0	98	11	78	272	0	150	56
09-30	13	4.9	110	11	95	270	0	180	72
MAY									
01-10	14	4.2	110	9.6	100	272	0	200	70
11-14	472	7.5	48	5.7	21	144	0	49	9.8
15-19	32	7.8	55	4.6	34	170	0	58	19
20-26	95	6.5	65	5.8	49	200	0	81	30
27-31	378	7.5	48	5.7	21	144	0	49	9.8
JUNE									
01-09	22	4.1	58	5.7	39	166	0	80	21
10-18	2.0	3.9	74	6.7	53	223	0	93	33
19-30	.43	4.2	70	6.2	75	222	0	120	43
JULY									
01...	22	7.0	78	7.2	60	248	0	92	39
02-08	1.2	6.1	44	4.4	24	148	0	35	13
09-23	.17	7.0	78	7.2	60	248	0	92	39
24-31	357	6.4	40	3.0	27	108	0	52	17
AUG.									
01-06	214	9.0	36	3.0	53	154	0	39	33
07-14	363	8.9	34	2.7	20	116	0	28	8.6
15-18	6240	8.6	28	2.5	11	100	0	14	3.6
19-31	94	9.8	39	3.1	23	135	0	31	9.8
SEP.									
01-09	8.0	8.8	44	3.5	24	153	0	32	9.9
10-17	1.8	9.8	61	5.3	35	216	0	44	18
18-25	108	9.6	75	6.6	49	228	0	89	27
26-30	257	8.8	44	3.5	24	153	0	32	9.9
WTD. AVG.	--	8.3	40	2.6	18	124	0	31	9.5
TIME WTD.									
AVG.	407	7.0	63	5.6	43	185	0	82	28
TOT. LOAD (TONS)	--	3150	15900	1040	7310	49400	0	12500	3820

07343200 SULPHUR RIVER NEAR TALCO, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 625 mg/l May 1-10; minimum, 120 mg/l Aug. 15-18.
 Hardness: Maximum, 310 mg/l Apr. 9-30; minimum, 80 mg/l Aug. 15-18.
 Specific conductance: Maximum daily, 1030 micromhos Apr. 20; minimum daily, 169 micromhos Oct. 14.
 Water temperatures: Maximum, 29.0°C Aug. 27; minimum, 3.0°C Jan. 8.

EXTREMES, October 1966 to September 1971.--Dissolved solids: Maximum, 644 mg/l Oct. 1-13, 1969; minimum, 100 mg/l May 9-11, 20, 1969.
 Hardness: Maximum, 310 mg/l Apr. 9-30, 1971; minimum, 66 mg/l Jan. 1-2, 1970.
 Specific conductance: Maximum daily, 1,210 micromhos Oct. 13, 1969; minimum daily, 159 micromhos June 2, Nov. 1, 1967.
 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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (M) (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 COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-09	.5	.7	199	120	9	.9	318	8.0
10-12	.4	.7	154	100	6	.6	251	7.7
13-18	--	.5	133	86	0	.6	207	7.7
19-24	.4	.5	198	130	13	.8	331	7.4
25-28	--	.4	--	110	10	.7	287	7.4
29-31	.4	.5	198	130	13	.8	331	7.4
NOV.								
01-04	1.4	.7	239	160	28	.8	395	7.5
05-14	.7	.4	322	210	38	1.0	522	7.5
15-19	.4	1.2	193	130	25	.6	309	7.2
20-22	1.4	.7	239	160	28	.8	395	7.5
23-30	.7	.4	322	210	38	1.0	522	7.5
DEC.								
01-21	.3	.3	--	--	--	--	713	--
22-26	.4	.3	281	160	26	1.3	482	7.6
27-31	.3	.00	259	160	24	1.0	426	7.3
JAN.								
01-19	.3	.6	327	190	38	1.3	519	8.1
20-31	.3	.3	419	240	56	1.6	667	8.1
FEB.								
01-06	.3	.1	--	--	--	--	777	--
07-12	.4	.7	296	170	32	1.4	490	7.4
13-19	.3	.9	202	130	18	.8	338	7.2
20-21	.4	.7	296	170	32	--	490	7.4
22-28	.3	.9	202	130	18	.8	338	7.2
MAR.								
01-06	.6	1.1	214	130	17	.9	347	7.8
07-12	.5	1.0	270	160	26	1.1	437	8.0
13-31	.6	.4	403	230	50	1.6	645	8.1
APR.								
01-08	.3	.2	533	290	65	2.0	837	8.1
09-30	.4	.2	607	310	96	2.3	948	8.2
MAY								
01-10	--	.2	625	300	81	2.5	966	8.2
11-14	--	1.7	220	130	25	.8	360	8.2
15-19	--	1.1	267	160	17	1.2	433	7.3
20-26	--	.7	338	190	22	1.6	540	8.0
27-31	--	1.7	220	130	25	.8	360	8.2
JUNE								
01-09	--	1.1	295	170	32	1.3	464	8.2
10-18	--	.3	375	210	30	1.6	613	8.1
19-30	--	.1	423	200	18	2.3	742	8.0
JULY								
01...	.4	.2	406	220	21	1.7	663	--
02-08	.3	.7	203	130	7	.9	343	7.7
09-23	.4	.2	406	220	21	1.7	663	--
24-31	.4	.9	203	110	24	1.1	343	7.5
AUG.								
01-06	.3	1.2	255	100	0	2.3	421	7.3
07-14	.3	.7	163	96	1	.9	268	7.3
15-18	.2	.8	120	80	0	.5	202	7.3
19-31	.3	.5	184	110	0	1.0	303	7.8
SEPT.								
01-09	.3	.7	201	120	0	.9	328	8.0
10-17	.2	.2	280	170	0	1.2	456	7.8
18-25	.3	.6	371	210	27	1.5	588	7.9
26-30	.3	.7	201	120	0	.9	328	8.0
WTD. AVG.								
TIME WTD.	.4	.7	174	109	0	.7	284	7.6
AVG.								
TOT. LOAD	.4	.5	320	180	29	1.3	530	7.8
(TONS)	85	285	65700	--	--	--	--	--

RED RIVER BASIN

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07343200 SULPHUR RIVER NEAR TALCO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1000	61	.00	<.2	.00	13	.00	18	.00	<.2
FEB. 02...	1445	18	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 23...	2000	.48	.00	<.2	7.6	7.6	14	14	3.5	3.5

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)
OCT. 21...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 02...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 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)	DI- AZINON IN BOTTOM DE- POSITS (UG/KG)	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)
OCT. 21...	.0	<1.0	.00	--	.00	<.2	.00	<.2	.00
FEB. 02...	.0	<1.0	.00	--	.00	<.2	.00	<.2	.00
JUNE 23...	.0	<1.0	.00	--	.00	<.2	.00	<.2	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
OCT. 21...	<.2	.0	<10	.00	<7.7	.00	<.6	.00	<.5
FEB. 02...	<.2	.0	<10	.00	<2.1	.00	<.3	.00	<.2
JUNE 23...	<.2	.0	<10	.00	<1.6	.00	<.5	.00	<.5

RED RIVER BASIN

07343200 SULPHUR RIVER NEAR TALCO, TEX.---Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	254	364	660	562	753	340	794	990	387	778	367	288
2	264	389	672	639	768	369	817	980	407	211	346	297
3	276	415	670	518	777	400	824	985	432	241	550	315
4	287	429	666	587	798	323	838	995	457	283	589	324
5	346	451	670	433	811	306	852	975	492	330	320	374
6	361	466	674	400	795	326	859	975	503	376	345	339
7	349	484	686	479	597	355	889	985	506	428	183	363
8	275	503	698	459	538	394	878	975	520	494	276	385
9	292	522	705	460	485	421	914	961	530	535	282	380
10	243	535	720	447	472	451	922	917	551	574	283	396
11	237	562	728	495	466	482	931	384	566	607	266	415
12	272	578	736	520	522	508	939	306	585	630	300	430
13	212	593	747	563	353	536	948	345	599	641	310	451
14	169	583	756	629	350	552	944	312	618	656	286	465
15	174	301	764	403	262	586	971	382	636	663	224	488
16	196	295	773	596	323	539	971	403	651	674	190	498
17	227	292	779	579	343	529	966	429	667	686	192	517
18	245	308	791	563	370	550	980	459	681	700	213	530
19	268	338	800	592	407	563	1000	486	693	698	245	543
20	295	379	796	614	463	579	1030	517	705	692	271	558
21	318	408	806	625	438	598	834	546	708	702	290	569
22	350	429	697	641	336	618	814	566	727	629	306	585
23	379	450	346	641	321	645	953	582	738	691	316	582
24	369	474	543	643	288	667	953	683	749	334	325	848
25	313	499	438	655	356	687	944	489	755	191	329	515
26	233	524	374	670	351	711	966	409	767	346	316	384
27	264	545	391	686	334	729	980	398	769	339	346	295
28	308	560	403	697	303	---	990	399	775	569	275	298
29	324	578	421	708	---	753	1000	317	778	367	282	312
30	323	593	444	726	---	764	1000	362	781	303	279	328
31	491	---	478	739	---	779	---	347	---	382	275	---
MONTH	288	462	640	580	478	535	923	608	624	508	301	434

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	15.0	16.5	8.0	8.5	13.0	18.0	19.0	23.0	26.0	24.0	25.0
2	22.0	13.0	17.0	9.0	8.5	12.5	15.0	19.0	26.0	25.0	25.0	26.0
3	22.0	13.0	18.0	11.0	8.0	8.0	14.5	20.0	26.0	26.0	24.0	25.5
4	22.0	---	16.0	9.0	10.0	7.0	15.0	19.0	26.5	27.0	24.0	26.0
5	21.0	11.0	15.0	6.5	7.0	10.0	15.5	21.0	26.0	27.5	24.0	27.0
6	22.5	10.0	14.0	4.5	8.0	10.5	15.0	22.0	26.5	28.0	25.0	27.0
7	22.0	10.5	11.5	4.5	8.0	9.5	14.0	22.0	27.0	28.0	24.0	26.0
8	23.5	13.5	11.5	3.0	4.5	9.0	14.5	22.0	27.0	28.0	24.0	27.0
9	19.0	13.0	13.5	4.0	4.0	10.0	16.5	23.0	26.5	28.0	27.0	27.5
10	16.5	11.0	14.5	4.5	4.0	10.0	17.0	22.0	27.0	28.0	27.0	27.0
11	16.0	11.5	13.0	5.0	6.5	11.0	18.0	19.5	27.0	27.5	28.0	26.0
12	16.0	12.0	10.0	6.0	8.0	12.0	19.0	20.0	27.0	28.0	28.0	25.0
13	17.0	11.5	9.5	8.0	8.0	15.0	21.0	18.5	28.0	27.0	26.0	25.5
14	15.0	11.0	8.0	10.0	7.0	13.0	19.0	---	28.0	27.0	25.5	25.0
15	17.0	9.0	10.0	10.5	9.5	14.0	18.5	20.0	27.5	28.0	24.5	24.0
16	16.5	10.5	9.0	10.0	11.0	15.5	19.0	21.0	27.0	28.0	26.0	25.0
17	16.0	8.5	8.0	8.5	13.5	16.0	20.0	23.0	27.0	28.0	26.5	24.5
18	15.0	9.0	9.5	9.0	14.0	17.0	20.0	24.0	27.0	27.0	28.0	24.0
19	15.0	11.0	10.5	5.5	15.0	13.0	21.0	22.5	---	27.0	26.0	22.0
20	14.0	10.0	10.0	6.0	16.0	12.5	21.0	23.0	26.5	26.0	26.5	19.0
21	15.5	11.0	10.0	7.5	15.0	13.0	19.5	22.5	26.0	25.0	27.0	18.5
22	17.0	14.0	12.0	8.0	10.0	14.0	21.0	24.0	26.5	26.0	28.0	24.5
23	18.0	11.5	14.5	8.5	8.0	14.0	20.5	24.5	26.0	24.5	27.0	20.0
24	18.0	8.0	11.0	9.0	10.5	12.0	19.0	24.0	26.5	24.0	28.0	20.0
25	16.0	8.0	12.0	9.5	11.0	12.5	20.0	22.0	26.5	24.0	28.0	22.0
26	19.0	---	12.0	9.0	12.5	11.0	21.0	22.0	26.0	25.0	27.0	---
27	19.0	12.0	7.0	9.0	13.0	12.0	23.0	23.5	27.0	26.0	29.0	24.0
28	19.0	13.5	7.0	8.0	14.0	---	21.5	22.0	27.0	25.5	28.0	24.0
29	---	15.0	9.0	9.0	---	15.0	22.0	23.5	26.0	25.0	27.0	23.5
30	14.0	15.0	10.0	10.0	---	14.0	19.5	22.5	26.0	25.5	24.5	24.0
31	14.0	---	10.0	9.5	---	15.5	---	22.5	---	23.5	25.5	---
MONTH	18.0	11.5	11.5	7.5	10.0	12.5	18.5	22.0	26.5	26.5	26.0	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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1600	2710	5.3	4.0	1.5	4.6	16	0	6.2
NOV. 06...	1600	10	12	16	6.8	23	54	0	35
DEC. 14...	0930	9.4	15	27	13	48	92	0	71
JAN. 16...	1130	192	17	18	8.0	36	48	0	56
FEB. 28...	1600	348	8.8	14	6.3	19	34	0	39
APR. 01...	1600	12	5.8	34	17	70	82	0	120
MAY 07...	1230	--	12	38	18	81	120	0	110
JUNE 08...	1650	1.2	6.9	22	11	46	102	0	48
JULY 26...	1700	--	6.0	4.5	1.4	7.2	17	0	8.8
SEP. 05...	1805	--	9.5	16	6.6	34	79	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 CONSTI- TUTENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 14...	3.3	.5	.20	34	16	3	.5	55	6.9
NOV. 06...	25	.1	.40	147	68	24	1.2	251	7.1
DEC. 14...	53	.5	.20	273	120	45	1.9	478	7.3
JAN. 16...	34	.2	2.6	205	78	39	1.8	343	7.4
FEB. 28...	21	.1	1.1	130	61	33	1.1	230	7.1
APR. 01...	78	.3	.00	369	150	86	--	618	7.6
MAY 07...	85	.4	2.2	416	170	72	2.7	683	7.3
JUNE 08...	45	.4	.90	233	100	18	2.0	419	7.1
JULY 26...	4.6	.2	.70	44	17	3	.8	71	6.1
SEP. 05...	27	.1	1.0	171	67	2	1.8	291	7.2

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 1971.

Water temperatures: October 1967 to September 1971.

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 429 mg/l Apr. 11-30; minimum, 40 mg/l Oct. 13-19.

Hardness: Maximum, 180 mg/l Apr. 11-30; minimum, 17 mg/l Oct. 13-19.

Specific conductance: Maximum daily, 787 micromhos Apr. 20; minimum daily, 51 micromhos Oct. 16.

Water temperatures: Maximum, 27.5°C June 27; minimum, 3.0°C Jan. 8, 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.									
01-08	24	7.4	8.5	2.6	10	29	0	14	87
09...	32	6.8	13	3.3	36	36	0	32	41
10-12	378	7.4	8.5	2.6	10	29	0	14	87
13-19	1790	5.8	4.5	1.4	5.7	16	0	9.0	3.5
20-31	221	7.4	8.5	2.6	10	29	0	14	8.7
NOV.									
01-06	25	9.7	11	4.5	16	38	0	21	18
07-14	23	10	13	5.5	20	45	0	28	20
15-23	374	7.2	9.0	3.1	11	28	0	18	10
24-30	25	10	13	5.5	20	45	0	28	20
DEC.									
01-07	15	12	16	6.8	24	56	0	38	24
08-22	16	14	22	9.0	40	66	0	61	42
23...	70	8.0	--	--	--	--	0	19	17
24-31	29	14	22	9.0	40	66	0	61	42
JAN.									
01-14	42	12	20	9.0	36	44	0	62	43
15-22	89	8.5	14	6.6	27	34	0	43	30
23-31	15	12	20	9.0	36	44	0	62	43
FEB.									
01-12	26	9.7	29	14	57	63	0	99	68
13-18	577	7.0	11	4.3	16	27	0	30	17
19-22	212	8.7	14	5.6	21	30	0	42	23
23-28	545	7.0	11	4.3	16	27	0	30	17
MAR.									
01-11	266	7.9	14	4.6	25	67	0	18	21
12-17	47	10	19	8.2	--	46	0	64	--
18-31	19	6.1	32	15	60	68	0	120	66
APR.									
01-10	7.7	3.0	36	17	76	94	0	120	81
11-30	7.6	2.6	39	19	86	110	0	130	94
MAY									
01-16	13	8.6	36	16	89	120	0	110	92
17-31	10	10	30	14	69	106	0	92	68
JUNE									
01-06	12	4.4	24	10	53	110	0	54	48
07-17	1.7	4.8	22	9.5	49	100	0	51	45
18-30	.15	4.4	24	10	53	110	0	54	48
JULY									
01-02	.02	4.2	28	9.3	58	130	0	45	56
03-21	.00	--	--	--	--	--	--	--	--
22-23	5.2	4.2	28	9.3	58	130	0	45	56
24-31	863	3.2	5.5	2.5	10	28	0	9.6	8.0
AUG.									
01-04	192	9.6	8.5	3.4	11	38	0	14	7.1
05-08	274	8.6	7.0	2.6	7.5	30	0	10	4.7
09-17	83	9.5	13	3.8	19	54	0	20	16
18-20	550	8.6	7.0	2.6	7.5	30	0	10	4.7
21-31	60	9.8	11	4.5	13	54	0	16	7.8
SEP.									
01-08	11	8.7	11	4.3	15	48	0	20	10
09-28	4.1	9.7	16	6.1	30	74	0	33	24
29-30	149	8.7	11	5.5	23	56	0	23	18
WTD. AVG.									
TIME WTD.	--	6.7	9.0	3.4	14	31	0	20	15
AVG.									
TOT. LOAD	128	8.2	20	8.5	38	65	0	54	41
(TONS)	--	851	1140	435	1740	3950	0	2530	1870

RED RIVER BASIN

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07343500 WHITEOAK CREEK NEAR TALCO, TEX.--Continued

EXTREMES, October 1967 to September 1971.--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, 895 micromhos Sept. 30, 1969; minimum daily, 33 micromhos May 16, 1969.
 Water temperatures: Maximum, 34.0°C July 15, 1969; minimum, freezing point 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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-08	.4	.6	68	32	8	.8	113	6.3
09...	--	.8	151	46	16	2.3	284	7.0
10-12	.4	.6	68	32	8	.8	113	6.3
13-19	.4	.3	40	17	4	.6	59	6.4
20-31	.4	.6	68	32	8	.8	113	6.3
NOV.								
01-06	.9	.3	101	46	15	1.0	165	6.8
07-14	.9	.3	121	55	18	1.2	213	6.6
15-23	.6	.6	76	35	12	.8	131	6.5
24-30	.9	.3	121	55	18	1.2	213	6.6
DEC.								
01-07	.1	.1	149	68	22	1.3	261	7.3
08-22	.2	.6	223	92	38	1.8	381	6.7
23...	.1	1.3	--	--	--	--	175	7.1
24-31	.2	.6	223	92	38	1.8	381	6.7
JAN.								
01-14	.1	1.1	209	87	51	1.7	367	6.2
15-22	.1	1.5	153	62	34	1.5	270	6.4
23-31	.1	1.1	209	87	51	1.7	367	6.2
FEB.								
01-12	.2	.8	311	130	78	2.2	533	7.2
13-18	.1	.7	102	45	23	1.0	179	6.1
19-22	.1	.7	132	58	33	1.2	231	6.6
23-28	.1	.7	102	45	23	1.0	179	6.1
MAR.								
01-11	.3	.9	128	54	0	1.5	212	6.7
12-17	.3	.7	--	81	43	--	325	6.8
18-31	.4	.7	331	140	84	2.2	555	7.4
APR.								
01-10	.3	.5	386	160	83	2.6	662	7.6
11-30	.3	.4	429	180	86	2.8	746	7.4
MAY								
01-16	.4	1.4	418	160	58	3.1	694	7.6
17-31	.4	1.0	340	130	45	2.6	568	7.8
JUNE								
01-06	--	.6	250	100	13	2.3	437	7.5
07-17	--	.6	233	94	12	2.2	400	7.4
18-30	--	.6	250	100	13	2.3	437	7.5
JULY								
01-02	--	.5	267	110	1	2.4	454	7.6
03-21	--	--	--	--	--	--	--	--
22-23	--	.5	267	110	1	--	454	7.6
24-31	--	.4	55	24	1	.9	90	6.9
AUG.								
01-04	.1	1.0	77	35	4	.8	120	6.6
05-08	.1	.7	59	28	3	.6	90	6.4
09-17	.1	.6	111	48	4	1.2	184	6.9
18-20	.1	.7	59	28	3	.6	90	6.4
21-31	.1	.6	92	46	2	.8	144	6.7
SEP.								
01-08	.2	.7	96	45	6	1.0	155	7.1
09-28	.2	.5	157	65	4	1.6	271	7.5
29-30	.2	1.0	122	50	4	1.4	205	6.9
WTD. AVG.	.3	.5	84	37	11	.9	140	6.5
TIME WTD.								
AVG.	.3	.6	203	84	31	1.7	345	7.0
TOT. LOAD (TONS)	32	71	10500	--	--	--	--	--

RED RIVER BASIN

07343500 WHITEOAK CREEK NEAR TALCO, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	157	315	447	458	230	622	732	460	434	108	153
2	119	155	220	345	477	206	636	726	414	438	118	147
3	111	159	247	364	490	200	637	706	450	---	153	148
4	89	166	253	411	509	210	647	672	461	---	110	150
5	113	177	275	342	527	205	662	623	451	---	61	155
6	116	187	281	277	536	212	667	676	429	---	103	159
7	119	196	299	337	539	201	671	696	414	---	94	185
8	120	206	334	336	555	209	678	713	400	---	88	184
9	284	214	355	370	563	220	687	721	398	---	100	215
10	110	220	343	383	623	215	694	701	394	---	119	234
11	143	226	325	380	612	220	702	762	391	---	155	243
12	104	235	327	391	554	243	709	771	392	---	167	254
13	56	241	342	380	277	274	709	616	396	---	170	262
14	56	310	360	361	188	326	712	768	399	---	238	268
15	60	140	379	214	154	351	722	618	403	---	228	274
16	51	144	377	231	153	375	733	646	408	---	---	277
17	57	110	366	318	158	402	738	565	410	---	138	279
18	62	118	369	281	169	446	733	530	414	---	86	281
19	73	114	367	258	193	475	755	542	415	---	96	281
20	90	139	392	269	223	495	787	555	419	---	105	282
21	102	126	428	278	253	517	763	565	421	---	115	287
22	111	139	369	289	261	532	743	575	425	436	130	294
23	121	148	175	305	230	555	758	585	429	417	139	304
24	122	162	308	317	156	594	763	589	430	656	147	308
25	110	170	345	335	134	627	766	590	433	78	74	305
26	116	189	382	354	134	596	769	592	434	148	128	279
27	89	205	472	362	153	589	763	575	436	71	145	265
28	109	189	460	374	230	595	760	576	437	75	155	266
29	112	202	453	394	---	591	755	581	438	75	164	302
30	126	227	445	423	---	600	738	583	439	82	175	115
31	141	---	449	443	---	611	---	485	---	89	183	---
MONTH	108	179	349	341	340	391	716	633	421	---	133	239

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	15.0	16.0	8.5	8.0	12.0	18.0	18.5	22.5	27.0	23.5	24.5
2	20.0	12.5	16.5	8.5	8.0	12.0	15.0	19.0	25.0	27.0	23.0	25.0
3	20.0	11.5	17.0	11.0	7.0	8.0	14.0	---	25.0	---	23.0	25.0
4	15.0	10.0	16.0	8.0	10.0	7.0	15.0	18.5	25.0	---	23.5	26.0
5	22.0	9.5	15.0	5.5	7.0	8.0	14.5	20.0	25.0	---	24.0	27.0
6	21.5	9.5	13.5	5.0	7.5	9.0	15.0	21.0	26.0	---	24.0	27.0
7	21.5	10.0	11.0	4.5	7.5	9.0	13.5	22.0	26.0	---	24.0	25.5
8	23.5	14.0	11.0	3.0	4.5	8.5	14.5	22.0	26.0	---	25.0	26.5
9	18.0	12.0	12.5	3.0	4.0	10.0	16.0	22.0	25.5	---	25.5	26.5
10	20.0	11.0	13.5	5.0	3.5	---	17.0	22.0	26.5	---	26.0	26.5
11	15.5	12.0	12.5	5.0	6.0	11.0	18.0	20.0	26.5	---	27.0	26.0
12	16.0	11.0	9.5	6.0	8.0	12.5	18.5	20.0	27.0	---	27.0	25.5
13	17.0	11.0	9.0	8.0	7.5	14.0	20.0	17.0	27.0	---	26.0	26.0
14	18.5	10.0	8.0	12.0	7.0	16.5	18.0	18.0	27.0	---	26.0	25.0
15	16.5	8.5	8.5	9.5	9.0	16.0	18.0	18.0	27.0	---	25.0	24.5
16	15.5	7.0	9.0	9.0	11.5	15.0	19.0	20.0	26.5	---	---	25.5
17	14.5	8.5	7.5	8.5	13.0	15.0	20.0	21.0	27.0	---	25.0	25.5
18	14.0	8.5	9.0	9.0	14.0	16.0	20.0	22.0	27.0	---	25.0	24.5
19	14.5	10.0	10.0	6.0	14.0	13.0	20.5	21.0	27.0	---	25.0	23.0
20	14.0	9.5	10.0	5.5	14.0	11.5	21.0	21.5	27.0	---	25.5	21.0
21	14.0	10.0	10.0	7.0	14.0	13.0	18.5	21.5	26.5	---	26.0	20.0
22	16.0	13.0	12.0	8.0	10.0	14.0	19.5	23.0	27.0	---	26.0	21.0
23	18.0	9.5	12.0	9.0	9.0	13.0	20.0	24.0	27.0	25.0	27.0	21.0
24	17.0	7.0	9.0	9.0	9.0	12.0	19.0	24.0	27.0	24.5	21.0	20.5
25	17.0	7.0	8.5	9.5	11.0	12.0	19.0	22.0	27.0	24.5	25.5	22.0
26	19.0	11.0	10.0	9.0	12.0	10.0	20.0	22.0	27.0	24.5	26.5	22.5
27	19.5	13.5	6.0	8.5	12.0	11.5	22.0	23.5	27.5	24.5	27.0	23.0
28	17.0	14.5	7.5	8.0	10.5	15.0	20.5	24.0	27.0	24.5	27.0	24.0
29	16.0	15.5	9.0	8.5	---	14.5	21.0	23.0	27.0	24.5	26.0	23.5
30	14.0	15.0	9.0	10.0	---	14.0	19.0	21.0	27.0	23.5	24.0	23.0
31	13.5	---	8.5	9.0	---	15.0	---	22.5	---	24.0	24.0	---
MONTH	17.5	11.0	11.0	7.5	9.0	12.5	18.0	21.0	26.5	---	25.0	24.0

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1320	281	5.8	8.5	3.6	29	25	0	22
NOV. 10...	0930	63	11	12	5.4	19	38	0	26
DEC. 10...	--	34	12	14	5.1	31	49	0	35
JAN. 15...	1650	63	12	19	9.9	42	46	0	61
MAR. 09...	0845	500	8.6	13	5.7	24	30	0	43
APR. 02...	1435	34	8.5	31	16	72	66	0	120
MAY 06...	1410	--	5.8	34	17	93	94	0	120
11...	1630	1.5	19	3.5	2.7	3.9	16	0	4.8
JUNE 11...	1050	6.0	4.7	30	13	83	112	0	88
JULY 28...	1015	--	6.8	6.5	3.8	17	24	0	17
SEP. 04...	1050	7.8	9.8	16	6.6	31	63	0	28

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 14...	37	.1	.80	122	36	16	2.1	220	7.0
NOV. 10...	24	.1	.40	118	52	21	1.1	206	7.2
DEC. 10...	31	.6	.10	153	56	16	1.8	253	6.8
JAN. 15...	53	.6	.50	223	88	50	1.9	387	7.0
MAR. 09...	25	.0	.90	138	56	31	1.4	240	7.1
APR. 02...	88	.2	.00	336	140	91	--	629	7.4
MAY 06...	110	.2	.50	426	150	76	3.3	737	7.7
11...	6.0	.0	.50	50	20	7	.4	61	6.9
JUNE 11...	86	.4	.50	362	130	88	3.2	611	7.2
JULY 28...	21	.0	.40	86	32	12	1.3	137	6.5
SEP. 04...	37	.2	.40	161	67	15	1.6	284	7.1

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 1971.

Water temperatures: October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.									
01-12	3.7	8.8	28	6.6	120	64	0	67	140
13-19	46	11	14	3.7	32	28	0	39	35
20-24	6.7	--	16	5.4	46	28	0	43	60
25-29	36	11	14	3.7	32	28	0	39	35
30-31	22	--	16	5.4	46	28	0	43	60
NOV.									
01-09	9.8	16	18	6.3	51	34	0	48	67
10-13	13	14	22	7.1	74	36	0	52	100
14-22	48	13	15	6.0	33	25	0	44	44
23-30	8.8	16	18	6.3	51	34	0	48	67
DEC.									
01...	9.6	16	22	8.5	75	43	0	61	100
02-07	10	16	22	8.0	67	48	0	58	91
08-24	20	16	19	7.4	55	34	0	54	72
25-30	25	18	18	8.0	40	25	0	58	55
31...	42	16	22	8.0	67	48	0	58	91
JAN.									
01-02	58	13	19	8.4	58	26	0	62	79
03-08	41	17	18	8.5	39	23	0	62	54
09-16	34	15	18	9.0	4.8	23	0	64	65
17-24	34	13	22	10	54	24	0	77	74
25-30	35	15	18	9.0	4.8	23	0	64	65
31...	32	13	22	10	54	24	0	77	74
FEB.									
01-09	40	12	20	8.8	53	23	0	66	72
10-12	79	16	17	9.1	37	19	0	65	51
13-16	390	10	11	5.5	23	14	0	40	29
17-28	116	16	17	9.1	37	19	0	65	51
MAR.									
01-03	103	9.8	18	10	41	22	0	70	54
04-05	464	7.0	13	6.7	26	22	0	48	33
06-15	78	9.8	18	10	41	22	0	70	54
16-31	37	9.5	22	11	55	32	0	78	72
APR.									
01-26	24	6.5	22	10	69	44	0	67	88
27-30	28	16	18	8.0	45	35	0	51	60
JUNE									
01-11	11	7.6	18	5.9	51	38	0	46	67
12-30	4.0	6.7	23	7.7	84	84	0	58	93
JULY									
01-23	2.2	9.8	27	11	120	118	0	62	150
24-25	68	6.8	9.0	3.8	--	18	0	--	27
26-31	364	9.5	10	2.9	19	20	0	26	21
AUG.									
01-17	36	17	16	5.6	33	30	0	44	43
18...	6.3	8.6	9.0	3.5	19	20	0	25	23
19-20	8.3	17	16	5.6	33	30	0	44	43
21...	6.0	8.6	9.0	3.5	19	20	0	25	23
22-24	57	19	18	7.1	52	46	0	46	68
25-28	107	8.6	9.0	3.5	19	20	0	25	23
29-31	11	17	16	5.6	33	30	0	44	43
SEP.									
01-04	6.4	16	--	--	47	44	0	44	61
05...	8.4	14	21	7.7	74	62	0	52	97
06...	6.5	14	28	9.2	130	76	0	68	170
07-13	4.8	14	21	7.7	74	62	0	52	97
14...	3.5	14	28	9.2	130	76	0	68	170
15-18	3.0	14	21	7.7	74	62	0	52	97
19-23	3.5	14	28	9.2	130	76	0	68	170
24-30	5.3	15	21	8.1	88	70	0	53	110
WTD. AVG.	--	12	15	6.9	36	25	0	51	48
TIME WTD.									
AVG.	42	12	20	7.8	58	43	0	57	77
TOT. LOAD (TONS)	--	433	580	257	1330	943	0	1880	1800

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

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 475 mg/l Sept. 6, 14, 19-23; minimum, 101 mg/l Aug. 18, 21, 25-28.
Hardness: Maximum, 110 mg/l July 1-23, Sept. 6, 14, 19-23; minimum, 37 mg/l July 26-31, Aug. 18, 21, 25-28.

EXTREMES, October 1968 to September 1971.--Dissolved solids: Maximum, 475 mg/l Sept. 6, 14, 19-23, 1971; minimum, 64 mg/l Apr. 26-30, 1970.
Hardness: Maximum, 110 mg/l July 1-23, Sept. 6, 14, 19-23, 1971; minimum, 29 mg/l Apr. 26-30, 1970.
Specific conductance (1968-69): Maximum daily, 639 micromhos Sept. 3, 1969; minimum daily, 69 micromhos July 30, 1969.
Water temperatures (1968-69): Maximum, 32.0°C Aug. 20, 1969; minimum, 5.0°C Jan. 1, 4, 7, 11-12, 1969.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-12	--	7.6	436	97	44	5.3	748	7.0
13-19	.9	1.5	156	50	27	2.0	270	6.6
20-24	--	2.8	--	62	39	2.5	348	6.6
25-29	.9	1.5	156	50	27	2.0	270	6.6
30-31	--	2.8	--	62	39	2.5	348	6.6
NOV.								
01-09	.6	2.3	234	71	43	2.6	397	7.0
10-13	.6	4.7	311	84	54	3.5	542	6.9
14-22	.5	1.4	174	62	42	1.8	307	6.7
23-30	.6	2.3	234	71	43	2.6	397	7.0
DEC.								
01...	.4	2.2	314	90	55	3.4	555	7.1
02-07	.4	1.2	292	88	49	3.1	506	7.2
08-24	.3	2.9	254	78	50	2.7	435	6.7
25-30	.2	1.9	218	78	58	2.0	365	6.5
31...	.4	1.2	292	88	49	3.1	506	7.2
JAN.								
01-02	.3	3.0	260	82	61	2.8	465	6.2
03-08	.2	1.3	216	80	61	1.9	364	6.3
09-16	.3	2.4	241	82	63	.2	416	6.2
17-24	.2	2.4	273	97	77	2.4	469	6.6
25-30	.3	2.4	241	82	63	.2	416	6.2
31...	.2	2.4	273	97	77	2.4	469	6.6
FEB.								
01-09	.2	3.3	258	86	67	2.5	452	6.5
10-12	.2	1.5	211	80	64	1.8	378	6.3
13-16	.1	1.5	132	50	39	1.4	232	6.5
17-28	.2	1.5	211	80	64	1.8	378	6.3
MAR.								
01-03	.2	2.0	223	86	68	1.9	371	6.5
04-05	.1	.7	148	60	42	1.5	261	6.4
06-15	.2	2.0	223	86	68	1.9	371	6.5
16-31	.3	2.8	267	100	74	2.4	469	6.8
APR.								
01-26	.3	4.5	305	98	62	3.1	509	7.4
27-30	.2	--	225	78	49	2.2	381	6.5
JUNE								
01-11	--	1.6	222	69	38	2.7	414	7.2
12-30	--	3.0	326	89	20	3.9	575	7.1
JULY								
01-23	.6	3.8	455	110	16	4.9	775	7.4
24-25	--	7.8	--	38	23	--	234	6.4
26-31	.2	1.5	105	37	21	1.4	176	6.4
AUG.								
01-17	.2	.6	176	63	38	1.8	305	6.8
18...	.2	.6	101	37	21	1.4	188	6.5
19-20	.2	.6	176	63	38	1.8	305	6.8
21...	.2	.6	101	37	21	1.4	188	6.5
22-24	.2	1.7	241	74	36	2.6	415	6.9
25-28	.2	.6	101	37	21	1.4	188	6.5
29-31	.2	.6	176	63	38	1.8	305	6.8
SEP.								
01-04	--	1.3	--	70	34	2.4	377	7.4
05...	.3	.8	300	84	33	3.5	542	6.8
06...	.4	4.0	475	110	46	5.4	882	7.0
07-13	.3	.8	300	84	33	3.5	542	6.8
14...	.4	4.0	475	110	46	5.4	882	7.0
15-18	.3	.8	300	84	33	3.5	542	6.8
19-23	.4	4.0	475	110	46	5.4	882	7.0
24-30	.4	2.3	340	86	28	4.1	618	6.9
WTD. AVG.	.2	1.9	191	67	46	1.9	330	6.6
TIME WTD.								
AVG.	.3	2.6	268	81	46	2.8	461	6.8
TOT. LOAD (TONS)	8.8	70	7030	--	--	--	--	--

RED RIVER BASIN

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	555	474	452	387	523	---	343	602	---	---
2	699	409	576	454	---	---	523	---	458	609	---	---
3	680	386	522	370	---	344	518	---	546	---	264	---
4	701	390	480	337	467	243	517	---	584	794	264	377
5	777	392	476	354	388	280	501	---	328	826	---	622
6	828	406	500	354	---	306	481	---	402	623	317	917
7	860	403	520	361	---	362	473	---	310	794	315	---
8	---	401	353	404	466	361	529	---	405	830	324	414
9	867	431	---	428	438	378	533	---	405	816	340	---
10	808	513	466	422	387	394	533	---	317	816	388	513
11	---	517	---	431	382	420	539	---	440	817	---	615
12	579	605	---	428	306	356	546	---	506	820	308	524
13	317	543	---	427	169	421	591	---	---	816	237	---
14	200	---	466	401	227	---	540	---	400	---	255	926
15	232	394	514	---	247	426	555	---	572	---	393	645
16	235	275	502	421	271	433	542	---	554	813	245	525
17	276	260	352	471	332	480	496	---	554	813	392	391
18	311	---	409	459	357	480	---	---	556	820	198	667
19	295	---	---	431	364	482	518	---	552	837	302	826
20	311	303	446	---	374	471	365	---	---	---	286	826
21	326	294	421	---	---	482	514	---	621	810	166	---
22	350	312	436	496	374	470	468	---	604	758	395	909
23	347	331	433	495	375	---	504	---	596	738	---	---
24	373	370	433	465	---	468	437	---	606	207	425	608
25	---	355	---	369	---	468	470	---	621	276	190	612
26	268	399	371	408	---	---	434	---	631	152	---	610
27	238	391	387	---	---	---	366	---	623	161	---	621
28	246	399	360	409	---	---	348	---	557	138	---	406
29	269	460	382	---	---	495	330	---	593	145	---	612
30	313	477	353	423	---	495	465	---	611	149	---	837
31	403	---	504	468	---	473	---	---	---	176	---	---
MONTH	448	401	449	422	---	415	488	---	511	598	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	16.0	9.5	10.0	10.0	17.5	---	26.0	31.0	---	---
2	22.0	14.0	15.0	9.0	---	---	18.0	---	26.0	31.0	---	---
3	22.0	14.0	15.5	9.0	---	10.5	17.5	---	26.0	---	26.0	---
4	22.0	10.0	16.0	9.0	9.5	11.5	18.0	---	26.0	30.5	26.0	29.0
5	21.0	9.0	16.0	9.0	9.0	10.5	18.0	---	26.0	31.0	---	27.0
6	21.0	10.0	14.0	9.0	---	11.0	17.0	---	26.0	31.0	26.0	27.0
7	21.0	10.0	14.0	9.0	---	11.0	17.0	---	26.0	31.0	26.0	---
8	---	11.0	13.0	8.0	6.5	11.0	17.5	---	26.0	31.0	26.0	27.0
9	19.0	8.0	---	8.5	8.0	10.0	18.0	---	26.0	31.0	26.0	---
10	17.0	10.0	13.0	8.0	7.0	11.0	18.0	---	26.0	31.0	27.0	27.0
11	---	11.0	---	8.0	8.0	11.0	18.0	---	27.0	31.0	---	27.0
12	16.0	11.0	---	9.0	8.0	12.5	18.0	---	---	37.0	28.0	29.0
13	16.5	10.0	---	9.0	10.5	11.5	18.0	---	---	37.0	28.0	---
14	17.0	---	7.0	11.0	13.0	---	18.0	---	27.5	---	24.0	27.0
15	17.0	9.0	---	---	13.0	16.0	18.0	---	31.0	---	28.0	27.0
16	17.0	9.0	9.0	10.0	13.5	15.0	18.0	---	28.5	31.0	27.0	27.0
17	15.0	9.0	9.0	10.0	---	15.0	18.0	---	29.0	37.0	28.0	29.0
18	16.0	---	9.0	9.0	13.0	15.0	---	---	29.0	31.0	28.0	27.0
19	16.0	---	10.0	8.0	14.0	15.0	18.0	---	29.0	31.0	28.0	26.0
20	16.0	10.0	10.5	---	10.0	15.5	18.0	---	---	---	28.0	26.0
21	16.0	10.0	10.0	---	---	15.0	18.0	---	30.5	31.0	28.0	---
22	16.0	10.0	11.0	9.0	11.0	15.5	17.0	---	29.5	30.0	28.0	27.0
23	17.0	9.5	11.0	9.0	10.5	---	19.5	---	30.0	28.0	---	---
24	17.0	4.5	10.0	9.0	---	13.5	20.0	---	30.0	28.0	27.0	26.0
25	---	9.0	---	9.0	---	15.5	20.0	---	30.5	27.0	27.0	26.0
26	18.0	9.0	9.0	10.0	---	---	20.0	---	30.0	27.0	---	26.0
27	18.0	9.0	9.0	---	---	---	20.0	---	30.0	27.0	---	26.0
28	16.0	10.5	9.0	9.0	---	---	20.0	---	30.0	26.0	---	26.0
29	15.0	10.0	9.0	---	---	18.0	21.0	---	30.0	26.0	---	26.0
30	16.0	10.0	9.0	10.0	---	18.0	21.0	---	31.0	26.0	---	26.0
31	15.0	---	9.0	11.0	---	17.5	---	---	---	26.0	---	---
MONTH	17.5	10.0	11.5	9.0	---	13.5	18.5	---	28.0	30.0	---	---

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.									
07...	1145	2.1	16	4.0	1.5	6.1	18	0	3.6
NOV.									
04...	1630	40	19	3.0	2.6	3.2	8	0	9.4
DEC.									
15...	1615	52	20	3.0	2.8	3.1	13	0	5.0
JAN.									
24...	1515	78	19	2.8	1.5	6.3	10	0	6.6
MAR.									
06...	1225	208	17	3.5	1.3	5.9	9	0	8.6
APR.									
13...	1610	61	14	3.5	2.2	5.6	18	0	4.8
MAY									
11...	1630	1.5	19	3.5	2.7	3.9	16	0	4.8
JUNE									
10...	0900	7.6	--	4.5	--	--	17	0	--
JULY									
27...	1430	1.9	13	9.5	3.7	16	32	0	5.6
SEP.									
08...	1507	8.7	24	5.0	1.6	6.7	18	0	6.8

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
07...	7.3	.1	.1	48	16	1	.7	64	6.9
NOV.									
04...	6.0	.0	.1	48	18	11	.3	59	6.6
DEC.									
15...	7.0	.0	.00	47	19	8	.3	58	7.2
JAN.									
24...	8.3	.0	.00	50	13	5	.8	61	6.5
MAR.									
06...	7.3	.0	.1	48	14	7	.7	63	6.7
APR.									
13...	7.2	.0	.00	46	18	3	.6	64	6.8
MAY									
11...	6.0	.0	.5	50	20	7	--	61	6.9
JUNE									
10...	--	--	--	--	18	4	--	71	7.2
JULY									
27...	29	.1	.3	94	39	13	1.1	166	6.6
SEP.									
08...	7.2	.2	.3	62	19	4	.7	71	6.6

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 1971.

Chemical and biochemical analyses: October 1967 to September 1971.

Pesticide analyses: January 1968 to September 1971.

Water temperatures: October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.									
01-21	7.2	12	6.5	2.1	23	23	0	14	27
22-27	20	14	8.0	2.0	48	19	0	21	66
28-31	129	12	5.0	1.3	14	14	0	18	12
NOV.									
01-03	130	19	7.0	3.5	21	10	0	14	37
04-24	124	17	6.5	1.7	20	8	0	16	29
25-30	67	19	7.0	3.5	21	10	0	14	37
DEC.									
01-22	73	24	6.5	2.9	28	17	0	14	43
23-24	213	19	6.5	2.4	23	12	0	15	35
25-31	134	22	7.0	2.6	28	12	0	17	43
JAN.									
01-23	108	23	6.5	2.9	30	13	0	16	46
24-31	85	21	7.0	3.3	39	13	0	14	64
FEB.									
01-19	127	7.3	6.8	3.2	36	13	0	18	56
20-28	249	6.6	7.0	3.1	26	12	0	22	38
MAR.									
01-14	241	18	7.5	3.0	25	11	0	24	36
15-31	169	18	9.5	3.7	40	14	0	22	64
APR.									
01-23	95	17	8.2	3.8	45	22	0	18	68
24-30	193	22	7.0	3.1	34	19	0	18	48
MAY									
01-31	62	21	7.5	1.3	33	24	0	17	40
JUNE									
01-10	11	21	8.0	2.9	33	30	0	16	43
11-30	1.4	22	8.2	3.3	39	34	0	10	56
JULY									
01-20	.29	8.3	9.0	3.3	42	48	0	11	54
21...	.00	--	--	--	--	--	--	--	--
22-31	1.2	8.3	9.0	3.3	42	48	0	11	54
AUG.									
01-03	25	17	12	3.7	52	46	0	22	68
04...	95	18	9.0	2.8	21	18	0	27	24
05-08	137	14	6.5	1.7	15	7	0	27	14
09-25	50	18	9.0	2.8	21	18	0	27	24
26-31	11	16	7.5	2.5	20	21	0	24	20
SEP.									
01...	22	15	7.5	2.7	20	31	0	21	17
02-03	21	11	5.0	2.3	14	25	0	15	11
04-20	4.9	15	7.5	2.7	20	31	0	21	17
21-30	8.7	11	5.0	2.3	14	25	0	15	11
WTD. AVG.	--	17	7.3	2.8	30	15	0	19	44
TIME WTD.									
AVG.	79	17	7.5	2.8	31	21	0	17	42
TOT. LOAD									
(TONS)	--	1330	568	220	2330	1130	0	1470	3420

RED RIVER BASIN

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

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 199 mg/l Aug. 1-3; minimum, 71 mg/l Oct. 28-31.
 Hardness: Maximum, 45 mg/l Aug. 1-3; minimum, 18 mg/l Oct. 28-31.
 Specific conductance: Maximum daily, 405 micromhos Aug. 3; minimum daily, 89 micromhos Oct. 29.
 Water temperatures: Maximum, 30.0°C July 18-20; minimum, 3.0°C Jan. 9.

EXTREMES, October 1967 to September 1971.--Dissolved solids: Maximum, 555 mg/l Nov. 9-12, 1969; minimum, 39 mg/l May 14-19, 1967.
 Hardness: Maximum, 126 mg/l Apr. 1-5, 19-25, 1970; minimum, 14 mg/l May 14-19, 1968.
 Specific conductance: Maximum daily, 1,350 micromhos Nov. 9, 1969; minimum daily, 52 micromhos May 15, 1968.
 Water temperatures: Maximum, 30.5°C Aug. 6, 8, 1970; minimum, 1.5°C Jan. 9, 10, 1970.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-21	.5	.4	98	25	6	2.0	175	7.0
22-27	.3	.2	169	28	12	3.9	296	6.3
28-31	.3	.3	71	18	7	1.4	100	6.2
NOV.								
01-03	.3	.2	108	32	24	1.6	188	6.4
04-24	.4	.2	96	23	16	1.8	160	6.3
25-30	.3	.2	108	32	24	1.6	188	6.4
DEC.								
01-22	.0	.2	127	28	14	2.3	211	6.5
23-24	.0	.2	108	26	16	2.0	176	6.7
25-31	.0	.2	126	28	18	2.3	211	6.6
JAN.								
01-23	.0	.3	132	28	17	2.5	220	6.9
24-31	.0	.1	155	31	20	3.0	268	6.1
FEB.								
01-19	.0	.2	134	30	19	2.9	241	--
20-28	.0	.2	110	30	20	2.1	198	6.6
MAR.								
01-14	.0	.2	119	31	22	2.0	200	6.4
15-31	.0	.2	165	39	28	2.8	289	6.8
APR.								
01-23	.0	.3	172	36	18	3.3	298	7.1
24-30	--	.6	144	30	14	2.7	231	6.4
MAY								
01-31	--	.6	134	24	4	2.9	210	7.0
JUNE								
01-10	--	.6	142	32	11	2.5	233	6.7
11-30	--	.3	157	34	6	2.9	267	7.3
JULY								
01-20	--	.1	152	36	0	3.0	260	7.2
21...	--	--	--	--	--	--	--	--
22-31	--	.1	152	36	0	--	260	7.2
AUG.								
01-03	.2	.3	199	45	7	3.4	331	7.0
04...	.2	.4	113	34	19	1.6	176	6.6
05-08	.1	.4	83	23	17	1.4	131	6.0
09-25	.2	.4	113	34	19	1.6	176	6.6
26-31	.1	.4	102	29	12	1.6	166	6.8
SEP.								
01...	.2	.4	100	30	5	1.6	155	7.0
02-03	.1	.3	72	22	2	1.3	113	6.6
04-20	.2	.4	100	30	5	1.6	155	7.0
21-30	.1	.3	72	22	2	1.3	113	6.6
WTD. AVG.	--	.2	129	30	18	2.4	218	6.6
TIME WTD.								
AVG.	--	.3	129	30	13	2.4	217	6.8
TOT. LOAD (TONS)	--	21	9990	--	--	--	--	--

RED RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED	DIS-SOLVED	DIS-SOLVED	BICAR- BONATE (HCO3)	CAR- BONATE (CO3)	DIS-SOLVED	DIS-SOLVED	DIS-SOLVED	ORGANIC NITRO- GEN (N)	
			SILICA (SI02) (MG/L)	CAL- CIUM (CA) (MG/L)	MAG- NE- SIUM (MG)			SODIUM PLUS POTAS- SIUM (MG/L)	SULFATE (SO4) (MG/L)	CHLO- RIDE (CL) (MG/L)		FLUO- RIDE (F) (MG/L)
OCT. 20...	1630	25	14	6.0	1.7	30	20	0	23	32	.1	.25
DEC. 10...	1435	56	21	7.0	2.8	35	20	0	15	52	.2	.34
FEB. 02...	0940	91	18	7.0	2.6	40	16	0	16	61	.0	.39
APR. 22...	1435	130	17	8.5	3.1	38	23	0	14	58	.1	.23
JUNE 23...	1450	.60	20	8.0	3.4	40	33	0	14	56	.1	.06
AUG. 24...	1620	22	21	9.2	3.7	22	20	0	32	25	.1	.39

DATE	DISSOLVED NITRITE (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILTER- ABLE RESIDUE (MG/L)	LOSS ON IGNITION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM ADSORP- TION RATIO	SPECIFIC CONDUC- TANCE (MICRO- MHOS)	PH
OCT. 20...	.010	.00	.20	.090	118	28	8	22	6	--	188	7.0
DEC. 10...	.000	.10	.10	.020	144	10	5	29	13	2.8	229	6.7
FEB. 02...	.000	.10	.10	.080	153	15	0	28	15	--	253	6.5
APR. 22...	.000	.21	.30	.050	151	24	14	34	15	2.8	266	7.0
JUNE 23...	.010	.00	.20	.15	158	37	2	34	7	3.0	264	6.9
AUG. 24...	.010	.05	.40	.12	125	20	12	38	22	1.5	196	6.9

DATE	TEMP- ERATURE (DEG C)	COLOP (PLAT- INUM- CORALT UNITS)	TUR- RID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHFM- 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. 20...	16.5	20	15	7.9	80	0	1.7	1	.05	200	0	1
DEC. 10...	15.0	55	6	9.0	88	2	2.1	0	.04	--	--	--
FEB. 02...	8.5	45	10	10.8	92	17	.3	0	.04	100	0	0
APR. 22...	21.5	65	10	7.0	79	16	1.1	0	.00	--	--	--
JUNE 23...	27.0	80	30	3.9	48	22	2.7	0	.04	220	0	0
AUG. 24...	28.0	95	15	5.0	63	25	.6	0	.17	--	--	--

[illegible]

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1630	25	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 02...	0940	91	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 23...	1450	.60	.00	<.2	.00	14	.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)
OCT. 20...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
FEB. 02...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JUNE 23...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
OCT. 20...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
FEB. 02...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JUNE 23...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
OCT. 20...	<.2	.0	<10	.00	<1.5	.00	<.2	.00	<.2
FEB. 02...	<.2	.0	<10	.00	<3.8	.00	<.6	.00	<.4
JUNE 23...	<.2	.0	<10	.00	<2.3	.00	<.6	.00	<.6

RED RIVER BASIN

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	149	188	202	---	257	---	310	205	214	295	299	185
2	151	208	201	232	247	219	305	208	218	266	306	105
3	160	171	195	232	228	202	310	213	223	270	405	110
4	165	152	199	221	223	194	300	219	227	270	188	131
5	170	149	211	247	267	193	281	221	228	274	137	140
6	176	143	214	226	244	192	283	228	231	274	119	144
7	177	143	214	236	225	200	---	---	235	278	125	143
8	183	149	223	213	227	216	290	---	240	277	140	146
9	189	---	226	207	230	214	293	236	246	277	193	151
10	202	148	223	204	259	202	294	224	---	---	138	153
11	---	153	219	196	291	190	308	178	256	---	133	157
12	205	152	---	196	---	185	300	205	261	---	161	161
13	206	199	210	198	224	188	286	202	267	---	165	161
14	202	168	207	202	224	206	263	207	270	---	168	162
15	194	152	203	207	221	238	259	---	273	---	169	164
16	178	120	201	217	220	245	263	217	268	---	172	166
17	158	157	199	221	325	280	330	271	270	---	174	168
18	184	156	195	222	240	266	343	263	272	271	180	174
19	128	203	175	223	212	268	309	201	275	267	183	163
20	187	166	210	222	204	271	281	182	270	271	---	130
21	185	---	290	---	182	273	247	182	266	265	---	109
22	218	157	201	228	187	---	259	185	265	267	190	100
23	310	162	183	232	196	296	369	190	269	257	196	121
24	376	168	168	295	228	339	235	194	263	249	200	128
25	350	171	207	---	212	324	237	198	268	221	203	---
26	290	185	---	287	198	334	244	202	268	264	155	119
27	232	175	211	252	189	340	236	---	263	272	158	109
28	99	191	217	253	179	---	242	210	267	282	165	106
29	89	196	215	265	---	311	209	213	267	287	169	112
30	96	202	212	264	---	278	208	207	265	279	173	119
31	---	---	208	260	---	292	---	215	---	269	175	---
MONTH	193	167	208	231	227	248	279	210	255	---	184	139

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.5	14.0	15.0	---	10.0	---	16.0	19.0	24.0	28.0	25.0	25.5
2	22.5	13.5	16.0	9.0	8.0	12.5	15.5	19.5	25.0	27.5	24.5	25.0
3	23.0	12.0	16.5	10.0	8.5	11.0	14.5	19.0	26.0	28.0	23.5	24.5
4	23.0	11.0	16.0	10.0	9.5	10.0	15.0	19.0	27.0	28.5	23.0	25.0
5	22.5	10.5	15.5	9.0	9.5	10.5	15.0	19.5	27.0	28.5	23.5	26.5
6	22.5	10.0	14.5	7.0	9.0	11.0	14.0	20.0	27.5	29.0	23.0	27.0
7	23.5	9.5	13.0	5.0	9.5	10.0	---	---	27.0	29.5	24.0	27.0
8	22.5	10.5	11.5	4.0	7.0	10.0	14.5	---	27.0	29.0	25.0	27.0
9	21.0	---	12.0	3.0	6.0	10.5	15.5	21.5	27.0	29.0	24.5	27.0
10	19.0	11.0	13.0	4.0	5.0	10.5	16.5	21.0	---	---	25.0	27.0
11	---	12.0	13.0	6.0	6.0	11.0	18.0	21.0	28.0	---	26.0	27.0
12	18.0	11.5	---	7.0	---	12.5	19.5	20.0	28.0	---	26.0	28.0
13	18.0	10.5	10.0	8.5	7.0	13.5	19.5	19.0	28.5	---	26.0	27.0
14	18.0	10.0	8.5	10.5	6.5	15.0	19.0	19.0	28.5	---	26.0	26.0
15	18.0	9.0	8.0	12.0	7.5	16.5	18.0	---	28.5	---	26.5	26.0
16	17.0	8.0	8.5	11.0	9.0	16.0	18.5	19.0	28.0	---	26.5	25.5
17	16.0	8.5	8.5	10.0	10.5	15.5	19.0	20.0	28.0	---	26.5	25.0
18	15.0	9.0	9.0	9.0	12.0	15.0	19.5	20.5	28.5	30.0	26.5	24.5
19	15.0	10.0	10.0	8.0	13.5	13.5	20.0	21.0	28.0	30.0	27.0	24.0
20	15.5	10.0	10.5	7.0	14.0	12.5	20.0	21.5	27.0	30.0	---	23.0
21	15.5	---	11.5	---	14.5	12.5	19.5	22.0	27.0	29.0	---	22.0
22	16.0	10.5	12.5	8.5	12.0	---	20.0	22.5	27.0	27.5	28.0	20.5
23	16.5	10.5	13.0	10.0	10.0	13.5	20.0	23.0	28.0	27.5	28.0	21.0
24	17.0	9.5	12.0	11.0	10.0	13.0	19.5	23.5	26.5	27.0	27.0	21.0
25	17.5	8.0	11.0	---	11.5	12.0	19.5	23.5	27.5	26.0	27.0	---
26	18.5	10.0	---	12.0	13.0	12.0	20.0	23.0	28.0	26.0	27.0	23.0
27	18.5	8.0	8.0	11.0	13.0	13.0	20.5	---	27.0	26.0	28.0	23.5
28	18.0	11.5	8.0	10.0	12.5	---	20.5	24.0	28.0	26.0	28.0	24.0
29	17.0	13.0	9.0	10.5	---	15.0	20.0	23.0	27.5	27.0	27.0	25.0
30	15.5	14.0	9.0	11.0	---	16.0	19.0	22.0	28.0	26.0	26.0	25.0
31	---	---	9.0	11.0	---	15.5	---	23.0	---	25.5	26.0	---
MONTH	18.5	10.5	11.5	9.0	10.0	13.0	18.0	21.0	27.5	---	26.0	25.0

RED RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE RED RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

07299670 GROESBECK CREEK NEAR QUANAH, TEX. (Lat 34°21'16", long 99°44'24")

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)
JULY 01...	1205	.67	M660	M120	370	144	0	1900

DATE	TIME	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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
JULY 01...	600		3700	2100	2000	3.5	5500	8.0

07299840 GREENBELT RESERVOIR NEAR CLARENDON, TEX. (Lat 35°00'02", long 100°53'40")

DATE	TIME	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)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
APR. 21...	1305	7.0	44	17	36	5.6	156	0	76	37	.6

DATE	TIME	DIS- SOLVED NITRATE (N) (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)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
APR. 21...		.30	70	302	180	52	1.2	511	7.9	14.0	0

07308200 PEASE RIVER NEAR VERNON, TEX. (Lat 34°10'44", long 99°16'40")

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)
JUNE 10...	1025	8.4	590	97	2100	66	0	1500

DATE	TIME	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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
JUNE 10...	3400		7750	1900	1800	21	12400	7.4

RED RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE RED RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

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

DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM
AUG., 1971							
17...	1715	736	25.5	5060	98	99	99
18...	1530	298	29.0	1470	98	99	99
26...	1035	2640	26.0	6840	99	99	99

DATE	TIME	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	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
AUG., 1971								
17...	100	57	69	82	90	97	10100	
18...	100	67	77	88	95	98	1180	
26...	100	62	73	85	94	98	48800	

07312600 LAKE WICHITA AT WICHITA FALLS, TEX. (Lat 33°50'38", long 98°32'20")

DATE	TIME	DIS-	TOTAL	TOTAL	DIS-	DIS-	DIS-	DIS-	DIS-	RICAR-	CAR-	DIS-
		SOLVED SILICA (SI02) (MG/L)	IRON (FE) (UG/L)	MAN- GANESE (MN) (UG/L)	SOLVED CAL- CIUM (CA) (MG/L)	SOLVED MAG- NE- SIUM (MG) (MG/L)	SOLVED SODIUM (NA) (MG/L)	SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	SOLVED PO- TAS- SIUM (K) (MG/L)			
JULY 05...	1515	5.6	640	300	220	120	--	840	--	104	0	580
SEP. 22...	1900	6.0	--	--	85	26	310	--	9.5	70	0	230

DATE	DIS-	DIS-	NITRATE (N) (MG/L)	DIS-	DIS-	HARD- NESS (CA,MG) (MG/L)	NON-	SODIUM	SPECI-	PH	TEMP- ERATURE (DEG C)
	SOLVED CHLO- RIDE (CL) (MG/L)	SOLVED FLUO- RIDE (F) (MG/L)		SOLVED BORON (B) (UG/L)	SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)		CAR- BONATE HARD- NESS (MG/L)	AD- SORP- TION RATIO	FIC COND- UCTANCE (MICRO- MHOS)		
JULY 05...	1500	--	.10	--	3350	1000	960	11	5880	7.7	28.0
SEP. 22...	500	.3	.90	270	1210	320	260	7.5	2070	6.6	22.0

07314000 LAKE KICKAPOO NEAR ARCHER CITY, TEX. (Lat 33°39'47", long 98°46'43")

DATE	TIME	DIS-	TOTAL	TOTAL	DIS-	DIS-	DIS-	DIS-	DIS-	BICAR-	CAR-	DIS-
		SOLVED SILICA (SI02) (MG/L)	IRON (FE) (UG/L)	MAN- GANESE (MN) (UG/L)	SOLVED CAL- CIUM (CA) (MG/L)	SOLVED MAG- NE- SIUM (MG) (MG/L)	SOLVED SODIUM (NA) (MG/L)	SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	SOLVED PO- TAS- SIUM (K) (MG/L)	BONATE (HC03) (MG/L)	BONATE (C03) (MG/L)	SOLVED SULFATE (S04) (MG/L)
JULY 04...	2100	5.0	40	20	46	14	--	85	--	202	0	15
SEP. 19...	1700	8.6	--	--	32	10	53	--	6.6	150	0	18

DATE	DIS-	DIS-	DIS-	DIS-	DIS-	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
	SOLVED CHLO- RIDE (CL) (MG/L)	SOLVED FLUO- RIDE (F) (MG/L)	SOLVED NITRATE (N) (MG/L)	SOLVED BORON (B) (UG/L)	SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)						
JULY 04...	124	.4	.00	--	388	170	6	2.8	720	8.1	25.5
SEP. 19...	74	.3	.30	110	278	120	0	2.1	501	7.6	21.0

RED RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE RED RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

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

DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM
AUG.. 1971							
17...	1215	985	26.0	838	98	100	--
26...	1350	361	26.0	229	99	99	100

DATE	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	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
AUG.. 1971						
17...	91	93	95	97	98	2230
26...	71	78	82	86	87	223

07314800 LAKE ARROWHEAD NEAR HENRIETTA, TEX. (Lat 33°45'51", long 98°22'70")

DATE	TIME	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 (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
JULY 05...	1500	1.6	110	20	52	18	100	19	0	12

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
JULY 05...	180	.3	.20	458	200	42	3.0	888	8.2	26.5

07315600 FARMERS CREEK LAKE NEAR NOCONA, TEX. (Lat 33°52'57", long 97°39'09")

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)
AUG. 03...	1300	5.6	53	17	56	8.1	154	0	44	110

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (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)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
AUG. 03...	.4	.40	95	373	200	76	1.7	696	7.4

RED RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE RED RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

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

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)
APR. 20...	1715	5.0	310	40	55	4.3	18	180	0	16

DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
APR. 20...	20		.2	.40	209	160	8	.6	365	7.9	18.0

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

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)
APR. 21...	1645	1.2	40	20	24	2.7	8.3	80	0	14

DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
APR. 21...	5.5		.1	.30	96	71	5	.4	177	7.5	19.5

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

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)
APR. 22...	1200	2.8	370	20	32	3.2	19	94	0	31

DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
APR. 22...	16		.2	.50	163	93	16	.9	278	7.4	19.0

RED RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE RED RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

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

DATE	TIME	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 (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
APR. 22...	1330	2.7	130	40	29	5.8	15	37	0	52

DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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 COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
APR. 22...	27		.4	1.3	180	96	66	.7	288	7.1	21.0

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

DATE	TIME	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 (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
APR. 22...	1410	11	20	20	6.0	4.6	15	23	0	24

DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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 COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
APR. 22...	15		.1	.20	88	34	15	1.1	149	6.9	18.0

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 1971.

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

WATER QUALITY DATA. WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 20...	1100	1580	2.2	27	3.1	13	105	0
DEC. 10...	1050	25	.0	29	3.8	18	116	0
FEB. 01...	1415	276	.0	28	3.4	12	108	0
APR. 22...	1900	4.4	1.2	39	4.5	20	136	0
JUNE 22...	1430	.51	4.7	32	5.9	15	132	0
AUG. 24...	1040	20	8.5	13	2.8	6.9	56	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED 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. 20...	13	5.6	.2	.000	.00	.10	.040	116	80
DEC. 10...	18	9.4	.2	.000	.02	.00	.000	135	88
FEB. 01...	13	4.6	.2	.000	.04	.00	.020	114	84
APR. 22...	28	13	.2	.000	.07	.30	.070	174	120
JUNE 22...	12	10	.3	.000	.00	.20	.18	146	100
AUG. 24...	7.2	3.0	.2	.010	.02	.20	.13	71	44

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH	TEMP- ERATURE (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. 20...	0	.6	204	7.6	17.5	8.4	88	2.8	--
DEC. 10...	0	.8	230	7.1	15.0	8.8	86	2.6	--
FEB. 01...	0	.6	205	7.9	9.5	11.1	97	.9	--
APR. 22...	5	.8	306	7.3	23.0	7.8	90	4.5	--
JUNE 22...	0	.6	266	7.5	28.0	6.9	87	5.5	--
AUG. 24...	0	.5	121	7.1	27.5	4.4	55	1.6	.02

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 1971.

Water temperatures: February 1968 to September 1971.

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 20,500 mg/l May 28-29; minimum, 287 mg/l Oct. 29.

Hardness: Maximum, 620 mg/l May 28-29; minimum, 43 mg/l Oct. 29.

Specific conductance: Maximum daily, 47,300 micromhos July 2, 15; minimum daily, 632 micromhos Oct. 29.

Water temperatures: Maximum, 32.0°C July 14, Aug. 21; minimum, 3.0°C Jan. 7, 8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	.40	4.1	120	16	5600	--	12	83	0	300
07...	.00	--	--	--	--	--	--	--	--	--
08-11	.36	4.1	120	16	5600	--	12	83	0	300
12-26	4.3	8.6	60	11	--	2200	--	39	0	150
27...	450	7.3	19	4.8	--	550	--	26	0	44
28...	450	9.1	16	5.3	--	220	--	22	0	43
29...	160	7.4	12	3.2	--	91	--	37	0	18
30-31	40	9.1	16	5.3	--	220	--	22	0	43
NOV.										
01-04	6.8	12	19	7.2	--	110	--	18	0	66
05-12	3.9	16	36	12	--	260	--	30	0	120
13-16	13	20	46	16	--	64	--	34	0	160
17-26	5.2	4.0	34	13	--	230	--	24	0	140
27...	3.9	19	60	19	--	1600	--	36	0	180
28-30	4.7	20	46	16	--	640	--	34	0	160
DEC.										
01-02	4.9	21	40	16	--	360	--	38	0	140
03-14	4.0	9.5	46	17	--	650	--	41	0	140
15-19	4.5	9.0	58	19	--	1500	--	36	0	190
20-21	4.9	9.5	46	17	--	650	--	41	0	140
22-26	5.5	9.0	58	19	--	1500	--	36	0	190
27-30	4.8	9.5	46	17	--	650	--	41	0	140
31...	7.8	3.5	140	28	--	4600	--	30	0	380
JAN.										
01...	7.8	20	80	22	2400	--	9.4	31	0	250
02...	6.8	20	58	22	--	1300	--	32	0	200
03-14	4.4	22	45	17	--	530	--	28	0	170
15-16	4.9	20	58	22	--	1300	--	32	0	200
17-25	5.2	20	51	20	--	770	--	33	0	190
26-31	5.7	20	51	20	--	770	--	33	0	190
FEB.										
01-11	6.0	17	52	21	--	780	--	30	0	190
12-13	24	14	82	26	--	2200	--	26	0	260
14-23	11	17	52	21	--	780	--	30	0	190
24...	13	16	46	20	--	270	--	24	0	180
25-28	20	17	52	21	--	780	--	30	0	190
MAR.										
01-02	10	16	60	25	--	550	--	32	0	230
03...	19	13	89	29	--	2000	--	43	0	280
04-17	7.0	16	60	25	--	550	--	32	0	230
18-31	4.0	14	69	28	--	940	--	47	0	240
APR.										
01-06	2.7	14	57	26	350	--	6.5	64	0	230
07-18	2.3	15	64	27	--	610	--	67	0	240
19...	6.0	14	160	35	--	4800	--	48	0	450
20-25	6.1	14	87	28	--	1900	--	59	0	290
26-30	2.3	15	64	27	--	610	--	67	0	240
MAY										
01-04	1.5	18	66	32	--	700	--	90	0	220
05-09	1.2	10	86	34	--	1700	--	108	0	260
10...	11	18	66	32	--	700	--	90	0	220
11-16	2.3	14	140	4.4	--	3400	--	52	0	720
17-27	1.3	10	86	34	--	1700	--	108	0	260
28-29	3.2	7.9	240	8.1	--	7690	--	25	0	510
30-31	1.2	14	140	4.4	--	3400	--	52	0	720
JUNE										
01-30	.44	3.1	140	26	--	4300	--	78	0	310

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

EXTREMES, February 1968 to September 1971.--Dissolved solids: Maximum, 20,500 mg/l Aug. 23-31, 1970; minimum, 141 mg/l Mar. 18-20, 24-25, 1969.

Hardness: Maximum, 664 mg/l July 27-31, 1970; minimum, 40 mg/l May 10-13, 1968.

Specific conductance: Maximum daily, 50,200 micromhos Aug. 23, 1970; minimum daily, 140 micromhos May 7, 1969.

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 1970 TO SEPTEMBER 1971

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	8600	--	--	14700	380	310	128	24100	7.1
07...	--	--	--	--	--	--	--	--	--
08-11	8600	--	--	14700	380	310	127	24100	7.1
12-26	3400	--	--	5930	190	160	--	10500	6.9
27...	840	.2	1.0	1480	67	46	29	2740	6.9
28...	340	--	.9	650	62	44	12	1240	6.6
29...	130	--	.8	287	43	13	6.0	549	7.0
30-31	340	--	.9	650	62	44	12	1240	6.6
NOV.									
01-04	160	--	.2	384	77	62	5.5	693	6.9
05-12	400	--	.5	861	140	120	9.6	1570	6.8
13-16	980	--	.6	1880	180	150	2.1	3360	6.9
17-26	340	.1	.4	775	140	120	8.5	1360	6.7
27...	2400	--	--	4300	230	200	46	7550	7.0
28-30	980	--	.6	1880	180	150	21	3360	6.9
DEC.									
01-02	540	.2	.6	1140	170	140	12	2080	6.7
03-14	1000	--	.8	1890	190	150	21	3400	6.6
15-19	2200	--	--	3990	220	190	--	7260	6.5
20-21	1000	--	.8	1890	190	150	21	3400	6.6
22-26	2200	--	--	3990	220	190	44	7260	6.5
27-30	1000	--	.8	1890	190	150	21	3400	6.6
31...	7200	--	--	12400	460	440	93	20700	6.2
JAN.									
01...	3800	--	--	6620	290	260	61	11600	6.6
02...	2000	--	1.0	3540	240	210	37	6300	6.6
03-14	800	.2	.8	1590	180	160	17	2840	6.8
15-16	2000	--	1.0	3540	240	210	37	6300	6.6
17-25	1200	--	.9	2260	210	180	23	3990	6.6
26-31	1200	--	.9	2260	210	180	--	3990	6.6
FEB.									
01-11	1200	--	1.0	2270	220	190	23	4060	7.0
12-13	3400	--	--	6000	310	290	54	10700	6.8
14-23	1200	--	1.0	2270	220	190	--	4060	7.0
24...	400	--	.8	952	200	180	8.4	1690	7.0
25-28	1200	--	1.0	2270	220	190	23	4060	7.0
MAR.									
01-02	840	--	.6	1740	250	230	15	3040	6.9
03...	3200	--	--	5610	340	310	47	9760	6.9
04-17	840	--	.6	1740	250	230	15	3040	6.9
18-31	1400	--	.5	2760	290	250	24	4800	7.0
APR.									
01-06	510	.2	.8	1220	250	200	9.6	2150	7.5
07-18	920	--	.7	1910	270	220	16	3430	7.3
19...	7400	--	--	12900	540	500	90	20900	6.8
20-25	3000	--	--	5360	330	280	45	9590	7.5
26-30	920	--	.7	1910	270	220	16	3430	7.3
MAY									
01-04	1100	--	.2	2150	300	220	18	3950	7.1
05-09	2600	--	.2	4660	350	270	39	8470	7.2
10...	1100	--	.2	2150	300	220	18	3950	7.1
11-16	5000	--	4.3	9300	380	340	77	15000	6.6
17-27	2600	--	.2	4660	350	270	--	8470	7.2
28-29	12000	--	4.8	20500	620	600	91	34900	6.3
30-31	5000	--	4.3	9300	380	340	77	15000	6.6
JUNE									
01-30	6700	--	--	11500	440	380	88	19100	6.5

SABINE RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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)
JULY										
01...	2.6	6.3	110	18	--	4500.	--	105	0	270
02-15	.25	6.0	280	4.0	11000	--	5.5	90	0	240
16-23	.00	--	--	--	--	--	--	--	--	--
24...	9.2	6.3	110	18	--	4500	--	105	0	270
25...	47	6.3	110	18	--	4500	--	105	0	270
26...	77	6.5	33	8.0	--	1200	--	18	0	85
27-30	136	8.8	16	6.1	--	390	--	21	0	51
31...	30	11	14	6.3	--	150	--	24	0	54
AUG.										
01-02	15	--	19	5.5	--	--	--	23	--	--
03-05	2.4	13	47	13	--	700	--	45	0	120
06...	35	--	24	5.8	--	300	--	32	0	58
07-10	3.2	13	47	13	--	700	--	45	0	120
11-23	.31	9.2	67	21	--	800	--	94	0	180
24-31	.21	5.2	140	34	--	2400	--	110	0	270
SEP.										
01-24	.11	7.5	100	34	--	2300	--	60	0	250
25...	5.9	8.2	33	9.1	--	910	--	130	0	85
26-30	.84	4.9	170	21	--	4600	--	74	0	360
WTD. AVG.	--	10	36	11	--	--	--	31	0	111
TIME WTD.	8.7	11	85	21	--	--	--	56	0	227
TOT. LOAD (TONS)	--	83	291	91	--	--	--	256	0	892

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	22200	693	1970	13400	6050	2370	2170	4090	21100	16300	669	13900
2	22400	836	2330	7270	4220	2410	3870	3670	11600	47300	---	13700
3	23000	865	3220	3060	3280	11900	3670	3450	16600	46100	2670	13200
4	23800	941	2880	2680	4360	4510	2520	4790	13100	46100	4140	12900
5	24100	1340	2860	9500	16000	2360	1950	8710	14800	42100	3860	12500
6	24400	1310	3320	5100	10000	2210	1870	11100	12300	43900	1660	12600
7	---	1220	1990	2940	3250	2900	3020	11600	11400	45000	3030	12500
8	24900	1530	3270	2860	3370	3970	3260	9680	11700	44600	3460	11900
9	25400	1760	2940	2780	3540	3530	3070	9170	10300	44400	3680	11700
10	29300	1530	3370	2600	5400	2300	2270	3510	10000	44600	3820	11300
11	28100	1650	4470	3480	4440	3820	---	17700	10000	45700	4090	11100
12	15300	2190	4450	4030	11400	4900	3490	12600	9860	46200	4340	10800
13	8860	3690	4040	3190	9580	4450	3920	17300	4910	46800	4320	10600
14	9420	12400	3550	2990	5040	3970	3830	15100	9540	47200	4300	10400
15	---	3850	8260	6390	3100	3300	4280	10700	9210	47300	4440	10300
16	---	2660	7620	7320	2450	2800	4200	9630	6600	---	4430	10000
17	---	1390	20700	4470	3000	3770	3610	8860	28100	---	4460	9950
18	---	1270	10000	4910	2570	4890	2600	9090	27400	---	4360	9860
19	---	1200	5110	3850	2680	4150	24000	9050	27300	---	3930	9950
20	---	1330	3390	6020	8010	4590	9720	8680	27300	---	3100	9770
21	---	1990	3560	3270	2910	---	7090	8010	27400	---	3060	9720
22	---	1360	7780	5840	10400	4650	14800	7530	27200	---	3450	9630
23	---	1190	8880	5430	3110	5390	3990	7390	27400	---	4710	10000
24	7880	1740	8190	3560	1690	6300	17200	6770	27400	45700	6170	12600
25	22400	2230	5090	3970	2030	5830	6300	5630	27600	22400	8630	4330
26	17700	1330	4820	12000	8850	4200	3840	5010	27700	5810	11100	26100
27	3330	7550	3420	7690	3860	4090	2860	4070	28200	1550	12900	20600
28	1200	4480	2630	4620	2410	7490	2940	40600	28300	2150	13800	20000
29	632	3260	2970	3910	---	5800	2510	27500	28000	1260	14100	18800
30	1540	2310	3650	4550	---	4010	2760	19100	24600	1210	14100	19100
31	1000	---	20500	5660	---	2780	---	18700	---	857	14000	---
MONTH	---	2370	5520	5140	5250	4320	5230	10930	18900	---	5830	12660

SABINE RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
JULY									
01...	6900	--	--	11900	340	250	105	19500	7.1
02-15	17000	--	--	28600	72	640	179	46900	7.0
16-23	--	--	--	--	--	--	--	--	--
24...	6900	--	--	11900	340	250	--	19500	7.1
25...	6900	--	--	11900	340	250	105	19500	7.1
26...	1800	--	2.3	3080	120	100	46	5810	6.7
27-30	460	.2	.9	850	65	48	16	1550	6.5
31...	220	--	.9	464	61	42	8.2	857	6.9
AUG.									
01-02	150	--	.5	--	70	51	--	669	7.0
03-05	1100	.1	1.4	2000	170	130	23	3520	7.4
06...	460	--	1.2	871	84	58	14	1660	7.0
07-10	1100	.1	1.4	2000	170	130	23	3520	7.4
11-23	1200	.2	.5	2340	250	180	22	4080	7.8
24-31	3800	.2	--	6720	490	400	47	11900	7.7
SEP.									
01-24	3600	.3	--	6320	400	350	51	11300	8.1
25...	1400	.2	1.0	2470	120	14	36	4330	7.9
26-30	7200	.2	--	12300	510	450	89	21000	7.2
WTD. AVG.	1140	--	--	2080	135	109	23	3650	6.8
TIME WTD.									
AVG.	3220	--	--	5710	271	252	47	9700	7.0
TOT. LOAD (TONS)	9240	--	--	16700	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	14.0	17.0	10.0	9.0	14.0	18.0	25.0	25.0	28.0	24.0	25.0
2	21.0	15.0	16.0	10.0	8.0	14.0	15.0	27.0	25.0	29.0	---	26.0
3	19.0	12.0	19.0	14.0	8.0	9.0	14.0	22.0	26.0	28.0	25.0	26.0
4	22.0	10.0	16.0	9.0	11.0	7.0	18.0	23.0	26.0	28.0	24.0	30.0
5	25.0	13.0	15.0	5.0	9.0	9.0	16.0	22.0	28.0	29.0	26.0	30.0
6	25.0	11.0	14.0	4.0	8.0	13.0	16.0	23.0	30.0	29.0	25.0	28.0
7	---	10.0	12.0	3.0	8.0	10.0	20.0	23.0	30.0	30.0	28.0	28.0
8	23.0	15.0	12.0	3.0	5.0	9.0	15.0	27.0	28.0	30.0	30.0	28.0
9	19.0	15.0	11.0	4.0	4.0	12.0	16.0	24.0	30.0	30.0	26.0	27.0
10	15.0	15.0	16.0	7.0	5.0	12.0	23.0	22.0	30.0	29.0	28.0	27.0
11	16.0	11.0	14.0	6.0	8.0	11.0	---	26.0	28.0	29.0	27.0	27.0
12	16.0	8.0	10.0	8.0	11.0	15.0	20.0	20.0	28.0	30.0	29.0	25.0
13	19.0	10.0	10.0	12.0	9.0	17.0	20.0	20.0	28.0	30.0	28.0	26.0
14	18.0	11.0	10.0	15.0	7.0	19.0	18.0	18.0	30.0	32.0	26.0	25.0
15	---	9.0	9.0	11.0	12.0	19.0	20.0	26.0	28.0	30.0	31.0	25.0
16	---	7.0	10.0	8.0	14.0	17.0	19.0	21.0	25.0	29.0	27.0	28.0
17	---	9.0	9.0	8.0	16.0	15.0	21.0	25.0	26.0	30.0	26.0	25.0
18	---	10.0	10.0	10.0	16.0	15.0	21.0	22.0	27.0	29.0	26.0	25.0
19	---	14.0	13.0	6.0	16.0	12.0	22.0	23.0	27.0	29.0	25.0	27.0
20	---	10.0	12.0	7.0	19.0	12.0	20.0	24.0	27.0	28.0	31.0	20.0
21	---	15.0	13.0	10.0	15.0	---	23.0	26.0	27.0	27.0	32.0	20.0
22	---	14.0	15.0	11.0	9.0	19.0	22.0	21.0	28.0	27.0	28.0	21.0
23	---	10.0	14.0	12.0	9.0	19.0	23.0	25.0	29.0	28.0	28.0	21.0
24	18.0	7.0	8.0	11.0	10.0	15.0	23.0	28.0	29.0	27.0	27.0	21.0
25	18.0	7.0	9.0	15.0	12.0	13.0	19.0	24.0	28.0	25.0	27.0	23.0
26	21.0	19.0	5.0	10.0	14.0	12.0	23.0	24.0	28.0	25.0	27.0	26.0
27	20.0	15.0	6.0	11.0	13.0	13.0	26.0	24.0	28.0	24.0	27.0	25.0
28	16.0	16.0	9.0	8.0	13.0	17.0	24.0	25.0	28.0	25.0	27.0	26.0
29	17.0	16.0	11.0	10.0	---	21.0	21.0	23.0	27.0	26.0	27.0	30.0
30	14.0	16.0	11.0	12.0	---	17.0	20.0	20.0	28.0	24.0	25.0	25.0
31	16.0	---	10.0	10.0	---	16.0	---	24.0	---	25.0	25.0	---
MONTH	---	12.0	12.0	9.0	10.5	14.0	20.0	23.5	27.5	28.0	27.0	25.5

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 1971.

Water temperatures: October 1967 to September 1971.

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 5,060 mg/l June 3-4; minimum, 84 mg/l Aug. 1-4.

Hardness: Maximum, 360 mg/l June 3-4; minimum, 32 mg/l Sept. 25-30.

Specific conductance: Maximum daily, 11,400 micromhos June 3; minimum daily, 120 micromhos Oct. 15.

Water temperatures: Maximum, 28.5°C July 6, 7; minimum, 4.5°C Jan. 8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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 SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM POTAS- SIUM (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	RICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
01-12	44	4.2	21	3.4	34	--	3.7	74	0	18
13...	176	3.4	23	3.7	--	96	--	68	0	24
14...	397	4.2	21	3.4	34	--	3.7	74	0	18
15-27	1570	2.7	22	2.9	--	14	--	78	0	14
28-29	1960	3.1	20	3.1	--	74	--	62	0	18
30-31	2120	2.7	22	2.9	--	14	--	78	0	14
NOV.										
01-14	702	4.2	24	3.0	--	14	--	79	0	15
15...	327	7.3	28	4.6	--	130	--	70	0	33
16-28	218	6.1	27	4.0	--	26	--	80	0	25
29-30	44	4.2	27	4.6	--	59	--	71	0	29
DEC.										
01-13	33	12	30	6.2	--	81	--	66	0	44
14...	135	12	35	7.9	--	180	--	74	0	59
15-18	71	7.8	26	4.7	--	39	--	78	0	30
19...	102	9.5	61	12	--	930	--	71	0	110
20-24	65	12	30	6.2	--	81	--	66	0	44
25-26	64	12	35	7.9	--	180	--	74	0	59
27-31	77	7.8	26	4.7	--	39	--	78	0	30
JAN.										
01...	54	4.4	27	4.4	44	--	3.5	82	0	27
02...	124	12	34	8.8	--	180	--	58	0	69
03-06	117	11	34	7.7	--	110	--	68	0	61
07-10	159	4.4	27	4.4	44	--	3.5	82	0	27
11-31	256	2.3	28	3.6	--	25	--	91	0	20
FEB.										
01-05	264	3.5	27	4.2	--	3.2	--	78	0	27
06-07	241	6.1	32	6.5	--	110	--	72	0	51
08-12	295	3.5	27	4.2	--	3.2	--	78	0	27
13-21	187	8.0	27	5.9	--	55	--	54	0	47
22...	126	8.6	37	9.4	--	240	--	50	0	79
23...	228	6.1	32	6.5	--	110	--	72	0	51
24-26	331	3.5	27	4.2	--	3.2	--	78	0	27
27...	350	8.6	37	9.8	--	240	--	50	0	79
28...	380	8.0	27	5.9	--	55	--	54	0	47
MAR.										
01-03	345	43	29	5.7	--	41	--	76	0	41
04...	400	8.8	35	9.0	--	120	--	66	0	71
05-09	316	43	29	5.7	--	41	--	76	0	41
10-15	137	6.2	30	6.4	--	65	--	76	0	48
16-21	39	8.8	35	9.0	--	120	--	66	0	71
22-31	36	9.9	40	10	--	150	--	72	0	83
APR.										
01-04	23	11	43	12	180	--	4.8	70	0	94
09-21	21	10	42	11	--	95	--	79	0	89
22...	36	11	43	12	180	--	4.8	70	0	94
23...	43	13	72	18	--	1000	--	48	0	140
24-25	70	9.8	60	16	--	540	--	78	0	120
26-30	55	10	28	7.2	--	66	--	62	0	55
MAY										
01-10	17	13	27	7.3	--	80	--	60	0	50
11...	556	6.7	12	3.2	--	21	--	28	0	21
12...	1060	7.0	16	4.0	--	37	--	30	0	34
13...	1220	6.7	12	3.2	--	21	--	28	0	21
14...	854	7.0	16	4.0	--	37	--	30	0	34
15-17	142	10	20	5.2	--	70	--	43	0	38
18-31	18	13	27	7.3	--	80	--	60	0	50
JUNE										
01-02	21	12	38	9.7	--	130	--	68	0	72
03-04	18	8.4	110	23	--	1800	--	60	0	170
05-21	5.1	12	48	12	--	440	--	95	0	87
22-30	.71	15	40	11	--	300	--	128	0	78

SABINE RIVER BASIN

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08018500 SABINE RIVER NEAR MINEOLA, TEX.--Continued

EXTREMES, October 1967 to September 1971.--Dissolved solids: Maximum, 5,410 mg/l Nov. 8, 1968; minimum, 68 mg/l May 8-11, 1969.

Hardness: Maximum, 360 mg/l June 3-4, 1971; minimum, 28 mg/l Nov. 1-5, 1967, Nov. 2-4, 18-19, 1969, Jan. 1-5, 1970.

Specific conductance: Maximum daily, 11,400 micromhos June 3, 1971; minimum daily, 80 micromhos Oct. 19, 1967.

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 1970 TO SEPTEMBER 1971

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.									
01-12	43	.2	.7	167	66	6	1.8	310	7.1
13...	140	--	.6	326	73	17	4.9	622	7.3
14...	43	.2	.7	167	66	6	1.8	310	7.1
15-27	13	--	.4	108	67	3	.7	204	7.1
28-29	100	--	2.1	258	63	12	4.1	484	7.1
30-31	13	--	.4	108	67	3	.7	204	7.1
NOV.									
01-14	14	--	.8	117	72	8	.7	212	7.4
15...	190	--	1.1	432	89	32	6.0	804	7.5
16-28	32	.1	.7	162	84	18	1.2	290	7.4
29-30	88	--	.8	254	86	28	2.8	473	7.5
DEC.									
01-13	120	.3	1.1	330	100	46	3.5	618	6.9
14...	270	--	.7	603	120	60	7.2	1120	7.3
15-18	50	--	.8	199	84	20	1.8	366	7.2
19...	1500	--	.8	2660	200	140	29	4730	7.1
20-24	120	.3	1.1	330	100	46	3.5	618	6.9
25-26	270	--	.7	603	120	60	7.2	1120	7.3
27-31	50	--	.8	199	84	20	1.8	366	7.2
JAN.									
01...	60	.2	.6	213	85	18	2.1	400	7.4
02...	280	--	.5	613	120	74	7.1	1200	7.5
03-06	170	--	.9	430	120	61	4.4	802	7.2
07-10	60	.2	.6	213	85	18	2.1	400	7.4
11-31	30	--	.6	157	85	10	1.2	292	7.4
FEB.									
01-05	41	.2	.9	177	85	21	.2	315	7.2
06-07	160	--	.6	399	110	48	4.6	749	7.2
08-12	41	.2	.9	177	85	21	.2	315	7.2
13-21	41	--	1.1	256	92	47	2.5	468	6.8
22...	380	--	1.4	782	130	42	9.1	1450	--
23...	160	--	.6	399	110	48	4.6	749	7.2
24-26	41	.2	.9	177	85	21	.2	315	7.2
27...	380	--	1.4	782	130	92	9.1	1450	7.0
28...	81	--	1.1	256	92	47	2.5	468	6.8
MAR.									
01-03	51	.2	1.8	217	96	34	1.8	371	7.1
04...	180	--	1.0	468	120	70	4.7	853	7.0
05-09	51	.2	1.8	217	96	34	1.8	371	7.1
10-15	91	--	.8	287	100	39	2.8	525	7.2
16-21	180	--	1.0	468	120	70	4.7	853	7.0
22-31	230	--	1.2	562	140	82	5.5	1010	7.1
APR.									
01-08	280	.2	.7	654	160	100	6.3	1200	7.2
09-21	140	--	.9	430	150	86	3.4	772	7.3
22...	280	.2	.7	654	160	100	6.3	1200	7.2
23...	1600	--	3.9	2890	250	210	27	5140	7.1
24-25	850	--	.5	1630	220	150	16	2910	7.4
26-30	95	--	1.8	301	99	49	3.0	540	7.2
MAY									
01-10	120	.2	1.2	331	98	48	3.5	599	6.8
11...	28	--	1.2	111	43	20	1.4	195	6.7
12...	52	--	1.1	170	56	32	2.1	303	6.7
13...	28	--	1.2	111	43	20	1.4	195	6.7
14...	52	--	1.1	170	56	32	2.1	303	6.7
15-17	100	--	1.0	272	71	36	3.6	496	6.6
18-31	120	.2	1.2	331	98	48	3.5	599	6.8
JUNE									
01-02	200	.1	.4	504	140	80	4.9	930	7.2
03-04	2900	--	--	5060	360	320	41	9000	7.2
05-21	670	--	2.0	1320	170	92	15	2430	7.0
22-30	420	--	3.5	939	140	40	11	1690	7.1

SABINE RIVER BASIN

08018500 SABINE RIVER NEAR MINEOLA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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)
JULY										
01-24	.49	17	36	9.9	240	--	9.3	152	0	75
25...	25	12	14	4.0	--	130	--	65	0	42
26...	141	7.0	78	18	--	1100	--	35	0	140
27...	236	9.8	20	4.8	--	420	--	12	0	51
28...	390	12	14	4.0	--	130	--	65	0	42
29-31	1020	7.5	9.2	2.8	--	45	--	22	0	21
AUG.										
01-04	1620	9.2	10	2.6	--	14	--	27	0	14
05-06	204	12	18	4.8	--	41	--	42	0	33
07-16	30	14	28	7.8	--	120	--	46	0	62
17-23	35	12	18	4.8	--	41	--	42	0	33
24-31	1.3	13	22	6.2	--	74	--	65	0	40
SEPT.										
01-14	.31	17	22	6.2	--	84	--	88	0	39
15-22	.00	--	--	--	--	--	--	--	--	--
23...	9.6	17	22	6.2	--	84	--	88	0	39
24...	20	16	14	4.2	--	41	--	30	0	32
25-30	234	8.1	8.8	2.4	--	29	--	24	0	16
WTD. AVG.	--	6.3	22	3.8	--	--	--	66	0	23
TIME WTD.										
AVG.	222	10	30	6.7	--	--	--	77	0	48
TOT. LOAD (TONS)	--	1370	4870	820	--	--	--	14500	0	5100

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	235	188	607	460	322	405	1110	507	836	1980	152	629
2	237	202	608	1200	346	379	991	524	1010	1900	121	400
3	267	235	638	809	315	343	1590	547	11400	1750	124	528
4	297	219	684	482	271	949	1550	614	6540	1760	189	453
5	324	214	663	581	307	432	1220	597	3500	1790	246	454
6	318	212	628	798	646	436	1050	605	3480	1840	361	487
7	326	212	661	356	887	392	1070	639	2990	1720	839	501
8	335	238	723	406	302	324	1020	652	2760	1720	839	523
9	318	248	1050	361	302	314	809	698	2530	1600	767	539
10	366	265	902	397	286	457	798	718	2370	1530	744	564
11	389	286	485	270	281	545	819	163	2300	1470	706	577
12	263	224	561	273	332	311	973	313	2170	1430	767	580
13	622	248	597	303	817	471	846	225	2190	1390	799	581
14	339	224	1190	304	613	511	729	293	2150	1330	827	581
15	120	804	377	277	378	639	679	495	2170	1290	816	603
16	187	420	333	303	412	712	641	495	2110	1240	816	633
17	192	257	425	360	438	879	611	496	2020	1240	376	688
18	201	304	657	350	494	934	548	521	2170	1240	223	688
19	202	314	4730	288	539	812	673	533	2150	1200	292	696
20	205	332	821	301	491	748	742	548	2060	1150	385	694
21	209	371	650	271	620	941	855	579	2000	1390	378	702
22	209	351	655	280	1630	1320	1130	598	1970	1100	374	700
23	209	392	755	329	897	1120	5140	597	1860	1060	419	696
24	206	354	591	329	375	953	2940	580	1770	983	461	326
25	209	363	1370	297	330	915	2910	597	1730	680	474	216
26	255	214	1380	348	339	770	709	621	1680	5790	499	164
27	217	261	508	371	1270	836	566	633	1630	2220	529	271
28	483	282	645	402	525	918	491	487	1590	812	571	153
29	483	403	374	345	---	1000	519	660	1440	336	569	212
30	270	593	354	277	---	1200	510	639	1570	309	588	279
31	178	---	390	289	---	1080	---	676	---	268	596	---
MONTH	280	308	807	401	527	711	1140	544	2540	1470	511	504

SABINE RIVER BASIN

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08018500 SABINE RIVER NEAR MINEOLA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
JULY									
01-24	310	.3	5.6	796	130	6	9.1	1450	7.7
25...	150	--	6.6	412	52	0	7.8	742	7.5
26...	1800	--	1.1	3230	270	240	30	5790	6.9
27...	660	--	1.8	1180	70	60	22	2220	6.5
28...	150	--	6.6	412	52	0	7.8	742	7.5
29-31	63	--	.8	163	34	16	3.4	304	6.8
AUG.									
01-04	19	.1	.5	84	36	14	1.0	146	6.8
05-06	58	--	.8	191	65	30	2.2	338	7.0
07-16	180	--	.6	436	100	64	5.1	791	7.0
17-23	58	--	.8	191	65	30	2.2	338	7.0
24-31	100	--	1.7	295	80	27	3.6	535	7.2
SEP.									
01-14	100	.2	2.4	322	80	8	4.1	590	7.5
15-22	--	--	--	--	--	--	--	--	--
23...	100	.2	2.4	322	80	8	--	590	7.5
24...	56	--	1.4	184	52	28	2.5	326	6.8
25-30	40	--	.7	119	32	12	2.2	217	6.7
WTD. AVG.	54	--	.8	185	71	17	1.8	339	7.1
TIME WTD.									
AVG.	180	--	1.5	443	102	39	4.6	806	7.2
TOT. LOAD (TONS)	11800	--	176	40300	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	16.0	16.5	9.0	10.5	13.0	18.5	21.0	23.5	26.0	23.5	24.0
2	20.0	14.0	17.0	11.0	9.5	13.5	14.5	19.5	24.5	27.0	23.5	24.0
3	22.0	14.5	18.5	13.0	8.5	10.5	14.5	20.0	24.5	26.5	24.0	24.5
4	21.5	13.0	16.0	11.5	12.0	8.5	14.0	21.5	24.5	27.0	24.5	25.5
5	22.0	12.0	16.0	8.0	12.0	8.5	14.5	21.5	24.5	27.0	24.0	26.0
6	21.5	12.0	15.0	7.0	20.5	11.0	14.5	22.0	21.0	28.5	24.0	26.0
7	23.5	13.0	12.0	6.0	9.5	10.0	13.0	23.5	25.0	28.5	24.0	25.0
8	24.0	15.0	12.0	4.5	6.0	10.5	14.0	22.0	26.0	28.0	24.0	25.5
9	18.0	13.5	13.5	6.0	6.0	11.0	16.0	23.5	25.5	28.0	25.5	25.5
10	15.5	13.0	12.0	7.0	6.0	10.5	16.5	20.0	26.0	27.0	25.5	25.0
11	16.0	12.0	13.5	7.0	8.5	11.5	18.0	20.5	26.5	27.0	26.5	25.0
12	17.0	12.0	10.5	8.5	9.0	13.0	18.5	20.5	26.5	28.0	27.0	24.5
13	19.0	13.0	9.0	11.5	7.0	15.5	20.0	18.5	26.5	28.0	26.5	24.5
14	18.5	11.0	8.5	13.0	8.0	18.0	19.5	18.5	26.5	28.0	25.5	24.0
15	18.5	11.0	8.0	11.0	10.5	16.0	18.5	---	26.5	28.0	26.0	24.0
16	18.0	9.0	11.0	9.5	11.5	15.0	19.5	20.5	25.0	28.0	25.0	24.0
17	16.5	11.5	9.0	9.5	13.5	15.0	18.5	21.0	26.5	28.0	25.0	24.0
18	---	11.0	11.0	8.0	15.0	16.5	19.5	22.0	26.5	28.0	25.0	---
19	16.0	13.0	12.0	7.0	15.5	13.0	20.0	23.0	---	27.0	25.5	21.5
20	15.5	11.0	11.5	9.0	16.0	13.0	21.0	23.0	27.0	26.5	---	19.5
21	16.0	11.0	13.0	10.5	15.5	14.0	18.5	22.0	25.5	25.5	26.5	20.0
22	16.5	16.5	15.0	14.0	11.0	15.5	20.0	23.5	26.5	25.5	26.5	20.0
23	17.0	11.0	14.5	13.0	9.0	16.0	20.0	23.5	25.5	25.5	26.5	20.0
24	19.0	8.0	10.0	13.0	11.5	14.0	19.0	24.0	26.0	25.0	26.5	20.0
25	18.0	8.0	9.0	13.0	11.5	14.0	19.0	21.0	26.0	24.5	25.5	22.0
26	20.0	12.0	9.0	10.5	11.5	12.0	21.0	21.5	26.0	25.0	25.5	23.0
27	20.0	14.0	7.0	11.5	12.0	14.0	22.0	23.0	26.0	24.0	25.5	23.5
28	17.0	15.0	9.0	10.5	12.0	15.5	21.5	24.0	26.5	24.5	25.5	24.0
29	15.5	15.5	10.5	11.0	---	18.0	20.5	23.5	25.0	24.0	25.5	24.0
30	14.5	16.5	10.5	13.0	---	15.0	20.0	22.0	26.0	23.5	24.0	23.5
31	15.0	---	10.0	11.0	---	15.0	---	23.5	---	22.0	24.5	---
MONTH	18.5	12.5	12.0	10.0	11.5	13.5	18.0	22.0	25.5	26.5	25.0	23.5

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 29...	1200	3.4	13	36	13	120	15	0	72
DEC. 03...	1150	1.7	21	37	16	130	26	0	82
JAN. 07...	0910	2.4	18	50	20	180	3	0	120
FEB. 18...	1635	3.5	16	54	22	200	3	0	120
APR. 01...	1300	2.1	16	44	18	170	20	0	94
30...	1120	3.8	14	44	16	160	18	0	82
JUNE 02...	1017	2.0	11	36	11	110	30	0	73
AUG. 06...	0820	1.7	9.5	26	7.1	100	35	0	48
SEP. 15...	1435	.28	15	16	6.1	89	84	0	63

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 29...	220	.7	1.1	489	140	130	4.4	924	6.7
DEC. 03...	230	.4	2.8	542	160	140	4.5	971	6.9
JAN. 07...	340	.2	2.1	734	210	210	5.4	1340	5.6
FEB. 18...	370	.2	.90	788	220	220	5.8	1470	5.2
APR. 01...	300	.2	.00	--	180	170	--	1210	6.6
30...	290	.2	2.6	625	180	160	5.3	1160	6.9
JUNE 02...	190	--	.00	453	140	110	4.1	855	6.5
AUG. 06...	170	.2	.90	383	94	66	4.5	724	6.9
SEP. 15...	85	.2	1.3	321	65	0	4.8	546	7.1

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 1971.
Water temperatures: December 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.										
01-14	127	8.4	9.0	3.3	9.4	--	3.7	28	0	13
15-19	1400	7.1	6.0	2.2	--	5.9	--	20	0	9.2
20-23	168	8.4	9.0	3.3	--	13	--	28	0	13
24-31	269	9.5	13	5.2	--	24	--	28	0	26
NOV.										
01-02	57	13	18	6.7	--	29	--	31	0	44
03-16	56	15	24	8.8	--	39	--	36	0	60
17-20	227	13	18	6.7	--	29	--	31	0	44
21-30	34	15	24	8.8	--	39	--	36	0	60
DEC.										
01-16	18	20	30	12	--	55	--	46	0	81
17-31	36	25	36	16	--	76	--	42	0	110
JAN.										
01...	58	20	56	22	--	230	--	27	0	120
02-31	32	22	45	21	--	88	--	36	0	150
FEB.										
01-12	35	17	43	19	--	87	--	42	0	130
13...	196	15	60	24	--	200	--	32	0	130
14-23	384	10	24	10	--	48	--	25	0	74
24-26	648	8.6	18	7.3	--	33	--	23	0	53
27-28	430	10	24	10	--	48	--	25	0	74
MAR.										
01-10	298	11	24	10	--	51	--	30	0	74
11-31	47	11	41	18	--	93	--	42	0	130
APR.										
01-30	25	9.3	48	20	--	100	--	56	0	140
MAY										
01-10	75	14	43	19	--	100	--	58	0	100
11...	1080	9.9	22	8.6	--	46	--	28	0	54
12-13	1220	7.2	16	6.0	--	31	--	25	0	39
14-16	327	9.9	22	8.6	--	46	--	28	0	54
17-27	22	16	32	14	--	68	--	46	0	90
28-31	20	14	43	19	--	100	--	58	0	100
JUNE										
01-30	3.2	12	36	15	--	95	--	76	0	98
JULY										
01-08	.12	6.1	27	12	84	--	7.1	141	0	40
09-25	.00	--	--	--	--	--	--	--	--	--
26...	1.2	7.7	18	6.3	--	46	--	41	0	58
27-31	361	7.4	10	4.4	--	19	--	21	0	31
AUG.										
01-04	140	11	12	5.2	--	18	--	34	0	30
05-31	39	11	13	5.6	--	25	--	40	0	28
SEP.										
01-06	.92	8.8	15	8.9	--	21	--	60	0	26
07-12	.08	8.2	22	7.1	--	43	--	82	0	35
13-22	.00	--	--	--	--	--	--	--	--	--
23-24	.06	8.2	22	7.1	--	43	--	82	0	35
25-27	78	8.8	15	8.9	--	21	--	60	0	26
28-30	305	7.2	7.5	2.3	--	11	--	32	0	12
WTD. AVG.	--	10	19	7.8	--	--	--	29	0	51
TIME WTD.										
AVG.	104	13	30	13	--	--	--	46	0	82
TOT. LOAD (TONS)	--	1030	1940	797	--	--	--	2970	0	5190

SABINE RIVER BASIN

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

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 820 mg/l Feb. 13; minimum, 49 mg/l Oct. 15-19.
 Hardness: Maximum, 250 mg/l Feb. 13; minimum, 24 mg/l Oct. 15-19.
 Specific conductance: Maximum daily, 1,490 micromhos Feb. 13; minimum daily, 76 micromhos Oct. 15.
 Water temperatures: Minimum, 5.0°C Feb. 8, 9.

EXTREMES, November 1967 to September 1971.--Dissolved solids: Maximum, 929 mg/l Aug. 18-21, 1969; minimum, 46 mg/l May 8-11, 1969.
 Hardness: Maximum, 250 mg/l Feb. 13, 1971; minimum, 23 mg/l May 8-11, 1969.
 Specific conductance: Maximum daily, 1,790 micromhos June 26, 1969; minimum daily, 70 micromhos May 9, 1969.
 Water temperatures: Maximum, 29.0°C on several days during summer months in 1969; 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 1970 TO SEPTEMBER 1971

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- CAP- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-14	13	.2	.7	77	36	13	.7	129	6.3
15-19	6.2	--	.6	49	24	8	.5	83	6.2
20-23	13	.2	.7	77	36	13	--	129	6.3
24-31	38	--	.6	132	54	31	1.4	239	6.3
NOV.									
01-02	44	.0	.5	172	72	47	1.5	300	6.6
03-16	62	--	.6	230	96	67	1.7	400	6.7
17-20	44	.0	.5	172	72	47	1.5	300	6.6
21-30	62	--	.6	230	96	67	1.7	400	6.7
DEC.									
01-16	86	.2	.3	308	120	86	2.1	539	6.7
17-31	120	--	.3	405	160	120	2.6	702	6.8
JAN.									
01...	380	.1	.2	809	230	210	--	1470	7.1
02-31	140	--	.5	491	200	170	2.7	837	6.7
FEB.									
01-12	140	.2	.3	464	190	150	2.8	803	6.9
13...	380	--	.5	820	250	220	5.5	1490	7.0
14-23	74	--	.7	255	100	81	2.1	451	6.5
24-26	50	--	.6	184	75	56	1.7	326	6.2
27-28	74	--	.7	255	100	81	2.1	451	6.5
MAR.									
01-10	76	.2	.9	265	100	76	2.2	459	6.7
11-31	140	--	.8	464	180	140	3.0	801	6.8
APR.									
01-30	160	.2	.6	512	200	160	--	896	7.0
MAY									
01-10	180	.3	.3	496	190	140	3.2	896	7.1
11...	77	--	.5	234	90	67	2.1	426	6.5
12-13	48	--	.8	163	65	44	1.7	294	6.4
14-16	77	--	.5	234	90	67	2.1	426	6.5
17-27	110	--	.6	354	140	100	2.5	620	7.0
28-31	180	.3	.3	496	190	140	3.2	896	7.1
JUNE									
01-30	140	.2	.4	431	150	89	3.4	741	6.9
JULY									
01-08	100	.4	.8	353	120	2	3.4	651	7.1
09-25	--	--	--	--	--	--	--	--	--
26...	53	--	.7	212	71	37	2.4	383	7.4
27-31	22	--	.8	107	43	26	1.3	182	6.6
AUG.									
01-04	20	.2	.7	116	51	24	1.1	195	7.5
05-31	32	--	.6	137	56	23	1.5	238	6.7
SEP.									
01-06	29	.2	.4	141	74	25	1.1	254	6.9
07-12	52	.2	.3	210	84	17	2.0	369	7.2
13-22	--	--	--	--	--	--	--	--	--
23-24	52	.2	.3	210	84	17	--	369	7.2
25-27	29	.2	.4	141	74	25	1.1	254	6.9
28-30	7.6	.2	.5	66	28	2	.9	105	7.3
WTD. AVG.	57	--	.6	194	80	56	1.6	349	6.5
TIME WTD.									
AVG.	96	--	.5	307	127	88	2.2	564	6.8
TOT. LOAD (TONS)	5790	--	65	19000	--	--	--	--	--

0801900Q LAKE FORK CREEK NEAR QUITMAN, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	286	485	1470	824	404	905	902	728	602	179	230
2	126	299	485	794	822	406	890	889	759	586	179	243
3	126	358	476	753	809	507	912	910	759	577	212	254
4	130	325	500	758	792	447	887	906	768	556	211	276
5	130	337	509	790	848	485	883	914	768	556	423	277
6	154	351	530	916	1000	431	880	917	760	541	273	300
7	153	358	530	920	1010	430	883	910	760	539	272	325
8	153	366	536	884	755	453	883	896	784	553	182	315
9	211	407	543	881	709	491	883	889	784	---	182	348
10	204	391	549	848	715	534	872	910	781	---	187	348
11	102	407	559	848	684	822	873	426	785	---	253	348
12	303	419	585	851	669	700	876	280	792	---	251	296
13	203	417	586	842	1490	689	884	288	797	---	250	---
14	122	551	584	858	434	703	884	343	797	---	307	---
15	76	552	584	818	408	707	887	464	789	---	307	---
16	78	366	596	804	439	718	894	464	763	---	320	---
17	80	294	657	782	414	730	884	530	776	---	117	---
18	86	307	692	756	437	747	866	550	770	---	117	---
19	94	308	684	762	476	774	849	566	765	---	134	---
20	105	299	685	761	417	792	932	584	748	---	175	---
21	114	332	701	880	417	804	916	622	749	---	164	---
22	123	330	681	870	574	793	982	620	721	---	165	---
23	141	345	669	851	546	804	948	630	716	---	160	563
24	249	371	671	887	312	841	1210	630	701	---	157	562
25	251	391	683	880	327	844	866	658	701	---	281	227
26	221	405	683	905	333	838	866	693	690	453	356	280
27	202	435	691	864	463	864	846	728	676	151	347	198
28	237	437	691	854	403	906	842	883	650	167	298	87
29	251	448	721	833	---	910	808	910	647	140	227	92
30	276	466	733	833	---	953	838	863	624	235	229	134
31	273	---	902	828	---	913	---	862	---	220	293	---
MONTH	165	379	619	857	626	692	894	698	744	---	233	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1350	21	14	4.2	1.8	11	10	0	5.6
NOV.									
09...	1425	63	15	5.5	2.5	15	11	0	10
DEC.									
17...	1115	65	16	6.0	3.2	19	12	0	9.6
JAN.									
21...	1445	52	12	6.5	3.1	20	10	0	15
MAR.									
03...	1240	124	15	9.5	3.7	24	9	0	29
APR.									
12...	1440	40	12	6.2	3.1	19	14	0	12
MAY									
10...	1340	33	16	6.5	3.1	17	17	0	12
JUNE									
07...	1715	20	15	6.5	2.6	17	16	0	12
JULY									
30...	1715	120	15	6.5	2.9	21	7	0	15
SEP.									
07...	1505	14	15	4.8	1.7	12	13	0	6.4

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- CAP- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
06...	20	.1	.10	62	18	10	1.1	107	6.6
NOV.									
09...	25	.0	.00	79	24	15	1.3	133	6.3
DEC.									
17...	34	.2	.00	94	28	18	1.6	159	6.4
JAN.									
21...	34	.0	.10	96	29	21	1.6	174	6.4
MAR.									
03...	38	.0	.20	124	39	32	1.7	219	6.5
APR.									
12...	31	.0	.00	--	28	17	--	161	6.7
MAY									
10...	27	.0	.50	92	29	15	1.4	152	6.5
JUNE									
07...	26	.1	.00	88	27	14	1.4	153	6.6
JULY									
30...	37	.0	.30	102	28	22	1.7	178	6.0
SEP.									
07...	19	.0	.40	67	19	8	1.2	104	6.2

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 20...	1230	1790	5.9	14	2.2	13	55	0
DEC. 10...	1300	227	15	14	4.1	34	33	0
FFB. 01...	1550	517	5.6	21	5.0	44	64	0
APR. 22...	1830	291	12	16	5.9	40	32	0
JUNE 23...	1125	32	11	18	6.1	49	44	0
AUG. 24...	1815	175	11	10	3.7	29	30	0

DATE	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED 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. 20...	12	9.6	.2	.010	.00	.20	.10	85	44
DEC. 10...	23	52	.1	.000	.00	.20	.000	159	52
FFB. 01...	27	62	.3	.000	.04	.10	.030	196	73
APR. 22...	37	61	.2	.020	.14	.20	.070	189	64
JUNE 23...	33	74	.5	.010	.00	.20	.080	215	70
AUG. 24...	18	41	.2	.010	.08	.50	.17	130	40

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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. 20...	0	.9	145	7.2	16.0	8.0	80	2.3	--
DEC. 10...	25	2.1	274	6.8	15.5	9.2	91	1.6	--
FFB. 01...	21	2.2	352	7.4	10.5	11.2	100	1.3	--
APR. 22...	38	2.2	333	6.9	22.5	8.6	98	1.7	--
JUNE 23...	34	2.5	385	7.2	28.5	5.6	71	2.1	--
AUG. 24...	15	2.0	237	7.0	28.0	6.1	77	1.3	.03

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 06...	1550	.22	16	5.0	2.3	21	21	0	8.4
28...	--	334	5.8	3.2	1.7	6.7	11	0	6.8
NOV. 03...	1415	16	23	7.0	3.5	16	13	0	15
DEC. 16...	1620	26	23	7.5	3.7	23	20	0	13
JAN. 21...	1800	14	23	7.8	3.1	24	13	0	14
MAR. 02...	1655	22	21	8.5	3.6	24	16	0	14
APR. 12...	1700	8.2	21	8.0	3.4	23	18	0	13
MAY 10...	1600	10	23	9.0	4.0	36	16	0	11
JUNE 08...	1345	.40	22	7.5	3.5	14	31	0	8.8
JULY 26...	1555	102	7.0	4.2	1.1	8.0	10	0	11
SEP. 12...	1430	2.0	16	9.0	2.8	11	40	0	4.4

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 06...	29	.2	.10	92	22	5	2.0	158	6.9
28...	9.0	.0	.00	39	15	6	.8	68	6.3
NOV. 03...	28	.0	.10	99	32	21	1.2	159	6.8
DEC. 16...	38	.2	.00	118	34	18	1.7	197	6.5
JAN. 21...	41	.2	.00	119	32	21	1.8	195	6.4
MAR. 02...	43	.0	.10	122	36	23	1.7	194	6.8
APR. 12...	40	.0	.00	--	34	19	--	199	6.9
MAY 10...	64	.0	.40	157	39	26	2.5	265	6.5
JUNE 08...	19	.1	.50	92	33	8	1.1	141	6.7
JULY 26...	7.1	.1	.70	46	15	7	.9	74	6.1
SEP. 12...	14	.0	.40	79	34	1	.8	118	7.1

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.										
09...	1230	52	13	12	4.4	130	14	0	22	210
28...	1115	950	5.3	5.0	2.3	39	9	0	6.0	65
NOV.										
06...	1240	24	24	34	15	350	4	0	32	610
DEC.										
16...	1415	55	20	25	11	240	5	0	20	420
JAN.										
22...	0830	24	22	32	12	320	5	0	24	570
MAR.										
02...	1545	39	25	23	11	180	3	0	20	340
APR.										
15...	1300	12	24	22	12	170	9	0	37	300
MAY										
14...	1445	18	25	16	7.5	100	18	0	18	180
JUNE										
08...	1525	2.0	18	32	15	250	31	0	20	440
JULY										
29...	1605	1.8	10	21	7.4	250	26	0	19	420
SEP.										
11...	1525	.68	6.8	27	12	330	62	0	15	550

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
09...	.1	.2	399	48	36	8.2	758	6.5
28...	.0	.00	128	22	15	3.6	246	6.5
NOV.								
06...	.1	.4	1070	150	140	13	2000	5.7
DEC.								
16...	.7	.4	740	110	100	10	1390	6.0
JAN.								
22...	.1	.5	990	130	130	12	1880	6.0
MAR.								
02...	.1	.3	602	100	100	7.7	1120	5.5
APR.								
15...	.2	.00	--	100	96	--	1050	6.3
MAY								
14...	.1	.5	359	71	56	5.2	659	6.5
JUNE								
08...	.3	.5	794	140	120	--	1540	6.9
JULY								
29...	.2	.8	741	83	62	12	1450	6.5
SEP.								
11...	.2	.4	977	120	65	13	1920	6.7

SABINE RIVER BASIN

08022000 SABINE RIVER NEAR TATUM, TEX.

LOCATION.--Lat 32°22'11", long 94°27'28", Rusk 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 1971.

Pesticide analyses: March 1968 to September 1971.

Chemical and biochemical analyses: January 1968 to September 1971.

Water temperatures: February 1952 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.									
01-11	233	12	10	2.8	40	30	0	23	46
12-17	357	11	14	4.0	82	46	0	22	120
18-25	1630	7.5	14	2.9	23	44	0	15	31
26...	2380	11	14	4.0	82	46	0	22	120
27-31	5720	7.5	14	2.9	23	44	0	15	31
NOV.									
01-02	4780	8.5	14	2.9	19	28	0	16	33
03-04	3420	12	17	4.0	41	45	0	24	60
05-07	2580	8.5	14	2.9	19	28	0	16	33
08-30	1160	12	17	4.0	41	45	0	24	60
DEC.									
01-21	480	17	18	5.3	71	40	0	28	110
22-31	1000	13	12	4.1	47	22	0	22	74
JAN.									
01-11	670	14	19	5.4	62	47	0	24	89
12-14	605	17	24	7.8	150	40	0	43	240
15-31	657	14	19	5.4	62	47	0	24	89
FEB.									
01-13	716	9.8	20	4.9	59	56	0	29	84
14-15	1190	10	21	5.9	89	40	0	35	140
16-28	1570	11	16	4.9	48	30	0	33	73
MAR.									
01-31	973	12	18	5.8	54	37	0	40	78
APR.									
01-30	355	15	18	6.2	71	42	0	40	100
MAY									
01-03	344	12	20	6.4	67	52	0	44	92
04-11	241	12	28	9.8	140	64	0	62	210
12-14	433	12	20	6.4	67	52	0	44	92
15...	986	8.6	14	4.4	36	30	0	34	49
16-18	1590	12	20	6.4	67	52	0	44	92
19-20	1170	8.6	14	4.4	36	30	0	34	49
21-31	220	12	20	6.4	67	52	0	44	92
JUNE									
01-30	78	11	21	6.8	96	79	0	60	110
JULY									
01-27	48	3.0	22	7.5	140	110	0	64	150
28-30	1450	7.3	7.5	2.7	37	23	0	20	47
31...	962	12	26	7.2	340	24	0	56	540
AUG.									
01-12	1270	13	10	3.1	33	38	0	21	38
13-31	205	14	16	5.3	65	48	0	40	84
SEP.									
01-26	109	9.8	16	4.9	90	72	0	45	100
27-28	194	9.4	14	4.9	56	39	0	30	78
29...	502	9.8	16	4.9	90	72	0	45	100
30...	515	9.4	9.0	3.3	30	24	0	23	39
WTD. AVG.									
TIME WTD.	--	11	16	4.5	49	41	0	28	70
AVG.									
TOT. LOAD	712	12	18	5.4	70	52	0	37	93
(TONS)	--	7820	11200	3110	34000	28600	0	19300	48500

SABINE RIVER BASIN

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08022000 SABINE RIVER NEAR TATUM, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 995 mg/l July 31; minimum, 110 mg/l Nov. 1-2, 5-7.

Hardness: Maximum, 110 mg/l May 4-11; minimum, 30 mg/l July 28-30.

Specific conductance: Maximum daily, 1,880 micromhos July 31; minimum daily, 156 micromhos Oct. 27.

Water temperatures: Maximum, 35.0°C July 4, 6, 15, 18, 19; minimum, 9.0°C Feb. 9, 10, 12, 22, Mar. 6.

EXTREMES, February 1952 to September 1971.--Dissolved solids: Maximum, 1,610 mg/l Jan. 13, 1966; minimum, 61 mg/l Apr. 25-30, 1966.

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, 98 micromhos Apr. 29, 1957.

Water temperatures (1952-62, 1964-71): 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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-11	.2	1.2	--	36	12	--	266	6.6
12-17	--	1.2	281	51	14	5.0	521	6.8
18-25	--	.5	118	47	11	1.5	213	6.7
26...	--	1.2	281	51	14	5.0	521	6.8
27-31	--	.5	118	47	11	1.5	213	6.7
NOV.								
01-02	.1	.6	110	47	24	1.2	211	7.0
03-04	--	.6	183	59	22	2.3	326	6.8
05-07	.1	.6	110	47	24	1.2	211	7.0
08-30	--	.6	183	59	22	2.3	326	6.8
DEC.								
01-21	.2	.9	274	67	34	3.8	501	6.6
22-31	--	.8	187	47	29	3.0	337	6.5
JAN.								
01-11	.2	3.7	--	70	31	--	448	7.1
12-14	--	.7	505	92	59	6.8	946	6.9
15-31	.2	3.7	--	70	31	--	448	7.1
FEB.								
01-13	.2	.6	238	70	24	3.1	434	7.0
14-15	--	.7	325	77	44	4.4	611	7.0
16-28	--	.8	204	60	35	2.7	372	6.8
MAR.								
01-31	.2	.8	230	69	38	2.8	411	6.8
APR.								
01-30	.2	.8	--	70	36	--	497	6.9
MAY								
01-03	.3	.9	272	76	34	3.3	496	6.8
04-11	--	1.0	491	110	58	5.8	926	6.9
12-14	.3	.9	272	76	34	3.3	496	6.8
15...	--	.9	165	53	28	2.2	298	6.5
16-18	.3	.9	272	76	34	3.3	496	6.8
19-20	--	.9	165	53	28	2.2	298	6.5
21-31	.3	.9	272	76	34	3.3	496	6.8
JUNE								
01-30	.3	1.3	351	80	16	4.7	625	6.9
JULY								
01-27	.3	1.2	--	86	0	--	826	7.3
28-30	--	1.0	137	30	11	2.9	244	7.1
31...	--	1.3	995	94	75	15	1880	7.0
AUG.								
01-12	.2	.7	140	38	7	2.3	246	7.0
13-31	--	.9	252	62	22	3.6	461	6.8
SEP.								
01-26	.3	.6	314	60	1	5.0	567	7.8
27-28	.4	.5	206	55	23	1.3	397	7.5
29...	.3	.6	314	60	1	5.0	567	7.8
30...	.3	.7	132	36	16	2.2	245	7.0
WTD. AVG.	--	.9	--	58	25	--	366	6.8
TIME WTD.								
AVG.	--	1.1	--	66	23	--	483	6.9
TOT. LOAD (TONS)	--	654	--	--	--	--	--	--

08022000 SABINE RIVER NEAR TATUM, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 20...	1430	1320	7.8	10	2.7	49	34	0	18	66	.3	.29
DEC. 10...	1345	340	13	16	5.4	68	52	0	25	100	.2	.34
FEB. 01...	1735	630	7.6	20	5.1	55	57	0	31	78	.2	.26
APR. 22...	1710	475	12	18	6.1	88	44	0	34	140	.2	.26
JUNE 23...	1250	65	9.4	19	6.4	85	73	0	51	100	.4	.46
AUG. 24...	1715	312	14	14	5.4	70	36	0	35	100	.3	.30

DATE	DIS-SOLVED NITRITE (N) (MG/L)	DIS-SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS-SOLVED 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)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 20...	.030	.14	.40	.15	173	208	36	36	8	--	308	7.2
DEC. 10...	.030	.24	.30	.11	255	18	12	62	19	3.8	460	6.8
FEB. 01...	.010	.04	.10	.080	225	27	0	71	24	--	408	7.3
APR. 22...	.030	.41	.30	.14	317	37	17	70	34	4.6	584	6.8
JUNE 23...	.040	.00	.40	.10	311	31	6	74	14	4.3	563	7.4
AUG. 24...	.030	.16	.50	.26	259	38	19	57	28	4.0	465	7.2

DATE	TEMPERATURE (DEG C)	COLOR (PLAT- INUM- CORAL UNITS)	TUR- RIN- 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 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...	17.5	30	75	8.0	83	8	2.7	0	.10	200	0	0
DEC. 10...	16.0	12	7	8.8	88	3	3.9	0	.10	--	--	--
FEB. 01...	11.0	0	10	10.1	91	19	2.7	0	.06	30	0	0
APR. 22...	23.0	10	15	5.1	59	16	3.7	0	.04	--	--	--
JUNE 23...	30.5	10	10	7.2	95	27	3.0	0	.06	20	0	0
AUG. 24...	29.5	30	9	6.0	78	18	1.7	0	.07	--	--	--

[illegible]

SABINE RIVER BASIN

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08022000 SABINE RIVER NEAR TATUM, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT. 20...	1430	1320	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 01...	1735	630	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 23...	1250	65	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	DI- FLORIN (UG/L)	DI- FLORIN 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)
OCT. 20...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
FEB. 01...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JUNE 23...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
OCT. 20...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
FEB. 01...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JUNE 23...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
OCT. 20...	<.2	.0	<10	.00	<1.2	.01	<.2	.00	<.1
FEB. 01...	<.2	.0	<10	.00	<1.1	.00	<.1	.00	<.1
JUNE 23...	<.2	.0	<10	.00	<1.4	.00	<.4	.00	<.4

08022000 SABINE RIVER NEAR TATUM, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	245	170	406	459	404	424	469	448	569	709	273	387
2	257	245	404	491	411	421	480	447	577	715	273	447
3	275	328	432	605	424	329	490	---	542	659	276	607
4	256	288	377	416	458	386	---	1070	830	783	208	641
5	242	228	444	---	480	527	485	1020	541	710	209	567
6	244	178	449	410	424	372	539	878	---	786	241	549
7	274	239	580	510	478	---	---	839	540	659	181	604
8	259	277	486	433	411	437	508	630	544	712	241	603
9	276	264	557	385	411	386	522	1020	569	804	319	614
10	329	277	549	---	592	381	509	1080	593	804	241	467
11	---	319	475	389	547	382	---	874	696	800	318	604
12	651	268	537	946	380	423	536	685	561	808	181	682
13	470	247	478	611	---	---	515	485	554	717	326	658
14	535	248	592	946	757	398	549	372	569	804	453	672
15	---	---	449	410	512	394	542	271	542	909	442	557
16	674	381	490	458	354	452	558	430	547	905	442	680
17	370	239	464	544	343	368	524	392	609	901	278	556
18	266	234	499	545	352	389	498	546	635	896	461	487
19	302	253	696	411	337	376	565	290	694	898	458	564
20	350	263	342	394	428	393	467	336	---	898	457	562
21	162	327	491	545	---	---	454	580	749	888	459	---
22	197	433	373	409	346	474	558	---	561	884	485	500
23	166	357	309	413	334	---	552	---	750	887	476	461
24	239	397	---	426	357	340	465	423	551	884	457	461
25	245	396	---	409	400	451	453	444	636	857	531	640
26	410	---	353	396	639	363	421	463	565	856	603	621
27	156	348	661	412	348	465	442	474	694	1020	540	409
28	142	413	313	415	473	438	453	549	565	206	382	383
29	169	445	402	404	---	459	424	627	833	159	604	561
30	170	455	530	408	---	451	411	534	836	365	458	245
31	177	---	684	387	---	433	---	534	---	1880	429	---
MONTH	295	304	477	482	438	412	496	598	623	799	377	544

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.0	16.0	12.0	12.0	10.0	10.0	14.0	22.0	27.0	34.0	29.0	31.0
2	30.0	15.0	17.0	12.0	11.0	11.0	15.0	23.0	28.0	34.0	30.0	30.0
3	29.0	15.0	15.0	12.0	12.0	12.0	15.0	---	28.0	33.0	30.0	30.0
4	28.0	14.0	14.0	10.0	12.0	11.0	---	24.0	28.0	35.0	30.0	30.0
5	28.0	15.0	15.0	---	11.0	12.0	15.0	23.0	28.0	34.0	29.0	30.0
6	28.0	17.0	---	10.0	13.0	9.0	14.0	23.0	---	35.0	28.0	31.0
7	28.0	15.0	13.0	10.0	10.0	---	---	24.0	29.0	34.0	29.0	29.0
8	24.0	15.0	12.0	11.0	10.0	11.0	18.0	23.0	29.0	34.0	28.0	30.0
9	28.0	---	15.0	12.0	9.0	12.0	18.0	22.0	29.0	33.0	28.0	28.0
10	23.0	15.0	11.0	---	9.0	11.0	18.0	21.0	28.0	34.0	30.0	28.0
11	---	15.0	13.0	11.0	11.0	12.0	---	21.0	30.0	33.0	29.0	28.0
12	22.0	16.0	12.0	13.0	9.0	13.0	20.0	23.0	30.0	34.0	28.0	27.0
13	21.0	14.0	13.0	13.0	---	---	22.0	23.0	---	34.0	30.0	26.0
14	22.0	---	13.0	12.0	12.0	17.0	21.0	---	31.0	33.0	30.0	26.0
15	---	---	11.0	11.0	12.0	16.0	21.0	---	31.0	35.0	32.0	27.0
16	19.0	12.0	11.0	13.0	12.0	15.0	21.0	23.0	30.0	34.0	33.0	25.0
17	21.0	14.0	11.0	11.0	12.0	18.0	20.0	23.0	31.0	34.0	30.0	27.0
18	19.0	14.0	12.0	10.0	13.0	14.0	20.0	22.0	32.0	35.0	32.0	29.0
19	21.0	13.0	13.0	10.0	14.0	15.0	21.0	24.0	32.0	35.0	30.0	27.0
20	20.0	13.0	12.0	10.0	11.0	16.0	21.0	24.0	---	33.0	31.0	23.0
21	20.0	14.0	13.0	12.0	---	---	23.0	23.0	33.0	34.0	33.0	---
22	19.0	13.0	14.0	12.0	9.0	12.0	23.0	---	30.0	33.0	32.0	24.0
23	17.0	11.0	12.0	12.0	10.0	---	23.0	---	32.0	32.0	33.0	29.0
24	18.0	11.0	---	11.0	13.0	14.0	23.0	26.0	32.0	32.0	30.0	28.0
25	20.0	11.0	---	11.0	12.0	13.0	24.0	25.0	32.0	31.0	30.0	28.0
26	19.0	---	11.0	10.0	14.0	15.0	23.0	27.0	33.0	33.0	29.0	26.0
27	19.0	13.0	11.0	10.0	12.0	13.0	22.0	25.0	33.0	30.0	29.0	27.0
28	19.0	15.0	11.0	11.0	13.0	18.0	23.0	25.0	33.0	29.0	30.0	27.0
29	18.0	12.0	12.0	10.0	---	17.0	21.0	25.0	34.0	25.0	30.0	28.0
30	18.0	12.0	12.0	10.0	---	15.0	19.0	26.0	34.0	29.0	30.0	28.0
31	17.0	---	12.0	10.0	---	15.0	---	26.0	---	28.0	29.0	---
MONTH	22.0	14.0	12.5	11.0	11.5	13.5	20.0	23.5	30.5	33.0	30.0	28.0

SABINE RIVER BASIN

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08025360 SABINE RIVER AT TOLEDO BEND DAM NEAR BURKEVILLE, TEX.

LOCATION.--Lat 31°11'47", long 93°34'24", 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.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT. 20...	1030	4.4	11	3.3	22	47	0	12
DEC. 08...	0900	2.1	12	3.6	17	45	0	8.6
FEB. 24...	0900	2.9	12	3.5	18	44	0	10
APR. 23...	1600	5.2	11	3.6	23	48	0	12
JUNE 18...	1115	1.9	12	3.4	21	45	0	12
AUG. 19...	1515	5.5	12	3.5	24	51	0	13

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED 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. 20...	26	.1	.29	.000	.00	.00	.13	102	41
DEC. 08...	25	.1	.32	.000	.00	.10	.030	91	45
FEB. 24...	26	.1	--	.000	.00	.20	.000	95	44
APR. 23...	27	.2	--	.010	.00	.20	.000	107	42
JUNE 18...	28	.1	--	.000	.00	.10	.000	101	44
AUG. 19...	29	.0	--	.000	.00	.00	.000	112	44

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 20...	2	1.5	187	6.7	19.0	6.9	73	.8
DEC. 08...	8	1.1	179	6.7	13.0	7.2	68	.9
FEB. 24...	8	1.2	185	7.0	11.0	9.6	86	1.2
APR. 23...	3	1.5	196	6.7	14.5	4.2	41	1.6
JUNE 18...	7	1.4	193	7.0	23.0	5.2	60	2.7
AUG. 19...	3	1.6	200	6.6	16.0	2.1	21	1.4

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 1971.
 Chemical and biochemical analyses: May 1968 to September 1971.
 Water temperatures: May 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.									
01...	2710	--	--	--	--	--	--	9.4	26
10...	125	--	--	--	--	--	--	6.0	1.2
17...	597	--	--	--	--	--	--	7.2	23
28...	1110	8.7	3.0	.6	3.3	10	0	.6	5.6
NOV.									
03...	2290	2.4	10	4.6	16	43	0	9.2	24
12...	211	--	--	--	--	--	--	7.6	17
19...	782	--	--	--	--	--	--	9.4	20
25...	234	--	--	--	--	--	--	8.2	18
DEC.									
07...	1240	--	--	--	--	--	--	9.6	21
12...	1160	--	--	--	--	--	--	6.2	11
23...	2460	--	--	--	--	--	--	8.4	17
31...	3480	.5	10	4.1	19	46	0	8.4	25
JAN.									
03...	315	--	--	--	--	--	--	9.4	25
08...	4970	--	--	--	--	--	--	9.6	24
18...	3610	--	--	--	--	--	--	9.2	25
24...	232	9.3	8.5	3.1	17	39	0	12	19
FEB.									
01...	1330	--	--	--	--	--	--	9.8	23
10...	429	1.2	11	3.1	17	41	0	10	22
16...	1630	--	--	--	--	--	--	10	24
22...	2910	--	--	--	--	--	--	10	26
MAR.									
01...	2500	--	--	--	--	--	--	13	15
08...	3600	--	--	--	--	--	--	11	26
21...	394	10	5.8	1.3	11	20	0	10	12
31...	319	--	--	--	--	--	--	9.6	13
APR.									
01...	279	5.4	7.0	2.1	12	27	0	9.0	14
08...	217	--	--	--	--	--	--	11	22
15...	200	--	--	--	--	--	--	11	19
27...	179	--	--	--	--	--	--	11	23
MAY									
07...	1690	--	--	--	--	--	--	12	26
12...	1530	9.5	3.5	3.2	9.7	22	0	7.0	12
19...	1340	--	--	--	--	--	--	13	28
31...	226	--	--	--	--	--	--	11	20
JUNE									
03...	4350	--	--	--	--	--	--	11	28
10...	3880	--	--	--	--	--	--	10	28
17...	1880	--	--	--	--	--	--	9.6	28
28...	1340	1.8	12	5.6	16	44	0	10	29
JULY									
01...	817	--	--	--	--	--	--	10	28
04...	703	--	--	--	--	--	--	11	27
14...	1850	--	--	--	--	--	--	13	30
26...	230	9.3	12	2.2	20	48	0	9.6	24
AUG.									
01...	259	8.8	9.5	2.3	17	37	0	10	20
07...	321	--	--	--	--	--	--	9.2	16
14...	2340	--	--	--	--	--	--	12	30
21...	725	--	--	--	--	--	--	11	27
SEP.									
07...	1040	--	--	--	--	--	--	12	27
14...	168	--	--	--	--	--	--	10	22
21...	212	--	--	--	--	--	--	8.8	18
29...	3450	3.0	12	2.9	21	45	0	11	27

08026000 SABINE RIVER BELOW TOLEDO BEND, NEAR BURKEVILLE, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 232 micromhos Dec. 11; minimum daily, 44 micromhos Oct. 28.

Water temperatures: Maximum, 30.0°C on several days during July, August, and September; minimum, 10.0°C Jan. 8.

EXTREMES, October 1969 to September 1971.--Specific conductance: Maximum daily, 232 micromhos Dec. 11, 1970; 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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (M) (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 COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01...	--	--	--	--	--	--	179	--
10...	--	--	--	--	--	--	103	--
17...	--	--	--	--	--	--	169	--
28...	.0	.10	27	10	2	.5	44	6.3
NOV.								
03...	.0	.20	88	44	9	1.1	178	7.7
12...	--	--	--	--	--	--	148	--
19...	--	--	--	--	--	--	161	--
25...	--	--	--	--	--	--	150	--
DEC.								
07...	--	--	--	--	--	--	181	--
12...	--	--	--	--	--	--	100	--
23...	--	--	--	--	--	--	145	--
31...	.0	.20	91	42	4	1.3	186	7.5
JAN.								
03...	--	--	--	--	--	--	185	--
08...	--	--	--	--	--	--	182	--
18...	--	--	--	--	--	--	186	--
24...	.0	.20	89	34	2	1.3	152	7.4
FEB.								
01...	--	--	--	--	--	--	189	--
10...	.0	.40	86	40	6	1.2	171	7.3
16...	--	--	--	--	--	--	176	--
22...	--	--	--	--	--	--	188	--
MAR.								
01...	--	--	--	--	--	--	128	--
08...	--	--	--	--	--	--	190	--
21...	.0	.30	61	20	4	1.1	99	7.0
31...	--	--	--	--	--	--	107	--
APR.								
01...	.0	.10	63	26	4	1.0	121	7.2
08...	--	--	--	--	--	--	153	--
15...	--	--	--	--	--	--	165	--
27...	--	--	--	--	--	--	167	--
MAY								
07...	--	--	--	--	--	--	194	--
12...	.0	.20	57	22	4	.9	99	7.1
19...	--	--	--	--	--	--	194	--
31...	--	--	--	--	--	--	156	--
JUNE								
03...	--	--	--	--	--	--	192	--
10...	--	--	--	--	--	--	196	--
17...	--	--	--	--	--	--	198	--
28...	.0	.20	97	53	17	1.0	198	7.4
JULY								
01...	--	--	--	--	--	--	187	--
08...	--	--	--	--	--	--	186	--
14...	--	--	--	--	--	--	201	--
26...	.0	.00	101	39	0	1.4	181	7.3
AUG.								
01...	.1	.20	87	33	3	1.3	157	7.4
07...	--	--	--	--	--	--	121	--
14...	--	--	--	--	--	--	199	--
21...	--	--	--	--	--	--	192	--
SEP.								
07...	--	--	--	--	--	--	202	--
14...	--	--	--	--	--	--	185	--
21...	--	--	--	--	--	--	148	--
29	.1	.00	99	42	5	1.4	204	7.1

SABINE RIVER BASIN

08026000 SABINE RIVER BELOW TOLEDO BEND, NEAR BURKEVILLE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 20...	1130	554	4.1	9.5	3.1	18	38	0	9.2	24	.0	.19
DEC. 08...	1000	870	3.8	12	3.5	16	44	0	8.6	24	.1	.44
FEB. 24...	1015	2350	3.6	12	3.4	17	43	0	9.8	25	.2	.32
APR. 23...	1445	201	11	9.5	2.8	17	40	0	9.2	20	.2	.03
JUNE 18...	1030	213	2.3	12	3.4	21	46	0	11	28	.1	.23
AUG. 19...	1420	211	11	12	3.0	19	48	0	11	23	.0	.22

DATE	DIS-SOLVED NITRITE (N) (MG/L)	DIS-SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS-SOLVED 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)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD-SORP- TION RATIO	SPECI-FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 20...	.000	.00	.00	.12	87	17	16	36	5	--	160	6.8
DEC. 08...	.000	.00	.10	.030	90	7	6	44	8	1.0	175	6.7
FEB. 24...	.000	.00	.20	.010	93	8	0	44	9	--	180	7.0
APR. 23...	.000	.00	.10	.020	90	17	9	35	2	1.2	154	8.1
JUNE 18...	.000	.00	.10	.000	101	9	8	44	6	1.4	192	7.0
AUG. 19...	.000	.00	.00	.020	103	19	15	42	3	1.3	176	7.1

DATE	TEMPERATURE (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...	18.0	10	3	7.9	83	13	1.0	3	.00	0	0	0
DEC. 08...	11.0	20	1	7.9	71	68	1.1	3	.01	--	--	--
FER. 24...	11.0	5	4	9.8	88	6	.6	3	.00	10	0	0
APR. 23...	26.0	10	9	10.0	122	20	3.4	1	.01	30	0	0
JUNE 18...	26.0	0	4	6.4	78	18	4.4	0	.00	10	0	0
AUG. 19...	28.5	20	4	8.0	103	20	2.3	0	.00	--	--	--

[illegible]

SABINE RIVER BASIN

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08026000 SABINE RIVER BELOW TOLEDO BEND, NEAR BURKEVILLE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	OTS- 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	554	.00	<.2	.00	.7	.00	.3	.00	<.2
FEB. 24...	1015	2350	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 23...	1445	201	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 18...	1030	213	.00	<.2	.00	<.2	.00	<.2	.00	<.2

DATE	DI- FLDRIN (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)
OCT. 20...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
FEB. 24...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
APR. 23...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JUNE 18...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
OCT. 20...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
FEB. 24...	<.2	.0	<1.0	--	.00	<.2	.00	<.2	.00
APR. 23...	<.2	.0	<1.0	.01	.00	<.2	.00	<.2	.00
JUNE 18...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
OCT. 20...	<.2	.0	<10	.00	<2.5	.00	<.4	.00	<.3
FEB. 24...	<.2	.0	<10	.00	<1.7	.00	<.2	.00	<.2
APR. 23...	<.2	.0	<10	.00	<.6	.00	<.2	.00	<.2
JUNE 18...	<.2	.0	<10	.00	<1.0	.00	<.2	.00	<.2

SABINE RIVER BASIN

08026000 SABINE RIVER BELOW TOLEDO BEND, NEAR BURKEVILLE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	176	148	185	189	128	121	170	193	187	157	184
2	178	155	148	185	151	128	122	170	195	182	156	170
3	178	178	149	185	150	189	138	173	192	182	94	170
4	170	128	150	185	150	187	182	173	155	183	94	170
5	172	176	150	186	132	185	183	194	192	190	110	182
6	169	145	154	185	140	166	149	193	185	192	111	182
7	163	144	181	---	134	166	147	194	183	199	121	202
8	163	145	182	182	144	190	153	174	183	186	121	193
9	155	143	182	181	145	190	152	163	196	195	121	191
10	103	142	141	183	171	190	159	162	196	185	147	187
11	102	143	232	183	181	161	159	164	197	185	112	189
12	103	148	100	182	165	162	159	99	193	188	111	187
13	105	85	142	183	141	162	163	102	193	200	130	188
14	104	86	185	183	140	147	164	141	193	201	199	185
15	156	86	206	186	139	146	165	141	193	201	193	141
16	163	150	188	142	176	149	159	141	194	201	178	140
17	169	150	178	142	173	117	159	164	198	198	180	141
18	112	150	177	186	175	115	162	164	198	199	180	141
19	166	161	188	186	173	182	162	194	183	202	180	145
20	168	142	143	186	160	92	162	178	183	202	203	146
21	157	142	178	187	172	99	163	---	183	192	192	148
22	158	142	185	186	188	122	163	153	181	192	188	159
23	106	178	145	153	189	130	167	153	181	180	203	168
24	108	150	131	152	188	130	167	153	186	180	183	177
25	127	150	112	186	193	144	167	153	186	180	201	203
26	128	150	130	187	106	143	167	153	199	181	201	177
27	54	147	138	187	105	142	167	151	200	176	177	203
28	44	147	186	184	106	142	171	147	198	176	171	201
29	88	148	182	160	---	85	168	141	176	111	179	204
30	87	148	---	160	---	85	170	143	199	146	184	204
31	127	---	186	158	---	107	---	156	---	145	208	---
MONTH	134	145	163	177	156	145	160	159	189	184	161	176

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	19.0	17.0	14.0	15.0	16.0	19.0	26.0	25.0	25.0	26.0	28.0
2	26.0	18.0	19.0	15.0	16.0	16.0	19.0	26.0	22.0	27.0	26.0	28.0
3	26.0	18.0	19.0	15.0	16.0	15.0	19.0	26.0	22.0	27.0	26.0	28.0
4	26.0	16.0	18.0	13.0	16.0	16.0	19.0	26.0	25.0	28.0	24.0	28.0
5	25.0	16.0	19.0	13.0	16.0	16.0	19.0	26.0	25.0	29.0	27.0	30.0
6	24.0	16.0	19.0	12.0	16.0	16.0	19.0	24.0	25.0	29.0	27.0	30.0
7	25.0	16.0	16.0	---	16.0	15.0	19.0	20.0	27.0	29.0	28.0	30.0
8	25.0	16.0	15.0	10.0	18.0	14.0	20.0	20.0	27.0	29.0	27.0	30.0
9	21.0	20.0	16.0	12.0	15.0	16.0	20.0	20.0	26.0	29.0	26.0	29.0
10	22.0	19.0	16.0	15.0	15.0	16.0	19.0	21.0	25.0	29.0	26.0	28.0
11	23.0	19.0	16.0	14.0	15.0	16.0	19.0	22.0	26.0	29.0	27.0	28.0
12	21.0	16.0	15.0	14.0	15.0	16.0	20.0	20.0	27.0	30.0	27.0	28.0
13	22.0	16.0	15.0	19.0	15.0	16.0	22.0	21.0	27.0	30.0	29.0	28.0
14	22.0	17.0	16.0	15.0	16.0	16.0	22.0	24.0	29.0	28.0	27.0	28.0
15	20.0	16.0	15.0	14.0	18.0	16.0	20.0	24.0	28.0	28.0	29.0	28.0
16	22.0	16.0	16.0	16.0	18.0	17.0	20.0	24.0	29.0	26.0	30.0	28.0
17	21.0	17.0	16.0	16.0	16.0	16.0	21.0	23.0	29.0	29.0	29.0	25.0
18	21.0	16.0	16.0	15.0	17.0	16.0	21.0	23.0	25.0	29.0	29.0	24.0
19	21.0	18.0	16.0	14.0	16.0	16.0	20.0	23.0	25.0	29.0	30.0	24.0
20	20.0	16.0	16.0	16.0	18.0	16.0	20.0	24.0	26.0	26.0	27.0	25.0
21	22.0	16.0	16.0	15.0	15.0	16.0	21.0	---	27.0	27.0	30.0	24.0
22	22.0	20.0	16.0	12.0	16.0	16.0	21.0	22.0	28.0	27.0	29.0	25.0
23	21.0	15.0	16.0	20.0	16.0	16.0	21.0	24.0	29.0	28.0	28.0	25.0
24	22.0	16.0	16.0	20.0	16.0	16.0	21.0	24.0	29.0	28.0	28.0	25.0
25	21.0	16.0	16.0	16.0	15.0	17.0	21.0	24.0	29.0	28.0	29.0	25.0
26	21.0	16.0	14.0	15.0	16.0	17.0	22.0	25.0	29.0	28.0	29.0	26.0
27	20.0	16.0	14.0	15.0	16.0	18.0	21.0	24.0	29.0	28.0	29.0	26.0
28	19.0	17.0	19.0	15.0	15.0	18.0	22.0	24.0	25.0	27.0	30.0	26.0
29	20.0	18.0	16.0	15.0	---	16.0	26.0	24.0	26.0	28.0	29.0	24.0
30	20.0	18.0	---	17.0	---	16.0	26.0	24.0	24.0	29.0	28.0	26.0
31	19.0	---	14.0	15.0	---	19.0	---	25.0	---	27.0	28.0	---
MONTH	22.0	17.0	16.5	15.0	16.0	16.0	20.5	23.5	26.5	28.0	28.0	27.0

SABINE RIVER BASIN

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08026000 SABINE RIVER BELOW TOLEDO BEND, NEAR BURKEVILLE, TEX.--Continued

COLOR, IN PLATINUM-COBALT UNITS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	100	40	30	40	60	40	40	30	20	50	70
2	20	70	30	30	30	60	60	40	30	20	60	70
3	30	30	30	30	30	20	40	30	25	20	140	60
4	30	30	30	30	30	20	30	40	30	20	130	70
5	30	60	30	30	50	20	30	40	25	20	120	50
6	30	60	30	30	50	20	40	50	20	20	120	50
7	70	60	20	---	50	20	30	40	20	20	120	40
8	60	70	30	30	50	20	30	50	15	20	100	10
9	40	60	30	30	50	20	30	60	15	20	100	40
10	120	60	30	30	40	20	30	60	20	25	70	50
11	140	70	60	30	20	30	30	55	20	20	80	60
12	120	70	50	30	20	20	30	60	20	20	100	60
13	80	70	40	30	25	20	40	120	20	20	70	60
14	80	70	30	20	25	30	30	70	20	20	50	50
15	20	100	30	20	25	30	30	70	20	20	30	70
16	30	30	30	30	25	30	30	70	20	20	40	70
17	20	30	30	30	25	40	30	40	20	20	40	70
18	70	30	25	20	20	40	30	40	20	20	40	80
19	30	40	60	30	20	20	30	40	20	20	50	70
20	20	40	30	20	25	80	30	20	15	20	30	80
21	40	40	30	15	25	100	30	---	15	20	30	70
22	40	40	20	20	25	60	30	50	30	20	40	70
23	70	40	30	20	20	50	30	50	20	20	30	60
24	60	40	60	20	25	40	30	50	20	20	50	50
25	70	40	50	15	20	40	30	50	20	20	30	40
26	70	40	50	10	120	40	30	50	20	20	40	50
27	120	30	50	20	120	40	30	40	20	50	50	40
28	100	30	30	30	120	40	30	50	20	40	50	40
29	80	40	30	40	---	100	30	60	20	100	60	30
30	100	40	---	40	---	70	40	60	20	70	50	30
31	70	---	30	40	---	70	---	60	---	60	40	---
MONTH	60	50	35	26	40	40	32	50	21	27	65	55

SABINE RIVER BASIN

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.				
01...	2300	17	22	201
09...	501	19	27	221
17...	1480	25	24	226
31...	1930	5.2	7.2	69
NOV.				
04...	3300	11	18	153
12...	560	21	17	181
21...	700	17	18	193
30...	470	15	17	182
DEC.				
08...	1080	11	22	193
12...	2750	12	23	188
25...	1570	13	22	172
31...	4990	8.6	17	145
JAN.				
03...	1250	12	18	146
10...	2720	9.6	23	171
16...	4500	14	22	186
25...	874	10	23	175
FEB.				
01...	1100	13	26	194
06...	1000	17	23	189
14...	1750	14	15	126
27...	5840	13	16	125
MAR.				
01...	4320	10	19	142
08...	3490	11	17	140
18...	752	8.8	16	131
25...	900	18	17	148
APR.				
01...	1150	12	14	121
10...	608	23	24	216
20...	644	22	22	214
30...	401	27	25	246
MAY				
01...	394	29	28	247
08...	2800	14	26	195
15...	995	19	18	175
21...	2410	14	28	200
JULY				
17...	4000	16	30	213
18...	2400	12	28	199
24...	655	27	24	239
28...	561	18	22	189
AUG.				
01...	622	24	20	197
03...	720	24	16	165
05...	1200	20	16	155
07...	1120	19	15	155
SEP.				
05...	484	14	24	194
10...	550	8.0	16	153
13...	360	19	24	217
18...	400	10	20	181

SABINE RIVER BASIN

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08028500 SABINE RIVER NEAR BON WEIR, TEX.--Continued

COLOR, IN PLATINUM-COBALT UNITS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	---	70	---	20	40	50	70	---	---	100	---
2	20	70	80	30	20	40	80	80	---	---	200	---
3	20	70	80	40	20	30	120	110	---	---	200	---
4	30	30	70	40	20	60	100	70	---	---	220	---
5	30	30	70	40	20	60	100	70	---	---	120	35
6	30	30	70	50	50	30	100	100	---	---	140	60
7	40	30	70	40	40	30	70	120	---	---	140	30
8	30	60	40	30	50	60	70	55	---	---	---	50
9	40	70	40	60	50	30	60	55	---	---	---	35
10	---	120	40	40	40	30	80	70	---	---	---	30
11	---	100	20	30	---	60	70	70	---	---	---	35
12	---	100	40	40	40	40	100	70	---	---	---	120
13	---	100	30	30	40	120	80	70	---	---	---	40
14	---	100	40	30	100	60	80	130	---	---	---	60
15	---	70	40	40	40	60	100	100	---	---	---	40
16	---	70	20	30	40	20	100	100	---	40	---	40
17	70	70	50	30	30	40	100	70	---	40	---	30
18	35	80	50	30	30	60	120	100	---	20	---	40
19	50	70	25	30	20	40	100	40	---	20	---	---
20	50	---	30	20	30	120	120	40	---	100	---	---
21	70	60	30	20	30	70	120	30	---	30	---	---
22	70	---	30	30	40	100	100	---	---	80	---	---
23	60	70	---	20	25	90	100	---	---	100	---	---
24	---	60	35	20	30	100	100	---	---	100	---	---
25	120	50	30	15	30	100	120	---	---	90	---	---
26	120	50	30	20	30	90	100	40	---	70	---	---
27	120	60	25	20	100	120	70	---	---	70	---	---
28	110	100	25	20	40	120	110	---	---	40	---	---
29	---	110	50	30	---	50	100	---	---	---	---	---
30	120	40	30	20	---	80	120	---	---	---	---	---
31	120	---	60	20	---	50	---	---	---	---	---	---
MONTH	---	70	44	30	37	65	95	---	---	---	---	---

SABINE RIVER BASIN

08028500 SABINE RIVER NEAR BON WEIR, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	201	---	192	---	194	142	121	247	---	---	197	---
2	180	109	202	146	190	147	171	250	---	---	164	---
3	194	107	202	146	191	131	147	250	---	---	165	---
4	194	153	196	153	195	129	179	258	---	---	164	---
5	195	151	212	152	190	154	178	253	---	---	155	194
6	203	151	217	146	189	178	178	255	---	---	155	224
7	220	117	217	153	190	172	169	256	---	---	155	194
8	221	161	193	175	190	140	167	195	---	---	---	179
9	221	175	193	180	191	190	167	195	---	---	---	153
10	---	196	188	171	192	180	216	208	---	---	---	153
11	---	180	189	172	---	163	216	160	---	---	---	215
12	---	181	188	174	193	173	232	181	---	---	---	155
13	---	537	190	168	172	142	232	183	---	---	---	217
14	---	162	191	172	126	131	226	201	---	---	---	245
15	---	118	188	174	172	186	225	175	---	---	---	195
16	---	118	177	186	164	198	231	175	---	218	---	195
17	226	127	174	166	179	157	232	173	---	213	---	195
18	183	155	174	186	179	131	230	193	---	199	---	181
19	209	155	181	166	181	139	219	200	---	199	---	---
20	208	---	178	185	177	162	214	200	---	238	---	---
21	227	193	179	187	184	155	214	200	---	199	---	---
22	109	---	181	188	170	151	215	---	---	239	---	---
23	108	195	---	186	183	151	215	---	---	240	---	---
24	---	192	171	190	183	148	227	---	---	239	---	---
25	100	192	172	175	168	148	254	---	---	241	---	---
26	102	192	172	189	168	165	221	243	---	236	---	---
27	101	193	157	189	125	183	205	---	---	236	---	---
28	71	181	157	191	145	180	237	---	---	189	---	---
29	---	182	158	189	---	183	237	---	---	---	---	---
30	71	182	159	195	---	110	246	---	---	---	---	---
31	69	---	145	190	---	109	---	---	---	---	---	---
MONTH	---	176	183	175	177	156	207	---	---	---	---	---

SABINE RIVER BASIN

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08028500 SABINE RIVER NEAR BON WEIR, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.5	---	20.0	---	14.0	14.5	15.5	23.0	---	---	30.0	---
2	24.0	16.0	20.0	14.5	11.5	15.0	14.0	23.0	---	---	31.0	---
3	24.0	15.0	20.0	15.0	12.0	17.0	15.0	23.0	---	---	30.0	---
4	24.5	18.0	21.0	10.5	15.0	12.0	15.0	24.0	---	---	31.0	---
5	25.0	17.0	21.0	9.0	13.0	13.5	13.5	23.0	---	---	31.0	30.0
6	24.0	18.0	12.0	10.0	11.5	17.0	12.5	23.0	---	---	21.0	30.0
7	24.0	12.0	13.5	8.0	11.0	14.0	15.0	23.0	---	---	29.0	30.0
8	25.0	15.0	15.0	8.5	10.5	14.0	13.5	22.5	---	---	---	29.0
9	23.0	17.0	15.0	8.5	11.5	13.0	14.0	22.0	---	---	---	30.0
10	---	14.5	18.0	9.0	11.5	14.5	17.0	23.5	---	---	---	29.0
11	---	14.0	18.0	12.5	---	13.0	18.0	22.5	---	---	---	30.0
12	---	14.0	21.0	14.0	13.0	13.0	15.5	22.5	---	---	---	31.0
13	---	13.0	24.0	15.0	11.5	13.5	19.0	19.0	---	---	---	30.0
14	---	12.0	22.0	16.0	14.0	11.0	20.0	22.0	---	---	---	30.0
15	---	12.0	20.0	15.0	15.0	---	19.5	22.5	---	---	---	30.0
16	---	11.5	13.5	17.0	15.0	12.5	18.0	22.0	---	29.0	---	29.0
17	20.0	11.0	13.0	14.0	17.0	12.0	24.0	22.0	---	29.0	---	29.0
18	19.0	13.0	12.0	13.0	14.0	13.5	21.5	22.0	---	30.0	---	30.0
19	18.0	15.0	15.5	12.0	18.0	14.0	22.0	22.5	---	30.0	---	---
20	18.0	---	17.0	12.0	15.0	14.0	23.0	24.0	---	29.0	---	---
21	28.5	13.5	18.0	13.0	15.0	---	24.0	23.0	---	33.0	---	---
22	19.0	---	13.5	14.0	13.5	---	25.0	---	---	28.0	---	---
23	21.0	12.0	---	14.0	14.5	---	25.0	---	---	29.0	---	---
24	---	13.0	14.0	15.5	15.0	14.5	24.0	---	---	30.0	---	---
25	21.0	11.0	13.5	14.0	15.0	15.0	27.0	---	---	27.0	---	---
26	21.5	13.0	13.5	13.5	15.0	13.5	23.0	36.5	---	29.0	---	---
27	21.0	14.0	11.5	12.5	14.0	14.5	23.5	---	---	29.0	---	---
28	19.0	14.0	14.0	12.5	15.0	18.0	25.0	---	---	30.0	---	---
29	---	16.5	14.0	14.0	---	16.5	25.0	---	---	---	---	---
30	17.0	19.0	14.0	14.0	---	15.0	22.5	---	---	---	---	---
31	18.5	---	12.5	12.5	---	15.5	---	---	---	---	---	---
MONTH	---	14.0	16.5	13.0	13.5	14.0	19.5	---	---	---	---	---

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 1971.

Chemical and biochemical analyses: October 1967 to September 1971.

Pesticide analyses: January 1968 to September 1971.

Water temperatures: October 1947 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.									
03...	2850	--	--	--	--	--	--	10	20
13...	5430	--	--	--	--	--	--	4.0	5.6
20...	1570	--	--	--	--	--	--	17	16
29...	29800	1.7	3.0	.1	.8	6	0	.4	2.8
NOV.									
01...	13600	4.6	4.5	.2	2.2	8	0	5.2	3.2
08...	2030	--	--	--	--	--	--	10	15
21...	2040	--	--	--	--	--	--	11	15
29...	1040	--	--	--	--	--	--	13	15
DEC.									
07...	848	--	--	--	--	--	--	16	15
14...	2780	--	--	--	--	--	--	14	18
20...	3680	--	--	--	--	--	--	12	19
31...	2950	13	8.0	2.4	14	36	0	9.2	15
JAN.									
03...	5430	--	--	--	--	--	--	8.0	18
11...	5980	--	--	--	--	--	--	9.8	28
18...	4750	--	--	--	--	--	--	10	23
28...	2960	9.1	8.5	3.1	23	44	0	16	22
FEB.									
01...	2980	--	--	--	--	--	--	12	23
09...	1500	12	7.5	2.3	16	33	0	12	16
18...	2230	--	--	--	--	--	--	11	15
26...	6460	--	--	--	--	--	--	10	22
MAR.									
01...	10900	--	--	--	--	--	--	12	16
11...	6590	--	--	--	--	--	--	11	20
18...	2030	10	9.0	2.1	17	34	0	13	18
24...	2730	--	--	--	--	--	--	11	15
APR.									
02...	2010	5.9	6.0	1.0	12	21	0	10	12
10...	1040	--	--	--	--	--	--	11	16
15...	851	--	--	--	--	--	--	13	19
21...	859	--	--	--	--	--	--	19	20
MAY									
07...	811	--	--	--	--	--	--	19	20
14...	3530	5.4	9.8	2.3	21	35	0	14	24
25...	979	--	--	--	--	--	--	14	24
29...	977	--	--	--	--	--	--	17	20
JUNE									
07...	4640	--	--	--	--	--	--	11	28
16...	1720	--	--	--	--	--	--	14	26
20...	3380	--	--	--	--	--	--	24	26
29...	557	13	14	3.7	21	56	0	18	22
JULY									
08...	518	--	--	--	--	--	--	18	24
12...	936	--	--	--	--	--	--	16	24
22...	4160	--	--	--	--	--	--	16	28
30...	646	12	13	1.3	26	51	0	19	22
AUG.									
01...	755	12	12	2.4	28	52	0	25	22
07...	1580	--	--	--	--	--	--	21	16
14...	936	--	--	--	--	--	--	18	16
26...	3040	--	--	--	--	--	--	13	24
SEP.									
01...	738	--	--	--	--	--	--	13	24
08...	520	--	--	--	--	--	--	22	18
22...	614	--	--	--	--	--	--	20	18
30...	504	23	9.5	2.5	31	47	0	32	20

SABINE RIVER BASIN

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08030500 SABINE RIVER NEAR RULIFF, TEX.--Continued

EXTREMES, October 1945 to September 1946, October 1947 to September 1969.--Dissolved solids: Maximum, 411 mg/l Dec. 26-27, 1948; minimum, 25 mg/l Sept. 18-20, 1963.

Hardness: 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): Maximum daily, 779 micromhos Aug. 31, 1966; minimum daily, 28 micromhos Sept. 19, 1963.

Water temperatures (1947-70): 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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
03...	--	--	--	--	--	--	173	--
13...	--	--	--	--	--	--	47	--
20...	--	--	--	--	--	--	157	--
24...	.0	.10	12	8	3	.1	22	6.0
NOV.								
01...	.0	.10	24	12	5	.3	41	7.5
04...	--	--	--	--	--	--	130	--
21...	--	--	--	--	--	--	126	--
29...	--	--	--	--	--	--	149	--
DEC.								
07...	--	--	--	--	--	--	162	--
14...	--	--	--	--	--	--	171	--
20...	--	--	--	--	--	--	168	--
31...	.0	.10	80	30	0	1.1	138	6.6
JAN.								
03...	--	--	--	--	--	--	126	--
11...	--	--	--	--	--	--	160	--
18...	--	--	--	--	--	--	159	--
28...	.0	.20	105	34	0	1.7	186	7.1
FEB.								
01...	--	--	--	--	--	--	183	--
09...	.0	.30	83	28	1	1.3	141	7.0
18...	--	--	--	--	--	--	127	--
26...	--	--	--	--	--	--	168	--
MAR.								
01...	--	--	--	--	--	--	126	--
11...	--	--	--	--	--	--	150	--
18...	.0	.60	89	31	3	1.3	151	7.1
24...	--	--	--	--	--	--	119	--
APR.								
02...	.0	.20	58	19	2	1.2	105	6.8
10...	--	--	--	--	--	--	154	--
15...	--	--	--	--	--	--	176	--
21...	--	--	--	--	--	--	189	--
MAY								
07...	--	--	--	--	--	--	188	--
14...	.0	.40	95	34	5	1.6	181	6.9
25...	--	--	--	--	--	--	191	--
29...	--	--	--	--	--	--	196	--
JUNE								
07...	--	--	--	--	--	--	193	--
16...	--	--	--	--	--	--	192	--
20...	--	--	--	--	--	--	234	--
29...	.0	.20	121	50	4	1.3	209	7.2
JULY								
08...	--	--	--	--	--	--	210	--
12...	--	--	--	--	--	--	199	--
22...	--	--	--	--	--	--	195	--
30...	.0	.20	119	38	0	1.8	209	6.9
AUG.								
01...	.0	.20	128	40	0	1.9	215	7.3
07...	--	--	--	--	--	--	150	--
14...	--	--	--	--	--	--	160	--
26...	--	--	--	--	--	--	182	--
SEPT.								
01...	--	--	--	--	--	--	190	--
08...	--	--	--	--	--	--	201	--
22...	--	--	--	--	--	--	186	--
30...	.1	.10	142	34	0	2.3	235	6.8

SABINE RIVER BASIN

08030500 SABINE RIVER NEAR RULIFF, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	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...	1215	1570	11	6.8	2.2	17	34	0	13	15	.0	.24
DEC. 16...	1045	1500	8.1	8.8	2.9	18	41	0	12	19	.0	.26
FE4. 22...	1245	4160	.0	9.5	2.3	19	37	0	11	22	.0	.20
APR. 06...	1045	1220	14	7.5	2.7	14	33	0	12	14	.0	.23
JUNE 15...	1020	2960	3.0	12	2.4	24	42	0	15	30	.0	.15
AUG. 17...	0930	3310	7.2	10	1.5	21	37	0	12	24	.0	.23

DATE	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED 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)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 20...	.010	.10	.10	.080	83	29	2	26	0	--	134	6.7
DEC. 16...	.010	.14	.10	.050	89	22	20	34	0	1.3	165	6.4
FE4. 22...	.010	.07	.30	.050	83	39	13	33	3	--	159	6.9
APR. 06...	.000	.00	.20	.040	81	38	32	30	3	1.1	133	6.4
JUNE 15...	.000	.08	.00	.050	108	54	4	40	6	1.7	199	7.8
AUG. 17...	.020	.27	.10	.040	95	126	8	31	1	1.6	176	6.3

DATE	TEMP- ERATURE (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...	19.5	70	40	7.4	80	22	1.8	0	.00	100	0	0
DEC. 16...	12.5	40	10	8.8	92	19	1.0	0	.01	--	--	--
FE4. 22...	15.0	20	20	9.2	90	22	1.4	0	.00	20	0	0
APR. 06...	17.0	100	30	9.6	99	30	1.1	0	.00	--	--	--
JUNE 15...	28.5	60	30	7.2	92	28	3.9	0	.00	20	0	1
AUG. 17...	29.5	60	120	5.9	77	21	2.3	0	.00	90	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...	0	0	0	4	15	0	0	34	.5	3	120	0
DEC. 16...	--	--	--	--	--	--	--	--	--	--	--	--
FE4. 22...	0	--	0	4	70	0	0	31	.7	4	150	14
APR. 06...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE 15...	0	--	0	10	70	0	0	1	<.5	0	180	50
AUG. 17...	0	--	0	9	440	0	0	40	1.4	3	140	30

SABINE RIVER BASIN

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08030500 SABINE RIVER NEAR RULIFF, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1215	1570	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 22...	1245	4160	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 15...	1020	2960	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 17...	0930	3310	.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)
OCT. 20...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
FEB. 22...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JUNE 15...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
AUG. 17...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
OCT. 20...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
FEB. 22...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JUNE 15...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
AUG. 17...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
OCT. 20...	<.2	.0	<10	.00	<1.1	.00	<.1	.00	<.1
FEB. 22...	<.2	.0	<10	.00	<2.1	.00	<.2	.00	<.2
JUNE 15...	<.2	.0	<10	.00	<2.0	.00	<.6	.00	<.6
AUG. 17...	<.2	.0	<10	.00	<1.4	.03	<.5	.00	<.5

[illegible][illegible]

SABINE RIVER BASIN

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08030500 SABINE RIVER NEAR RULIFF, TEX.--Continued

COLOR, IN PLATINUM-COBALT UNITS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	70	---	30	20	100	---	---	---	---	70	30
2	30	100	---	60	20	100	120	---	---	---	70	---
3	30	120	70	70	40	100	---	---	---	---	60	---
4	30	100	70	100	50	100	---	70	---	---	70	40
5	60	90	65	80	20	100	120	70	---	30	70	40
6	20	---	65	70	20	120	100	70	---	30	60	140
7	20	70	70	110	30	---	100	80	15	30	130	100
8	30	70	70	50	60	---	120	80	---	60	140	100
9	30	---	100	50	70	---	120	80	20	50	130	---
10	---	100	60	40	---	---	100	---	20	60	140	---
11	---	70	60	60	40	60	---	50	20	70	140	70
12	---	70	30	---	---	70	---	60	25	50	140	50
13	110	70	70	60	---	70	---	60	25	120	120	30
14	70	---	70	50	---	50	---	50	20	60	120	---
15	130	---	60	50	---	50	70	60	---	120	---	---
16	130	---	50	50	---	---	70	50	20	60	120	---
17	130	---	60	40	---	100	70	---	30	---	120	---
18	130	---	30	60	60	70	100	---	20	50	40	---
19	80	---	---	60	50	100	100	---	20	---	40	---
20	120	---	70	---	40	50	---	---	50	40	50	---
21	100	60	---	---	40	80	80	---	20	40	50	---
22	60	50	---	---	40	100	---	---	30	40	60	70
23	60	---	---	---	60	100	---	---	30	30	70	70
24	70	---	---	---	60	100	---	30	40	50	60	70
25	90	---	---	---	---	---	---	30	30	50	120	70
26	90	60	---	---	50	100	---	40	30	50	50	70
27	100	60	---	---	---	---	---	40	40	60	---	70
28	60	70	---	40	---	---	---	50	---	40	40	70
29	50	70	60	30	---	---	---	60	60	70	40	70
30	40	---	---	20	---	---	---	---	---	60	40	70
31	50	---	70	20	---	---	---	---	---	70	50	---
MONTH	70	---	---	---	---	---	---	---	---	55	85	---

SABINE RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE SABINE RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08017400 LAKE TAWAKONI NEAR WILLS POINT, TEX. (Lat 32°48'40", long 95°54'56")

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)
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APR. 29...	1215	.2	30	20	27	3.6	12	106	0	13
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DATE	TIME	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED 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)	TEMPERATURE (DEG C)
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APR. 29...	5.4	.2	.20	114	82	0	.6	210	7.5	19.0
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08021500 LAKE CHEROKEE NEAR LONGVIEW, TEX. (Lat 32°22'36", long 94°38'30")

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)
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APR. 22...	1745	9.4	30	40	7.0	2.8	19	9	0	14
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DATE	TIME	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED 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)	TEMPERATURE (DEG C)
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APR. 22...	34	.0	.20	91	29	22	1.5	165	6.5	23.5
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08022200 MURVAUL LAKE NEAR GARY, TEX. (Lat 32°02'04", long 94°25'15")

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)
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APR. 22...	1625	.6	60	60	14	7.1	29	42	0	28
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DATE	TIME	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED 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)	TEMPERATURE (DEG C)
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APR. 22...	45	.1	.30	146	64	30	1.6	294	7.2	22.0
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SABINE RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE SABINE RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

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) (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)
FEB. 10...	1045	4.1	18	19	7.2	77	37	0	16	140
MAR. 17...	1400	19	11	11	4.5	31	28	0	12	55
APR. 27...	1205	2.2	9.1	24	9.7	87	48	0	8.8	170
MAY 26...	1245	1.9	14	22	9.0	79	35	0	9.6	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- CAP- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
FEB. 10...	.0	.00	295	77	47	--	570	6.9
MAR. 17...	.0	.1	139	46	23	--	267	6.4
APR. 27...	.0	.3	334	100	60	3.8	659	6.7
MAY 26...	.0	.5	311	92	66	3.6	598	6.8

NECHES RIVER BASIN

203

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 1971.

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

WATER QUALITY DATA, WATER OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISCHARGE (CFS)	DISSOLVED CHLORIDE (CL) (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)
OCT. 27, 1970...	1245	164	94	458
NOV. 12.....	1050	1360	9.2	106
DEC. 01.....	1230	278	43	274
DEC. 18.....	1210	261	46	279
JAN. 01, 1971...	1345	455	58	313
MAR. 16.....	1325	303	92	431
APR. 01.....	1540	101	202	818
APR. 20.....	1240	133	210	795
JULY 15.....	1050	23	80	412
AUG. 06.....	0925	34	140	593
AUG. 19.....	0910	28	100	487
SEP. 29.....	1235	28	66	382

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 1971.

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 1970 TO SEPTEMBER 1971

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.									
08...	1730	81	13	11	4.3	33	38	0	19
19...	1400	130	16	12	4.6	37	34	0	24
NOV.									
12...	1540	1310	7.5	6.0	1.7	20	11	0	39
DEC.									
07...	1400	358	15	12	4.6	30	25	0	27
22...	1600	465	14	11	5.0	30	26	0	24
JAN.									
26...	1000	335	3.6	13	4.3	42	26	0	25
FEB.									
22...	1455	630	14	11	3.9	41	21	0	19
25...	1620	671	12	10	4.1	30	20	0	25
APR.									
01...	--	238	12	14	6.1	46	27	0	28
24...	1220	236	18	18	6.4	88	32	0	21
MAY									
07...	0720	--	16	14	5.6	67	34	0	15
JUNE									
14...	1435	43	13	14	9.7	43	53	0	16
19...	1145	34	15	15	5.6	48	57	0	16
JULY									
15...	1630	17	3.9	14	6.6	45	47	0	23
AUG.									
19...	1155	52	12	17	6.5	60	37	0	28
20...	1115	39	15	17	6.6	61	38	0	30
SEP.									
29...	1520	73	17	12	5.1	34	40	0	17

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED NITRI- TE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED 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.									
08...	46	.2	--	--	--	.20	--	146	45
19...	54	.1	.20	.000	.00	.10	.050	165	49
NOV.									
12...	11	.0	--	--	--	.10	--	91	22
DEC.									
07...	47	.1	.24	.000	.00	.00	.050	148	49
22...	46	.0	--	--	--	.30	--	144	48
JAN.									
26...	65	.0	--	--	--	.50	--	168	50
FEB.									
22...	66	.2	--	.000	.17	.40	.060	167	44
25...	46	.0	--	--	--	.20	--	138	42
APR.									
01...	76	.0	--	--	--	.40	--	197	60
24...	150	.1	--	.020	.00	.20	.070	320	72
MAY									
07...	110	.0	--	--	--	.70	--	250	58
JUNE									
14...	76	.1	--	--	--	.30	--	199	75
19...	72	.1	--	.000	.00	.20	.090	201	60
JULY									
15...	68	.2	--	--	--	.10	--	184	62
AUG.									
19...	98	.1	--	--	--	.20	--	240	69
20...	99	.1	--	.000	.08	.00	.020	248	70
SEP.									
29...	53	.0	--	--	--	.10	--	158	51

NECHES RIVER BASIN

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08032500 NECHES RIVER NEAR ALTO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT.								
08...	14	2.1	261	6.8	23.0	--	--	--
19...	21	2.3	296	6.9	16.5	8.6	88	.6
NOV.								
12...	13	1.9	112	6.2	--	--	--	--
DEC.								
07...	28	1.9	261	6.6	14.5	8.4	82	1.2
22...	27	1.9	272	6.9	15.0	--	--	--
JAN.								
26...	29	2.6	337	7.4	14.5	--	--	--
FEB.								
22...	26	2.7	300	6.8	13.5	8.8	84	1.9
25...	26	2.0	263	6.4	14.5	--	--	--
APR.								
01...	38	2.6	376	6.4	15.5	--	--	--
24...	46	4.5	607	6.9	21.5	7.5	84	1.8
MAY								
07...	30	3.8	469	6.7	--	--	--	--
JUNE								
14...	32	2.2	380	7.2	30.5	--	--	--
19...	14	2.7	371	6.8	17.0	5.7	59	6.2
JULY								
15...	24	2.5	355	6.8	32.0	--	--	--
AUG.								
19...	39	3.1	448	6.7	28.0	--	--	--
20...	38	3.2	461	7.3	27.5	6.7	84	2.0
SEP.								
29...	18	2.1	303	6.8	26.5	--	--	--

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 1971.
Water temperatures: October 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.									
01-31	244	11	10	4.4	41	44	0	23	49
NOV.									
01-30	909	9.5	8.8	2.9	21	20	0	25	24
DEC.									
01-31	518	10	8.8	5.8	30	28	0	26	43
JAN.									
01-31	540	14	12	4.9	36	30	0	25	54
FEB.									
01-28	400	12	13	4.5	44	32	0	20	70
MAR.									
01-31	556	10	13	4.8	42	28	0	27	65
APR.									
01-30	265	12	14	6.1	57	33	0	27	90
MAY									
01-13	196	15	16	6.6	80	42	0	22	130
14-31	618	15	9.5	3.5	31	29	0	20	42
JUNE									
01-30	90	16	14	5.6	48	68	0	16	63
JULY									
01-31	40	14	16	4.9	53	90	0	18	58
AUG.									
01-31	74	17	13	6.0	50	60	0	26	62
SEP.									
01-30	60	16	13	5.5	55	58	0	23	72
WTD. AVG.	--	12	11	4.5	37	31	0	24	52
TIME WTD.									
AVG.	344	13	12	5.0	44	44	0	23	61
TOT. LOAD (TONS)	--	3980	3770	1540	12400	10500	0	8210	17700

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	340	271	193	253	348	272	414	612	296	407	417	510
2	441	261	200	258	351	310	418	614	307	416	409	537
3	372	287	204	261	351	309	407	581	316	412	407	483
4	321	283	213	255	348	294	406	538	317	414	331	351
5	307	293	218	265	349	292	410	523	317	409	390	436
6	301	293	223	272	353	274	411	505	316	409	385	437
7	313	236	233	281	345	276	412	514	313	417	438	449
8	352	232	258	281	344	277	410	536	312	394	438	448
9	364	241	258	304	350	287	410	520	328	390	429	448
10	343	183	259	299	357	299	410	519	329	369	440	416
11	301	158	274	291	352	324	422	514	333	363	392	391
12	267	143	273	291	354	356	426	512	337	368	367	357
13	275	136	273	295	352	371	444	422	343	368	375	333
14	321	134	274	317	357	366	449	219	447	361	350	341
15	299	128	273	299	371	349	437	209	448	365	351	348
16	297	121	273	297	371	366	436	190	439	365	345	298
17	302	135	273	306	339	359	452	183	409	364	351	298
18	278	153	273	306	341	355	495	185	423	367	356	329
19	296	132	273	304	339	369	507	195	425	369	346	330
20	261	132	276	311	350	369	538	205	416	369	326	357
21	256	132	279	313	386	367	393	223	414	369	337	435
22	261	136	290	315	389	379	375	252	402	390	334	441
23	269	146	290	303	390	397	323	250	389	407	357	463
24	183	147	287	317	376	395	313	253	388	414	357	453
25	258	155	286	319	293	391	313	260	378	413	410	448
26	197	166	308	319	307	389	378	258	377	432	409	463
27	254	170	280	319	363	391	477	258	342	412	399	402
28	237	176	273	336	286	396	477	265	325	413	400	390
29	234	181	252	336	---	402	500	281	353	466	401	388
30	233	187	252	340	---	403	546	287	398	487	398	389
31	242	---	256	341	---	414	---	286	---	427	440	---
MONTH	290	185	260	300	350	348	427	360	365	398	383	406

08033000 NECHES RIVER NEAR DIBOLL, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 292 mg/l May 1-13; minimum, 104 mg/l Nov. 1-30.
 Hardness: Maximum, 67 mg/l May 1-13; minimum, 34 mg/l Nov. 1-30.
 Specific conductance: Maximum daily, 614 micromhos May 2; minimum daily, 121 micromhos Nov. 16.
 Water temperatures: Maximum, 37.0°C Oct. 2, 3, 4; minimum, 9.0°C Jan. 8, 9.

EXTREMES, October 1969 to September 1971.--Dissolved solids: Maximum, 292 mg/l May 1-13, 1971; minimum, 104 mg/l Nov. 1-30, 1970.
 Hardness: Maximum, 67 mg/l May 1-13, 1971; minimum, 34 mg/l Nov. 1-30, 1970.
 Specific conductance: Maximum daily, 614 micromhos May 2, 1971; minimum daily, 121 micromhos Nov. 16, 1970.
 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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	.2	.90	165	43	7	2.7	287	6.6
NOV. 01-30	.1	.70	104	34	18	1.6	183	6.9
DEC. 01-31	.0	.30	139	46	23	1.9	259	7.1
JAN. 01-31	.0	.50	163	50	25	2.2	297	7.0
FEB. 01-28	.0	.50	182	51	25	2.7	351	6.7
MAR. 01-31	.0	.50	178	52	29	2.5	349	7.8
APR. 01-30	.0	.40	224	60	33	3.2	427	6.7
MAY 01-13	.1	.70	292	67	33	4.2	533	6.9
14-31	--	.70	138	38	14	2.2	238	6.8
JUNE 01-30	.1	.40	198	58	2	2.7	366	7.2
JULY 01-31	.2	.40	210	60	0	3.0	398	7.6
AUG. 01-31	.2	.40	206	57	8	2.9	385	7.0
SEP. 01-30	.2	.20	215	55	7	3.2	403	6.9
WTD. AVG. TIME WTD. AVG.	.1	.55	158	46	21	2.3	292	7.0
TOT. LOAD (TONS)	16	186	53600	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36.0	28.0	13.0	12.0	11.0	14.0	19.0	24.0	27.0	30.0	29.0	28.0
2	37.0	28.0	13.0	12.0	11.0	---	17.0	25.0	27.0	29.0	28.0	28.0
3	37.0	29.0	13.0	13.0	11.0	---	17.0	25.0	27.0	28.0	28.0	28.0
4	37.0	13.0	---	12.0	11.0	---	18.0	24.0	27.0	29.0	28.0	28.0
5	36.0	13.0	---	11.0	12.0	---	18.0	---	27.0	29.0	28.0	28.0
6	36.0	13.0	---	11.0	12.0	12.0	17.0	24.0	28.0	29.0	28.0	28.0
7	36.0	13.0	---	10.0	11.0	12.0	16.0	25.0	28.0	29.0	28.0	28.0
8	34.0	12.0	---	9.0	11.0	12.0	16.0	25.0	28.0	29.0	27.0	28.0
9	32.0	12.0	---	9.0	11.0	11.0	16.0	25.0	28.0	29.0	29.0	28.0
10	32.0	13.0	---	10.0	11.0	11.0	17.0	23.0	28.0	29.0	29.0	28.0
11	30.0	13.0	13.0	11.0	11.0	12.0	18.0	22.0	29.0	29.0	29.0	29.0
12	30.0	12.0	12.0	11.0	12.0	13.0	19.0	20.0	29.0	29.0	27.0	28.0
13	29.0	12.0	12.0	11.0	17.0	13.0	19.0	25.0	29.0	28.0	29.0	28.0
14	31.0	11.0	12.0	11.0	12.0	13.0	19.0	25.0	29.0	28.0	29.0	28.0
15	30.0	11.0	12.0	11.0	12.0	14.0	19.0	25.0	28.0	29.0	29.0	28.0
16	29.0	11.0	12.0	12.0	12.0	13.0	19.0	25.0	28.0	29.0	29.0	27.0
17	29.0	11.0	12.0	12.0	12.0	14.0	20.0	26.0	29.0	29.0	29.0	28.0
18	29.0	11.0	12.0	12.0	12.0	13.0	19.0	26.0	29.0	29.0	29.0	27.0
19	30.0	12.0	13.0	11.0	12.0	13.0	19.0	26.0	28.0	29.0	29.0	27.0
20	29.0	12.0	12.0	11.0	12.0	17.0	18.0	26.0	28.0	28.0	28.0	27.0
21	28.0	12.0	12.0	12.0	12.0	16.0	18.0	28.0	28.0	28.0	28.0	26.0
22	29.0	12.0	13.0	12.0	11.0	16.0	19.0	25.0	29.0	29.0	28.0	23.0
23	28.0	11.0	13.0	12.0	---	16.0	22.0	27.0	---	29.0	28.0	24.0
24	29.0	11.0	13.0	12.0	---	14.0	21.0	24.0	29.0	29.0	28.0	24.0
25	29.0	11.0	12.0	12.0	---	13.0	20.0	25.0	29.0	28.0	28.0	24.0
26	29.0	12.0	12.0	12.0	---	14.0	21.0	26.0	30.0	29.0	28.0	---
27	28.0	12.0	13.0	12.0	15.0	14.0	21.0	26.0	---	29.0	28.0	25.0
28	28.0	13.0	13.0	11.0	14.0	15.0	24.0	26.5	29.0	29.0	27.0	25.0
29	28.0	13.0	13.0	11.0	---	15.0	24.0	26.0	28.0	29.0	28.0	26.0
30	28.0	13.0	12.0	10.0	---	15.0	24.0	27.0	29.0	29.0	28.0	26.0
31	28.0	---	12.0	11.0	---	15.0	---	27.0	---	29.0	28.0	---
MONTH	31.0	13.5	---	11.5	12.0	13.5	19.0	25.0	28.5	29.0	28.5	27.0

NECHES RIVER BASIN

08033000 NECHES RIVER NEAR DIBOLL, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1400	210	12	9.2	3.6	35	46	0	17
DEC. 09...	1400	398	14	13	4.3	25	25	0	28
FEB. 23...	0845	506	13	13	4.8	53	32	0	20
APR. 23...	1120	542	13	11	4.4	46	27	0	20
JUNE 17...	1400	98	15	14	5.4	60	90	0	23
AUG. 18...	1315	54	13	12	4.2	49	51	0	28

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED 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...	41	.0	.43	.000	.00	.00	.33	141	38
DEC. 09...	39	.1	.30	.000	.00	.10	.080	136	50
FEB. 23...	84	.2	--	.000	.00	.30	.14	205	52
APR. 23...	72	.2	--	.000	.00	.20	.10	180	46
JUNE 17...	64	.2	--	.010	.30	.20	.030	227	58
AUG. 18...	60	.1	--	.000	.32	.00	.16	192	47

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 22...	0	2.5	246	6.9	17.5	6.6	69	3.1
DEC. 09...	30	1.5	266	6.4	15.0	8.0	78	2.9
FEB. 23...	26	3.2	380	6.9	12.0	9.4	87	2.7
APR. 23...	23	3.0	332	6.8	22.0	7.0	80	2.5
JUNE 17...	0	3.5	407	7.2	29.0	7.2	92	22
AUG. 18...	5	3.1	342	7.1	28.0	5.9	75	3.5

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.												
21...	1500	224	12	9.8	3.5	36	45	0	23	39	.0	.55
NOV.												
05...	1025	414	11	10	3.9	31	32	0	21	41	.0	--
DEC.												
03...	1205	993	12	8.8	3.4	19	18	0	26	25	.0	--
08...	1330	478	14	10	3.9	23	22	0	26	32	.2	.25
JAN.												
05...	0945	658	15	11	4.3	28	32	0	25	38	.0	--
FEB.												
09...	1230	325	12	14	4.1	45	34	0	25	67	.0	--
23...	1345	264	11	14	4.6	48	34	0	22	76	.2	.77
MAR.												
16...	0935	490	12	13	5.2	46	37	0	26	68	.0	--
APR.												
23...	1230	552	11	15	6.0	72	38	0	22	120	.2	.03
26...	1710	435	16	12	4.1	47	28	0	22	72	.0	--
MAY												
28...	1245	298	15	11	4.5	29	30	0	15	48	.0	--
JUNE												
18...	1400	74	16	16	4.9	42	48	0	17	66	.1	.45
JULY												
09...	0900	53	11	13	5.2	49	65	0	16	63	.1	--
AUG.												
03...	1200	53	10	16	7.8	60	81	0	16	84	.1	--
19...	1220	56	12	14	4.9	60	79	0	27	66	.2	.34
SEP.												
10...	1510	44	15	11	5.5	41	42	0	27	54	.0	--

DATE	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- UENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.												
21...	.000	.00	.10	.26	146	966	928	39	2	2.5	253	7.0
NOV.												
05...	--	--	.50	--	136	--	--	41	15	2.1	280	7.1
DEC.												
03...	--	--	.10	--	104	--	--	36	21	1.4	189	6.4
08...	.000	.00	.10	.060	120	27	3	41	23	1.6	210	6.4
JAN.												
05...	--	--	.20	--	138	--	--	45	19	1.8	257	6.9
FEB.												
09...	--	--	.20	--	185	--	--	52	24	2.7	357	6.6
23...	.000	.00	.10	.10	193	38	6	54	26	2.8	357	8.0
MAR.												
16...	--	--	.00	--	188	--	--	54	24	2.7	361	6.5
APR.												
23...	.000	.00	.10	.12	262	139	21	62	31	4.0	492	7.1
26...	--	--	.20	--	188	--	--	47	24	3.0	340	6.8
MAY												
28...	--	--	.30	--	139	--	--	46	21	1.9	259	6.2
JUNE												
18...	.010	.00	.20	.040	187	72	24	60	21	2.4	337	7.0
JULY												
09...	--	--	.20	--	190	--	--	54	1	2.9	360	7.0
AUG.												
03...	--	--	.10	--	234	--	--	72	6	3.1	454	7.1
19...	.000	.13	.00	.14	223	109	21	55	0	3.5	404	7.0
SEP.												
10...	--	--	.10	--	175	--	--	50	16	2.5	333	6.4

08033500 NECHES RIVER NEAR ROCKLAND, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible][illegible]

NECHES RIVER BASIN

211

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (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)
OCT. 06...	1600	1.9	20	79	22	1200	10	0	17	2100
NOV. 11...	--	3.4	26	40	11	530	0	0	14	920
DEC. 16...	1620	5.5	23	24	9.5	260	0	0	13	470
JAN. 26...	1335	4.4	27	28	12	350	0	0	12	630
FEB. 25...	0815	7.3	26	24	11	.2	0	0	17	500
APR. 02...	0910	3.2	28	22	10	210	0	0	15	400
MAY 06...	1700	2.5	29	24	10	240	0	0	12	450
JUNE 10...	1540	.46	27	44	17	740	1	0	11	1300
SEP. 28...	1430	.77	30	79	25	1400	18	0	17	2400

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 06...	.2	1.2	3490	290	280	--	31	5950	5.2
NOV. 11...	.0	.2	1540	150	150	0.3	--	2850	4.1
DEC. 16...	.0	.2	798	99	99	.4	--	1570	4.1
JAN. 26...	.0	.2	1050	120	120	.4	--	2080	3.9
FEB. 25...	.0	.2	846	105	100	.4	--	1670	3.8
APR. 02...	.1	.10	691	96	96	.5	9.3	1300	3.9
MAY 06...	.1	.10	768	100	100	.4	10	1510	3.9
JUNE 10...	.1	.00	2100	180	180	--	24	3980	4.6
SEP. 28...	.1	.00	3900	300	280	--	35	7430	6.1

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 1971.

Chemical and biochemical analyses: October 1967 to September 1971.

Water temperatures: October 1954 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.									
01-15	72	11	10	4.1	61	30	0	20	91
16-31	129	13	6.0	2.0	19	22	0	13	22
NOV.									
01-30	257	14	7.2	3.7	26	14	0	25	37
DEC.									
01-31	251	13	8.2	4.3	34	25	0	21	50
JAN.									
01-31	259	15	9.5	4.0	37	20	0	26	55
FEB.									
01-28	339	11	8.5	4.6	36	20	0	22	56
MAR.									
01-31	371	10	9.5	4.2	36	20	0	30	51
APR.									
01-11	244	11	9.5	4.4	25	24	0	30	32
12-18	166	9.4	13	6.7	75	17	0	30	130
19-30	334	11	9.5	4.4	25	24	0	30	32
MAY									
01-31	680	13	10	4.9	34	21	0	24	54
JUNE									
01-30	61	17	9.0	5.7	28	45	0	20	34
JULY									
01-31	23	18	9.0	4.5	28	52	0	17	28
AUG.									
01-04	52	20	6.5	3.4	29	35	0	22	28
05-11	54	21	16	7.1	78	20	0	46	120
12-31	35	20	6.5	3.4	29	35	0	22	28
SEP.									
01-23	33	17	7.0	4.5	32	30	0	21	41
24-30	93	17	12	6.8	75	10	0	27	130
WTD. AVG.	--	13	9.1	4.4	34	22	0	25	51
TIME WTD.									
AVG.	224	14	8.8	4.4	35	27	0	23	49
TOT. LOAD (TONS)	--	2810	2010	978	7550	4780	0	5480	11200

08037000 ANGELINA RIVER NEAR LUFKIN, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 302 mg/l Aug. 5-11; minimum, 87 mg/l Oct. 16-31.
 Hardness: Maximum, 69 mg/l Aug. 5-11; minimum, 23 mg/l Oct. 16-31.
 Specific conductance: Maximum daily, 697 micromhos Aug. 6; minimum daily, 122 micromhos Nov. 5.
 Water temperatures: Maximum, 29.0°C on several days during July; minimum, 4.5°C Jan. 8.

EXTREMES, October 1954 to September 1971.--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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-15	.2	.20	213	42	17	4.1	413	6.8
16-31	.1	.20	87	23	5	1.7	160	6.5
NOV.								
01-30	.1	.10	120	33	22	2.0	215	6.5
DEC.								
01-31	.0	.00	142	38	18	2.4	260	7.0
JAN.								
01-31	.0	.00	156	40	24	2.5	282	6.8
FEB.								
01-28	.0	.10	148	40	24	2.5	284	6.5
MAR.								
01-31	.0	.00	151	41	25	2.4	286	7.7
APR.								
01-11	.0	.20	125	42	22	1.7	224	6.6
12-18	.0	.10	268	60	46	4.2	524	6.4
19-30	.0	.20	125	42	22	1.7	224	6.6
MAY								
01-31	.0	.30	151	45	28	2.2	273	6.9
JUNE								
01-30	.1	.40	138	46	9	1.8	228	7.1
JULY								
01-31	.2	.20	132	41	0	1.9	231	7.5
AUG.								
01-04	.2	.30	127	30	1	2.3	216	6.6
05-11	--	.10	302	69	53	4.1	571	6.6
12-31	.2	.30	127	30	1	2.3	216	6.6
SEP.								
01-23	.2	.20	139	36	11	2.3	250	6.8
24-30	--	.10	276	58	50	4.3	542	6.2
WTD. AVG.	.0	.14	147	41	23	2.3	270	6.9
TIME WTD.								
AVG.	.1	.16	149	40	18	2.4	271	6.9
TOT. LOAD (TONS)	5.0	31	32500	--	--	--	--	--

NECHES RIVER BASIN

08037000 ANGELINA RIVER NEAR LUFKIN, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.										
22...	1015	82	15	5.0	2.5	20	23	0	17	21
NOV.										
04...	1100	290	14	5.2	2.4	14	12	0	19	17
DEC.										
08...	1530	145	19	7.5	3.9	30	27	0	20	40
JAN.										
28...	1140	166	14	8.5	4.2	26	24	0	23	37
FEB.										
23...	0930	532	13	7.5	4.0	31	13	0	26	46
MAR.										
17...	--	278	12	9.2	5.0	28	21	0	30	39
APR.										
22...	1200	394	12	8.0	4.2	28	28	0	23	36
MAY										
26...	1520	311	17	9.8	5.1	43	22	0	26	67
JUNE										
17...	1230	43	18	9.2	4.8	27	44	0	17	32
JULY										
14...	1045	16	15	9.0	4.4	26	47	0	16	29
AUG.										
18...	1505	42	13	6.8	3.0	26	28	0	24	27
SEP.										
23...	1030	71	10	5.8	3.2	25	41	0	20	19

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED 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.									
22...	.1	.35	.000	.00	.20	.12	93	23	4
NOV.									
04...	.1	--	.000	.00	.10	.14	78	23	13
DEC.									
08...	.1	.21	.000	.00	.10	.080	135	35	13
JAN.									
28...	.1	--	.000	.00	.00	--	126	38	19
FEB.									
23...	.1	--	.000	.00	.10	.090	134	35	24
MAR.									
17...	.1	--	.000	.00	.10	.28	134	44	26
APR.									
22...	.1	--	.000	.00	.10	.070	127	37	14
MAY									
26...	.1	--	.000	.18	.20	.12	180	45	27
JUNE									
17...	.2	--	.000	.00	.30	.040	132	43	7
JULY									
14...	.2	--	.000	.00	.30	.13	124	41	2
AUG.									
18...	.1	--	.000	.00	.10	.080	115	29	6
SEP.									
23...	.2	--	.000	.00	.20	.16	106	28	0

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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.									
22...	1.8	153	6.6	16.0	8.2	82	.8	150	0
NOV.									
04...	1.3	123	6.2	12.0	7.8	72	--	330	--
DEC.									
08...	2.2	217	7.3	14.0	8.6	83	1.3	760	130
JAN.									
28...	1.8	222	6.9	11.0	9.6	86	--	1600	--
FEB.									
23...	2.3	242	6.6	12.0	8.4	78	1.6	260	90
MAR.									
17...	1.9	238	6.8	18.0	9.1	96	--	370	--
APR.									
22...	2.0	221	6.7	22.0	7.2	82	2.3	940	10
MAY									
26...	2.8	310	6.8	24.5	6.6	79	--	--	--
JUNE									
17...	1.8	222	6.9	28.5	6.5	83	6.5	560	60
JULY									
14...	1.8	207	6.9	29.5	8.9	116	--	290	--
AUG.									
18...	2.1	193	6.9	29.0	6.7	86	1.2	740	60
SEP.									
23...	2.1	177	6.8	22.0	7.5	85	--	2300	--

08037000 ANGELINA RIVER NEAR LUFKIN, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	457	133	318	372	206	336	215	227	227	228	224	326
2	472	141	368	323	204	356	222	230	227	236	208	343
3	481	132	382	279	210	372	210	234	223	236	207	356
4	452	141	371	244	376	373	211	232	220	237	212	357
5	435	122	328	312	442	327	201	230	220	239	446	356
6	438	130	273	386	433	285	209	437	222	242	697	348
7	435	134	240	402	365	256	214	532	225	241	643	333
8	437	135	225	397	285	236	219	525	231	236	623	303
9	434	135	224	370	235	231	224	486	228	227	561	277
10	434	138	227	309	248	228	229	414	230	222	540	264
11	321	144	219	259	427	441	260	289	230	214	484	237
12	380	208	213	232	413	498	527	217	230	214	303	222
13	362	309	206	222	367	477	561	181	232	212	226	199
14	322	345	205	220	297	409	567	139	232	214	203	183
15	290	328	201	222	253	321	553	145	232	216	180	180
16	227	235	199	219	231	270	531	173	233	219	182	180
17	187	255	199	210	220	243	483	216	229	223	195	185
18	159	313	195	206	212	235	406	213	227	227	197	185
19	140	311	191	209	201	232	319	174	228	230	205	183
20	172	329	190	215	188	236	233	152	229	232	205	182
21	158	306	185	208	281	234	225	153	231	236	194	186
22	159	269	317	410	394	228	213	187	234	236	176	186
23	155	243	400	425	244	229	222	279	230	237	184	168
24	153	233	400	345	223	231	143	333	221	240	191	437
25	141	230	348	340	273	233	199	340	225	241	194	589
26	141	219	207	277	231	230	203	326	229	240	200	586
27	136	210	182	249	221	224	205	294	233	242	196	588
28	146	194	177	230	292	222	207	265	235	238	196	601
29	147	213	250	224	---	214	211	245	230	246	290	570
30	155	223	323	215	---	220	215	232	231	218	293	415
31	144	---	375	211	---	219	---	228	---	223	311	---
MONTH	280	215	263	284	285	286	290	269	228	230	296	318

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	17.0	15.0	9.0	10.5	15.0	17.5	19.0	25.0	27.0	25.0	24.0
2	22.0	14.0	17.0	10.0	11.0	16.0	14.5	20.0	25.0	28.0	25.5	25.5
3	22.0	13.0	17.5	13.0	11.0	10.5	14.0	20.0	25.0	28.0	25.0	26.0
4	24.0	12.0	16.0	9.0	13.5	10.0	15.0	20.0	25.0	28.0	25.0	26.0
5	24.0	11.0	17.0	7.0	11.0	13.0	14.0	22.0	25.0	28.0	24.0	26.0
6	23.0	14.0	14.0	6.0	10.0	14.0	14.5	22.0	25.0	28.5	24.0	26.0
7	23.0	14.0	12.0	6.0	10.0	11.0	15.0	22.0	25.0	29.0	25.0	25.5
8	23.0	15.0	12.5	4.5	8.0	10.5	14.5	22.5	25.0	29.0	25.0	26.0
9	18.0	15.0	14.5	5.0	8.0	11.0	16.0	23.0	26.0	29.0	26.0	26.0
10	18.0	14.0	15.0	12.0	7.0	12.0	15.0	24.0	26.0	29.0	25.5	26.0
11	17.0	14.0	16.0	9.5	9.0	12.0	16.0	20.0	27.0	29.0	27.0	25.0
12	18.0	12.0	10.0	9.0	10.0	14.0	18.0	19.5	27.0	29.0	27.0	26.0
13	18.0	12.0	11.0	11.0	8.0	15.0	18.0	17.5	27.0	28.5	26.0	25.5
14	16.0	12.0	9.0	13.0	8.0	17.0	16.0	20.5	27.0	28.5	27.0	26.0
15	17.0	9.5	11.0	11.0	10.0	16.0	18.0	17.0	27.0	28.0	27.0	26.0
16	15.0	6.0	10.0	8.5	11.0	15.5	19.0	19.0	26.0	29.0	27.0	25.0
17	15.0	11.0	8.0	10.0	13.0	16.0	19.0	19.0	27.0	27.0	26.0	25.0
18	17.0	11.0	10.5	9.5	14.0	17.0	19.0	20.0	27.0	27.0	25.0	24.5
19	15.0	11.0	13.0	8.0	14.0	15.0	21.0	22.0	27.0	27.0	26.0	24.0
20	14.0	9.0	12.0	6.5	14.0	14.0	21.0	20.0	26.5	28.5	26.0	21.0
21	15.0	9.0	14.0	9.5	15.0	14.0	18.0	20.0	26.0	27.0	27.0	20.0
22	17.0	13.0	14.0	13.0	12.0	15.5	22.0	22.0	26.0	27.0	26.0	21.5
23	17.0	9.5	15.0	14.0	12.0	15.5	22.0	22.5	26.0	27.0	28.0	22.0
24	16.0	7.5	12.0	15.0	12.0	15.0	18.0	22.0	26.0	27.0	28.0	23.0
25	20.0	9.0	12.0	13.5	14.0	15.0	20.0	19.5	27.0	27.0	27.5	23.0
26	20.0	11.5	10.0	11.0	14.0	13.0	21.0	21.0	27.0	26.5	27.5	24.0
27	27.0	15.0	10.0	10.0	13.0	13.5	22.0	23.0	28.0	27.0	26.5	25.0
28	17.0	14.0	10.0	9.5	13.0	17.0	21.0	24.0	28.0	26.0	27.0	25.0
29	15.0	15.0	11.5	14.0	---	15.0	22.0	22.5	27.0	25.0	25.0	25.0
30	16.0	15.0	10.0	14.0	---	14.0	20.0	23.0	27.0	26.0	26.0	24.5
31	17.0	---	9.0	13.0	---	16.0	---	24.5	---	25.0	26.0	---
MONTH	18.5	12.0	12.5	10.0	11.5	14.0	18.0	21.0	26.5	27.5	26.0	24.5

NECHES RIVER BASIN

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 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.										
19...	1600	15	11	4.3	70	--	7.5	202	0	55
NOV.										
04...	1030	19	15	5.3	61	--	8.1	81	0	120
DEC.										
08...	1500	14	10	4.8	59	--	5.5	142	0	54
JAN.										
28...	1115	18	9.5	4.4	61	--	6.7	148	0	69
FEB.										
22...	1600	12	12	4.8	27	--	4.8	80	0	38
MAR.										
17...	1400	12	14	6.4	38	--	4.6	73	0	63
APR.										
22...	1130	13	12	5.3	62	--	19	126	0	100
MAY										
26...	1500	12	12	4.6	52	--	6.4	74	0	64
JUNE										
17...	1200	11	7.5	3.3	96	--	9.7	135	0	72
JULY										
14...	1030	16	14	4.6	--	92	--	133	0	89
AUG.										
18...	1540	16	13	4.2	88	--	9.3	138	0	81
SEP.										
23...	1000	6.3	7.8	2.2	6.0	--	4.3	20	0	22

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED 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...	20	.6	.92	.000	13	.10	2.7	300	45	0
NOV.										
04...	23	3.8	--	.000	8.8	.00	2.8	307	59	0
DEC.										
08...	20	.5	1.2	.050	6.5	.20	2.3	248	45	0
JAN.										
28...	22	6.0	--	.000	16	.10	--	295	42	0
FEB.										
22...	14	.5	--	.060	3.8	.50	1.1	160	50	0
MAR.										
17...	17	.9	--	.090	.98	.30	1.9	195	61	1
APR.										
22...	33	.7	--	.900	18	3.2	4.8	352	52	0
MAY										
26...	22	1.1	--	.810	1.6	2.2	1.7	225	49	0
JUNE										
17...	31	.8	--	.240	.28	3.3	1.2	314	32	0
JULY										
14...	33	.8	--	.190	.38	1.6	1.2	323	54	0
AUG.										
18...	28	.7	--	.360	1.4	1.6	1.0	319	50	0
SEP.										
23...	4.6	.8	--	.040	1.0	.90	1.8	70	28	12

NECHES RIVER BASIN

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08037080 BAYOU LaNANA NEAR NACOGDOCHES, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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. 19...	4.5	437	7.0	15.0	2.1	21	16	100	170
NOV. 04...	3.4	518	6.5	11.0	1.8	16	--	330	--
DEC. 08...	3.8	387	7.6	12.0	5.2	48	5.9	1000	230
JAN. 28...	4.1	496	6.8	10.0	2.2	19	--	4000	--
FEB. 22...	1.7	252	6.9	12.0	6.2	57	16	130	170
MAR. 17...	2.1	330	6.2	17.0	6.4	66	--	420	--
APR. 22...	3.7	534	7.1	22.0	3.3	38	28	100	130
MAY 26...	3.2	372	7.0	22.5	3.9	44	--	--	--
JUNE 17...	7.3	513	7.4	16.0	4.7	47	19	340	30
JULY 14...	5.5	538	7.1	26.0	5.9	72	--	280	--
AUG. 18...	5.4	510	7.5	25.0	4.5	54	8.4	560	50
SEP. 23...	.5	121	6.4	22.0	3.8	43	--	790	--

NECHES RIVER BASIN

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 (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. 22...	1115	13	36	4.2	--	350	--	187	0	260
NOV. 04...	1130	14	31	4.3	--	310	--	163	0	230
DEC. 09...	0845	12	35	4.0	--	370	--	262	0	270
JAN. 28...	1215	15	43	3.9	--	340	--	303	0	220
FEB. 23...	1000	14	22	3.8	270	--	7.2	36	0	220
MAR. 17...	1500	14	22	4.0	260	--	8.4	65	0	210
APR. 22...	1245	13	25	3.8	--	270	--	130	0	190
MAY 27...	1120	14	24	4.0	--	280	--	66	0	200
JUNE 17...	1300	14	20	3.5	--	250	--	48	0	190
JULY 14...	1130	15	56	3.4	--	310	--	153	0	230
AUG. 18...	1400	14	50	4.0	--	270	--	142	0	200
SEP. 23...	1100	14	50	4.5	--	300	--	157	0	210

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED 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. 22...	320	.3	1.6	.000	.91	.00	.80	1080	110	0
NOV. 04...	290	.3	--	.000	.83	.00	.38	961	95	0
DEC. 09...	290	.4	1.8	.000	.81	.10	.39	1110	100	0
JAN. 28...	280	.4	--	.000	1.1	.00	--	1050	120	0
FEB. 23...	290	.3	--	.010	.66	.10	.21	848	70	41
MAR. 17...	250	.3	--	.010	.38	.00	1.2	810	72	18
APR. 22...	250	.3	--	.000	.85	.00	.36	817	78	0
MAY 27...	300	.2	--	.000	.66	.00	.54	855	76	22
JUNE 17...	270	.3	--	.000	.58	.00	.96	774	64	25
JULY 14...	340	.3	--	.010	.79	.10	1.0	1030	150	28
AUG. 18...	300	.3	--	.000	.74	.00	.24	908	140	25
SEP. 23...	320	.3	--	.010	.10	.10	.21	978	140	15

NECHES RIVER BASIN

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08037200 PAPER MILL CREEK NEAR HERTY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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. 22...	15	1800	7.3	34.0	2.9	40	25	660	730
NOV. 04...	14	1620	7.2	31.0	2.8	37	--	720	--
DEC. 09...	16	1850	7.7	32.0	1.6	22	23	660	660
JAN. 28...	13	1760	7.2	29.0	1.0	13	--	450	--
FEB. 23...	14	1450	6.8	30.0	6.8	89	13	670	690
MAR. 17...	13	1430	7.1	34.0	6.1	85	--	650	--
APR. 22...	13	1390	7.1	35.5	3.0	43	26	720	720
MAY 27...	14	1450	6.8	38.0	3.6	53	--	--	--
JUNE 17...	14	1350	6.9	40.0	5.1	77	17	760	770
JULY 14...	11	1710	7.4	40.0	7.0	106	--	720	--
AUG. 18...	9.9	1510	7.3	39.0	4.8	72	25	1100	710
SEP. 23...	11	1630	7.2	36.0	3.2	46	--	520	--

NECHES RIVER BASIN

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
JULY 14...	1200	15	32	4.2	170	98	0	130	190
AUG. 18...	1430	14	29	3.6	160	80	0	120	170

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED 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
JULY 14...	.3	.030	.81	.10	.56	586	98	17	7.5
AUG. 18...	.5	.020	.74	.10	.20	535	88	22	7.5

DATE	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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)
JULY 14...	995	7.0	30.0	2.6	34	--	1000	--
AUG. 18...	913	6.9	29.0	2.2	28	7.5	970	420

NECHES RIVER BASIN

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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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT.									
21...	1030	8.2	12	5.0	67	64	0	32	77
NOV.									
04...	1200	7.5	12	5.0	84	66	0	40	96
DEC.									
09...	0930	8.8	11	4.3	66	43	0	49	72
JAN.									
28...	1240	11	12	4.6	57	23	0	43	77
FEB.									
23...	1045	8.6	12	4.7	58	25	0	47	74
MAR.									
18...	1100	8.6	11	4.5	54	20	0	42	73
APR.									
22...	1325	3.9	12	5.0	56	34	0	46	69
MAY									
27...	1230	12	7.5	3.3	28	15	0	26	38
JUNE									
18...	1620	10	10	4.8	44	34	0	28	59
JULY									
14...	1245	7.5	12	4.4	46	38	0	31	60
AUG.									
19...	1045	13	22	4.6	120	100	0	68	130
SEP.									
23...	1310	10	15	5.1	84	72	0	43	97

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED NITRO- GEN (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED 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...	.2	.41	.000	.00	.10	.060	234	50	0
NOV.									
04...	.3	--	.000	.00	.10	.090	279	50	0
DEC.									
09...	.3	.52	.000	.00	.10	.11	234	45	10
JAN.									
28...	.2	--	.000	.00	.10	--	218	49	30
FEB.									
23...	.6	--	.000	.13	.20	.060	219	49	29
MAR.									
18...	.3	--	.000	.00	.10	.20	205	46	30
APR.									
22...	.2	--	.000	.27	.10	.12	212	50	23
MAY									
27...	.2	--	.000	.24	.10	.13	123	32	20
JUNE									
18...	.3	--	.000	.20	.10	.19	174	45	17
JULY									
14...	.3	--	.000	.12	.10	.040	181	48	17
AUG.									
19...	.3	--	.000	.46	.10	.32	417	74	0
SEP.									
23...	.4	--	.000	.34	.10	.090	292	58	0

NECHES RIVER BASIN

08037330 ANGELINA RIVER NEAR ETOILE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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...	4.1	441	6.8	18.5	5.0	53	1.5	900	140
NOV. 04...	5.1	514	6.8	15.5	6.0	59	--	1600	--
DEC. 09...	4.3	429	6.9	14.0	4.3	41	2.0	1100	290
JAN. 28...	3.5	400	6.7	11.0	5.8	52	--	1800	--
FEB. 23...	3.6	401	6.9	12.0	8.4	78	2.6	940	170
MAR. 18...	3.5	379	6.5	15.0	5.2	51	--	920	--
APR. 22...	3.4	397	6.7	20.5	5.0	55	1.9	1500	310
MAY 27...	2.1	214	6.4	25.0	3.1	37	--	--	--
JUNE 18...	2.9	324	6.8	29.0	5.0	64	>8.3	2400	530
JULY 14...	2.9	329	6.6	29.5	5.1	66	--	430	--
AUG. 19...	6.1	721	6.8	26.0	1.0	12	3.0	4700	610
SEP. 23...	4.8	541	6.8	23.5	4.3	50	--	1700	--

NECHES RIVER BASIN

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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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NIUM (MG)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED NITR- ITE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT. 21...	1145	4.0	2.0	14	0	6.0	.000	.00	.10	.10
NOV. 04...	1230	4.5	2.4	14	0	6.8	.000	.00	.00	.14
DEC. 09...	1030	6.2	3.6	29	0	10	.000	.00	.10	.090
JAN. 28...	1325	6.5	3.4	26	0	11	.000	.00	--	--
FEB. 23...	1145	7.5	4.3	21	0	12	.000	.13	.10	.080
MAR. 18...	1230	8.8	5.0	25	0	16	.000	.00	--	--
APR. 22...	1400	7.8	4.6	37	0	13	.000	.00	.10	--
MAY 27...	1300	7.0	4.0	26	0	14	.000	.28	.20	.12
JUNE 18...	1545	8.5	4.5	37	0	15	.000	.00	.10	--
JULY 14...	1345	5.5	3.0	29	0	10	.000	.00	.20	--
AUG. 19...	1100	5.0	2.4	20	0	7.6	.000	.14	.10	.10
SEP. 23...	1350	6.0	3.3	32	0	6.8	.000	.20	.20	.070

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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...	18	7	75	6.4	17.0	6.8	70	--	210	100
NOV. 04...	21	10	82	6.4	12.5	7.1	66	--	350	--
DEC. 09...	30	6	114	7.0	14.5	6.4	62	--	540	150
JAN. 28...	30	9	124	6.9	13.0	5.9	56	--	660	--
FEB. 23...	36	19	147	6.7	11.5	7.8	71	--	770	170
MAR. 18...	42	21	168	6.7	16.5	8.0	82	--	780	--
APR. 22...	38	8	150	6.8	23.5	6.0	70	2.8	1300	90
MAY 27...	34	13	145	6.7	26.0	5.6	68	--	--	--
JUNE 18...	40	9	163	6.8	29.0	7.4	95	--	610	20
JULY 14...	26	2	112	6.9	31.5	9.8	132	--	860	--
AUG. 19...	22	6	95	6.3	26.5	4.2	51	--	1300	130
SEP. 23...	28	2	100	6.3	22.0	3.8	43	--	620	--

NECHES RIVER BASIN

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTMBER 1971

DATE	TIME	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	RICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT.										
21...	1300	9.0	3.8	34	0	22	.000	.00	.00	.11
NOV.										
04...	1400	9.0	3.8	33	0	22	.000	.00	.10	.040
DEC.										
09...	1130	9.2	3.9	30	0	23	.000	.00	.10	.020
JAN.										
28...	1400	8.8	3.8	27	0	23	.000	.00	--	--
FEB.										
23...	1225	8.5	3.9	25	0	24	.000	.00	.20	.030
MAR.										
18...	1315	9.0	3.9	26	0	26	.000	.00	--	--
APR.										
22...	1500	9.2	4.2	30	0	31	.000	.00	.30	--
MAY										
27...	1400	9.5	4.1	38	0	38	.000	.28	.20	.060
JUNE										
18...	1500	8.8	3.8	33	0	26	.000	.00	.10	--
JULY										
14...	1430	12	4.3	53	0	39	.000	.72	.20	--
AUG.										
19...	1130	12	4.4	62	0	39	.000	1.2	.10	.26
SEP.										
23...	1430	12	4.9	56	0	36	.000	1.1	.10	.20

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPFCI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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...	38	10	177	6.7	20.0	7.5	82	--	10	0
NOV.										
04...	38	11	177	6.7	17.0	8.0	82	--	80	--
DEC.										
09...	39	14	182	7.0	14.0	6.3	61	--	60	80
JAN.										
28...	38	15	183	6.7	11.0	7.9	71	--	260	--
FEB.										
23...	37	17	182	6.8	12.0	9.2	85	--	60	60
MAR.										
18...	38	17	191	6.8	15.0	8.1	79	--	40	--
APR.										
22...	40	16	215	6.8	19.0	7.1	76	1.2	180	130
MAY										
27...	41	9	242	6.6	23.5	5.1	59	--	--	--
JUNE										
18...	38	11	193	6.8	27.0	5.0	62	--	60	30
JULY										
14...	48	4	254	6.5	28.0	6.9	87	--	4600	--
AUG.										
19...	48	0	262	6.5	26.5	4.4	54	--	6600	960
SEP.										
23...	50	4	244	6.8	25.0	5.8	69	--	63	--

NECHES RIVER BASIN

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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 northwest 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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT.										
20...	1545	9.5	3.7	38	0	20	.000	.00	.00	.11
NOV.										
04...	1600	9.5	3.7	37	0	21	.000	.00	.00	.040
DEC.										
08...	1200	9.5	3.8	35	0	20	.000	.00	.10	.010
JAN.										
28...	1440	9.5	3.8	33	0	20	.000	.00	--	--
FEB.										
23...	1500	9.2	3.8	32	0	20	.000	.00	.20	.000
MAR.										
18...	1500	9.2	3.7	31	0	20	.000	.00	--	--
APR.										
22...	1630	9.2	3.9	32	0	21	.000	.00	.20	--
MAY										
27...	1445	8.5	3.6	32	0	22	.000	.00	.10	.010
JUNE										
18...	1300	8.8	3.7	33	0	23	.000	.00	.10	--
JULY										
14...	1515	10	3.6	35	0	27	.000	.00	.00	--
AUG.										
19...	1305	9.5	3.6	38	0	26	.000	.00	.00	.020
SEP.										
23...	1600	9.8	4.0	38	0	26	.000	.00	.00	.010

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT.										
20...	39	8	170	6.7	22.0	7.2	82	--	0	0
NOV.										
04...	39	9	168	6.7	17.5	6.5	68	--	0	--
DEC.										
08...	39	11	171	6.9	15.0	8.6	84	--	0	20
JAN.										
28...	39	12	172	6.9	13.0	9.8	92	--	90	--
FEB.										
23...	39	12	168	7.3	13.0	10.2	96	--	20	30
MAR.										
18...	38	13	165	6.9	14.0	9.4	90	--	40	--
APR.										
22...	44	18	170	8.9	19.5	12.0	129	.8	20	10
MAY										
27...	36	10	174	7.0	25.5	8.2	99	--	--	--
JUNE										
18...	37	10	179	6.8	29.0	7.6	97	--	30	30
JULY										
14...	40	11	190	7.3	30.5	10.4	137	--	50	--
AUG.										
19...	38	7	193	7.7	30.5	7.7	101	--	180	10
SEP.										
23...	41	10	194	7.1	26.5	7.6	93	--	0	--

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 September 1971.

Chemical and biochemical analyses: October 1967 to September 1971.

Water temperatures: October 1963 to September 1971.

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 120 mg/l Dec. 1-31; minimum, 102 mg/l Nov. 1-30, Mar. 1-31, June 1-30.

Hardness: Maximum, 44 mg/l July 1-31, Sept. 1-30; minimum, 38 mg/l Nov. 1-30.

Specific conductance: Maximum daily, 228 micromhos June 1; minimum daily, 167 micromhos Nov. 3.

Water temperatures: Maximum, 26.5 °C Aug. 22, Sept. 11; minimum, 9.5°C Jan. 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	SODIUM (NA) (MG/L)	SODIUM PLUS PO- TAS- SIUM (NA+K) (MG/L)	PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	SULFATE (SO ₄) (MG/L)
OCT.									
01-31	8.1	10	4.1	19	--	2.8	40	0	15
NOV.									
01-30	6.0	9.5	3.6	--	21	--	37	0	17
DEC.									
01-31	5.5	10	3.8	--	27	--	35	0	19
JAN.									
01-31	5.5	10	4.0	18	--	3.7	37	0	18
FEB.									
01-28	3.9	10	3.6	--	24	--	36	0	19
MAR.									
01-31	3.0	9.5	3.7	--	22	--	33	0	19
APR.									
01-30	2.1	10	3.8	19	--	3.7	33	0	20
MAY									
01-31	3.9	10	3.5	--	23	--	36	0	19
JUNE									
01-30	3.8	10	3.9	--	21	--	36	0	19
JULY									
01-31	3.8	11	3.9	20	--	3.2	41	0	19
AUG.									
01-31	4.1	10	4.1	--	22	--	46	0	16
SEP.									
01-30	4.9	11	4.0	--	22	--	46	0	15

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180	191	---	185	191	188	185	179	228	189	198	197
2	179	192	211	187	181	191	186	184	224	188	193	196
3	169	167	197	---	185	---	190	187	190	184	194	198
4	181	184	200	188	195	183	188	181	190	186	192	189
5	179	186	192	173	186	181	190	186	187	186	191	195
6	179	190	191	170	183	181	188	177	---	188	192	192
7	177	193	192	188	185	190	183	184	185	191	196	204
8	177	194	191	---	181	181	172	184	185	197	196	189
9	177	187	192	191	188	183	183	187	187	192	197	189
10	197	194	190	182	188	183	185	183	182	199	193	197
11	179	195	190	180	189	186	183	186	182	201	187	191
12	180	192	199	196	192	189	169	190	190	199	193	202
13	177	193	199	185	207	194	182	217	---	192	188	196
14	174	179	204	180	197	188	183	196	201	191	189	199
15	170	182	171	180	193	188	198	208	196	197	196	197
16	169	173	182	189	190	189	190	216	199	191	196	197
17	190	184	180	179	187	189	188	208	200	186	187	196
18	198	181	185	182	191	191	195	210	197	186	187	204
19	190	---	183	189	203	204	209	204	217	188	188	204
20	190	---	184	178	191	---	183	192	213	186	187	198
21	181	185	181	182	188	189	184	188	211	184	186	210
22	183	181	180	198	189	192	180	190	213	186	190	213
23	189	178	---	204	196	180	185	190	209	188	196	197
24	191	189	---	---	183	181	182	191	213	194	196	205
25	197	189	189	192	187	183	---	211	185	194	196	193
26	199	184	183	185	190	182	190	213	187	196	199	203
27	184	---	185	183	194	183	188	224	190	194	192	195
28	201	184	186	188	187	189	188	220	192	192	192	204
29	197	184	186	180	---	184	190	211	193	194	201	195
30	191	184	188	183	---	---	188	191	195	192	193	204
31	194	---	187	---	---	180	---	---	---	194	196	---
ONTH	184	186	189	185	190	187	186	196	198	191	193	198

08039100 ANGELINA RIVER BELOW SAM RAYBURN DAM, NEAR JASPER, TEX.--Continued

EXTREMES, October 1963 to September 1971.--Dissolved solids: Maximum, 379 mg/l Nov. 1-30, 1964; minimum, 84 mg/l June 1-30, 1969.

Hardness: 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 1971.--Maximum daily, 350 micromhos Sept. 21, 1969; minimum daily, 138 micromhos June 24, 1969.

Water temperatures: October 1966 to September 1971.--Maximum, 29.0°C Aug. 9, 10, 1967; 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 1970 TO SEPTEMBER 1971

DATE	CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (N) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CAR- BONATE HARDNESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECIFIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	24	.2	.7	106	42	9	1.3	184	6.8
NOV.									
01-30	24	.1	.6	102	38	8	1.5	185	6.8
DEC.									
01-31	35	.2	.5	120	41	12	1.8	190	6.8
JAN.									
01-31	23	.2	.6	103	41	11	1.2	185	6.7
FEB.									
01-28	29	.2	.6	110	40	10	1.7	190	6.9
MAR.									
01-31	27	.2	.4	102	39	12	1.5	187	6.4
APR.									
01-30	26	.2	.5	103	41	14	1.3	185	6.7
MAY									
01-31	27	.2	.1	105	39	10	1.6	195	6.9
JUNE									
01-30	25	.2	.3	102	41	12	1.4	197	6.8
JULY									
01-31	25	.2	.2	107	44	10	1.3	191	7.5
AUG.									
01-31	24	.2	.3	105	42	4	1.5	193	7.1
SEP.									
01-30	26	.2	.4	108	44	6	1.4	198	7.5

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	20.0	---	15.5	11.0	15.5	15.5	18.0	21.5	20.5	21.5	21.0
2	19.5	19.5	18.5	15.5	11.5	16.5	16.5	17.0	21.5	20.5	19.5	21.0
3	20.5	16.0	18.5	---	13.5	---	15.5	18.0	22.5	20.0	19.5	21.0
4	20.0	18.0	18.5	9.5	14.5	13.5	15.5	17.0	21.5	20.0	19.5	21.0
5	19.5	17.0	18.0	13.5	11.5	14.5	15.0	18.5	21.0	20.0	19.5	20.0
6	19.5	17.0	18.0	12.0	11.5	14.0	15.5	18.0	---	20.0	20.0	21.0
7	19.0	17.0	17.0	10.0	12.0	13.0	15.0	18.5	21.0	20.0	19.5	21.0
8	19.5	20.0	17.0	---	11.0	13.5	15.5	20.5	21.0	20.0	20.0	21.0
9	19.5	20.0	17.0	15.0	12.0	14.0	15.5	19.0	21.0	20.0	20.0	21.0
10	19.5	20.0	18.0	12.0	12.0	13.5	15.5	19.0	21.0	21.0	20.0	21.0
11	19.5	20.0	18.0	12.0	12.0	13.5	15.5	19.5	21.0	20.0	20.5	26.5
12	21.0	20.0	---	12.0	12.0	13.5	15.0	19.5	21.0	20.0	21.0	22.0
13	20.0	19.0	16.5	13.5	11.0	14.5	15.5	19.5	---	20.5	---	21.0
14	19.5	19.5	17.0	12.0	13.0	14.0	16.5	18.5	21.0	20.5	20.0	20.5
15	20.0	18.5	17.0	12.0	12.0	14.5	16.5	21.0	21.0	21.0	20.0	21.0
16	19.5	17.0	17.0	15.0	12.0	15.0	19.0	20.0	21.0	20.5	21.0	21.0
17	20.0	18.5	16.5	11.5	13.0	15.0	15.5	19.5	21.0	21.0	21.0	21.0
18	20.0	18.5	17.0	11.0	13.0	14.5	16.0	19.5	23.5	19.0	21.0	21.0
19	21.0	---	19.0	11.0	13.5	14.5	18.0	19.0	20.0	20.0	19.5	20.5
20	20.5	---	19.0	11.0	12.0	---	18.0	20.0	19.0	21.0	20.0	19.5
21	21.0	17.0	19.0	12.0	13.0	14.0	16.5	20.0	19.0	21.0	20.0	19.0
22	21.0	18.5	19.0	14.5	12.0	15.5	16.5	20.5	19.0	21.0	26.5	19.5
23	19.0	18.5	---	12.0	13.0	15.0	18.0	19.0	19.0	20.5	21.0	20.0
24	20.0	11.5	---	---	13.5	14.0	16.0	19.0	20.0	22.0	21.0	20.5
25	21.0	16.0	19.5	13.5	13.5	14.0	---	19.0	20.0	18.5	21.0	20.0
26	21.0	17.0	15.5	11.5	13.5	15.5	20.5	19.0	20.0	18.0	20.5	21.0
27	21.0	---	15.5	11.0	12.0	13.5	18.5	19.5	20.0	20.5	21.0	20.0
28	20.0	18.0	15.5	11.0	12.0	15.5	18.5	19.5	20.0	20.5	21.5	20.0
29	20.0	16.5	16.5	13.0	---	15.0	18.5	22.0	19.0	20.5	21.0	20.0
30	18.5	18.5	16.5	14.0	---	---	18.0	20.0	20.0	19.0	20.5	20.0
31	19.5	---	15.5	---	---	15.5	---	---	---	20.5	---	---
MONTH	20.0	18.0	17.5	12.5	12.5	14.5	16.5	19.0	20.5	20.0	20.5	21.0

NECHES RIVER BASIN

08039400 ANGELINA RIVER BELOW SAM RAYBURN DAM, NEAR JASPER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 (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- RINE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)
OCT. 20...	1500	6.4	10	3.7	22	42	0	17	26	.1	.27	.000
NOV. 04...	1530	6.4	10	3.8	21	41	0	17	25	.1	--	.000
DEC. 08...	1145	6.0	9.8	3.8	25	42	0	18	28	.2	.35	.000
JAN. 28...	1500	5.2	10	3.6	28	44	0	19	32	.2	--	.000
FEB. 23...	1445	3.2	10	3.8	26	41	0	20	30	.1	.37	.000
MAR. 18...	1430	4.5	12	4.1	35	45	0	31	37	.2	--	.000
APR. 22...	1600	1.2	9.0	3.7	18	32	0	19	21	.1	.27	.000
MAY 27...	1500	10	6.5	2.6	22	28	0	17	23	.1	--	.000
JUNE 18...	1230	4.1	9.0	3.5	23	37	0	18	26	.1	.25	.000
JULY 14...	1500	1.8	10	3.5	23	34	0	22	27	.2	--	.000
AUG. 19...	1315	5.7	11	3.6	27	48	0	19	30	.1	.16	.000
SEP. 23...	1545	5.4	11	4.0	24	50	0	16	28	.2	--	.000

DATE	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILTRABLE RESIDUE (MG/L)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 20...	.00	.00	.13	106	30	19	40	6	1.5	197	6.9	22.0
NOV. 04...	.00	.00	.020	103	--	--	41	7	1.4	191	6.7	18.0
DEC. 08...	.00	.20	.030	113	7	1	40	6	1.7	209	7.2	16.0
JAN. 28...	.00	.00	--	120	--	--	40	4	1.9	233	6.9	13.0
FEB. 23...	.00	.10	.010	114	7	0	41	7	1.8	218	7.5	14.0
MAR. 18...	.00	.10	.080	146	--	--	47	10	2.2	277	6.9	15.5
APR. 22...	.00	.20	.010	89	5	1	38	11	1.3	171	6.9	17.5
MAY 27...	.00	.10	.040	96	--	--	27	4	1.8	163	6.9	27.0
JUNE 18...	.00	.10	.000	103	9	7	37	7	1.6	198	6.8	26.0
JULY 14...	.00	.00	.000	105	--	--	39	12	1.6	192	6.7	26.0
AUG. 19...	.34	.00	.020	124	12	7	42	3	1.8	220	6.5	21.0
SEP. 23...	.38	.00	.030	116	--	--	44	3	1.6	209	6.5	21.0

NECHES RIVER BASIN

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08039400 ANGELINA RIVER BELOW SAM RAYBURN DAM, NEAR JASPER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- IDITY (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)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)
OCT.												
20...	8	1	8.3	94	12	1.1	5	.04	0	0	0	0
NOV.												
04...	--	--	7.8	82	--	--	--	--	--	--	--	--
DEC.												
08...	15	2	8.6	86	66	2.2	4	.00	--	--	--	--
JAN.												
28...	--	--	10.0	94	--	--	--	--	--	--	--	--
FEB.												
23...	5	4	11.1	107	14	1.1	5	.02	10	0	0	0
MAR.												
18...	--	--	9.7	96	--	--	--	--	--	--	--	--
APR.												
22...	0	3	8.6	90	16	.9	0	.01	0	0	0	0
MAY												
27...	--	--	7.8	96	--	--	--	--	--	--	--	--
JUNE												
18...	0	3	7.6	93	16	6.1	1	.00	20	0	0	0
JULY												
14...	--	--	7.5	91	--	--	--	--	--	--	--	--
AUG.												
19...	25	3	3.8	42	14	2.2	1	.00	--	--	--	--
SEP.												
23...	--	--	3.6	40	--	--	--	--	--	--	--	--

DATE	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...	0	0	3	15	0	0	30	<.5	3	170	0
NOV.											
04...	--	--	--	0	--	--	--	--	--	--	--
DEC.											
08...	--	--	--	0	--	--	240	--	--	--	--
JAN.											
28...	--	--	--	220	--	--	--	--	--	--	--
FEB.											
23...	--	0	0	50	0	10	60	<.5	0	120	1
MAR.											
18...	--	--	--	40	--	--	--	--	--	--	--
APR.											
22...	--	0	2	20	0	0	7	<.5	0	140	0
MAY											
27...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
18...	--	0	2	30	0	10	90	<.5	2	150	0
JULY											
14...	--	--	--	120	--	--	--	--	--	--	--
AUG.											
19...	--	--	--	1700	--	--	1300	--	--	--	--
SEP.											
23...	--	--	--	1500	--	--	--	--	--	--	--

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 1971.

Chemical and biochemical analyses: January 1968 to September 1971.

Pesticide analyses: January 1968 to September 1971.

Water temperatures: October 1947 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	1190	10	9.5	2.7	17	35	0	14	19
NOV.									
01-30	1340	9.0	8.8	2.7	19	34	0	14	21
DEC.									
01-31	1150	8.5	8.0	2.9	18	26	0	17	22
JAN.									
01-31	1120	10	12	2.0	20	28	0	18	27
FEB.									
01-28	1150	8.1	10	3.2	24	28	0	18	34
MAR.									
01-31	1350	9.1	9.5	2.3	28	25	0	18	38
APR.									
01-30	1560	6.1	9.5	4.9	25	31	0	20	36
MAY									
01-31	1230	9.6	10	3.4	24	32	0	19	32
JUNE									
01-30	1400	12	10	3.4	24	31	0	16	34
JULY									
01-31	1260	10	9.5	4.9	20	37	0	17	28
AUG.									
01-31	396	15	12	2.9	22	45	0	14	26
SEP.									
01-30	398	12	10	3.9	23	44	0	16	27
WTD. AVG.	--	9.5	9.7	3.3	22	32	0	17	29
TIME WTD.									
AVG.	1130	10.0	9.9	3.3	22	33	0	17	29
TOT. LOAD (TONS)	--	10500	10800	3660	24500	35100	0	18900	32500

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	119	171	161	197	167	226	218	208	202	206	207
2	186	139	168	153	199	152	226	229	225	203	209	200
3	185	154	170	143	205	175	219	221	224	204	212	199
4	187	157	164	153	201	156	223	226	224	205	205	201
5	189	158	161	161	205	162	222	225	237	206	209	207
6	185	163	161	165	213	154	219	225	225	207	220	210
7	188	167	160	170	207	185	219	227	225	205	204	211
8	180	171	160	172	210	207	218	223	227	205	211	210
9	176	177	160	174	206	213	218	223	210	207	200	209
10	185	179	165	191	208	220	225	232	204	210	200	209
11	187	180	164	192	208	224	224	220	206	209	198	205
12	173	180	163	180	214	232	225	211	208	213	207	227
13	172	163	161	178	214	234	223	213	208	215	209	205
14	165	157	161	178	212	236	218	208	208	215	205	197
15	161	159	160	180	211	239	214	202	208	214	201	197
16	168	159	160	183	216	245	211	180	208	212	178	199
17	172	158	160	186	217	248	213	194	208	212	170	207
18	172	167	158	186	215	248	220	199	208	219	198	213
19	161	168	161	188	215	246	213	203	204	220	200	205
20	150	173	160	190	217	249	210	199	202	214	198	215
21	149	172	161	194	217	233	210	199	201	210	199	203
22	150	172	161	194	218	224	206	197	200	208	199	199
23	175	174	158	194	221	233	205	193	200	209	205	203
24	173	174	155	194	222	245	203	209	204	211	218	206
25	---	179	159	196	225	248	204	226	200	213	223	202
26	162	177	166	196	213	248	212	231	193	215	222	203
27	151	177	164	196	197	253	208	224	200	217	216	203
28	54	174	166	196	180	254	207	225	204	214	211	198
29	54	174	168	238	---	243	203	226	202	205	206	200
30	98	174	168	197	---	231	211	228	202	203	206	202
31	104	---	---	197	---	225	---	222	---	200	208	---
MONTH	160	167	162	183	210	220	215	215	209	210	205	205

08041000 NECHES RIVER AT EVADALE, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 118 mg/l Mar. 1-31; minimum, 90 mg/l

Oct. 1-31, Dec. 1-31.

Hardness: Maximum, 44 mg/l Apr. 1-30, July 1-31; minimum, 32 mg/l Dec. 1-31.

Specific conductance: Maximum daily, 254 micromhos Mar. 28; minimum daily, 54 micromhos Oct. 28, 29.

Water temperatures: Maximum, 30.0°C on many days during June, July and August; minimum, 5.0°C Jan. 8, 9.

EXTREMES, October 1947 to September 1971.--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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	.0	.20	90	35	6	1.3	158	7.0
NOV.								
01-30	.1	.40	93	33	5	1.4	168	6.7
DEC.								
01-31	.1	.10	90	32	11	1.4	161	7.2
JAN.								
01-31	.1	.20	104	38	15	1.4	182	7.2
FEB.								
01-28	.0	.20	112	38	15	1.7	209	6.9
MAR.								
01-31	.0	.30	118	33	13	2.1	219	6.7
APR.								
01-30	.0	.10	117	44	19	1.6	215	7.1
MAY								
01-31	.0	.20	115	39	13	1.7	209	7.3
JUNE								
01-30	.1	.50	117	39	14	1.7	208	7.0
JULY								
01-31	.2	.00	108	44	14	1.3	210	7.4
AUG.								
01-31	.2	.10	114	42	5	1.5	205	7.1
SEPT.								
01-30	.1	.10	114	41	5	1.6	204	7.4
WTD. AVG.	.1	.22	107	38	12	1.6	195	7.1
TIME WTD. AVG.	.1	.20	108	38	11	1.6	196	7.1
TOT. LOAD (TONS)	72	239	119000	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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

NECHES RIVER BASIN

08041000 NECHES RIVER AT EVADALE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1630	306	15	10	3.2	14	42	0	9.6	17	.0	.31
DEC. 16...	1255	1100	12	8.8	2.4	16	25	0	18	20	.0	.36
FEB. 22...	1455	1190	5.9	10	3.7	25	28	0	20	36	.0	.23
APR. 06...	1330	1880	6.4	9.2	3.7	23	28	0	18	33	.0	.36
JUNE 15...	1220	1760	6.7	10	1.5	27	32	0	17	32	.0	.24
AUG. 17...	1130	495	14	13	2.1	15	50	0	11	16	.1	.18

DATE	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED 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)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 20...	.020	.24	.20	.040	91	45	19	38	4	--	146	6.5
DEC. 16...	.000	.08	.10	.040	90	28	28	32	12	1.2	159	6.4
FEB. 22...	.000	.07	.10	.060	115	39	0	40	17	--	223	6.8
APR. 06...	.000	.00	.20	.090	108	52	30	38	15	1.6	205	6.7
JUNE 15...	.000	.09	.10	.070	111	114	8	31	5	2.1	206	8.2
AUG. 17...	.000	.15	.00	.040	96	34	14	41	0	1.0	164	6.4

DATE	TEMP- ERATURE (DFG 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	90	30	7.2	81	21	1.4	0	.00	0	0	0
DEC. 16...	14.0	70	30	10.5	101	21	1.3	0	.00	--	--	--
FEB. 22...	15.5	35	30	10.2	101	20	2.1	0	.00	30	0	0
APR. 06...	18.0	70	35	10.4	110	18	1.5	0	.00	--	--	--
JUNE 15...	30.0	140	30	8.6	113	31	4.1	0	.00	40	0	0
AUG. 17...	31.0	45	60	7.6	101	16	2.1	0	.00	30	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...	0	0	0	1	170	0	0	890	<.5	5	100	0
DEC. 16...	--	--	--	--	--	--	--	--	--	--	--	--
FEB. 22...	0	--	0	5	80	0	10	13	.5	4	120	3
APR. 06...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE 15...	0	--	0	14	210	4	20	3	<.5	0	320	240
AUG. 17...	0	--	0	10	160	0	10	7	<.5	2	120	50

NECHES RIVER BASIN

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08041000 NECHES RIVER AT EVADALE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	OIS- 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...	1630	306	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 22...	1455	1190	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 15...	1220	1760	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 17...	1130	495	.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)
OCT. 20...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
FEB. 22...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JUNE 15...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
AUG. 17...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
OCT. 20...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
FEB. 22...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JUNE 15...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
AUG. 17...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
OCT. 20...	<.2	.0	<10	.00	<1.5	.00	<.1	.00	<.2
FEB. 22...	<.2	.0	<10	.00	<2.2	.00	<.2	.00	<.2
JUNE 15...	<.2	.0	<10	.00	<.6	.00	<.2	.00	<.2
AUG. 17...	<.2	.0	<10	.00	<.7	.00	<.2	.00	<.2

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 1971.
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 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- SOLVED CHARGE (CF5)	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...	1845	662	8.0	4.5	1.6	17	9	0	6.0	28
FEB.										
02...	1840	138	13	6.0	1.0	19	13	0	2.0	34
18...	0920	129	13	5.0	1.6	18	12	0	4.0	32
MAR.										
19...	0940	180	12	6.0	1.2	18	12	0	3.6	32
APR.										
28...	1730	76	11	6.5	1.4	15	17	0	3.6	26
MAY										
27...	1305	176	12	5.5	1.0	13	13	0	3.2	22
JULY										
10...	1045	26	9.7	7.2	1.7	15	20	0	4.0	26
AUG.										
06...	1040	368	5.4	4.5	1.9	16	7	0	4.4	30
Sep.										
11...	1215	56	10	5.5	1.5	13	12	0	2.0	26

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
26...	.0	.3	70	18	11	--	124	7.1
FEB.								
02...	.0	.1	81	19	8	--	146	6.2
18...	.0	.00	80	19	9	--	145	6.1
MAR.								
19...	.0	.00	79	20	10	1.8	134	6.5
APR.								
28...	.0	.1	72	22	8	1.4	125	6.4
MAY								
27...	.0	.00	63	18	7	1.3	115	6.4
JULY								
10...	.0	.00	74	25	9	1.3	125	6.8
AUG.								
06...	.0	.1	66	19	13	1.6	129	6.1
SEP.								
11...	.0	.00	--	20	10	--	125	6.1

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 1971.

Water temperatures: February 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.									
01-11	33	9.8	16	2.5	55	55	0	12	79
12-31	979	4.8	10	.7	18	25	0	9.6	26
NOV.									
01-30	528	1.6	9.2	2.0	16	31	0	6.4	24
DEC.									
01-11	15	7.4	16	3.2	33	58	0	1.6	53
12-31	12	5.0	25	4.3	180	104	0	6.2	260
JAN.									
01-31	4.8	2.6	26	6.1	100	83	0	8.8	170
FEB.									
01-11	5.0	.0	26	4.6	100	87	0	11	160
12...	48	4.0	17	3.1	49	42	0	16	76
13...	63	.0	26	4.6	100	87	0	11	160
14-28	55	4.0	17	3.1	49	42	0	16	76
MAR.									
01-03	281	6.9	22	2.5	48	30	0	24	80
04-05	325	5.8	21	3.5	78	26	0	16	140
06-10	168	6.9	22	2.5	48	30	0	24	80
11-13	43	5.8	21	3.5	78	26	0	16	140
14-31	50	6.9	22	2.5	48	30	0	24	80
APR.									
01-30	72	6.0	23	5.5	46	19	0	40	80
MAY									
01-31	145	5.1	18	3.7	36	29	0	24	60
JUNE									
01-30	40	6.7	22	2.7	43	57	0	20	64
JULY									
01-31	55	7.4	20	4.6	36	73	0	13	50
AUG.									
01-31	165	12	17	2.8	31	55	0	10	45
SEP.									
01-27	43	20	19	3.1	40	62	0	12	58
28-30	17	17	31	5.2	110	68	0	17	190
WTD. AVG. TIME WTD. AVG.	--	4.5	13	2.0	26	32	0	12	41
TOT. LOAD (TONS)	155	6.9	19	3.5	53	52	0	15	83
	--	627	1800	283	3660	4410	0	1730	5660

NECHES RIVER BASIN

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08041700 PINE ISLAND BAYOU NEAR SOUR LAKE, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 536 mg/l Dec. 12-31; minimum, 75 mg/l Nov. 1-30.
 Hardness: Maximum, 99 mg/l Sept. 28-30; minimum, 28 mg/l Oct. 12-31.
 Specific conductance: Maximum daily, 1,280 micromhos Dec. 15; minimum daily, 39 micromhos Oct. 27.
 Water temperatures: Maximum, 36.0°C July 27, 29; minimum, 5.0°C Jan. 8.

EXTREMES, February 1968 to September 1971.--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, 68 micromhos Feb. 22, 1969.
 Water temperatures: Maximum, 36.0°C June 29, July 14, 1969, June 30, 1970, July 27, 29, 1971; minimum, 5.0°C Jan. 7, 9, 1970, Jan. 8, 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-11	.2	.3	203	50	5	3.4	387	7.1
12-31	.0	.2	82	28	8	1.5	160	6.5
NOV.								
01-30	.1	.2	75	31	6	1.2	156	7.3
DEC.								
01-11	.0	.4	145	53	5	2.0	278	7.1
12-31	--	.4	536	80	0	8.8	1030	7.1
JAN.								
01-31	.1	.6	359	90	22	4.6	710	7.5
FEB.								
01-11	.1	.6	351	84	12	4.8	684	7.2
12...	.0	.9	190	55	21	2.9	375	6.7
13...	.1	.6	351	84	12	4.8	684	7.2
14-28	.0	.9	190	55	21	2.9	375	6.7
MAR.								
01-03	.0	1.9	207	65	40	2.6	387	7.5
04-05	--	.5	280	67	46	4.2	556	6.6
06-10	.0	1.9	207	65	40	2.6	387	7.5
11-13	--	.5	280	67	46	4.2	556	6.6
14-31	.0	1.9	207	65	40	2.6	387	7.5
APR.								
01-30	.1	2.7	222	80	64	2.2	417	6.4
MAY								
01-31	.1	1.5	168	60	36	2.0	317	6.9
JUNE								
01-30	.2	.5	189	66	19	2.3	346	7.2
JULY								
01-31	.3	.4	169	69	9	1.9	330	7.3
AUG.								
01-31	.2	.3	157	54	16	1.8	279	7.0
SEP.								
01-27	.2	.3	184	60	9	2.2	342	7.0
28-30	--	.2	410	99	44	4.8	797	7.1
WTD. AVG. TIME WTD. AVG.	.1	.5	117	41	15	1.7	228	6.9
TOT. LOAD (TONS)	.1	.8	212	63	21	2.8	406	7.1
	9.0	75	16200	--	--	--	--	--

NECHES RIVER BASIN

08041700 PINE ISLAND BAYOU NEAR SOUR LAKE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	245	77	236	662	659	193	419	498	321	332	---	355
2	230	87	243	649	662	227	413	510	---	336	329	---
3	424	91	259	669	662	289	449	463	325	334	277	273
4	447	97	271	702	650	607	428	562	321	332	308	279
5	463	106	272	731	658	603	463	569	---	327	269	---
6	425	115	---	863	644	304	438	424	333	332	210	301
7	---	144	285	827	551	368	434	402	351	315	146	286
8	479	170	293	916	646	373	452	453	349	314	141	285
9	510	184	301	956	589	415	438	282	299	310	126	261
10	408	204	305	788	693	469	431	359	351	309	174	281
11	251	254	304	769	743	507	451	241	357	311	181	284
12	89	206	1190	632	344	520	509	200	367	312	172	372
13	127	163	1270	568	1040	551	448	222	375	---	209	625
14	104	228	1270	536	449	489	432	235	403	316	252	504
15	156	108	1280	534	352	363	419	356	411	326	294	419
16	152	---	1260	576	339	362	407	259	360	304	339	334
17	214	127	1250	624	---	395	323	230	386	310	348	393
18	230	139	1220	677	374	412	411	227	354	317	350	363
19	246	131	1170	585	387	357	330	189	316	318	330	292
20	237	126	1150	585	359	427	266	168	314	309	312	272
21	247	132	1100	761	353	427	242	182	311	309	342	263
22	258	140	1080	828	356	407	252	204	341	318	335	263
23	258	162	1020	831	376	404	307	---	379	323	316	269
24	209	175	924	804	398	385	493	229	394	331	320	278
25	146	186	819	770	297	391	444	241	389	418	322	322
26	127	---	762	791	424	387	---	258	371	337	384	363
27	39	203	728	776	600	390	419	314	382	342	343	498
28	78	227	718	---	216	437	521	292	351	328	610	843
29	47	---	720	732	---	412	527	304	334	340	326	777
30	50	231	699	684	---	437	515	306	363	415	337	782
31	---	---	690	668	---	463	---	304	---	379	352	---
MONTH	238	156	770	716	512	412	417	316	354	330	292	387

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	16.0	20.0	13.0	13.0	17.0	19.0	23.0	28.0	33.0	---	25.0
2	27.0	18.0	20.0	18.0	10.0	17.0	---	28.0	---	32.0	29.0	---
3	26.0	17.0	24.0	15.0	13.0	15.0	20.0	27.0	28.0	28.0	26.0	29.5
4	26.0	20.0	21.0	14.0	15.0	15.0	20.0	27.0	27.0	---	24.0	29.0
5	25.0	19.0	24.0	10.0	15.0	15.0	20.0	28.0	---	34.0	25.0	---
6	25.0	12.0	---	7.0	15.0	21.0	19.0	24.0	28.0	34.0	25.0	31.0
7	---	20.0	15.0	5.5	13.0	16.0	17.0	25.0	27.0	29.0	26.0	30.0
8	26.0	15.0	15.0	5.0	10.0	15.0	20.0	25.0	30.0	30.0	27.0	29.0
9	21.0	22.0	16.0	9.0	10.0	13.0	20.0	28.0	31.0	32.0	26.0	27.0
10	18.0	24.0	16.0	12.0	8.0	14.0	20.0	30.0	31.0	31.0	26.0	28.0
11	19.0	26.0	10.0	14.0	13.0	15.0	25.0	21.0	27.0	31.0	27.5	28.0
12	20.0	25.0	15.0	17.0	12.0	18.0	20.0	27.0	28.0	31.0	27.0	30.0
13	20.0	17.0	14.0	17.0	10.0	20.0	20.0	26.0	32.0	---	27.0	27.0
14	20.0	14.0	15.0	19.0	16.0	20.0	22.0	28.0	31.0	33.0	29.0	29.0
15	20.0	13.0	13.0	20.0	16.0	20.0	24.0	24.0	33.0	31.0	29.0	26.0
16	20.0	---	13.0	20.0	18.0	21.0	23.0	24.0	30.0	31.0	28.0	---
17	22.0	12.0	13.0	20.0	---	21.0	20.0	26.0	27.0	30.0	28.0	26.0
18	21.0	12.0	14.0	23.0	18.0	18.0	20.0	26.0	28.0	30.0	29.0	26.0
19	22.0	18.0	20.0	11.0	18.0	15.0	21.0	29.0	28.0	31.0	28.0	24.0
20	22.0	18.0	19.0	11.0	18.0	21.0	23.0	28.0	25.0	33.0	29.0	25.0
21	25.0	18.0	20.0	13.0	20.0	16.0	24.0	25.0	25.0	33.0	30.0	25.5
22	26.0	19.0	21.0	17.0	15.0	16.0	23.0	25.0	25.0	30.0	30.0	25.0
23	26.0	19.0	20.0	22.0	15.0	16.0	25.0	---	25.0	32.0	29.0	26.5
24	28.0	12.0	17.0	20.0	16.0	15.0	25.0	24.0	30.0	33.0	31.0	28.0
25	26.0	12.0	20.0	20.0	15.0	14.0	25.0	28.0	30.0	34.0	30.0	27.0
26	26.0	---	13.0	18.0	20.0	14.0	---	28.0	29.0	---	30.0	26.0
27	23.0	16.0	14.0	22.0	21.0	---	26.0	24.0	32.0	36.0	29.0	27.0
28	19.0	17.0	16.0	---	20.0	15.0	24.0	24.0	30.0	---	29.0	27.5
29	19.0	---	16.0	17.0	---	16.0	24.0	28.0	29.0	36.0	30.0	28.0
30	18.0	20.0	15.0	17.0	---	15.0	28.0	25.0	32.0	---	31.0	27.0
31	---	---	17.0	14.0	---	18.0	---	28.0	---	29.0	30.0	---
MONTH	23.0	17.5	17.0	15.5	15.0	16.5	22.0	26.0	29.0	32.0	28.0	27.5

NECHES RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE NECHES RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08033800 STRIKER CREEK RESERVOIR NEAR NEW SALEM, TEX. (Lat 31°56'05", long 94°58'40")

		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)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	
DATE	TIME									
JUNE 10...	1450	6.5	14	8.5	100	10	0	29	180	
		DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
DATE										
JUNE 10...	.2	.00	345	70	62	5.3	687	6.1	30.0	

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 to September 1971.

Pesticide analyses: May to September 1971

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED CALCIUM (Ca) (MG/L)	DIS-SOLVED MAGNE-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)
MAY												
04...	1200	5.8	2.6	60	8.4	52	138	0	74	80	.6	1.2
18...	1110	1.9	4.7	58	11	27	160	0	64	60	.5	.00
JUNE												
08...	0900	4.0	3.5	58	8.1	40	168	0	56	54	.3	.48
21...	1010	28	13	46	5.7	32	142	0	34	40	.3	.49
JULY												
12...	0930	5.7	11	51	7.1	45	186	0	26	51	.5	.35
21...	1210	10	15	54	14	39	208	0	22	58	.5	.37
AUG.												
04...	0930	40	11	30	5.1	26	97	0	21	36	.2	.18
25...	0915	10	24	54	9.6	45	184	0	30	62	.3	.42

DATE	DIS-SOLVED NITRITE (N) (MG/L)	DIS-SOLVED AMMONIA NITROGEN (N) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILT- RABLE RESIDUE (MG/L)	LOSS ON IGNITION (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD-SORP- TION RATIO	SPECIFIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
MAY												
04...	.060	2.0	.10	.19	349	164	--	180	70	1.7	641	7.9
18...	.010	10	.00	3.7	317	--	--	190	57	.9	592	7.6
JUNE												
03...	.040	2.2	.20	.13	307	--	--	180	40	1.3	568	7.3
21...	.030	.28	.10	.11	242	40	--	140	22	1.2	454	7.0
JULY												
12...	.010	.15	.10	.050	283	--	--	160	4	1.6	516	7.6
21...	.010	.08	.00	.050	305	--	--	190	22	--	551	7.5
AUG.												
04...	.010	.10	.00	.080	177	22	--	96	13	--	326	6.6
25...	.000	.05	.10	.12	315	--	108	170	26	1.5	557	7.0

DATE	TEMP- ERATURE (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)
MAY												
04...	26.0	30	75	8.7	106	24	7.6	27000	1700	800	3	.00
18...	24.0	30	55	8.8	104	65	14	85000	880	560	7	.08
JUNE												
08...	27.0	40	65	7.5	93	43	3.1	58000	720	750	0	.01
21...	26.0	50	30	5.2	63	29	2.8	94000	520	1800	8	.00
JULY												
12...	27.5	65	45	6.2	78	26	1.2	73000	520	950	4	.00
21...	28.5	40	30	6.0	75	23	2.1	23000	1500	1000	2	.02
AUG.												
04...	25.0	70	15	5.0	60	24	1.9	180000	2700	6500	4	.00
25...	26.5	70	45	4.8	59	71	4.6	100000	500	6700	0	.03

[illegible]

EAST BAY BAYOU BASIN

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08042540 EAST BAY BAYOU NEAR STOWELL, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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										
04...	1200	5.8	.01	.00	.00	.00	.05	.00	.00	.00
JUNE										
21...	1010	28	.00	.00	.00	.00	.01	.00	.00	.00
JULY										
21...	1210	10	.00	.00	.00	.00	.05	.00	.00	.00
AUG.										
04...	0930	40	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAY										
04...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
JUNE										
21...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
JULY										
21...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
AUG.										
04...	.00	.0	.00	.00	.00	.00	.0	.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 to September 1971.
Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-	DIS-	DIS-	RICAR- RONATE (HCO3)	CAR- BONATE (CO3)	DIS-	DIS-	ORGANIC NITRO- GEN (N)		
			SOLVED SILICA (SI02) (MG/L)	SOLVED CAL- CIUM (CA) (MG/L)	SOLVED MAG- NE- SIUM (MG)			SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	SOLVED SULFATE (SO4) (MG/L)		SOLVED CHLO- RIDE (CL) (MG/L)	SOLVED FLUO- RIDE (F) (MG/L)
MAY												
04...	1015	7.9	5.7	56	18	130	94	0	90	240	.3	.48
18...	1000	2.1	4.8	64	18	95	80	0	91	230	.3	.02
JUNE												
08...	0800	8.8	2.8	54	15	140	110	0	67	240	.2	.21
21...	0910	22	11	52	12	120	104	0	58	210	.3	.38
JULY												
12...	1020	19	10	52	12	140	150	0	36	230	.4	.41
21...	1315	12	8.0	60	16	160	170	0	38	270	.5	.40
AUG.												
04...	0840	31	9.5	44	11	110	118	0	36	180	.3	.29
25...	0820	5.3	15	57	15	140	110	0	94	230	.2	.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 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
04...	.030	.57	.1	.12	584	170	210	140	3.9	1150	7.2	25.0
18...	.000	12	.1	6.0	556	--	230	170	2.7	1040	6.9	21.5
JUNE												
08...	.030	.22	.1	.12	566	--	200	110	4.3	1090	6.8	25.0
21...	.040	.42	.1	.12	519	138	180	93	--	981	6.8	25.5
JULY												
12...	.010	.14	.00	.030	562	--	180	57	4.6	1020	7.3	28.0
21...	.020	.09	.00	.030	634	--	210	74	--	1180	7.6	30.0
AUG.												
04...	.010	.11	.1	.060	447	114	150	58	--	846	6.8	24.5
25...	.010	.00	.7	.060	613	218	200	110	4.3	1100	7.1	26.0

	COLOR (PLAT- INUM- CORALT UNITS)	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- DIAE 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												
04...	25	75	7.7	92	17	4.9	31000	1500	5100	0	.00	40
18...	30	50	8.8	99	140	56	23000	2000	200	12	.23	--
JUNE												
08...	60	100	6.5	77	43	3.2	54000	750	2300	5	.01	--
21...	65	60	5.9	71	33	1.6	40000	520	580	8	.00	--
JULY												
12...	60	40	6.0	76	29	1.7	29000	650	600	2	.00	--
21...	40	65	6.7	88	27	2.3	36000	1400	850	5	.02	10
AUG.												
04...	60	50	5.8	69	32	1.3	180000	500	8500	6	.01	10
25...	70	80	4.0	49	35	4.0	270000	1400	6200	0	.02	--

[illegible]

DOUBLE BAYOU BASIN

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08042550 WEST FORK DOUBLE BAYOU NEAR ANAHUAC, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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										
04...	1015	7.9	.01	.00	.00	.00	.05	.00	.00	.00
JUNE										
21...	0910	22	.00	.00	.00	.00	.04	.00	.00	.00
JULY										
21...	1315	12	.00	.00	.00	.00	.03	.00	.00	.00
AUG.										
04...	0840	31	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAY										
04...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
JUNE										
21...	.00	.0	.00	.00	.00	.00	.0	.00	.01	.00
JULY										
21...	.00	.0	.00	.00	.00	.00	.0	--	--	--
AUG.										
04...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00

TRINITY RIVER BASIN

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 (revised), 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 1971.

Water temperatures: May 1968 to September 1971.

Sediment records: May 1968 to September 1971.

EXTREMES, October 1970 to September 1971.--Water temperatures: Minimum, 0.5°C Jan. 5, 6, 8, Feb. 8.

Sediment concentrations: Maximum daily, 2,480 mg/l July 29; minimum daily, no flow on many days during June, July and September.

Sediment loads: Maximum daily, 1,350 tons Sept. 23; minimum daily, 0 tons on many days during June, July and September.

EXTREMES, May 1968 to September 1971.--Water temperatures: Maximum, 31.0°C June 13, 1968; minimum, 0.5°C Jan. 5, 6, 8, Feb. 8, 1971.

Sediment concentrations: Maximum daily, 2,480 mg/l July 29, 1971; minimum daily, no flow on many days.

Sediment loads: Maximum daily, 14,000 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 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	327	560	770	559	---	798	745	802	618	434	190	---
2	369	601	771	643	---	744	802	765	590	409	206	---
3	429	606	756	545	---	720	762	619	562	407	238	---
4	465	616	756	627	---	678	777	699	556	---	248	---
5	527	598	766	661	821	789	792	684	---	---	275	---
6	560	639	748	633	805	795	697	778	---	---	186	---
7	595	685	751	685	824	748	736	747	---	---	231	---
8	635	690	712	770	805	762	689	722	---	---	246	---
9	656	668	710	711	808	824	783	742	---	---	230	---
10	660	714	745	695	805	748	740	723	---	---	286	---
11	689	724	736	733	841	802	780	455	---	---	313	---
12	617	659	710	681	729	789	679	424	---	---	342	---
13	675	644	744	730	802	805	810	461	---	---	367	---
14	626	723	736	678	738	732	758	457	---	---	391	---
15	696	737	746	737	778	697	730	456	358	---	428	---
16	667	730	744	683	725	736	794	473	294	---	215	---
17	640	645	736	723	688	698	797	498	307	---	217	---
18	632	674	718	604	744	757	743	515	317	---	265	---
19	720	661	725	626	690	700	866	528	322	---	306	---
20	644	754	736	675	688	802	845	546	---	---	339	---
21	720	727	---	731	744	766	848	---	---	---	387	---
22	704	759	---	741	783	716	827	---	---	---	388	---
23	727	782	---	772	795	698	778	---	---	---	423	192
24	334	755	---	774	817	697	769	---	---	---	427	206
25	365	786	---	675	801	759	890	732	---	---	---	211
26	391	742	---	744	774	732	685	650	---	---	---	258
27	456	742	---	720	811	732	790	673	---	---	415	266
28	453	772	---	738	831	716	725	676	---	308	313	282
29	487	760	---	821	---	768	712	603	---	223	343	310
30	527	769	561	837	---	721	714	590	---	---	---	331
31	559	---	638	837	---	719	---	622	---	152	---	---
MONTH	566	701	---	703	777	747	766	616	---	---	304	---

TRINITY RIVER BASIN

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08044000 BIG SANDY CREEK NEAR BRIDGEPORT, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	13.0	15.0	6.5	---	10.0	15.5	20.5	24.0	26.5	23.0	---
2	22.0	10.5	15.0	10.0	---	8.5	13.5	19.0	25.0	26.5	22.0	---
3	22.0	10.0	15.0	9.0	---	3.5	13.0	19.0	25.5	28.0	24.5	---
4	22.0	8.0	14.0	5.0	---	4.5	14.0	18.5	23.5	---	24.0	---
5	22.0	10.5	14.0	0.5	9.0	8.0	13.0	20.5	---	---	24.0	---
6	22.0	10.0	11.0	0.5	7.0	10.0	11.0	22.0	---	---	23.0	---
7	23.0	10.0	9.0	1.0	4.5	8.0	11.0	20.5	---	---	24.0	---
8	21.0	14.0	11.0	0.5	0.5	7.0	13.5	20.5	---	---	25.0	---
9	15.0	13.0	13.0	2.0	1.5	10.0	15.5	19.5	---	---	24.5	---
10	15.0	13.0	15.0	4.5	3.5	10.0	16.5	21.5	---	---	26.0	---
11	15.0	15.0	10.5	5.5	6.0	11.5	18.0	20.5	---	---	26.5	---
12	17.0	11.0	6.5	4.5	8.0	13.5	19.0	18.5	---	---	26.5	---
13	17.0	9.0	9.0	8.0	7.0	14.5	19.0	15.5	---	---	25.5	---
14	16.0	9.0	6.0	10.5	7.0	16.0	15.5	16.0	---	---	25.0	---
15	16.0	7.0	8.0	6.0	8.5	13.0	15.5	16.5	25.0	---	25.0	---
16	14.0	6.0	8.5	5.0	10.0	13.5	17.0	19.5	26.0	---	25.0	---
17	14.0	7.0	7.0	5.0	11.5	13.0	17.0	20.5	26.0	---	26.0	---
18	14.0	8.0	9.0	7.0	14.5	14.0	18.5	20.5	26.0	---	25.5	---
19	14.0	11.0	9.5	4.5	14.0	10.0	21.5	20.5	26.0	---	25.5	---
20	14.0	10.0	8.5	4.0	12.0	10.0	18.5	19.0	---	---	25.0	---
21	16.0	10.0	---	6.5	11.5	12.0	18.5	---	---	---	25.5	---
22	18.0	12.0	---	7.0	7.0	14.0	20.5	---	---	---	25.5	---
23	20.0	7.0	---	8.0	5.5	12.0	19.5	---	---	---	29.0	18.5
24	18.0	5.0	---	7.0	8.5	11.0	18.0	---	---	---	26.0	18.5
25	19.0	5.0	---	5.5	10.5	10.5	19.0	23.5	---	---	---	21.5
26	21.0	10.0	---	8.5	12.0	10.0	22.0	21.5	---	---	---	22.0
27	18.0	12.0	---	6.0	10.0	13.0	21.5	22.0	---	---	27.0	24.0
28	15.0	12.0	---	6.0	9.5	17.0	20.0	23.0	---	25.0	26.5	24.5
29	12.0	14.0	---	6.5	---	15.5	18.5	23.0	---	24.0	25.5	24.0
30	12.0	15.0	7.0	8.0	---	13.0	18.5	21.0	---	23.5	---	23.5
31	14.0	---	7.0	7.0	---	14.5	---	21.5	---	22.5	---	---
MONTH	17.5	10.0	---	5.5	8.5	11.5	17.0	20.0	---	---	25.0	---

WATER QUALITY DATA

DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 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	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
JULY, 1971												
30...	0800	132	23.5	3110	99	100	79	80	83	87	92	1110

TRINITY RIVER BASIN

08044000 BIG SANDY CREEK NEAR BRIDGEPORT, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	11	160	4.8	3.1	17	.14	3.1	9	.08
2	8.1	110	2.4	2.9	13	.10	3.4	8	.07
3	6.4	51	.88	2.9	24	.19	3.2	14	.12
4	5.2	54	.76	2.8	31	.23	2.9	11	.09
5	4.7	20	.25	2.7	81	.59	2.9	11	.09
6	4.3	21	.24	2.8	76	.57	2.8	7	.05
7	4.1	28	.31	3.2	53	.46	2.6	8	.06
8	3.8	25	.26	3.4	42	.39	2.7	15	.11
9	3.5	31	.29	3.2	71	.61	3.1	23	.19
10	3.5	43	.41	3.2	54	.47	3.4	5	.05
11	3.8	37	.38	2.9	52	.41	3.5	23	.22
12	3.5	72	.68	2.7	64	.47	3.1	35	.29
13	3.5	54	.51	3.5	81	.77	3.2	15	.13
14	3.5	58	.55	3.4	41	.38	2.9	17	.13
15	3.4	49	.45	3.8	400	4.1	3.4	14	.13
16	3.2	44	.38	3.4	480	4.4	4.0	18	.19
17	3.2	64	.55	2.6	50	.35	4.1	13	.14
18	3.5	52	.49	2.4	40	.26	4.0	11	.12
19	3.8	45	.46	2.7	38	.28	3.7	20	.20
20	3.5	63	.60	3.1	14	.12	3.4	26	.24
21	3.4	48	.44	2.8	25	.19	3.5	32	.30
22	3.4	86	.79	3.1	13	.11	4.1	40	.44
23	19	559	82	2.8	35	.26	4.5	48	.58
24	40	1360	212	2.7	31	.23	3.8	56	.57
25	7.3	288	5.8	2.6	14	.10	3.2	65	.56
26	5.0	140	1.9	2.6	10	.07	3.4	73	.67
27	4.0	34	.37	2.7	12	.09	3.1	85	.71
28	3.4	22	.20	2.7	19	.14	3.5	96	.91
29	2.9	19	.15	2.7	41	.30	3.8	109	1.1
30	2.9	19	.15	2.8	21	.16	5.0	129	1.7
31	3.1	19	.16	--	--	--	6.0	96	1.6
TOTAL	183.9	--	319.61	88.2	--	16.94	109.3	--	11.84

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	6.2	123	2.1	3.8	46	.47	5.6	30	.45
2	6.2	79	1.3	3.4	46	.42	5.8	30	.47
3	6.0	104	1.7	3.1	40	.33	6.6	22	.39
4	6.0	92	1.5	3.7	80	.80	7.0	26	.49
5	5.6	89	1.3	4.7	180	2.3	7.6	18	.37
6	5.2	90	1.3	5.8	56	.88	7.6	31	.64
7	4.5	66	.80	4.8	34	.44	6.2	33	.55
8	4.0	14	.15	4.5	34	.41	5.2	16	.22
9	4.3	32	.37	3.7	8	.08	5.2	22	.31
10	5.4	68	.99	3.7	11	.11	5.6	39	.59
11	5.4	21	.31	4.0	7	.08	5.8	28	.44
12	3.8	78	.80	4.3	55	.64	6.0	31	.50
13	4.7	174	2.8	4.1	73	.81	6.0	38	.62
14	6.0	210	3.4	3.7	93	.93	5.8	43	.67
15	4.7	45	.57	3.5	69	.65	5.2	51	.72
16	4.0	90	.97	4.7	83	1.1	4.7	49	.62
17	3.8	42	.43	5.4	100	1.5	4.0	41	.44
18	3.7	75	.75	4.5	89	1.1	4.0	49	.53
19	3.7	69	.69	4.7	76	.96	4.7	48	.61
20	3.5	49	.46	5.0	79	1.1	9.1	39	.96
21	3.4	52	.48	5.2	58	.81	4.7	39	.49
22	3.5	41	.39	11	54	1.6	4.1	48	.53
23	4.1	58	.64	10	31	.84	4.1	41	.45
24	4.1	11	.12	7.4	32	.64	4.0	29	.31
25	3.8	68	.70	7.0	26	.49	4.1	39	.43
26	3.8	43	.44	7.6	41	.84	4.5	16	.19
27	3.5	91	.86	6.8	29	.53	4.7	64	.81
28	3.4	74	.68	5.8	26	.41	4.5	55	.67
29	3.8	48	.49	--	--	--	4.1	46	.51
30	4.5	28	.34	--	--	--	3.7	62	.62
31	4.5	44	.53	--	--	--	3.4	66	.61
TOTAL	139.1	--	28.36	145.9	--	21.27	163.6	--	16.21

08044000 BIG SANDY CREEK NEAR BRIDGEPORT, TEX.--Continued

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	3.4	74	.68	2.1	83	.47	7.7	209	4.9
2	3.4	55	.50	1.9	99	.51	2.8	105	.79
3	3.1	43	.36	1.6	117	.51	1.4	63	.24
4	2.8	67	.51	1.4	131	.50	.64	92	.16
5	2.7	52	.38	1.4	107	.40	.14	60	.02
6	2.8	77	.58	1.2	89	.29	0	0	0
7	2.8	56	.42	1.4	80	.30	0	0	0
8	2.7	67	.49	1.2	87	.28	0	0	0
9	2.9	65	.51	1.9	94	.48	0	0	0
10	3.1	57	.48	2.4	90	.58	0	0	0
11	3.1	41	.34	50	960	184	0	0	0
12	2.8	62	.47	8.4	502	12	0	0	0
13	2.8	47	.36	3.4	260	2.4	0	0	0
14	2.8	64	.48	2.4	225	1.5	7.4	383	31
15	2.4	50	.32	2.1	205	1.2	50	1940	288
16	3.2	40	.35	1.9	180	.92	21	1200	77
17	9.0	188	5.0	1.4	155	.59	2.4	583	4.0
18	13	120	4.2	1.2	125	.41	1.1	410	1.2
19	8.1	84	1.8	1.0	120	.32	.29	250	.20
20	5.8	78	1.2	.64	110	.19	0	0	0
21	5.8	98	1.5	.34	95	.09	0	0	0
22	5.0	93	1.3	.25	90	.06	0	0	0
23	4.1	216	2.4	.21	110	.06	0	0	0
24	3.1	102	.85	3.0	510	5.3	0	0	0
25	2.8	92	.70	2.3	206	1.4	0	0	0
26	2.7	120	.87	.92	115	.29	0	0	0
27	2.7	115	.84	.91	216	.56	0	0	0
28	2.4	138	.89	4.2	181	2.1	0	0	0
29	2.3	111	.69	3.1	110	.92	.06	200	.03
30	2.3	100	.62	2.1	115	.65	3.5	475	5.3
31	--	--	--	5.2	420	10	--	--	--
TOTAL	115.9	--	30.09	111.47	--	229.28	98.43	--	412.84

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	1.9	130	.67	56	546	87	.21	67	.04
2	.51	96	.13	15	420	17	.01	48	0
3	3.0	251	4.7	7.2	310	6.0	0	0	0
4	1.9	140	.72	4.5	220	2.7	0	0	0
5	.29	80	.06	6.5	427	11	0	0	0
6	0	0	0	21	1340	163	0	0	0
7	0	0	0	93	1250	347	0	0	0
8	0	0	0	59	988	197	0	0	0
9	0	0	0	38	926	128	0	0	0
10	0	0	0	5.8	290	4.5	0	0	0
11	0	0	0	3.2	130	1.1	0	0	0
12	0	0	0	2.2	120	.71	0	0	0
13	0	0	0	1.6	110	.48	0	0	0
14	0	0	0	1.6	95	.41	0	0	0
15	0	0	0	38	882	131	0	0	0
16	0	0	0	135	2170	875	0	0	0
17	0	0	0	28	480	44	0	0	0
18	0	0	0	6.7	240	4.3	0	0	0
19	0	0	0	3.5	135	1.3	0	0	0
20	0	0	0	2.3	105	.65	0	0	0
21	0	0	0	1.8	48	.23	0	0	0
22	0	0	0	1.6	58	.25	24	937	233
23	0	0	0	1.1	50	.15	210	2320	1350
24	0	0	0	.77	33	.07	160	1010	477
25	0	0	0	.64	25	.04	107	1140	356
26	0	0	0	1.4	80	.43	51	471	68
27	2.2	766	13	11	472	16	18	336	17
28	8.6	865	40	5.7	165	2.5	4.5	220	2.7
29	42	2480	339	1.9	72	.37	2.3	150	.93
30	136	2150	850	1.6	68	.29	1.4	115	.43
31	190	895	470	.92	68	.17	--	--	--
TOTAL	386.40	--	1718.28	556.53	--	2042.65	578.42	--	2505.10

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

2677.15

7352.47

TRINITY RIVER BASIN

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT.									
22...	1045	20	5.0	64	6.0	41	206	0	44
DEC.									
10...	2225	17	2.6	74	8.6	51	252	0	50
JAN.									
30...	1015	15	3.4	68	8.4	35	220	0	41
MAR.									
25...	1500	6.2	3.8	62	8.6	43	196	0	50
APR.									
23...	1700	17	3.5	45	3.8	16	136	0	29
MAY									
20...	1500	16	.0	64	10	36	216	0	46
JUNE									
09...	1740	6.0	3.8	53	4.9	22	172	0	27
24...	1710	10	3.6	53	8.7	29	184	0	33
JULY									
15...	1600	4.0	4.0	49	9.2	38	184	0	35
30...	0850	282	5.5	40	4.9	16	132	0	19
AUG.									
12...	1800	8.6	4.5	45	3.8	23	154	0	25
23...	1515	9.2	4.8	42	4.7	18	144	0	21
SEPT.									
23...	1130	310	6.2	50	6.1	34	172	0	33

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.									
22...	40	.3	.000	.00	.1	.070	302	180	15
DEC.									
10...	50	.5	.000	.03	.00	.020	361	220	14
JAN.									
30...	39	.5	.000	.04	.00	.11	303	200	24
MAR.									
25...	48	.3	--	--	.8	--	315	190	59
APR.									
23...	14	.2	.080	.12	.5	.24	177	130	20
MAY									
20...	37	.4	.000	.29	.4	.16	301	200	25
JUNE									
09...	22	.3	.010	.30	.2	.40	219	150	11
24...	32	.3	.010	.00	.00	.26	250	170	17
JULY									
15...	39	.4	.000	.00	.1	.14	265	160	9
30...	19	--	.010	.20	.4	.21	171	120	12
AUG.									
12...	18	.3	.000	.39	.00	.060	196	130	2
23...	17	.2	.000	.02	.00	.090	179	120	6
SEPT.									
23...	34	.3	.010	.06	.2	.37	250	150	9

TRINITY RIVER BASIN

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08048000 WEST FORK TRINITY RIVER AT FORT WORTH, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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. 22...	1.3	523	7.9	19.0	9.1	97	4.1	--
DEC. 10...	1.5	614	7.8	16.5	9.4	96	1.2	--
JAN. 30...	1.1	532	7.5	12.0	7.5	69	5.1	--
MAR. 25...	1.4	545	8.2	13.0	--	--	--	--
APR. 23...	.6	327	8.5	23.5	11.5	134	8.4	--
MAY 20...	1.1	509	7.2	24.0	4.2	49	4.1	--
JUNE 09...	.8	390	7.8	28.0	4.6	58	3.2	--
24...	1.0	451	7.5	29.5	3.4	44	4.8	--
JULY 15...	1.3	472	7.5	32.0	4.4	59	4.1	--
30...	.6	303	7.1	24.0	4.4	52	3.1	--
AUG. 12...	.9	347	7.2	27.0	.5	6	4.2	.06
23...	.7	321	8.4	32.0	9.7	131	3.5	--
SEP. 23...	1.2	437	7.3	20.0	3.6	39	6.6	--

TRINITY RIVER BASIN

08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TEX.

LOCATION (revised).--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 1966 to September 1971.

Chemical and biochemical analyses: January 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.									
01-03	612	4.9	46	6.7	65	160	0	53	55
04-11	234	6.6	50	7.3	120	187	0	110	88
12-13	482	4.9	46	6.7	65	160	0	53	55
14-31	177	6.6	50	7.3	120	187	0	110	88
NOV.									
01-30	119	12	54	7.4	170	212	0	140	120
DEC.									
01-31	141	13	54	8.8	170	204	0	160	120
JAN.									
01...	152	8.1	40	5.2	87	138	0	63	64
02...	127	12	51	8.0	150	200	0	110	110
03...	121	8.1	40	5.2	87	138	0	63	64
04-31	138	12	51	8.0	150	200	0	110	110
FEB.									
01-28	142	10	49	8.2	180	256	0	130	110
MAR.									
01-03	259	9.9	55	8.6	180	244	0	140	120
04-11	257	7.3	52	7.3	90	184	0	84	66
12-31	130	9.9	55	8.6	180	244	0	140	120
APR.									
01-16	123	12	52	9.3	198	232	0	140	130
17...	1000	11	58	6.8	120	194	0	110	83
18-20	947	8.6	59	5.4	54	177	0	71	39
21-30	182	11	58	6.8	120	194	0	110	83
MAY									
01-26	116	15	58	12	130	217	0	120	110
27...	382	9.7	53	9.2	54	156	0	87	40
28...	333	15	58	12	130	217	0	120	110
29-31	731	9.7	53	9.2	54	156	0	87	40
JUNE									
01-02	256	9.6	50	5.7	76	152	6	74	54
03-30	122	12	48	8.0	150	207	0	120	100
JULY									
01-26	128	13	50	8.2	138	193	0	100	100
27-31	480	9.0	51	4.6	47	161	0	49	38
AUG.									
01-14	269	13	50	6.8	110	190	0	89	74
15-17	583	8.6	49	3.8	36	154	0	40	25
18-31	162	13	50	6.8	110	190	0	89	74
SEP.									
01-23	119	14	48	8.8	160	188	8	120	120
24-26	357	8.1	48	2.9	78	152	4	63	59
27-30	136	11	46	7.1	100	176	0	81	74
WTD. AVG.	--	11	52	7.6	126	196	0	100	89
TIME WTD.									
AVG.	178	11	52	8.1	143	205	1	109	101
TOT. LOAD (TONS)	--	1880	9050	1340	22000	34400	79	17500	15600

TRINITY RIVER BASIN

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08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 717 mg/l Apr. 1-16; minimum, 253 mg/l Aug. 15-17.
 Hardness: Maximum, 190 mg/l May 1-26, 28; minimum, 120 mg/l Jan. 1, 3.
 Specific conductance: Maximum daily, 1,540 micromhos Dec. 26; minimum daily, 420 micromhos July 31.
 Water temperatures: Maximum, 33.0°C on several days during July; minimum, 7.0°C Jan. 7, Feb. 7.

EXTREMES, October 1966 to September 1968, October 1969 to September 1971.--Dissolved solids: Maximum, 795 mg/l Jan. 12-15, 21-31, 1967; minimum, 203 mg/l Mar. 21-22, 1968.
 Hardness: Maximum, 219 mg/l Apr. 1-18, 1970; 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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-03	.5	4.7	331	140	12	--	576	7.4
04-11	--	8.1	510	160	2	4.2	879	7.2
12-13	.5	4.7	331	140	12	--	576	7.4
14-31	--	8.1	510	160	2	4.2	879	7.2
NOV.								
01-30	1.0	14	670	160	0	5.8	112	7.2
DEC.								
01-31	.9	14	689	170	4	5.7	1150	7.2
JAN.								
01...	.8	7.6	370	120	8	--	630	7.5
02...	--	13	592	160	0	5.2	1020	7.2
03...	.8	7.6	370	120	8	--	630	7.5
04-31	--	13	592	160	0	5.2	1020	7.2
FEB.								
01-28	.9	14	677	160	0	6.3	1120	7.1
MAR.								
01-03	.8	12	696	170	0	6.0	1170	7.0
04-11	--	6.7	427	160	8	3.1	719	7.2
12-31	.8	12	696	170	0	6.0	1170	7.0
APR.								
01-16	1.1	14	717	170	0	--	1170	7.7
17...	--	8.8	522	170	14	4.0	874	7.4
18-20	--	3.3	339	170	24	1.8	557	7.5
21-30	--	8.8	522	170	14	4.0	874	7.4
MAY								
01-26	1.0	9.0	592	190	14	4.1	1010	7.1
27...	--	3.7	346	170	42	1.8	595	7.3
28...	1.0	9.0	592	190	14	4.1	1010	7.1
29-31	--	3.7	346	170	42	1.8	595	7.3
JUNE								
01-02	.5	6.7	381	150	14	2.7	622	8.3
03-30	--	8.5	583	150	0	5.2	966	7.5
JULY								
01-26	.8	9.3	550	160	1	--	921	7.2
27-31	--	3.4	293	150	14	1.7	502	7.2
AUG.								
01-14	.7	8.1	468	150	0	3.7	797	7.5
15-17	--	3.4	253	140	12	1.3	436	8.2
18-31	.7	8.1	468	150	0	3.7	797	7.5
SEP.								
01-23	1.0	11	615	160	2	5.5	1050	8.4
24-26	.6	5.4	363	130	8	2.9	596	8.3
27-30	.7	8.3	440	140	0	3.7	737	8.2
WTD. AVG.	--	9.2	549	167	13	4.3	837	7.4
TOT. LOAD (TONS)	--	1610	88000	--	--	--	--	--

TRINITY RIVER BASIN

08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.									
22...	0900	120	12	54	12	140	268	0	130
DEC.									
09...	1210	128	11	62	7.2	120	240	0	120
JAN.									
30...	0930	108	11	52	16	170	356	0	150
APR.									
23...	1505	214	7.4	58	8.6	96	204	0	120
MAY									
20...	1610	92	7.8	54	12	120	244	0	120
JUNE									
09...	1640	115	9.7	58	7.7	130	240	0	100
22...	0925	620	13	54	7.2	150	256	0	130
JULY									
15...	1500	112	14	46	10	160	300	0	100
29...	1715	403	9.6	41	7.2	69	172	0	56
AUG.									
12...	1700	135	12	50	7.1	120	220	0	110
23...	1640	122	13	56	9.4	120	216	0	130
SEP.									
22...	1740	143	14	50	8.0	150	296	0	130

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.									
22...	110	--	.49	9.2	2.4	9.3	615	180	0
DEC.									
09...	120	--	.040	12	.00	8.8	575	180	0
JAN.									
30...	120	1.0	.060	15	.1	4.0	718	190	0
APR.									
23...	80	.6	.38	7.7	1.3	2.3	482	180	13
MAY									
20...	100	1.0	.40	11	.2	8.0	551	180	0
JUNE									
09...	120	1.0	1.0	4.8	.00	4.6	562	180	0
22...	130	1.0	.29	7.9	.7	7.0	620	160	0
JULY									
15...	120	.9	.96	8.6	.6	6.5	619	160	0
29...	65	--	.32	4.0	1.5	2.2	346	130	0
AUG.									
12...	94	.9	.50	8.6	1.4	7.9	516	150	0
23...	99	1.0	.63	7.8	1.0	5.6	542	180	1
SEP.									
22...	110	.9	.30	14	.4	5.1	634	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	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT.								
22...	4.5	1090	7.4	19.5	2.1	23	10	--
DEC.								
09...	3.8	1070	7.2	17.5	2.5	26	6.7	--
JAN.								
30...	5.3	1210	7.4	14.0	.8	8	23	--
APR.								
23...	3.1	832	7.4	23.0	3.5	40	17	--
MAY								
20...	3.8	1020	7.6	27.0	5.2	64	13	--
JUNE								
09...	4.3	966	7.4	30.0	6.2	82	22	--
22...	5.1	1070	7.4	27.0	1.0	12	20	--
JULY								
15...	5.6	1040	7.6	32.0	4.4	59	12	--
29...	2.6	601	7.5	27.0	.5	6	32	--
AUG.								
12...	4.2	952	7.7	31.0	3.4	45	11	.30
23...	3.9	985	7.6	32.0	4.4	59	9.9	--
SEP.								
22...	5.2	1080	7.3	21.0	2.4	27	18	--

08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	567	1070	1160	663	1180	949	1140	954	618	1060	515	916
2	553	1140	1150	864	1170	1030	1060	1040	632	1050	755	958
3	591	1050	1270	592	1110	1190	1130	1130	723	909	794	954
4	675	1040	1170	836	1210	719	1190	1150	787	1100	711	1050
5	752	1080	1180	942	1260	694	1190	1160	863	1050	824	1020
6	775	1080	1180	991	1120	652	1200	1090	963	833	792	1030
7	785	1100	1260	991	1010	635	1190	1190	938	697	673	1040
8	802	1120	1170	991	1010	658	1190	1040	991	689	854	987
9	939	1130	1060	1090	1040	721	1150	817	958	777	884	958
10	1030	1170	1110	1050	1100	839	1180	835	1040	766	820	1050
11	996	1110	1150	1130	1100	846	1250	877	1020	845	815	1020
12	587	1200	1170	1120	1040	1050	1280	763	996	905	939	987
13	578	1120	1200	1060	1220	1020	1180	836	1060	1020	639	1000
14	726	1110	1180	1050	1210	1110	1140	871	1070	1030	699	1090
15	777	1210	1130	801	1260	1190	1240	966	1170	996	437	1090
16	883	1140	1160	851	1180	1170	1170	1030	1120	1000	421	1100
17	893	1070	1140	877	1250	1200	745	1110	1100	958	451	1110
18	996	1000	1150	923	1210	1170	573	1080	1120	1030	666	1100
19	1040	1180	1200	924	1100	1180	530	1060	1100	1150	751	1140
20	1020	1090	1200	858	1220	1260	569	1050	1170	1060	864	1150
21	1020	1120	1140	1010	1120	1240	759	1070	1180	1000	867	1160
22	1040	1150	1120	1000	1210	1320	430	1100	804	1010	983	1050
23	996	1170	1130	1070	1110	1260	850	1110	676	996	962	987
24	737	1150	1260	1120	1050	1160	828	1120	717	722	954	654
25	642	1080	1180	1130	836	1230	966	1100	816	680	595	565
26	760	1160	1540	1070	1130	1170	1090	1060	856	676	814	570
27	791	1170	1040	1120	1040	1160	1070	763	942	592	794	711
28	895	1200	951	1180	959	1250	739	987	949	447	724	684
29	843	1120	979	1120	---	1220	846	577	1000	620	776	725
30	983	1210	931	1200	---	1220	937	475	1030	439	898	833
31	1070	---	1030	1200	---	1210	---	559	---	420	915	---
MONTH	827	1120	1150	994	1120	1060	1010	968	944	856	761	956

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	18.0	20.0	13.0	12.0	16.0	20.0	21.0	26.0	30.0	26.0	29.0
2	25.0	16.0	20.0	13.0	11.0	12.0	20.0	25.0	28.0	30.0	25.0	29.0
3	25.0	15.0	21.0	14.0	13.0	12.0	20.0	25.0	28.0	29.0	27.0	29.0
4	26.0	14.0	14.0	10.0	13.0	11.0	20.0	25.0	28.0	31.0	27.0	29.0
5	25.0	15.0	19.0	9.0	14.0	13.0	19.0	26.0	28.0	31.0	27.0	29.0
6	26.0	15.0	16.0	8.0	12.0	14.0	18.0	26.0	30.0	33.0	28.0	31.0
7	26.0	17.0	16.0	7.0	7.0	13.0	18.0	26.0	30.0	33.0	26.0	31.0
8	22.0	17.0	16.0	8.0	10.0	14.0	18.0	26.0	30.0	33.0	28.0	32.0
9	21.0	18.0	18.0	9.0	9.0	15.0	17.0	24.0	28.0	33.0	30.0	30.0
10	20.0	17.0	18.0	11.0	11.0	15.0	21.0	24.0	30.0	33.0	31.0	28.0
11	19.0	16.0	15.0	12.0	13.0	17.0	22.0	25.0	30.0	32.0	31.0	29.0
12	20.0	16.0	12.0	11.0	13.0	19.0	22.0	23.0	29.0	32.0	30.0	29.0
13	18.0	15.0	13.0	14.0	12.0	20.0	21.0	23.0	31.0	32.0	28.0	30.0
14	20.0	13.0	13.0	14.0	14.0	21.0	20.0	24.0	30.0	32.0	26.0	29.0
15	19.0	13.0	14.0	12.0	15.0	20.0	22.0	24.0	30.0	33.0	28.0	29.0
16	18.0	13.0	13.0	12.0	16.0	20.0	20.0	25.0	32.0	32.0	27.0	30.0
17	17.0	13.0	14.0	12.0	18.0	20.0	19.0	26.0	31.0	33.0	29.0	27.0
18	18.0	15.0	16.0	12.0	18.0	18.0	19.0	26.0	31.0	32.0	29.0	25.0
19	19.0	15.0	14.0	11.0	17.0	16.0	21.0	24.0	29.0	31.0	30.0	22.0
20	20.0	15.0	14.0	11.0	18.0	16.0	21.0	26.0	30.0	29.0	30.0	22.0
21	20.0	18.0	15.0	14.0	14.0	18.0	23.0	26.0	29.0	29.0	30.0	23.0
22	21.0	15.0	17.0	13.0	13.0	17.0	24.0	25.0	29.0	31.0	31.0	22.0
23	21.0	12.0	15.0	13.0	14.0	18.0	23.0	25.0	30.0	28.0	31.0	22.0
24	20.0	11.0	14.0	15.0	14.0	16.0	22.0	26.0	30.0	28.0	30.0	22.0
25	22.0	12.0	12.0	14.0	14.0	15.0	22.0	27.0	30.0	30.0	27.0	24.0
26	22.0	15.0	12.0	15.0	16.0	17.0	24.0	27.0	31.0	29.0	30.0	26.0
27	19.0	15.0	12.0	13.0	14.0	16.0	26.0	24.0	31.0	28.0	31.0	27.0
28	18.0	16.0	13.0	14.0	15.0	18.0	25.0	28.0	30.0	25.0	31.0	27.0
29	18.0	18.0	13.0	14.0	---	20.0	23.0	24.0	30.0	28.0	29.0	28.0
30	18.0	19.0	13.0	16.0	---	20.0	23.0	24.0	31.0	25.0	29.0	27.0
31	18.0	---	11.0	14.0	---	20.0	---	25.0	---	26.0	29.0	---
MONTH	21.0	15.0	15.0	12.0	13.5	16.5	21.0	25.0	29.5	30.5	28.5	27.0

TRINITY RIVER BASIN

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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 1971.

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 1970 TO SEPTEMBER 1971

DATE	TIME	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.										
14...	1410	1.8	12	100	10	110	136	0	42	270
24...	1535	1.9	15	100	9.8	100	166	0	36	240
DEC.										
03...	1515	1.6	18	62	9.6	80	84	0	37	180
JAN.										
06...	1635	2.4	12	52	7.5	48	107	0	34	100
FEB.										
10...	1545	1.5	11	74	7.9	56	150	0	38	120
MAR.										
16...	1520	1.5	12	73	8.6	63	140	0	37	140
APR.										
20...	1610	1.4	17	59	10	68	91	0	34	160
MAY										
26...	1530	.02	2.1	170	20	260	66	0	41	680

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 AN- ION- RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
14...	.2	.00	611	290	180	2.8	1180	7.5
24...	.2	.00	583	290	150	2.6	1120	7.5
DEC.								
03...	.2	.00	433	190	120	--	812	7.6
JAN.								
06...	.2	.00	307	160	73	1.6	556	7.8
FEB.								
10...	.2	.00	386	220	94	1.7	714	7.6
MAR.								
16...	.2	.2	406	220	100	1.9	754	7.9
APR.								
20...	.2	.00	393	190	120	2.2	741	7.5
MAY								
26...	.2	.00	1210	500	450	5.0	2260	7.3

TRINITY RIVER BASIN

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 1971.
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 1970 TO SEPTEMBER 1971

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...	1830	21	9.6	100	9.8	63	336	0	46
NOV. 05...	1330	14	11	100	9.8	63	364	0	48
DEC. 10...	2120	14	4.6	120	9.8	86	420	0	54
JAN. 15...	1000	14	6.2	100	10	91	374	0	56
30...	1140	10	2.8	100	9.8	97	392	0	56
FEB. 24...	1510	17	6.0	57	8.3	86	204	0	44
APR. 05...	1656	7.5	3.1	97	11	120	414	8	54
21...	1400	5.4	2.0	82	8.6	120	412	0	48
JUNE 08...	1620	3.5	12	64	7.4	74	236	0	29
21...	1520	88	16	68	7.4	120	396	0	46
JULY 11...	1530	1.8	11	51	6.1	63	276	0	26
AUG. 23...	1315	43	8.9	48	3.0	40	156	0	18

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...	68	.5	.010	.10	2.0	.56	471	290	14
NOV. 05...	59	.2	--	--	1.4	--	480	300	2
DEC. 10...	80	--	.040	.10	1.5	.72	564	330	0
JAN. 15...	83	.5	--	--	3.6	--	550	300	0
30...	90	.3	.020	.64	1.8	.31	561	300	0
FEB. 24...	100	.3	--	--	2.0	--	410	180	9
APR. 05...	89	.3	--	--	1.6	--	590	290	0
21...	87	.3	.10	5.3	.5	2.8	557	240	0
JUNE 08...	86	.3	--	--	1.1	--	394	190	0
21...	62	.4	.10	.26	1.1	1.7	522	200	0
JULY 11...	23	.2	--	--	.7	--	319	152	0
AUG. 23...	48	.3	.020	.02	.9	.43	247	130	4

TRINITY RIVER BASIN

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08050500 ELM FORK TRINITY RIVER NEAR SANGER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTERRER 1971

DATE	SODIUM AD- SORP- TION RATIO	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)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT. 21...	1.6	787	7.6	16.5	9.2	93	2.5	--
NOV. 05...	1.6	767	8.2	10.0	--	--	--	--
DEC. 10...	2.0	936	7.7	15.5	9.6	95	1.7	--
JAN. 15...	2.3	878	8.1	5.5	--	--	--	--
30...	2.5	932	7.9	9.5	10.7	94	1.2	--
FEB. 24...	2.8	715	8.1	9.0	--	--	--	--
APR. 05...	3.1	972	8.3	15.0	--	--	--	--
21...	3.4	976	7.8	20.0	4.5	49	>8.3	--
JUNE 08...	2.3	699	7.7	29.0	--	--	--	--
21...	3.7	862	8.0	26.5	5.3	65	5.0	--
JULY 11...	2.2	522	8.0	31.5	--	--	--	--
AUG. 23...	1.5	441	7.9	28.0	7.7	97	2.3	.04

WATER QUALITY DATA

DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
APR., 1970					
26...	1410	5320	--	820	11800
JUNE 03...	1420	123	--	97	32
AUG. 28...	1110	3.6	25.0	33	.32
SEP. 17...	1825	4440	23.5	1230	14700
NOV. 05...	1330	15	--	109	4.4
FEB., 1971					
24...	1510	17	--	170	7.8

TRINITY RIVER BASIN

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 1971.

Water temperatures: May 1968 to September 1971.

Sediment records: May 1968 to September 1971.

EXTREMES, October 1970 to September 1971.--Sediment concentrations: Maximum daily, 2,430 mg/l Aug. 16; minimum daily, no flow for many days during June, July, and August.

Sediment loads: Maximum, 1,160 tons Aug. 14; minimum daily, 0 tons on many days during June, July, August and September.

EXTREMES, May 1968 to September 1971.--Water temperatures (May 1968 to September 1970): Maximum, 39.0°C June 28, 1969; minimum, freezing point Jan. 9, 1970.

Sediment concentrations: Maximum daily, 5,450 mg/l May 7, 1969; minimum daily, 2 mg/l July 18, 1970.

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 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	443	1130	1200	958	---	1000	1090	1290	579	---	---	837
2	542	1210	1210	995	---	1020	1160	1350	686	718	---	---
3	605	1260	1120	940	---	887	1200	1370	736	---	---	545
4	723	1200	1210	---	---	888	1240	1370	776	---	---	---
5	798	1270	1100	856	912	908	1220	1400	897	---	---	---
6	845	1280	1190	---	---	900	1180	1270	957	---	---	---
7	897	1280	1120	1150	---	949	1150	1450	944	---	---	---
8	882	1240	1090	1300	---	936	---	---	---	---	---	---
9	990	1200	1120	1320	990	1020	---	935	994	---	487	---
10	906	1260	1150	782	1190	1090	934	931	891	---	352	---
11	---	1270	1020	923	1040	1060	971	---	872	---	408	---
12	1070	1320	1090	941	1020	1120	1060	1320	---	---	---	---
13	1020	1200	1070	972	---	1120	1100	1160	---	---	---	---
14	981	1220	---	---	---	1120	---	1210	---	---	---	---
15	1090	1200	1380	952	1100	1150	1200	1310	---	---	---	---
16	1070	1010	---	963	1120	1150	1280	1310	---	---	201	---
17	1150	1150	---	1100	1100	1170	1020	1440	---	---	152	---
18	1070	1230	---	---	958	1200	664	1520	---	---	213	---
19	1020	---	1120	1080	981	1260	805	1680	---	---	333	---
20	1090	1200	1180	1060	1090	1260	868	---	---	---	468	---
21	---	1260	1040	1130	660	1110	1020	---	---	---	---	---
22	1150	---	---	---	659	1160	921	1830	---	---	726	478
23	1030	1300	---	---	730	---	943	1790	---	---	---	532
24	481	1270	---	1100	736	985	1060	1050	---	---	583	354
25	540	1230	---	1120	888	884	1120	2280	---	---	419	309
26	690	1350	---	---	976	943	---	1290	---	---	---	220
27	846	1200	1130	1130	920	971	1320	1310	---	---	---	---
28	---	1200	---	1140	945	971	1280	1840	---	---	---	476
29	1030	1210	1120	---	---	980	1260	412	---	---	470	614
30	1130	1230	---	1150	---	---	---	291	---	---	---	---
31	---	---	---	---	---	1040	---	163	---	---	---	---
MONTH	892	1240	---	---	---	1040	1080	1280	---	---	---	---

08051500 CLEAR CREEK NEAR SANGER, TEX.--Continued

TEMPERATURE (°) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.0	15.0	19.0	11.0	---	16.0	19.0	25.0	28.0	---	---	30.0
2	25.0	15.0	19.0	---	---	8.0	20.0	29.0	29.0	27.0	---	---
3	21.0	12.0	20.0	12.0	---	8.0	20.0	25.0	27.0	---	---	29.5
4	25.0	12.0	16.0	---	---	8.0	19.0	25.0	30.0	---	---	---
5	25.0	14.0	8.5	4.0	15.5	17.0	18.0	29.0	30.0	---	---	---
6	26.0	11.0	19.0	---	---	15.0	15.5	28.0	29.0	---	---	---
7	26.0	17.0	18.0	2.0	---	13.0	19.0	28.0	31.0	---	---	---
8	18.0	17.0	17.0	3.0	---	14.0	---	---	---	---	---	---
9	19.0	17.0	19.0	3.0	7.0	14.0	---	22.0	31.0	---	31.0	---
10	19.0	17.0	19.0	16.0	11.0	16.0	25.0	26.0	28.5	---	32.0	---
11	---	16.0	8.0	16.0	15.0	17.0	23.0	---	29.5	---	31.5	---
12	18.0	15.0	10.0	8.0	12.0	22.0	25.0	20.5	---	---	---	---
13	22.0	12.0	8.0	12.0	---	24.5	17.0	22.0	---	---	---	---
14	20.0	10.0	---	---	---	22.5	---	28.0	---	---	---	---
15	15.0	8.0	12.0	4.0	16.0	19.0	22.0	27.0	---	---	---	---
16	15.0	13.0	---	12.0	19.5	19.5	19.0	26.0	---	---	27.0	---
17	14.0	14.0	---	10.0	17.0	20.0	20.0	29.5	---	---	30.0	---
18	19.0	18.0	---	---	16.0	17.0	19.0	32.0	---	---	30.0	---
19	19.0	---	11.0	6.0	19.5	14.0	24.0	27.0	---	---	30.0	---
20	19.0	14.0	10.0	8.0	18.5	15.5	22.5	---	---	---	30.0	---
21	---	17.0	15.0	12.0	11.0	15.0	27.0	---	---	---	---	---
22	24.0	---	---	---	9.0	17.0	26.5	23.0	---	---	31.0	20.0
23	18.0	10.0	---	---	12.0	---	23.5	28.0	---	---	---	18.5
24	20.0	9.0	---	13.0	11.0	13.5	24.0	25.5	---	---	28.0	21.0
25	19.0	12.0	---	13.0	14.5	---	21.0	28.0	---	---	24.0	24.0
26	24.0	18.0	---	---	15.5	18.0	---	27.5	---	---	---	---
27	17.0	17.0	12.0	10.0	13.5	20.0	24.0	28.0	---	---	---	---
28	---	18.0	---	12.0	11.5	25.0	24.0	30.0	---	---	---	24.0
29	12.0	16.0	12.0	---	---	17.5	22.0	21.0	---	---	27.0	25.0
30	12.0	19.0	---	14.0	---	---	---	20.0	---	---	---	---
31	---	---	---	---	---	18.0	---	23.0	---	---	---	---
MONTH	20.0	14.5	---	---	---	16.5	21.5	26.0	---	---	---	---

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	75	77	16	12	25	.81	11	40	1.2
2	58	75	12	11	32	.95	11	6	.18
3	46	69	8.6	11	55	1.6	11	15	.45
4	34	30	2.8	11	18	.53	11	7	.21
5	28	13	.98	11	12	.36	11	13	.39
6	23	9	.56	11	8	.24	11	27	.80
7	23	6	.37	11	4	.12	10	36	.97
8	23	7	.43	12	6	.19	10	43	1.2
9	21	18	1.0	12	5	.16	11	30	.89
10	19	24	1.2	11	3	.09	11	27	.80
11	16	25	1.1	11	4	.12	12	33	1.1
12	16	28	1.2	11	4	.12	10	54	1.5
13	17	52	2.4	11	12	.36	9.4	58	1.5
14	16	55	2.4	13	12	.42	8.8	52	1.2
15	15	25	1.0	16	15	.65	10	67	1.8
16	14	30	1.1	13	22	.77	13	75	2.6
17	14	18	.68	11	19	.56	12	73	2.4
18	15	47	1.9	11	12	.36	11	73	2.2
19	15	63	2.6	11	11	.33	11	62	1.8
20	14	37	1.4	10	5	.14	11	37	1.1
21	14	30	1.1	10	3	.08	11	40	1.2
22	14	41	1.5	10	4	.11	11	47	1.4
23	28	282	36	9.9	6	.16	21	60	3.7
24	61	986	184	9.5	15	.38	13	55	1.9
25	30	220	18	9.2	17	.42	12	55	1.8
26	22	90	5.3	10	21	.57	11	62	1.8
27	19	40	2.1	11	22	.65	11	85	2.5
28	16	26	1.1	11	16	.48	12	90	2.9
29	13	18	.63	11	20	.59	12	67	2.2
30	12	14	.45	11	65	1.9	14	59	2.2
31	12	15	.49	--	--	--	15	56	2.3
TOTAL	743	--	310.39	333.6	--	14.22	359.2	--	48.19

TRINITY RIVER BASIN

08051500 CLEAR CREEK NEAR SANGER, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	11	64	1.9	11	5	.15	11	13	.39
2	15	64	2.6	11	6	.18	12	27	.87
3	15	56	2.3	11	6	.18	13	31	1.1
4	17	65	3.0	14	181	7.7	13	35	1.2
5	16	53	2.3	14	205	7.7	15	30	1.2
6	11	41	1.2	14	165	6.2	12	22	.71
7	9.2	67	1.7	13	127	4.5	10	29	.78
8	9.4	52	1.3	11	102	3.0	9.5	44	1.1
9	9.6	61	1.6	11	82	2.4	9.6	35	.91
10	15	73	3.0	13	33	1.2	9.7	22	.58
11	14	54	2.0	13	10	.35	9.6	25	.65
12	12	47	1.5	13	17	.60	9.9	16	.43
13	12	49	1.6	12	19	.62	10	14	.38
14	13	60	2.1	12	18	.58	10	28	.76
15	13	62	2.2	12	11	.36	9.5	22	.56
16	11	35	1.0	13	9	.32	9.5	12	.31
17	11	26	.77	13	14	.49	9.3	18	.45
18	12	23	.75	16	82	4.3	9.3	18	.45
19	11	12	.36	15	46	2.0	8.8	8	.19
20	11	11	.33	14	12	.45	8.8	5	.12
21	11	10	.30	60	968	266	8.9	3	.07
22	12	11	.36	32	254	25	10	2	.05
23	11	12	.36	21	37	2.1	11	3	.09
24	11	13	.39	16	26	1.1	11	3	.09
25	12	10	.32	15	35	1.4	11	9	.27
26	11	5	.15	15	24	.97	11	7	.21
27	11	4	.12	13	15	.53	11	8	.24
28	11	4	.12	12	10	.32	10	5	.14
29	11	5	.15	--	--	--	8.9	2	.05
30	12	4	.13	--	--	--	7.8	2	.04
31	12	4	.13	--	--	--	7.3	2	.04
TOTAL	373.2	--	36.04	440	--	340.70	317.4	--	14.43
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	6.7	3	.05	5.5	8	.12	14	124	4.7
2	6.4	2	.03	5.5	4	.06	9.2	64	1.6
3	6.3	2	.03	4.9	4	.05	6.0	43	.70
4	6.3	4	.07	4.5	5	.06	4.1	51	.56
5	6.2	4	.07	4.3	9	.10	2.7	54	.39
6	6.1	5	.08	4.3	34	.39	1.6	46	.20
7	6.1	6	.10	5.1	36	.50	.71	54	.10
8	8.1	9	.20	7.2	25	.49	.42	58	.07
9	8.2	8	.18	7.3	20	.39	.27	68	.05
10	8.0	15	.32	5.7	25	.38	.19	75	.04
11	6.7	5	.09	5.4	30	.44	.13	105	.04
12	6.1	3	.05	5.2	20	.28	.11	75	.02
13	5.5	6	.09	4.2	26	.29	.10	60	.02
14	5.3	11	.16	3.3	52	.46	.08	55	.01
15	5.5	12	.18	2.8	44	.33	.08	50	.01
16	6.6	12	.21	2.5	48	.32	.06	45	.01
17	15	25	1.6	2.1	27	.15	.05	45	.01
18	31	102	9.1	2.0	32	.17	.04	40	0
19	17	26	1.3	2.2	45	.27	.04	40	0
20	12	12	.39	1.6	46	.20	.42	100	.11
21	11	9	.27	1.0	47	.13	1.2	100	.32
22	11	12	.36	.82	58	.13	.94	75	.19
23	8.5	12	.28	1.5	78	.39	.83	70	.16
24	7.2	12	.23	10	110	3.4	.73	65	.13
25	6.7	8	.14	7.2	47	1.0	.58	60	.09
26	6.7	6	.11	3.1	13	.11	.16	55	.02
27	6.7	11	.20	2.7	8	.06	.01	50	0
28	6.2	15	.25	2.5	21	.15	0	0	0
29	5.6	8	.12	109	1490	650	0	0	0
30	5.5	8	.12	62	1210	223	0	0	0
31	--	--	--	26	280	22	--	--	--
TOTAL	254.2	--	16.38	311.42	--	905.82	44.75	--	9.55

TRINITY RIVER BASIN

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08051500 GLEAR CREEK NEAR SANGER, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	0	0	0	0	0	0	1.8	17	.08
2	0	0	0	0	0	0	3.5	17	.16
3	0	0	0	0	0	0	2.2	28	.17
4	0	0	0	0	0	0	1.8	25	.12
5	0	0	0	0	0	0	1.5	25	.10
6	0	0	0	0	0	0	1.3	25	.09
7	0	0	0	0	0	0	1.2	20	.06
8	0	0	0	0	0	0	.96	20	.05
9	0	0	0	4.5	127	6.2	.83	20	.04
10	0	0	0	4.6	219	2.9	.73	15	.03
11	0	0	0	1.4	165	.62	.70	15	.03
12	0	0	0	.29	130	.10	.57	15	.02
13	0	0	0	0	104	0	.49	12	.02
14	0	0	0	151	956	1160	.43	12	.01
15	0	0	0	129	1630	609	.37	12	.01
16	0	0	0	109	2430	782	.32	12	.01
17	0	0	0	21	1260	84	.30	8	.01
18	0	0	0	5.9	463	8.3	.25	8	.01
19	0	0	0	1.8	246	1.2	.26	8	.01
20	0	0	0	.60	128	.21	.22	8	0
21	0	0	0	.16	70	.03	.20	5	0
22	0	0	0	.08	58	.01	3.1	46	1.0
23	0	0	0	.02	40	0	.36	849	158
24	0	0	0	0	0	0	20	658	39
25	0	0	0	43	778	175	53	1120	260
26	0	0	0	96	954	286	33	999	103
27	0	0	0	23	273	19	8.5	420	11
28	0	0	0	4.1	110	2.7	4.2	140	1.6
29	0	0	0	4.8	86	1.1	2.8	45	.34
30	0	0	0	2.8	62	.47	1.7	20	.09
31	0	0	0	2.1	34	.19	--	--	--
TOTAL	0	--	0	615.15	--	3139.03	182.23	--	575.06

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

3974.15

5409.81

TRINITY RIVER BASIN

08052650 LITTLE ELM CREEK NEAR CELINA, TEX.

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.

DRAINAGE AREA.--46.7 sq mi, of which 25.6 sq mi are above floodwater-retarding structures.

PERIOD OF RECORD.--Specific conductance: October 1966 to September 1971.

Water temperatures: February 1966 to September 1971.

Sediment records: February 1966 to September 1971.

EXTREMES, October 1970 to September 1971.--Sediment concentrations: Maximum daily, 1910 mg/l May 27; minimum daily, no flow on many days.

Sediment loads: Maximum daily 804 tons, May 27; minimum daily, 0 tons on many days.

EXTREMES, February 1966 to September 1971.--Water temperatures (February 1966 to September 1969): Maximum, 31.0°C June 20, 1969; minimum, freezing point Jan. 1, 1969.

Sediment concentrations: Maximum daily, 2,080 mg/l Apr. 28, 1966; minimum daily, no flow on many days.

Sediment loads: Maximum daily, 15,200 tons Apr. 28, 1966; 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 1970 TO SEPTEMBER 1971

[illegible]

TRINITY RIVER BASIN

263

08052650 LITTLE ELM CREEK NEAR CELINA, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	---	---	---	---	---	---	---	23.0	---	---	---
2	21.0	12.0	---	---	---	---	---	---	24.0	---	---	---
3	26.0	---	---	---	---	---	---	---	27.0	---	---	---
4	24.0	---	---	---	9.0	---	---	---	24.0	---	---	---
5	23.5	---	---	---	9.5	---	---	---	---	---	23.0	---
6	24.0	---	---	---	8.0	---	---	---	---	---	24.0	---
7	24.0	---	---	---	---	---	---	---	---	---	24.5	---
8	---	---	---	---	---	---	---	---	---	---	30.0	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	25.0	---
15	---	---	---	---	---	---	---	---	---	---	26.0	---
16	---	---	---	---	---	---	---	---	---	---	27.0	---
17	---	---	---	---	---	---	---	---	---	---	27.0	---
18	---	---	---	---	---	---	---	---	---	---	27.0	---
19	---	---	---	---	---	---	---	---	---	---	27.0	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	25.0
24	---	---	---	---	---	---	---	---	---	---	---	26.0
25	---	---	---	---	---	---	---	---	---	---	24.0	24.0
26	---	---	---	---	---	---	---	---	---	---	24.5	24.5
27	---	---	---	---	---	---	---	25.0	---	---	25.0	25.0
28	---	---	---	---	---	---	---	24.0	---	---	25.0	25.0
29	---	---	---	---	---	---	---	24.5	---	---	24.5	25.0
30	---	---	---	---	---	---	---	20.0	---	21.5	24.0	25.0
31	---	---	---	---	---	---	---	20.0	---	25.0	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

WATER QUALITY DATA

DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 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	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
SEP., 1971											
25...	1500	103	24.0	889	100	78	85	92	94	98	247

TRINITY RIVER BASIN

08052650 LITTLE ELM CREEK NEAR CELINA, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	5.4	150	2.2	.22	60	.04	0	0	0
2	3.8	148	1.5	.19	59	.03	0	0	0
3	2.7	136	.99	.13	55	.02	0	0	0
4	2.0	121	.65	.09	55	.01	0	0	0
5	1.2	95	.31	.05	54	.01	0	0	0
6	1.1	54	.16	.03	53	0	0	0	0
7	.80	50	.11	.01	52	0	0	0	0
8	.53	48	.07	.01	50	0	0	0	0
9	.40	46	.05	0	0	0	0	0	0
10	.26	44	.03	0	0	0	0	0	0
11	.16	39	.02	0	0	0	0	0	0
12	.12	34	.01	0	0	0	0	0	0
13	.08	32	.01	0	0	0	0	0	0
14	.05	31	0	0	0	0	0	0	0
15	.02	27	0	0	0	0	0	0	0
16	.01	23	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	.01	422	.01	0	0	0	0	0	0
24	1.6	804	3.5	0	0	0	0	0	0
25	2.2	220	1.3	0	0	0	0	0	0
26	1.5	125	.51	0	0	0	0	0	0
27	1.1	76	.23	0	0	0	0	0	0
28	.90	71	.17	0	0	0	0	0	0
29	.62	66	.11	0	0	0	0	0	0
30	.41	63	.07	0	0	0	0	0	0
31	.25	60	.04	0	0	0	0	0	0
TOTAL	27.23	--	12.05	.73	--	.11	0	--	0

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	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	.05	100	.01
3	0	0	0	0	0	0	.11	95	.03
4	0	0	0	1.0	271	.73	.09	90	.02
5	0	0	0	.53	200	.29	.05	85	.01
6	0	0	0	.17	145	.07	.04	75	.01
7	0	0	0	.11	130	.04	.01	65	0
8	0	0	0	.05	120	.02	.01	50	0
9	0	0	0	.04	110	.01	.01	20	0
10	0	0	0	.03	100	.01	0	0	0
11	0	0	0	.03	90	.01	0	0	0
12	0	0	0	.02	80	0	0	0	0
13	0	0	0	.01	70	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
30	0	0	0	--	--	--	0	0	0
31	0	0	0	--	--	--	0	0	0
TOTAL	0	--	0	1.99	--	1.18	.37	--	.08

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	0	0	0	.09	38	.01	.71	46	.09
2	0	0	0	.02	35	0	.44	44	.05
3	0	0	0	0	0	0	.26	42	.03
4	0	0	0	0	0	0	.18	40	.02
5	0	0	0	.27	826	60	.10	38	.01
6	0	0	0	12	878	28	.04	36	0
7	0	0	0	.66	130	.23	0	0	0
8	0	0	0	.15	40	.02	0	0	0
9	0	0	0	.02	40	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	.44	846	101	0	0	0
15	0	0	0	.40	500	54	0	0	0
16	0	0	0	.14	380	14	0	0	0
17	0	0	0	9.0	212	5.2	0	0	0
18	0	0	0	5.1	208	2.9	0	0	0
19	0	0	0	2.8	208	1.6	0	0	0
20	0	0	0	1.6	191	.83	0	0	0
21	0	0	0	.86	152	.35	0	0	0
22	0	0	0	.43	120	.14	.21	9	.01
23	0	0	0	.16	95	.04	6.6	203	3.6
24	0	0	0	.51	941	130	2.0	65	.35
25	0	0	0	190	1200	616	50	678	92
26	0	0	0	.48	240	31	52	300	42
27	0	0	0	16	60	2.6	25	190	13
28	0	0	0	7.1	117	2.2	12	174	5.6
29	9.4	154	3.9	3.6	58	.56	7.1	141	2.7
30	42	1330	151	2.0	50	.27	4.3	144	1.7
31	.67	90	.16	1.2	48	.16	--	--	--
TOTAL	52.07	--	155.06	481.79	--	1056.11	160.24	--	161.16

1139.11

2682.38

TRINITY RIVER BASIN

08052700 LITTLE ELM CREEK NEAR AUBREY, TEX.

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.

DRAINAGE AREA.--75.5 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1968.

Specific conductance: December 1968 to September 1971.

Water temperatures: February 1966 to September 1971.

Sediment records: February 1966 to September 1971.

EXTREMES, October 1970 to September 1971.--Sediment concentrations: Maximum daily, 2,430 mg/l May 27; minimum daily, no flow on many days.

Sediment loads: Maximum daily, 1,430 tons May 27; minimum daily, 0 tons on many days.

EXTREMES, February 1966 to September 1971.--Water temperatures: 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.

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	307	---	---	1190	1330	904	---	---	352	---	---	431
2	316	449	---	1210	1330	794	---	---	375	---	426	444
3	321	490	---	---	1330	926	---	---	386	---	450	470
4	---	495	---	1240	1140	770	---	---	397	---	472	467
5	327	504	---	1350	1160	791	---	---	413	---	---	---
6	---	506	---	---	1160	866	---	---	---	---	333	---
7	---	515	717	---	---	---	---	---	374	---	327	---
8	---	---	---	---	1190	922	---	---	414	---	---	---
9	---	---	---	---	1180	935	---	---	452	---	459	---
10	---	549	---	---	1160	953	---	---	369	---	466	---
11	---	562	---	1220	1110	990	---	---	---	---	482	---
12	---	578	---	---	1110	1000	---	---	---	---	---	---
13	---	562	---	1150	1130	1010	---	---	---	---	---	---
14	---	553	---	1290	---	---	---	---	---	---	446	---
15	---	---	745	1250	1130	1060	---	---	---	---	316	---
16	---	637	781	1290	1150	1090	---	---	---	---	293	---
17	---	598	799	---	1150	1110	---	---	---	---	295	---
18	---	596	822	1290	1120	---	1080	---	---	---	298	---
19	---	598	864	1300	1160	---	1370	---	---	---	304	---
20	---	608	---	1290	1150	---	1130	---	---	---	292	---
21	---	614	944	1290	---	---	1140	---	443	---	277	---
22	---	---	944	1270	1040	---	1130	---	670	---	---	---
23	---	640	958	1250	976	---	1120	---	740	---	306	556
24	---	655	---	---	962	---	1090	422	808	---	320	464
25	---	---	1070	1260	935	---	---	447	859	---	306	573
26	---	---	1110	1280	914	---	---	465	---	---	357	---
27	458	---	---	1280	909	---	1130	380	---	---	381	387
28	449	---	1100	1280	---	---	---	383	886	---	396	384
29	---	---	1070	1290	---	---	---	364	891	---	---	386
30	464	---	1090	1290	---	---	---	384	872	373	407	---
31	---	---	1100	---	---	---	---	337	---	---	419	---
MONTH	---	---	---	---	1120	---	---	---	---	---	---	---

TRINITY RIVER BASIN

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08052700 LITTLE ELM CREEK NEAR AUBREY, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	---	---	11.0	6.0	15.0	---	---	26.5	---	---	30.0
2	25.5	11.5	---	10.0	6.0	5.0	---	---	30.0	---	20.0	27.0
3	22.0	10.0	---	---	9.0	4.0	---	---	29.0	---	23.0	27.0
4	---	9.0	---	---	14.0	---	---	---	30.0	---	26.0	26.0
5	23.5	---	---	---	11.0	20.0	---	---	32.0	---	---	---
6	---	10.0	---	---	5.0	15.0	---	---	---	---	24.5	---
7	---	13.0	10.0	---	---	---	---	---	30.0	---	23.0	---
8	---	---	---	---	7.0	15.0	---	---	27.0	---	---	---
9	---	---	---	---	6.0	13.0	---	---	27.0	---	29.0	---
10	---	8.0	---	---	9.0	15.0	---	---	27.0	---	27.0	---
11	---	11.0	---	13.0	15.0	18.0	---	---	---	---	33.5	---
12	---	12.0	---	---	11.0	18.0	---	---	---	---	---	---
13	---	8.0	---	10.0	9.0	23.0	---	---	---	---	---	---
14	---	8.0	---	14.0	---	---	---	---	---	---	26.0	---
15	---	---	9.0	7.0	15.0	19.0	---	---	---	---	28.0	---
16	---	5.0	8.0	5.0	18.0	17.0	---	---	---	---	27.0	---
17	---	12.0	15.0	---	17.0	17.0	---	---	---	---	30.0	---
18	---	8.0	16.0	7.0	17.0	---	23.0	---	---	---	28.0	---
19	---	15.0	9.0	5.0	20.0	---	23.0	---	---	---	31.0	---
20	---	11.0	---	9.0	20.0	---	15.0	---	---	---	32.0	---
21	---	16.0	15.0	14.0	---	---	21.0	---	26.0	---	34.0	---
22	---	---	18.0	14.0	7.5	---	22.0	---	31.0	---	---	---
23	---	6.0	9.0	10.0	12.0	---	20.0	---	34.0	---	30.0	19.5
24	---	7.0	---	---	15.0	---	20.0	21.0	32.0	---	25.0	20.5
25	---	---	9.0	14.0	15.0	---	---	25.0	31.0	---	23.5	22.5
26	---	---	8.0	12.0	17.0	---	---	29.0	---	---	24.5	---
27	15.5	---	---	11.0	6.0	---	20.0	23.0	---	---	31.0	25.5
28	16.0	---	11.0	12.0	---	---	---	23.5	28.0	---	32.0	21.0
29	---	---	10.0	15.0	---	---	---	20.5	29.0	---	---	26.0
30	19.0	---	12.0	10.0	---	---	---	21.5	30.0	24.0	28.0	---
31	---	---	6.0	---	---	---	---	23.5	---	---	32.0	---
MONTH	---	---	---	---	12.0	---	---	---	---	---	---	---

WATER QUALITY DATA

DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 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	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
MAY , 1971											
27...	1530	330	23.0	3420	100	77	85	91	94	99	3050
AUG.											
06...	0730	82	23.0	1620	--	92	93	96	97	100	359

TRINITY RIVER BASIN

08052700 LITTLE ELM CREEK NEAR AUBREY, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	9.4	240	6.1	.68	52	.10	0	0	0
2	6.7	105	1.9	.39	40	.04	.09	80	.02
3	4.9	48	.64	.24	25	.02	.07	70	.01
4	3.4	40	.37	.18	18	.01	.06	60	.01
5	2.0	50	.27	.13	26	.01	.04	60	.01
6	1.4	70	.26	.09	28	.01	.04	50	.01
7	1.0	70	.19	.09	22	.01	.01	50	0
8	.75	60	.12	.08	20	0	0	0	0
9	.49	60	.08	.09	22	.01	0	0	0
10	.31	50	.04	.08	25	.01	0	0	0
11	.25	50	.03	.07	22	0	.03	50	0
12	.28	40	.03	.07	31	.01	.03	40	0
13	.25	40	.03	.11	24	.01	.05	30	0
14	.24	30	.02	.11	39	.01	.05	20	0
15	.22	30	.02	.12	26	.01	.11	11	0
16	.11	25	.01	.08	19	0	.35	23	.02
17	.09	25	.01	.07	19	0	.18	17	.01
18	.08	25	.01	.08	36	.01	.12	14	0
19	.05	20	0	.05	36	0	.13	14	0
20	.03	20	0	.06	25	0	.11	12	0
21	.01	20	0	.03	17	0	.09	14	0
22	0	0	0	.06	19	0	.10	19	.01
23	.18	150	.07	.07	17	0	.14	24	.01
24	.72	150	.29	.01	10	0	.11	25	.01
25	.83	200	.45	0	0	0	.13	22	.01
26	2.4	300	1.9	0	0	0	.07	19	0
27	22	1180	98	0	0	0	.10	17	0
28	4.7	205	2.6	0	0	0	.10	18	0
29	2.4	126	.82	0	0	0	.13	23	.01
30	1.5	90	.36	0	0	0	.21	26	.01
31	1.1	68	.20	--	--	--	.26	25	.02
TOTAL	67.79	--	114.82	3.04	--	.27	2.91	--	.17
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	.22	23	.01	.04	47	.01	.07	46	.01
2	.19	54	.03	.01	54	0	1.1	155	.73
3	.36	29	.03	0	0	0	2.4	160	1.0
4	.44	19	.02	1.0	136	.41	1.3	112	.39
5	.23	14	.01	.55	61	.09	.51	75	.10
6	.15	20	.01	.27	98	.07	.24	74	.05
7	.12	20	.01	.15	68	.03	.09	67	.02
8	.11	20	.01	.09	34	.01	.03	53	0
9	.16	25	.01	.08	23	0	.02	54	0
10	.24	25	.02	.09	30	.01	.03	40	0
11	.24	24	.02	.11	30	.01	.02	32	0
12	.21	20	.01	.15	41	.02	.01	37	0
13	.29	49	.05	.13	38	.01	.02	24	0
14	2.0	134	.85	.08	30	.01	.01	23	0
15	.38	56	.06	.05	31	0	.01	28	0
16	.13	63	.02	.06	24	0	0	0	0
17	.12	79	.03	.08	29	.01	0	0	0
18	.10	72	.02	.09	48	.01	0	0	0
19	.08	51	.01	.21	47	.03	0	0	0
20	.04	36	0	.21	42	.02	0	0	0
21	.05	33	0	2.3	176	2.5	0	0	0
22	.07	29	.01	2.0	199	1.1	0	0	0
23	.07	41	.01	.33	92	.08	0	0	0
24	.06	48	.01	.11	46	.01	0	0	0
25	.06	42	.01	.11	47	.01	0	0	0
26	.06	28	0	.15	62	.03	0	0	0
27	.02	22	0	.09	79	.02	0	0	0
28	.01	21	0	.07	65	.01	0	0	0
29	.04	19	0	--	--	--	0	0	0
30	.05	24	0	--	--	--	0	0	0
31	.07	36	.01	--	--	--	0	0	0
TOTAL	6.37	--	1.28	8.61	--	4.51	5.86	--	2.30

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	.03	35	0	1.7	215	.99	.54	140	.20
2	0	0	0	.26	112	.08	.15	125	.05
3	0	0	0	.08	60	.01	.09	154	.04
4	0	0	0	.06	50	.01	.04	150	.02
5	0	0	0	.09	68	.02	.02	126	.01
6	0	0	0	38	1110	167	0	0	0
7	0	0	0	9.5	320	8.6	0	0	0
8	0	0	0	2.7	190	1.4	0	0	0
9	0	0	0	.27	135	.10	0	0	0
10	0	0	0	.11	123	.04	0	0	0
11	0	0	0	.05	90	.01	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	11	399	53	0	0	0
15	0	0	0	68	1300	269	0	0	0
16	0	0	0	31	590	49	0	0	0
17	0	0	0	17	400	18	0	0	0
18	0	0	0	10	315	8.5	0	0	0
19	0	0	0	6.9	239	4.5	0	0	0
20	0	0	0	4.0	171	1.8	0	0	0
21	0	0	0	1.7	159	.73	0	0	0
22	0	0	0	.47	182	.23	0	0	0
23	0	0	0	.10	210	.06	5.1	187	4.6
24	0	0	0	.07	285	.05	7.9	253	5.5
25	0	0	0	197	1930	1190	20	866	118
26	0	0	0	129	699	298	72	1380	303
27	0	0	0	27	444	34	33	500	45
28	0	0	0	13	255	9.0	19	438	22
29	0	0	0	7.5	193	3.9	12	387	13
30	45	1000	237	4.3	172	2.0	7.5	307	6.2
31	9.3	480	12	1.8	157	.76	--	--	--
TOTAL	54.33	--	249	582.66	--	2120.79	177.34	--	517.62

1418.52
5546.35

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 1971.

Chemical and biochemical analyses: January 1968 to September 1971.

Water temperatures: October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	3400	8.0	45	4.3	--	31	--	138	0	37
06-10	849	10	49	5.2	--	76	--	142	0	86
11-12	1490	6.2	50	3.7	--	44	--	148	0	54
13-20	586	12	50	6.6	--	91	--	164	0	93
21-23	772	16	53	6.8	--	110	--	184	0	104
24-26	1140	10	49	5.2	--	76	--	142	0	86
27-31	941	16	53	6.8	--	110	--	184	0	104
NOV.										
01-04	364	17	56	6.9	--	100	--	188	0	100
05-30	333	16	52	8.4	--	130	--	188	0	110
DEC.										
01-29	316	17	52	9.4	--	150	--	192	0	140
30-31	778	9.3	56	6.0	--	86	--	204	0	94
JAN.										
01-05	435	13	51	6.1	--	94	--	160	0	96
06-15	412	16	50	8.5	--	120	--	174	0	110
16-18	433	16	53	6.8	--	97	--	170	0	87
19-27	370	16	50	8.5	--	120	--	174	0	110
28-31	334	18	52	6.9	--	150	--	170	0	130
FEB.										
01-10	362	17	48	6.8	--	130	--	158	0	120
11-17	392	14	50	6.6	--	110	--	172	0	100
18-24	637	9.5	50	8.5	--	92	--	164	0	98
25-28	745	8.2	50	6.6	--	68	--	148	0	86
MAR.										
01-...	501	12	52	8.4	--	94	--	172	0	94
02-10	1130	7.3	58	4.7	--	46	--	162	0	62
11-18	422	12	52	8.4	--	94	--	172	0	94
19-31	406	12	51	8.0	--	110	--	168	0	110
APR.										
01-08	398	12	52	6.4	--	100	--	160	0	91
09-18	760	14	58	6.2	--	100	--	168	0	110
19-21	1560	6.7	58	4.7	--	49	--	164	0	76
22-31	596	14	58	6.2	--	100	--	168	0	110
MAY										
01-09	388	14	49	7.2	--	120	--	180	0	100
10-13	448	16	50	9.5	--	140	--	180	0	130
14-20	337	14	49	7.2	--	120	--	180	0	100
21-26	327	16	50	9.5	--	140	--	180	0	130
27-29	1560	8.4	52	9.4	--	95	--	186	0	100
30-31	2320	7.8	60	6.0	--	59	--	160	0	110
JUNE										
01-04	600	15	54	6.2	--	100	--	172	0	98
05-20	403	14	48	7.8	--	130	--	194	0	110
21-24	783	9.4	53	8.8	--	94	--	202	0	99
25-27	463	14	48	7.8	--	130	--	194	0	110
28-30	636	11	44	8.3	--	88	--	156	0	81
JULY										
01-14	444	14	52	3.5	--	130	--	176	0	110
19-20	464	1.7	38	3.2	--	120	--	140	0	99
21-23	461	14	52	3.5	--	130	--	176	0	110
24-27	740	8.0	46	6.1	--	96	--	152	0	86
28-31	2030	12	54	4.3	--	63	--	172	0	61
AUG.										
01-12	615	11	50	4.6	--	81	--	160	0	83
13-15	2600	5.2	46	.3	--	33	--	148	0	37
16-18	1180	8.1	60	1.6	--	49	--	156	0	86
19-23	529	13	54	4.3	--	96	--	174	0	98
24-31	879	12	52	4.5	--	88	--	162	0	95
SEP.										
01-04	552	11	48	3.9	--	81	--	158	0	78
05-08	431	12	48	5.8	--	120	--	178	0	100
09-22	413	16	46	6.1	--	140	--	176	0	120
23-24	872	12	48	5.3	--	110	--	176	0	98
25-30	816	10	50	2.7	--	69	--	148	0	67
WTD. AVG.										
TIME WTD.	--	12	51	5.9	--	91	--	167	0	91
AVG.	621	13	51	6.7	--	108	--	173	0	103
TOT. LOAD (TONS)										
	--	7240	31500	3630	--	56100	--	103000	0	56000

08057410 TRINITY RIVER BELOW DALLAS, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 616 mg/l Dec. 1-29; minimum, 217 mg/l Aug. 13-15.
Hardness: Maximum, 170 mg/l Nov. 1-4, Dec. 1-29, Apr. 9-18, 22-31, May 27-29, 30-31, June 21-24; minimum, 110 mg/l July 19-20.

EXTREMES, October 1967 to September 1968, October 1969 to September 1971.--Dissolved solids: Maximum, 616 mg/l Dec. 1-29, 1970; minimum, 214 mg/l May 24-31, 1968.

Hardness: Maximum, 220 mg/l June 8, 1968; 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 1970 TO SEPTEMBER 1971

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	27	.3	2.0	230	130	17	--	392	7.7
06-10	56	.7	6.5	382	140	28	2.8	625	7.6
11-12	33	.4	3.0	277	140	19	1.6	476	7.5
13-20	63	.8	7.5	430	150	18	3.2	697	7.9
21-23	79	1.4	6.8	490	160	9	3.8	815	8.1
24-26	56	.7	6.5	382	140	28	2.8	625	7.6
27-31	79	1.4	6.8	490	160	9	3.8	815	8.1
NOV.									
01-04	77	.8	7.2	487	170	14	3.4	802	8.0
05-30	89	1.1	12	546	160	10	4.4	900	7.6
DEC.									
01-29	96	1.1	14	616	170	10	5.0	976	7.9
30-31	56	.7	1.1	413	160	0	2.9	683	8.0
JAN.									
01-05	66	.7	8.5	444	150	21	3.3	725	7.9
06-15	85	1.0	12	536	160	18	4.1	866	7.4
16-18	70	.7	11	464	160	20	3.3	763	8.0
19-27	85	1.0	12	536	160	18	4.1	866	7.4
28-31	99	1.4	16	614	160	18	5.2	1060	7.7
FEB.									
01-10	96	.6	13	560	150	18	4.7	926	7.4
11-17	76	--	11	496	150	11	3.9	787	7.8
18-24	68	.7	7.0	439	160	26	3.2	693	7.8
25-28	48	.6	5.7	365	150	30	2.4	598	8.1
MAR.									
01...	69	.8	8.6	453	160	23	3.2	744	7.6
02-10	38	.5	3.4	312	160	31	1.6	547	7.8
11-18	69	.8	8.6	453	160	23	3.2	744	7.6
19-31	80	.9	10	496	160	22	3.8	825	7.5
APR.									
01-08	82	.9	9.7	468	160	25	3.5	757	8.0
09-18	78	.9	7.9	490	170	32	3.3	812	7.8
19-21	33	.5	2.7	321	160	30	1.7	530	8.2
22-31	78	.9	7.9	490	170	32	3.3	812	7.8
MAY									
01-09	92	.8	8.1	515	150	4	4.2	845	7.7
10-13	100	1.1	9.7	570	160	16	4.8	925	7.4
14-20	92	.8	8.1	515	150	4	4.2	845	7.7
21-26	100	1.1	9.7	570	160	16	4.8	925	7.4
27-29	68	.8	5.4	450	170	16	3.2	721	8.0
30-31	28	6.0	4.5	370	170	43	1.3	589	7.6
JUNE									
01-04	76	1.0	7.7	470	160	19	3.4	751	7.3
05-20	96	1.2	8.6	546	150	0	4.6	873	7.4
21-24	66	.8	2.2	440	170	2	3.2	711	7.8
25-27	96	1.2	8.6	546	150	0	4.6	873	7.4
28-30	68	.7	6.8	408	140	16	3.2	659	7.4
JULY									
01-18	100	--	9.9	538	140	0	4.8	888	7.9
19-20	90	--	8.2	460	110	0	5.1	748	7.7
21-23	100	--	9.9	538	140	0	4.8	888	7.9
24-27	74	--	8.6	429	140	16	3.5	716	7.7
28-31	45	--	5.9	350	150	11	2.2	567	7.8
AUG.									
01-12	55	--	6.8	393	140	13	2.9	639	7.9
13-15	16	--	1.5	217	120	0	1.3	352	8.1
16-18	23	--	3.6	321	160	28	1.7	518	8.1
19-23	66	--	6.5	446	150	10	3.4	722	7.8
24-31	60	--	6.3	420	150	15	3.1	683	7.9
SEP.									
01-04	59	--	5.4	383	140	6	3.0	620	7.8
05-08	82	--	8.4	493	140	0	4.2	796	7.9
09-22	100	--	11	573	140	0	5.3	932	8.1
23-24	78	--	8.1	476	140	0	4.1	782	7.6
25-30	52	--	5.7	349	140	14	2.6	573	7.9
WTD. AVG.									
TIME WTD. AVG.	66	--	7.2	433	151	16	3.4	708	7.8
TOT. LOAD (TONS)									
	78	--	8.9	486	154	14	3.8	792	7.7
	40300	--	4420	266000	--	--	--	--	--

TRINITY RIVER BASIN

08057410 TRINITY RIVER BELOW DALLAS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 19...	1230	481	13	48	6.8	110	270	0	83	66	--	1.3
DEC. 09...	1315	304	22	56	5.0	140	260	0	140	110	--	8.0
JAN. 31...	1130	280	16	48	9.7	150	308	0	130	100	1.0	3.4
APR. 23...	1410	574	10	54	9.1	97	236	0	110	68	.9	1.1
MAY 20...	1720	354	11	44	8.8	81	146	0	111	90	1.4	1.3
JUNE 09...	1530	424	14	50	5.6	130	252	0	110	85	1.6	1.0
22...	1050	923	10	56	6.4	86	192	0	110	68	.7	.67
JULY 15...	1330	379	13	38	11	140	250	0	101	100	1.1	.77
29...	1610	2240	9.5	52	2.6	55	172	0	67	44	--	.55
AUG. 12...	1535	501	17	46	5.6	98	184	0	110	80	1.4	.87
25...	1735	1880	13	58	3.8	45	188	0	61	32	.5	.64
SEP. 23...	1330	845	15	43	5.5	100	214	0	90	72	.9	.65

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)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 19...	.36	5.9	2.1	4.8	480	30	8	150	0	--	766	7.3
DEC. 09...	.17	14	1.4	4.3	624	18	17	160	0	4.8	1060	7.3
JAN. 31...	.060	14	1.1	8.5	620	29	12	160	0	--	1050	7.4
APR. 23...	.20	8.3	1.5	4.4	483	90	32	170	0	3.2	806	7.2
MAY 20...	.37	14	1.3	8.2	444	52	25	150	26	2.9	858	7.1
JUNE 09...	.54	7.8	1.5	6.9	536	23	16	150	0	4.7	921	7.5
22...	.33	5.7	.9	4.3	444	256	46	170	8	2.9	749	7.2
JULY 15...	.66	7.7	1.1	8.0	538	14	7	140	0	5.1	913	7.3
29...	.26	4.5	.9	2.9	326	432	88	140	0	2.0	562	7.5
AUG. 12...	.40	9.6	1.4	3.8	466	57	23	140	0	3.6	798	7.3
25...	.17	3.0	1.2	2.9	315	568	120	160	6	1.5	516	7.5
SEP. 23...	.070	8.3	1.0	5.3	447	160	46	130	0	3.8	754	7.3

DATE	TEMP- ERATURE (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...	18.5	10	2	4.5	48	23	17	4	1.3	100	0	1
DEC. 09...	18.5	60	4	.7	7	54	19	7	2.3	--	--	--
JAN. 31...	15.0	25	15	4.0	39	77	17	16	2.5	20	0	2
APR. 23...	22.5	25	35	4.0	45	89	13	7	1.1	--	--	--
MAY 20...	26.0	20	25	3.0	37	114	26	8	2.1	--	--	--
JUNE 09...	28.0	20	15	1.3	16	81	17	6	2.0	--	--	--
22...	27.0	20	120	1.6	20	72	13	5	.39	20	0	1
JULY 15...	30.0	25	6	.6	8	77	9.7	9	1.9	--	--	--
29...	26.5	15	150	2.2	27	81	17	1	.13	--	--	--
AUG. 12...	30.0	30	30	2.5	33	71	24	2	2.2	--	--	--
25...	27.0	30	140	2.7	33	100	11	3	.20	--	--	--
SEP. 23...	22.0	30	45	2.6	30	28	18	0	.97	30	0	1

08057410 TRINITY RIVER BELOW DALLAS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 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...	0	0	0	10	69	2	0	12	.8	20	430	90
DEC. 09...	--	--	--	--	--	--	--	--	--	--	--	--
JAN. 31...	8	0	1	18	150	9	20	54	<.5	37	340	100
APR. 23...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 20...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE 09...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE 22...	0	--	0	9	60	0	10	16	.5	19	400	70
JULY 15...	--	--	--	--	--	--	--	--	--	--	--	--
JULY 29...	--	--	--	--	--	--	--	--	--	--	--	--
AUG. 12...	--	--	--	--	--	--	--	--	--	--	--	--
AUG. 25...	--	--	--	--	--	--	--	--	--	--	--	--
SEP. 23...	7	--	1	11	90	8	10	100	22	18	270	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)
OCT. 19...	1230	481	.00	--	.00	12	.00	<.2	.04	<.2
JAN. 31...	1130	280	.00	<.2	.05	7.0	.00	<.2	.20	<.2
JUNE 22...	1050	923	.00	<.2	.00	24	.00	<.2	.00	<.2
SEP. 23...	1330	845	.00	<.2	.00	18	.01	<.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)
OCT. 19...	.07	13	.00	<.2	.00	<.2	.00	.2	.00	<.2
JAN. 31...	.09	13	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 22...	.05	32	.00	<.2	.00	<.2	.00	<.2	.00	<.2
SEP. 23...	.08	56	.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)	DI-AZINON IN BOTTOM DE-POSITS (UG/KG)	MALA-THION (UG/L)	MALA-THION IN BOTTOM DE-POSITS (UG/KG)	METHYL PARA-THION (UG/L)	METHYL PARA-THION IN BOTTOM DE-POSITS (UG/KG)	PARA-THION (UG/L)	PARA-THION IN BOTTOM DE-POSITS (UG/KG)
OCT. 19...	.3	74	.55	<.20	.08	<.2	.00	<2.0	.00	<2.0
JAN. 31...	.7	97	--	--	1.1	<.2	.00	<.2	.00	<.2
JUNE 22...	.5	270	.17	--	.00	--	.00	<.2	.00	<.2
SEP. 23...	.5	380	.22	--	.00	--	.00	<.2	.00	<.2

DATE	TOX-APHENE (UG/L)	TOX-APHENE IN BOTTOM DE-POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE-POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE-POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE-POSITS (UG/KG)	PCR IN BOTTOM DE-POSITS (UG/KG)
OCT. 19...	.0	<10	.13	<5.2	.03	<.5	.00	<.6	--
JAN. 31...	.0	<10	.76	<4.5	.07	<.6	.00	<.5	<2.0
JUNE 22...	.0	<10	.00	<5.1	.00	<1.5	.00	<1.3	280
SEP. 23...	.0	<10	.14	<4.8	.12	<1.1	.00	<1.2	250

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

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TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[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 1971.

Chemical and biochemical analyses: October 1967 to September 1971.

Water temperatures: October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.										
01-10	61	6.4	46	2.7	--	38	--	133	0	37
11-15	465	5.1	43	2.1	--	13	--	130	0	20
16-26	132	6.4	46	2.7	--	38	--	133	0	37
27...	829	5.1	43	2.1	--	13	--	130	0	20
28-31	216	6.4	46	2.7	--	38	--	133	0	37
NOV.										
01-30	48	7.7	40	4.0	--	64	--	123	0	54
DEC.										
01...	41	8.4	41	4.0	--	55	--	126	0	49
02-22	346	2.9	50	3.3	--	16	--	146	0	29
23-31	47	8.4	41	4.0	--	55	--	126	0	49
JAN.										
01-31	43	9.4	40	4.0	--	60	--	112	0	49
FEB.										
01-28	79	6.6	40	3.5	--	60	--	126	0	54
MAR.										
01-05	85	7.3	49	3.5	--	46	--	136	0	53
06-31	36	9.2	38	4.4	--	81	--	112	0	69
APR.										
01-18	31	12	26	4.7	--	110	--	97	0	69
19-21	109	7.8	39	3.1	--	40	--	113	0	47
22-30	46	9.9	41	3.7	--	71	--	132	0	60
MAY										
01-27	32	17	42	4.6	--	76	--	90	0	68
28-31	118	12	42	2.2	--	36	--	114	0	45
JUNE										
01-03	34	10	44	3.1	--	45	--	116	0	48
04-30	26	14	39	4.0	--	76	--	113	0	60
JULY										
01-27	25	14	35	4.1	--	88	--	91	0	65
28-31	150	4.9	44	2.8	--	42	--	116	0	43
AUG.										
01-15	44	14	43	3.4	--	67	--	120	0	59
16...	94	8.8	47	2.2	--	23	--	132	0	30
17-25	36	14	43	3.4	--	67	--	120	0	59
26-27	270	8.8	47	2.2	--	23	--	132	0	30
28-31	37	14	43	3.4	--	67	--	120	0	59
SEPT.										
01-24	29	14	45	2.6	--	83	--	92	0	73
25-26	402	6.8	50	2.7	--	17	--	148	0	26
27-30	47	11	50	3.7	--	45	--	134	0	54
WTD. AVG.	--	7.3	44	3.3	--	42	--	128	0	42
TIME WTD.										
AVG.	78	10	41	3.7	--	64	--	115	0	55
TOT. LOAD (TONS)	--	554	3370	250	--	3220	--	9760	0	3230

TRINITY RIVER BASIN

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08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 411 mg/l Apr. 1-18; minimum, 164 mg/l Oct. 11-15, 27.
 Hardness: Maximum, 140 mg/l Dec. 2-22, Mar. 1-5, Sept. 25-26, 27-30; minimum, 84 mg/l Apr. 1-18.
 Specific conductance: Maximum daily, 901 micromhos Apr. 4; minimum daily, 256 micromhos Oct. 27.
 Water temperatures: Maximum, 32.0°C July 15; minimum, 3.5°C Jan. 8.

EXTREMES, October 1967 to September 1971.--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.

Specific conductance: Maximum daily, 1,010 micromhos Nov. 23, 1968; minimum daily, 238 micromhos May 31, 1970.

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 1970 TO SEPTEMBER 1971

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.									
01-10	23	.7	6.2	246	130	170	--	419	7.3
11-15	7.5	--	2.0	164	120	9	.5	293	7.2
16-26	23	.7	6.2	246	130	170	--	419	7.3
27...	7.5	--	2.0	164	120	9	.5	293	7.2
28-31	23	.7	6.2	246	130	17	--	419	7.3
NOV.									
01-30	40	.8	11	320	120	16	2.6	543	7.2
DEC.									
01...	36	.6	8.9	295	120	16	2.2	514	6.9
02-22	11	--	2.1	194	140	19	.6	347	7.2
23-31	36	.6	8.9	295	120	16	2.2	514	6.9
JAN.									
01-31	41	.9	10	303	120	24	--	514	7.0
FEB.									
01-28	34	.8	10	305	110	11	2.4	504	7.3
MAR.									
01-05	29	.6	7.5	288	140	25	1.7	478	7.3
06-31	54	--	14	373	110	21	3.3	681	6.4
APR.									
01-18	59	1.5	19	411	84	5	--	693	7.0
19-21	20	--	7.8	248	110	17	1.7	410	7.2
22-30	44	--	11	344	120	10	2.8	574	7.4
MAY									
01-27	57	1.5	17	384	120	50	3.0	665	6.6
28-31	22	--	5.6	240	110	21	1.5	397	7.1
JUNE									
01-03	24	.6	8.1	268	120	28	--	438	7.4
04-30	57	--	12	359	110	22	3.1	637	6.7
JULY									
01-27	57	1.4	15	374	100	30	--	621	7.4
28-31	26	.9	7.5	254	120	26	--	413	7.2
AUG.									
01-15	46	1.1	11	342	120	23	2.6	588	7.3
16...	15	--	4.5	211	130	18	.9	362	7.9
17-25	46	1.1	11	342	120	23	2.6	588	7.3
26-27	15	--	4.5	211	130	18	.9	362	7.9
28-31	46	1.1	11	342	120	23	2.6	588	7.3
SEP.									
01-24	67	1.3	16	385	120	48	3.2	667	7.7
25-26	10	.5	2.6	198	140	15	.6	330	8.2
27-30	30	.7	7.8	295	140	30	1.7	491	8.0
WTD. AVG.	27	--	7.1	261	125	30	--	449	7.2
TIME WTD.									
AVG.	43	--	11	323	117	32	--	555	7.1
TOT. LOAD (TONS)	2090	--	541	--	--	--	--	--	--

TRINITY RIVER BASIN

08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1420	96	9.6	43	4.1	18	144	0	28
DEC. 09...	1440	346	.4	50	3.7	16	160	0	28
JAN. 31...	1245	42	5.3	35	9.8	57	212	0	49
APR. 23...	1325	66	5.8	54	4.2	30	176	0	39
MAY 20...	1815	29	11	29	8.6	60	104	0	68
JUNE 09...	1420	25	14	35	6.9	50	144	0	63
22...	1250	24	16	36	4.9	100	284	0	46
JULY 15...	1215	24	13	24	9.7	83	210	0	64
29...	1515	210	7.9	37	3.8	27	134	0	36
AUG. 12...	1430	29	13	39	4.5	65	148	0	58
25...	1830	141	8.8	40	3.0	19	120	0	37
SEP. 22...	1600	24	16	30	7.5	57	104	0	80

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...	17	--	.050	2.6	.2	3.2	195	120	6
DEC. 09...	13	--	.040	1.4	.1	.000	192	140	9
JAN. 31...	45	1.0	.000	9.8	.00	8.5	318	130	0
APR. 23...	29	.6	.050	3.6	.6	2.1	257	152	8
MAY 20...	92	.9	.010	14	.1	29	339	110	23
JUNE 09...	55	1.2	.10	11	.2	.54	311	120	0
22...	74	1.6	.030	15	.1	13	442	110	0
JULY 15...	52	1.1	.20	10	.1	9.7	364	100	0
29...	21	--	.060	3.5	.6	2.4	206	110	0
AUG. 12...	78	1.1	.020	.11	.3	6.2	347	120	0
25...	20	.5	.10	4.5	.6	3.4	196	110	14
SEP. 22...	79	2.1	.010	16	.1	13	344	110	21

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. 19...	.7	355	7.6	17.5	5.8	60	6.9	--
DEC. 09...	.6	347	7.5	18.0	7.9	83	4.9	--
JAN. 31...	2.2	599	7.2	12.5	1.8	17	18	--
APR. 23...	1.1	458	7.3	21.5	3.0	34	7.5	--
MAY 20...	2.5	771	7.2	27.0	3.4	42	25	--
JUNE 09...	2.0	658	7.2	29.0	12.4	159	19	--
22...	4.1	781	7.2	28.5	4.4	56	25	--
JULY 15...	3.6	645	8.2	30.0	11.0	145	20	--
29...	1.1	367	7.5	26.0	1.3	16	10	--
AUG. 12...	2.6	711	7.9	32.0	8.1	109	32	--
25...	.8	384	7.4	26.5	1.4	17	6.3	.20
SEP. 22...	2.4	732	7.1	21.0	.8	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 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	439	417	524	472	526	495	661	647	375	551	455	645
2	510	434	338	510	567	538	682	663	451	616	507	619
3	476	484	342	523	525	437	742	633	491	582	529	660
4	510	462	346	502	477	449	901	673	579	623	583	616
5	532	457	355	477	593	482	749	629	594	623	626	410
6	513	515	353	480	475	525	688	582	610	655	583	531
7	502	533	339	472	469	555	708	561	676	724	547	572
8	466	549	333	506	477	571	653	709	716	610	578	621
9	478	564	342	530	450	590	686	671	629	549	645	645
10	423	589	344	544	437	579	669	608	579	575	626	565
11	285	585	346	542	464	558	848	698	563	615	661	633
12	287	528	343	555	464	625	778	475	595	617	641	689
13	298	550	348	492	488	631	695	546	800	614	584	749
14	314	568	346	517	490	638	660	574	675	611	572	732
15	329	561	351	553	564	673	592	649	673	593	500	764
16	354	609	352	536	620	659	627	638	663	563	361	673
17	328	569	354	547	602	703	663	782	589	626	436	639
18	341	504	350	534	585	673	692	675	583	670	509	674
19	363	519	350	534	598	649	382	830	646	684	523	839
20	394	497	347	500	539	733	390	749	721	657	609	790
21	393	580	342	480	521	791	470	655	686	646	618	801
22	410	583	360	503	464	800	550	830	730	621	651	741
23	465	594	442	521	423	698	459	745	614	651	774	670
24	452	610	479	536	457	675	509	784	464	638	700	711
25	392	616	599	538	501	678	615	760	521	635	815	330
26	413	509	547	530	457	715	646	712	609	683	343	331
27	256	534	551	512	447	807	670	763	656	553	381	425
28	322	611	558	477	478	815	622	445	658	460	463	427
29	334	621	504	528	---	729	568	404	650	434	527	549
30	341	573	476	528	---	844	554	409	682	393	604	563
31	384	---	448	538	---	794	---	342	---	371	617	---
MONTH	397	544	400	517	506	649	638	640	616	595	567	620

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	16.0	19.0	10.5	10.5	14.5	18.0	19.5	24.5	30.5	23.5	27.0
2	22.0	14.5	16.0	11.0	9.5	13.0	18.5	24.0	26.0	29.5	23.5	26.0
3	24.5	13.5	15.5	13.0	9.0	9.5	16.0	23.0	28.0	30.5	24.5	27.0
4	24.5	12.0	14.5	10.0	11.0	8.5	18.5	23.5	26.5	25.5	24.5	27.0
5	24.5	11.5	14.5	7.0	10.0	10.5	16.5	23.0	29.0	29.5	24.0	29.0
6	24.5	12.0	13.5	5.5	10.5	13.0	16.5	25.0	29.5	31.0	25.0	30.0
7	24.5	14.5	12.0	4.5	8.5	13.0	17.0	23.0	27.0	29.0	25.0	30.0
8	24.5	16.0	12.0	3.5	6.5	12.0	17.0	25.0	28.0	31.5	28.0	28.0
9	18.5	16.0	14.0	4.5	5.5	13.0	18.5	24.0	28.5	29.5	29.0	29.0
10	15.5	15.0	15.0	7.0	6.5	13.5	19.0	22.0	29.5	31.5	30.0	27.0
11	15.5	15.0	13.0	9.0	9.0	14.5	20.0	23.5	28.0	31.5	29.0	26.0
12	16.0	14.0	11.0	9.0	10.5	16.0	20.5	20.5	30.5	29.5	29.0	27.0
13	17.0	12.0	11.5	9.5	9.0	18.5	21.0	22.0	30.0	30.5	28.0	28.0
14	18.5	11.5	11.0	13.0	10.0	20.5	20.0	20.0	30.0	29.0	28.0	27.0
15	17.0	10.0	11.5	11.5	13.0	19.0	20.0	23.0	29.5	32.0	28.0	28.0
16	16.0	9.5	11.5	10.5	14.0	19.0	20.0	24.5	28.5	30.5	28.0	28.0
17	15.0	10.0	11.0	10.5	16.0	18.0	20.0	23.0	30.5	31.0	28.0	27.0
18	15.0	10.5	12.0	10.5	16.0	18.0	21.0	24.5	29.0	31.0	29.0	26.0
19	15.5	13.5	13.0	8.5	16.5	16.5	20.5	23.5	30.0	31.0	28.0	22.0
20	16.0	13.0	11.5	5.0	16.0	15.5	20.0	26.0	29.5	28.5	29.0	22.0
21	16.5	13.0	12.0	10.0	14.0	15.5	20.0	24.5	29.0	26.5	29.0	22.0
22	18.5	14.5	13.5	11.0	10.5	18.0	21.5	25.5	28.0	28.5	30.0	21.0
23	19.0	11.5	13.5	11.5	9.5	18.5	20.5	25.5	26.5	26.5	29.0	21.0
24	18.5	9.5	11.0	13.0	12.0	15.5	21.5	25.5	29.0	27.0	27.0	22.0
25	18.5	9.5	10.5	13.0	11.5	16.5	23.0	24.5	27.0	26.5	27.0	22.0
26	20.5	12.0	8.5	12.0	14.0	14.0	21.5	24.5	30.5	26.5	25.0	23.0
27	18.5	14.5	9.0	11.0	13.5	15.5	23.5	27.0	30.5	26.5	27.0	25.0
28	16.5	15.5	10.5	11.0	14.0	16.5	23.5	24.0	28.5	25.0	29.0	24.0
29	15.5	16.5	11.0	11.0	---	18.5	21.0	24.0	27.0	25.5	28.0	25.0
30	15.0	16.5	12.0	12.0	---	17.0	19.5	23.5	28.0	25.5	27.0	25.0
31	15.0	---	10.5	12.0	---	18.0	---	23.0	---	24.0	28.0	---
MONTH	18.5	13.0	12.5	9.5	11.5	15.5	20.0	23.5	28.5	28.5	27.5	25.5

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 1971.

Chemical and biochemical analyses: January 1968 to September 1971.

Pesticide analyses: January 1968 to September 1971.

Water temperatures: October 1954 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.										
01-14	2800	8.4	48	2.7	--	25	--	139	0	37
15-27	1270	10	49	4.2	53	--	6.5	149	0	62
28...	6080	8.4	48	2.7	--	25	--	139	0	37
29-31	1360	10	49	4.2	53	--	6.5	149	0	62
NOV.										
01-30	455	8.7	55	5.3	--	110	--	188	0	100
DEC.										
01-31	671	13	50	5.4	--	97	--	176	0	90
JAN.										
01-02	755	11	50	4.9	69	--	11	156	0	76
03-31	444	.1	44	6.3	--	122	--	168	0	99
FEB.										
01-27	598	13	46	5.6	--	120	--	166	-0	100
28...	832	8.6	46	3.8	--	68	--	146	0	43
MAR.										
01-31	706	9.4	49	5.6	--	92	--	158	0	84
APR.										
01-18	573	13	46	5.7	100	--	12	162	0	100
19-20	2710	9.0	55	4.2	--	49	--	152	0	71
21-30	826	13	46	5.7	100	--	12	162	0	100
MAY										
01-27	396	20	54	6.9	--	110	--	166	0	110
28-31	2270	14	54	5.2	--	69	--	154	0	86
JUNE										
01-04	810	9.6	53	4.6	--	72	--	137	0	100
05-30	474	15	51	5.7	--	120	--	154	0	110
JULY										
01-02	508	11	47	4.0	60	--	7.4	136	0	61
03-25	446	16	44	6.2	--	110	--	150	0	95
26-29	1460	11	47	4.0	60	--	7.4	136	0	61
30-31	2570	9.1	50	3.1	--	34	--	128	0	54
AUG.										
01-02	1020	11	48	3.4	--	38	--	136	0	51
03-14	653	16	51	4.6	--	72	--	142	0	80
15-16	4220	11	48	3.4	--	38	--	136	0	51
17-25	769	16	51	4.6	--	72	--	142	0	80
26-27	1970	11	48	3.4	--	38	--	136	0	51
28-31	607	16	51	4.6	--	72	--	142	0	80
SEP.										
01-25	435	16	48	4.9	--	130	--	160	0	100
26-28	1270	8.0	48	4.0	--	41	--	146	0	46
29-30	484	12	46	5.1	--	70	--	140	0	66
WTD. AVG.	--	11	49	4.8	--	80	--	154	0	78
TIME WTD.										
AVG.	774	12	49	5.3	--	100	--	160	0	90
TOT. LOAD (TONS)	--	8640	37400	3620	--	50600	--	118000	0	59500

TRINITY RIVER BASIN

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EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 526 mg/l Sept. 1-25; minimum, 217 mg/l Oct. 1-14, 28.

Hardness: Maximum, 160 mg/l Nov. 1-30, May 1-27, 28-31; minimum, 130 mg/l Oct. 1-14, 28, Feb. 28, July 1-2, 26-29, Aug. 1-2, 15-16, 26-27.

Specific conductance: Maximum daily, 991 micromhos Dec. 29; minimum daily, 349 micromhos Oct. 12.

Water temperatures: Maximum, 33.0°C July 14; minimum, 6.0°C Jan. 8, 9.

EXTREMES, October 1954 to September 1971.--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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-14	17	--	2.5	217	130	17	1.0	373	7.5
15-27	40	.6	5.2	321	140	18	2.0	532	7.5
28...	17	--	2.5	217	130	17	1.0	373	7.5
29-31	40	.6	5.2	321	140	18	2.0	532	7.5
NOV.									
01-30	71	.9	11	492	160	5	3.8	816	7.3
DEC.									
01-31	63	.8	8.1	442	150	3	3.5	750	7.3
JAN.									
01-02	48	.7	8.5	386	140	17	2.5	632	7.5
03-31	81	--	13	508	140	0	4.6	852	7.2
FEB.									
01-27	76	1.0	12	502	140	2	4.4	816	7.4
28...	43	--	7.0	342	130	11	2.6	546	7.5
MAR.									
01-31	65	.8	9.8	427	150	16	3.3	725	7.3
APR.									
01-18	74	1.0	10	481	140	6	3.7	792	7.2
19-20	34	--	4.2	316	150	30	1.7	527	7.5
21-30	74	1.0	10	481	140	6	3.7	792	7.2
MAY									
01-27	76	1.6	11	504	160	27	3.7	852	7.9
28-31	50	--	5.3	377	160	30	2.4	655	7.0
JUNE									
01-04	45	.7	6.7	383	150	38	2.5	622	7.3
05-30	87	--	11	507	150	24	4.1	840	7.2
JULY									
01-02	45	.8	6.0	330	130	22	2.3	554	7.2
03-25	88	--	10	482	140	12	4.2	823	7.3
26-29	45	.8	6.0	330	130	22	2.3	554	7.2
30-31	25	--	4.3	257	140	33	1.3	420	7.7
AUG.									
01-02	26	.6	3.7	261	130	22	1.4	445	7.6
03-14	51	--	8.4	382	150	30	2.6	632	7.5
15-16	26	.6	3.7	261	130	22	1.4	445	7.6
17-25	51	--	8.4	382	150	30	2.6	632	7.5
26-27	26	.6	3.7	261	130	22	1.4	445	7.6
28-31	51	--	8.4	382	150	30	2.6	632	7.5
SEP.									
01-25	92	1.3	12	526	140	9	4.7	846	7.9
26-28	29	.6	4.6	269	140	16	1.5	452	8.2
29-30	48	.8	10	361	140	22	2.6	575	8.0
WTD. AVG.	55	--	7.7	390	143	16	2.9	652	7.4
TIME WTD.									
AVG.	67	--	9.6	446	146	13	3.5	743	7.4
TOT. LOAD (TONS)	41800	--	5900	297000	--	--	--	--	--

TRINITY RIVER BASIN

08062500 TRINITY RIVER NEAR ROSSER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1520	681	11	47	6.0	52	160	0	70	48	--	.81
DEC.												
09...	1540	694	7.2	54	6.2	48	180	0	60	52	--	.93
JAN.												
31...	1500	382	14	48	7.8	130	268	0	120	96	1.4	6.2
APR.												
23...	1210	720	7.3	56	5.0	60	164	0	97	45	.6	1.0
MAY												
20...	1950	370	10	52	6.0	85	174	0	100	86	1.1	1.4
JUNE												
09...	1320	382	11	50	5.6	80	168	0	94	76	1.2	.66
22...	1630	1040	14	42	9.5	130	252	0	120	100	1.4	.98
JULY												
15...	1115	335	13	42	6.6	100	220	0	79	80	.9	.66
29...	1345	3850	7.1	43	3.1	30	148	0	35	25	--	.73
AUG.												
12...	1325	454	14	44	6.3	73	154	0	88	74	1.2	.55
25...	1055	1460	15	49	6.7	72	162	0	94	74	.9	.30
SEP.												
22...	1300	293	15	43	6.4	110	200	0	110	99	2.2	77

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)	LOSS ON IGNI- TION (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...	.33	5.3	.7	4.9	324	106	12	140	11	--	599	7.4
DEC.												
09...	.14	6.4	.7	2.4	328	46	20	160	12	1.6	646	7.3
JAN.												
31...	.030	13	.2	7.8	561	4	0	150	0	--	1010	7.2
APR.												
23...	.19	4.8	1.5	2.2	365	111	22	160	26	2.1	625	7.2
MAY												
20...	.28	11	.3	.76	446	27	12	150	12	3.0	873	7.5
JUNE												
09...	.21	7.3	.3	6.4	412	34	16	150	10	2.9	806	7.4
22...	.010	14	.1	9.0	568	98	20	140	0	4.7	985	7.5
JULY												
15...	.37	8.6	.3	7.1	443	20	8	130	0	3.8	772	7.5
29...	.26	2.8	.6	3.8	223	1330	196	120	0	1.2	386	7.5
AUG.												
12...	.040	9.3	.5	3.5	391	94	23	140	10	2.7	735	7.4
25...	.30	9.6	.6	5.8	407	164	30	150	17	2.6	798	7.5
SEP.												
22...	.010	15	.00	9.3	497	18	11	130	0	4.1	914	7.2

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)	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...	18.0	10	55	5.4	57	22	13	2	.42	100	11	1
DEC.												
09...	16.5	20	20	5.2	53	15	9.9	2	.68	--	--	--
JAN.												
31...	13.5	30	4	1.4	13	65	12	8	2.1	10	0	1
APR.												
23...	22.0	16	60	2.6	30	27	17	1	.13	--	--	--
MAY												
20...	27.0	10	4	3.2	40	53	9.9	2	.92	--	--	--
JUNE												
09...	29.0	20	20	3.4	44	39	7.4	1	.35	--	--	--
22...	31.0	20	30	.4	5	77	14	6	1.7	20	0	0
JULY												
15...	31.0	10	5	2.5	33	56	15	2	.25	--	--	--
29...	24.5	15	280	.2	2	141	17	0	.08	--	--	--
AUG.												
12...	30.0	40	25	2.0	26	31	14	0	.45	--	--	--
25...	29.0	30	65	.9	12	54	8.1	0	.57	--	--	--
SEP.												
22...	23.0	35	4	1.0	11	26	10	0	2.0	20	0	0

TRINITY RIVER BASIN

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08062500 TRINITY RIVER NEAR ROSSER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 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...	0	0	0	8	54	2	0	26	.5	21	380	30
DEC. 09...	--	--	--	--	--	--	--	--	--	--	--	--
JAN. 31...	6	0	0	11	140	6	20	150	<.5	33	380	48
APR. 23...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 20...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE 09...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE 22...	0	--	2	13	340	0	20	56	<.5	27	350	70
JULY 15...	--	--	--	--	--	--	--	--	--	--	--	--
JULY 29...	--	--	--	--	--	--	--	--	--	--	--	--
AUG. 12...	--	--	--	--	--	--	--	--	--	--	--	--
AUG. 25...	--	--	--	--	--	--	--	--	--	--	--	--
SEP. 22...	0	--	3	12	160	7	20	150	1.1	22	320	50

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...	1520	681	.00	--	.00	2.6	.00	<.2	.02	<.2
JAN. 31...	1500	382	.00	<.2	.02	20	.00	18	.10	<.2
JUNE 22...	1630	1040	.00	<.2	.00	7.7	.00	15	.00	5.8
SEP. 22...	1300	293	.00	<.2	.00	10	.00	10	.00	4.4

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)
OCT. 19...	.03	3.4	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JAN. 31...	.05	28	.00	<.2	.00	<.2	.00	<.2	.03	<.2
JUNE 22...	.05	22	.00	<.2	.00	<.2	.00	<.2	.04	<.2
SEP. 22...	.04	17	.00	<.2	.00	<.2	.00	<.2	.02	<.2

DATE	CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	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 BOTTOM DE-POSITS (UG/KG)	PARA-THION (UG/L)	PARA-THION IN BOTTOM DE-POSITS (UG/KG)
OCT. 19...	.1	13	.44	.05	<.2	.00	<.2	.00	<.2
JAN. 31...	.3	205	--	1.0	<.2	.46	<.2	.00	<.2
JUNE 22...	.2	270	.23	.00	--	.00	--	.00	--
SEP. 22...	.1	210	.17	.00	--	.00	--	.00	--

DATE	TOX-APHENE (UG/L)	TOX-APHENE IN BOTTOM DE-POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE-POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE-POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE-POSITS (UG/KG)	PCR IN BOTTOM DE-POSITS (UG/KG)
OCT. 19...	.0	<10	.13	<1.6	.05	<.3	.00	<.3	<10
JAN. 31...	.0	<10	.23	<9.6	.06	<1.0	.00	<.9	<10
JUNE 22...	.0	<10	.00	<1.5	.00	<.4	.00	<.4	150
SEP. 22...	.0	<10	.09	<4.3	.00	<1.0	.00	<1.0	130

TRINITY RIVER BASIN

08062500 TRINITY RIVER NEAR ROSSER, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	457	602	885	581	928	657	789	743	603	519	411	716
2	406	636	896	681	820	772	896	683	562	650	436	696
3	432	662	789	809	519	721	885	727	632	730	501	769
4	392	669	697	829	882	558	811	812	678	772	508	836
5	418	708	671	784	928	602	784	824	705	889	564	742
6	400	753	688	709	935	559	832	806	732	853	693	678
7	437	790	671	756	872	523	781	907	767	818	608	810
8	539	590	661	804	885	502	817	836	825	863	635	759
9	519	853	632	858	928	550	820	862	775	876	525	769
10	647	879	624	851	907	757	776	914	780	853	664	796
11	625	830	644	867	856	687	832	929	869	797	661	884
12	349	832	705	877	853	695	866	953	894	786	679	924
13	352	809	686	842	885	706	835	827	923	769	692	920
14	408	814	675	824	856	731	835	779	927	713	675	898
15	469	833	618	888	797	761	847	798	851	724	442	891
16	614	898	639	931	797	798	850	859	870	795	443	846
17	495	753	658	966	797	741	862	869	877	815	624	909
18	534	776	685	895	751	748	889	849	923	853	513	943
19	584	798	670	877	759	786	494	869	962	886	531	939
20	601	832	660	784	870	685	552	862	890	928	581	943
21	598	911	669	784	676	851	671	937	919	899	634	950
22	608	886	693	820	734	820	583	953	954	823	693	916
23	661	873	721	844	604	844	619	929	634	756	712	906
24	850	901	886	848	630	814	669	926	725	798	752	962
25	518	880	875	871	811	830	751	903	873	907	767	747
26	635	844	850	923	789	858	703	878	863	449	446	395
27	528	884	943	888	684	871	734	896	794	481	487	477
28	379	912	959	839	572	823	795	642	838	653	504	485
29	481	927	991	858	---	776	846	544	780	580	630	542
30	460	890	889	909	---	820	819	794	660	381	680	608
31	514	---	909	962	---	689	---	674	---	461	722	---
MONTH	513	808	750	837	797	727	775	832	803	744	594	789

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	17.0	18.0	11.0	11.0	15.0	19.0	21.0	25.0	28.0	24.5	27.0
2	23.0	15.0	19.0	13.0	11.0	14.0	17.0	22.0	25.0	29.5	25.0	28.0
3	22.0	15.0	19.0	14.0	10.0	11.0	18.0	22.0	26.5	29.5	25.0	28.0
4	23.0	14.0	18.0	11.0	13.0	10.0	19.0	23.0	26.5	30.0	26.0	27.0
5	24.0	13.0	18.0	10.0	11.0	12.0	18.0	23.0	27.0	30.0	26.0	29.0
6	23.0	14.0	16.0	9.0	12.0	13.0	17.0	24.0	26.5	30.0	27.0	29.0
7	24.0	14.0	15.0	7.0	11.0	12.0	17.0	24.0	28.0	29.0	26.0	30.0
8	25.0	15.0	14.0	6.0	9.0	12.0	17.0	24.0	28.0	31.0	26.0	29.5
9	21.0	13.0	15.0	6.0	9.0	12.0	18.0	25.0	28.0	30.5	27.5	29.0
10	20.0	16.0	18.0	8.0	9.0	13.0	18.0	24.0	28.0	30.5	28.5	29.0
11	20.0	16.0	15.0	9.0	10.0	14.0	20.0	23.0	29.0	30.5	29.0	28.0
12	17.0	14.0	13.0	10.0	11.0	16.0	20.0	23.0	28.0	30.0	29.0	27.0
13	18.0	15.0	12.0	10.0	10.0	17.0	21.0	20.0	29.0	30.5	28.5	27.0
14	18.0	13.0	12.0	13.0	13.0	18.0	20.0	21.0	29.0	33.0	28.0	27.0
15	18.0	12.0	12.0	13.0	15.0	18.0	21.0	21.0	29.0	30.0	26.0	27.0
16	17.0	12.0	12.0	13.0	14.0	18.0	21.0	22.0	29.0	30.5	26.0	28.0
17	18.0	12.0	11.0	12.0	14.0	17.0	20.0	23.0	29.5	30.5	27.0	27.0
18	16.0	12.0	12.0	12.0	16.0	18.0	20.0	24.0	30.0	30.5	29.0	27.0
19	17.0	15.0	14.0	11.0	16.0	16.0	20.0	24.0	30.0	30.0	28.0	25.0
20	17.0	14.0	13.0	10.0	17.0	16.0	20.0	24.0	29.0	30.0	28.0	23.0
21	18.0	14.0	13.0	10.0	17.0	16.0	19.0	---	28.0	29.0	28.0	23.0
22	19.0	15.0	15.0	12.0	12.0	17.0	21.0	24.0	28.5	28.0	29.0	23.0
23	20.0	13.0	15.0	13.0	12.0	17.0	22.0	---	28.0	29.0	29.5	22.0
24	20.0	13.0	13.0	13.0	11.0	17.0	21.0	---	28.0	27.0	29.0	23.0
25	18.0	11.0	13.0	14.0	13.0	15.0	22.0	---	29.0	28.0	29.0	23.0
26	20.0	13.0	12.0	15.0	14.0	14.0	22.0	---	29.0	27.0	26.0	---
27	21.0	16.0	11.0	13.0	14.0	15.0	23.0	---	29.5	27.0	27.0	25.0
28	17.0	16.0	12.0	12.0	14.0	17.0	23.0	---	29.5	27.5	27.5	25.0
29	17.0	17.0	13.0	13.0	---	18.0	24.0	25.0	28.0	26.0	29.0	26.0
30	15.0	17.0	12.0	14.0	---	17.0	21.0	24.0	29.0	24.5	27.5	26.0
31	16.0	---	13.0	13.0	---	16.0	---	24.5	---	25.0	28.0	---
MONTH	19.5	14.0	14.0	11.5	12.5	15.0	20.0	---	28.0	29.0	27.5	26.5

TRINITY RIVER BASIN

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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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.									
20...	0900	769	11	47	5.0	49	154	0	64
DEC.									
09...	1650	908	9.1	54	6.2	60	188	0	69
JAN.									
31...	1630	470	14	47	7.4	110	228	0	110
MAR.									
06...	0950	1820	9.5	54	8.6	48	166	0	63
APR.									
23...	1040	1100	3.8	65	5.3	65	156	0	150
MAY									
20...	2100	494	12	54	7.2	95	184	0	98
JUNE									
09...	1130	386	8.6	54	6.2	74	150	0	94
22...	1820	453	16	44	10	110	190	0	110
JULY									
15...	0940	397	14	40	9.7	117	204	0	87
29...	1215	1280	7.4	33	4.3	42	116	0	35
AUG.									
12...	1140	524	12	45	4.7	64	152	0	70
25...	0935	433	14	49	4.3	74	158	0	84
SEP.									
22...	1100	341	19	42	9.5	110	176	0	120

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.									
20...	39	--	.16	2.5	1.5	2.5	301	140	12
DEC.									
09...	58	--	.33	6.2	.9	3.3	361	160	6
JAN.									
31...	88	1.2	.29	10	1.0	7.6	507	150	0
MAR.									
06...	43	.6	--	--	3.2	--	323	170	34
APR.									
23...	33	.7	.24	3.1	1.6	.76	412	180	56
MAY									
20...	88	1.4	1.1	7.4	3.8	.58	476	160	13
JUNE									
09...	59	.8	2.5	3.4	5.1	2.8	406	160	37
22...	94	1.2	.86	8.0	2.1	8.7	499	150	0
JULY									
15...	98	1.1	.88	4.2	2.5	6.8	486	140	0
29...	29	--	.31	7.2	12	2.2	271	100	5
AUG.									
12...	49	.9	.61	4.5	4.6	1.7	348	130	8
25...	56	.9	.52	2.6	2.6	3.5	377	140	10
SEP.									
22...	96	1.6	.65	10	2.2	10	503	140	0

TRINITY RIVER BASIN

08062700 TRINITY RIVER AT TRINIDAD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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. 20...	1.8	523	7.2	17.0	5.2	54	17	--
DEC. 09...	2.1	681	7.2	16.5	4.6	47	21	--
JAN. 31...	3.9	928	7.3	13.5	6.6	63	16	--
MAR. 06...	1.6	574	8.1	11.0	--	--	--	--
APR. 23...	2.1	666	7.2	21.5	.9	10	28	--
MAY 20...	3.2	858	7.4	26.0	5.0	61	30	--
JUNE 09...	2.5	703	7.3	29.0	1.8	23	22	--
22...	3.9	885	7.7	29.0	2.6	33	13	--
JULY 15...	4.3	833	7.5	30.0	1.2	16	20	--
29...	1.8	404	7.6	25.0	1.8	21	37	--
AUG. 12...	2.4	571	7.2	29.5	2.7	35	23	--
25...	2.7	652	6.8	29.0	1.8	23	8.7	.33
SEPT. 22...	4.0	910	6.9	23.0	2.3	26	31	--

TRINITY RIVER BASIN

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08063020 CEDAR CREEK AT TRINIDAD, TEX.

LOCATION.--Lat 32°09'24", long 96°03'45", Henderson County, at gaging station on State Highway 31, at east boundary of Trinidad, 2.5 miles downstream from Joe B. Hogsett Dam, and 8 miles upstream from mouth.

DRAINAGE AREA.--1,011 sq mi, of which 1,007 sq mi is above Cedar Creek Reservoir.

PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 27...	1720	189	5.8	12	27	16	36	0	18
DEC. 02...	1530	.55	18	80	12	120	297	0	80
JAN. 06...	1050	.75	12	65	15	160	206	0	150
FEB. 17...	1300	1.0	14	70	15	150	234	0	150
MAR. 25...	1040	1.7	15	--	--	--	--	--	98
APR. 28...	1600	.76	14	88	23	150	284	0	130
AUG. 19...	1220	.69	15	62	13	100	198	0	81
SEP. 17...	1020	.10	18	72	9.8	110	312	0	54

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 27...	18	.2	.60	93	41	12	.6	167	7.1
DEC. 02...	130	.7	.00	588	250	4	3.3	957	8.1
JAN. 06...	180	.3	.40	686	220	53	4.7	1140	7.9
FEB. 17...	150	.3	.00	660	240	44	4.2	1130	8.0
MAR. 25...	160	.4	.30	--	--	--	--	1100	8.1
APR. 28...	190	.2	.00	736	320	82	3.7	1230	8.1
AUG. 19...	130	.2	.70	498	210	46	3.0	838	7.9
SEP. 17...	110	.4	.00	534	220	0	3.2	892	7.7

TRINITY RIVER BASIN

08063200 PIN OAK CREEK NEAR HUBBARD, TEX.

LOCATION.--Lat 31°48'01", long 96°43'02", Limestone County (revised), at gaging station at bridge 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 1971.

Water temperatures: January 1957 to September 1960, October 1964 to September 1971.

Sediment records: October 1956 to September 1960, September 1962 to September 1971.

EXTREMES, October 1970 to September 1971.--Water temperatures: Minimum, 4.5°C Jan. 8.

Sediment concentrations: Maximum daily, 1,230 mg/l May 7; minimum daily, no flow on many days.

Sediment loads: Maximum daily, 25 tons Oct. 23; minimum daily, 0 tons on many days.

EXTREMES, (1957-60, 1964-71): Water temperatures: Maximum, 32.0°C July 27-28, 1968; minimum, 1.0°C Jan. 27, 1957, Feb. 12, 1958, Feb. 25, 1960.

Sediment concentrations (1956-60, 1962-71): Maximum daily, 5,160 mg/l June 4, 1957; minimum daily, no flow at times each year.

Sediment loads (1956-60, 1962-71): 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.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
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)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)
MAY 14...	.01	21	32	7.1	200	488	0	100	23				
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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH					
MAY 14...	1.8	.00	632	110	0	8.3	1260	7.8					
DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 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	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	
APR., 1971 20...	1500	1.5	23.0	565	99	100	88	89	92	95	98	2.3	

08063200 PIN OAK CREEK NEAR HUBBARD, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	309	402	666	2080	---	2130	2590	1860	---	---	---	395
2	307	402	669	2090	---	2140	2570	1860	---	---	---	374
3	354	402	667	2040	2370	2070	2680	1900	---	---	---	369
4	351	408	682	2000	2330	2030	2640	1900	---	---	---	392
5	372	418	680	2020	2330	2040	2620	1900	---	---	418	391
6	376	415	680	2010	2310	2090	2690	1260	---	---	437	---
7	374	614	634	2040	2330	2080	2650	1260	---	---	464	---
8	267	611	700	2040	2340	2110	2700	476	---	---	454	---
9	419	611	694	2130	2350	2100	2760	545	---	---	467	---
10	416	609	741	2140	2360	2170	2750	1060	---	---	454	---
11	327	612	720	2140	2350	2150	2750	1280	---	---	368	---
12	324	608	731	2150	2350	2050	2800	1280	---	---	397	---
13	853	601	756	2120	2380	2080	2810	1350	---	---	304	---
14	861	599	762	2120	2380	2060	2880	1350	---	---	376	---
15	876	594	776	2040	2430	1940	2890	1350	---	---	364	---
16	872	615	758	2060	2440	1960	2880	1340	---	---	404	---
17	868	611	763	2060	2440	1940	2770	1370	---	---	402	---
18	868	606	2050	2000	2450	1920	1840	1350	---	---	434	---
19	864	630	2230	1910	2430	1990	1880	1420	---	---	433	---
20	872	625	2230	1930	2440	1980	1830	1530	---	---	454	---
21	872	634	2240	1960	2430	2100	1830	1510	---	---	---	---
22	872	611	2240	1940	2430	---	1600	1440	---	---	---	---
23	312	655	2240	2080	2440	2150	1590	1350	---	---	---	---
24	225	661	2240	2080	2410	---	1590	1350	---	---	---	---
25	712	658	2250	2120	2370	2260	1750	1340	---	---	---	760
26	278	662	2250	2200	2130	---	1750	---	---	---	---	1070
27	351	657	2240	2200	2120	2410	1750	---	---	---	---	1070
28	331	655	2270	2340	2120	---	1790	---	---	---	---	1080
29	352	670	2250	2320	---	2560	1780	---	---	---	---	1070
30	375	668	2080	2300	---	2570	1880	---	---	---	---	---
31	382	---	2060	---	---	2560	---	---	---	---	463	---
MONTH	522	584	1390	2090	2360	2130	2310	1390	---	---	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	20.0	21.0	18.5	---	14.5	15.0	25.5	---	---	---	24.0
2	22.0	14.5	21.0	15.5	---	10.0	18.0	26.5	---	---	---	24.0
3	24.5	13.0	22.0	18.0	14.5	9.0	18.5	26.5	---	---	---	27.0
4	24.5	13.0	21.5	8.0	13.0	10.0	18.5	26.0	---	---	---	32.0
5	24.5	14.0	21.5	6.0	13.0	13.0	17.0	26.0	---	---	22.5	33.5
6	25.0	14.5	16.5	5.5	12.0	11.0	12.0	26.0	---	---	28.0	---
7	25.5	15.5	20.0	7.0	6.5	11.0	13.5	23.0	---	---	27.0	---
8	17.0	15.5	20.5	4.5	6.5	15.5	14.0	23.0	---	---	29.0	---
9	17.0	16.0	21.0	9.0	6.5	14.5	15.5	23.5	---	---	30.0	---
10	17.0	15.0	20.0	10.0	10.0	13.5	16.0	23.0	---	---	23.5	---
11	21.0	14.5	10.0	10.5	13.0	12.0	20.5	23.5	---	---	31.0	---
12	19.5	15.0	11.0	7.0	11.0	22.0	21.0	20.5	---	---	31.5	---
13	23.0	---	11.5	9.0	13.0	24.0	23.0	23.5	---	---	28.0	---
14	20.0	7.0	12.0	10.0	13.0	24.5	23.5	24.0	---	---	31.0	---
15	15.5	7.0	14.5	11.5	15.0	15.5	24.5	25.0	---	---	31.0	---
16	20.5	14.5	13.0	11.0	18.0	14.5	25.0	21.5	---	---	27.0	---
17	20.0	14.5	10.0	11.0	15.0	13.0	21.0	21.0	---	---	28.0	---
18	14.5	15.0	19.5	10.0	16.5	12.0	22.0	21.0	---	---	26.5	---
19	14.5	15.5	17.0	5.5	19.5	13.5	23.5	24.0	---	---	26.5	---
20	20.0	15.5	17.0	7.0	20.0	15.5	23.0	24.0	---	---	25.5	---
21	21.0	15.5	13.5	9.0	11.0	15.0	15.5	24.5	---	---	---	---
22	21.5	12.0	15.5	11.5	10.5	---	21.0	24.5	---	---	---	---
23	20.0	7.0	11.0	10.0	13.5	15.5	24.0	21.5	---	---	---	---
24	20.0	6.0	13.5	16.0	15.0	---	25.0	21.0	---	---	---	---
25	21.0	10.0	12.0	15.5	14.5	14.5	21.0	21.5	---	---	---	25.0
26	24.5	13.5	12.0	15.5	15.0	---	21.5	---	---	---	---	25.5
27	13.0	18.0	14.5	13.0	15.0	19.5	22.0	---	---	---	---	25.5
28	13.0	---	20.5	15.5	15.0	---	23.0	---	---	---	---	26.5
29	14.0	20.5	13.0	17.0	---	20.0	22.0	---	---	---	---	26.0
30	15.5	21.0	17.0	20.0	---	20.5	24.0	---	---	---	---	---
31	13.0	---	18.0	---	---	20.5	---	---	---	---	24.0	---
MONTH	19.5	14.0	16.5	11.5	13.5	15.5	20.0	23.5	---	---	---	---

TRINITY RIVER BASIN

08063200 PIN OAK CREEK NEAR HUBBARD, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	1.5	63	.26	.02	52	0	0	0	0
2	.75	63	.13	.01	54	0	0	0	0
3	.51	43	.06	.01	43	0	0	0	0
4	.24	36	.02	0	0	0	0	0	0
5	.05	115	.02	0	0	0	0	0	0
6	.02	119	.01	.12	36	.01	0	0	0
7	.01	20	0	1.3	55	.19	0	0	0
8	2.4	556	3.6	.27	37	.03	0	0	0
9	1.3	538	1.9	.87	28	.07	0	0	0
10	.11	563	.17	2.0	10	.05	0	0	0
11	.15	846	.34	.53	21	.03	0	0	0
12	4.9	932	12	.13	24	.01	0	0	0
13	.79	261	.56	.15	24	.01	0	0	0
14	.18	150	.07	.27	36	.03	0	0	0
15	.04	132	.01	.15	35	.01	0	0	0
16	.01	113	0	.10	26	.01	.06	41	.01
17	.01	119	0	.05	27	0	.10	25	.01
18	.01	124	0	.03	25	0	.06	56	.01
19	0	0	0	.02	34	0	.05	90	.01
20	0	0	0	.01	35	0	.07	50	.01
21	0	0	0	.01	35	0	.12	99	.03
22	0	0	0	.01	29	0	.21	62	.04
23	22	414	25	0	0	0	.10	53	.01
24	13	122	4.3	0	0	0	.06	80	.01
25	4.8	31	.40	0	0	0	.05	60	.01
26	3.4	54	.50	0	0	0	.02	66	0
27	1.7	30	.14	0	0	0	.03	45	0
28	.53	36	.05	0	0	0	.03	59	0
29	.20	45	.02	0	0	0	.05	45	.01
30	.07	52	.01	0	0	0	.11	61	.02
31	.03	53	0	0	0	0	.80	67	.14
TOTAL	58.71	--	49.57	6.06	--	.45	1.92	--	.32
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	.11	64	.02	.08	94	.02	.08	402	.09
2	.04	65	.01	.06	96	.02	.12	456	.15
3	.07	41	.01	.06	98	.02	.10	480	.13
4	.10	80	.02	.25	92	.06	.04	310	.03
5	.06	56	.01	.21	100	.06	.03	278	.02
6	.03	67	.01	.25	82	.06	.04	540	.06
7	.03	29	0	.22	99	.06	.02	450	.02
8	.04	28	0	.11	113	.03	.02	312	.02
9	.07	108	.02	.09	83	.02	.02	318	.02
10	.08	113	.02	.07	131	.02	.02	320	.02
11	.10	103	.03	.07	123	.02	.02	360	.02
12	.11	122	.04	.14	142	.05	.03	450	.04
13	.07	115	.02	.09	128	.03	.04	560	.06
14	.11	115	.03	.07	117	.02	.04	460	.05
15	.11	96	.03	.13	113	.04	.03	363	.03
16	.08	103	.02	.42	122	.14	.02	334	.02
17	.09	121	.03	.10	130	.04	.01	358	.01
18	.12	53	.02	.05	118	.02	.02	420	.02
19	.09	30	.01	.08	213	.05	.06	379	.06
20	.05	25	0	.13	305	.11	.04	363	.04
21	.05	85	.01	.16	395	.17	.02	317	.02
22	.08	124	.03	.09	384	.09	.02	284	.02
23	.10	125	.03	.08	263	.06	.04	243	.03
24	.10	91	.02	.05	220	.03	.03	241	.02
25	.09	82	.02	.10	242	.07	.04	235	.03
26	.08	95	.02	1.2	350	1.1	.03	223	.02
27	.07	114	.02	.19	350	.18	.07	193	.04
28	.06	90	.01	.06	374	.06	.07	201	.04
29	.08	94	.02	--	--	--	.09	271	.07
30	.08	98	.02	--	--	--	.04	368	.04
31	.12	100	.03	--	--	--	.02	418	.02
TOTAL	2.47	--	.58	4.61	--	2.65	1.27	--	1.26

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

TRINITY RIVER BASIN

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 1971.
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 1970 TO SEPTEMBER 1971

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)
OCT. 26...	1715	39	8.5	45	3.3	25	127	0	43
DEC. 01...	1330	.34	7.4	76	9.4	47	220	0	83
JAN. 05...	1445	.50	5.0	70	7.2	40	204	0	66
FEB. 16...	0800	.35	5.2	78	11	87	172	0	150
MAR. 23...	1035	.05	4.9	82	11	100	306	0	120
APR. 27...	1300	1.2	6.7	65	6.3	52	162	0	79
JUNE 01...	1645	1.8	1.3	47	3.3	29	146	0	42
AUG. 17...	1410	.05	6.0	46	4.7	29	156	0	33

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	SPECT- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 26...	20	.5	.50	210	130	22	1.0	358	7.6
DEC. 01...	43	.9	.20	376	230	48	1.4	616	8.2
JAN. 05...	37	.9	.10	326	200	37	1.2	571	7.5
FEB. 16...	92	.4	.30	509	240	99	2.4	828	7.9
MAR. 23...	69	.4	.30	536	250	0	2.8	868	8.1
APR. 27...	58	.3	1.0	352	190	5	1.6	586	7.5
JUNE 01...	19	.4	.70	217	130	11	1.1	365	7.4
AUG. 17...	22	.4	.80	222	130	6	1.1	374	7.4

TRINITY RIVER BASIN

293

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 1971.
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 1970 TO SEPTEMBER 1971

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	11000	8.5	41	2.8	7.6	131	0	16
DEC. 01...	1645	27	6.2	95	5.6	44	266	0	78
JAN. 05...	1610	28	2.1	88	4.5	46	248	0	75
FEB. 17...	1025	16	.0	80	6.4	61	230	6	91
MAR. 24...	1000	13	5.3	65	3.4	35	186	0	58
APR. 27...	1610	33	7.8	95	5.6	46	180	0	150
JUNE 02...	1535	28	2.6	50	2.0	24	139	0	41
AUG. 18...	1645	31	10	57	1.9	25	118	0	84

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 28...	2.2	.4	.60	145	110	7	.3	245	7.5
DEC. 01...	37	.4	.80	401	260	42	1.2	647	8.2
JAN. 05...	37	.4	.80	378	240	35	1.3	642	7.8
FEB. 17...	44	.4	.80	405	230	38	1.8	657	8.3
MAR. 24...	26	.4	.50	286	180	24	1.1	476	8.2
APR. 27...	32	.5	1.8	437	260	110	1.2	668	8.0
JUNE 02...	18	.4	.70	209	130	19	.9	364	7.5
AUG. 18...	11	.6	.70	251	150	53	.9	392	7.8

TRINITY RIVER BASIN

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 26...	1400	9.9	7.4	17	6.2	31	66	0	27
FEB. 15...	1410	.01	7.2	90	79	470	172	0	280
AUG. 17...	1156	.12	7.1	26	9.5	62	92	0	61

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 26...	36	.3	.70	160	68	14	1.6	292	7.1
FEB. 15...	600	.3	.20	1610	550	410	8.7	2580	7.9
AUG. 17...	68	.4	.70	282	100	29	2.6	495	7.1

TRINITY RIVER BASIN

295

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 09...	1515	4.0	22	22	11	29	14	0	89	41
DEC. 15...	1400	5.7	24	21	9.9	34	12	0	75	54
JAN. 29...	1310	6.7	21	24	11	35	12	0	88	57
FEB. 23...	1745	14	18	26	11	37	11	0	99	55
MAR. 30...	1445	6.9	18	25	13	32	12	0	93	56
MAY 04...	1305	2.6	22	24	10	38	10	0	92	55
JUNE 09...	1515	.31	18	24	13	38	34	0	82	57
AUG. 17...	1035	5.4	12	12	3.9	22	22	0	39	24
SEP. 27...	1645	3.0	28	18	7.3	23	11	0	60	38

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
NOV. 09...	.0	.2	222	100	91	--	378	6.5
DEC. 15...	.0	.6	227	93	83	1.5	386	6.0
JAN. 29...	.0	.00	242	100	95	--	423	6.9
FEB. 23...	.0	.00	251	110	100	--	434	6.4
MAR. 30...	.1	.1	243	110	100	1.3	429	6.1
MAY 04...	.2	.4	248	100	95	1.6	416	6.2
JUNE 09...	.2	.3	250	110	84	1.6	432	7.2
AUG. 17...	.0	.00	--	46	28	--	214	6.5
SEP. 27...	.0	.00	179	75	66	1.2	310	6.1

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 1971.

Chemical and biochemical analyses: October 1967 to September 1971.

Water temperatures: February 1964 to September 1971.

Sediment records: October 1967 to September 1968.

WATER QUALITY DATA. WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	3150	7.9	45	3.6	37	125	0	46	34
NOV.									
01-15	4060	3.3	46	6.4	26	139	0	40	23
16-30	762	12	56	7.4	76	174	0	74	69
DEC.									
01-31	959	10	53	7.8	82	170	0	75	72
JAN.									
01-31	816	13	50	11	83	159	0	81	78
FEB.									
01-19	772	12	50	8.5	93	150	0	81	87
20-28	2030	10	36	9.5	6.2	104	0	62	65
MAR.									
01-31	1670	7.3	44	8.3	58	124	0	61	56
APR.									
01-30	1280	8.8	52	5.5	69	140	0	73	66
MAY									
01-31	939	12	53	7.3	80	144	0	86	75
JUNE									
01-30	822	8.8	56	5.5	88	150	0	87	88
JULY									
01-31	569	15	52	7.7	100	172	0	95	87
AUG.									
01-31	1710	17	46	4.9	48	121	0	61	40
SEP.									
01-30	690	18	51	5.8	86	165	0	78	70
WTD. AVG.	--	10.0	48	6.4	57	139	0	64	55
TIME WTD.									
AVG.	1350	11	50	6.9	71	147	0	73	66
TOT. LOAD (TONS)	--	13300	63900	8480	76500	185000	0	85100	72800

TRINITY RIVER BASIN

297

08065350 TRINITY RIVER NEAR CROCKETT, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 476 mg/l July 1-31; minimum, 225 mg/l Nov. 1-15.
 Hardness: Maximum, 170 mg/l Nov. 16-30, Jan. 1-31; minimum, 130 mg/l Oct. 1-31, Feb. 20-28.
 Specific conductance: Maximum daily, 940 micromhos July 4; minimum daily, 264 micromhos Oct. 31.
 Water temperatures: Maximum, 31.0°C June 13; minimum, 9.0°C Feb. 9.

EXTREMES, February 1964 to September 1971.--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; 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: 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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICHO- MHOS)	PH (UNITS)
OCT.								
01-31	.4	2.4	246	130	25	1.4	441	7.0
NOV.								
01-15	.4	2.6	225	140	27	1.0	410	7.8
16-30	--	5.0	402	170	28	2.5	710	7.9
DEC.								
01-31	.6	6.1	411	160	24	2.8	704	7.7
JAN.								
01-31	.6	7.0	426	170	38	2.8	734	7.9
FEB.								
01-19	.5	8.4	443	160	37	3.2	774	7.0
20-28	.3	6.3	324	130	44	.2	564	7.1
MAR.								
01-31	.3	6.9	327	140	42	2.1	559	8.2
APR.								
01-30	.6	4.7	365	150	38	2.4	647	7.4
MAY								
01-31	.7	5.9	411	160	44	2.7	694	7.6
JUNE								
01-30	.6	4.1	426	160	39	3.0	685	7.8
JULY								
01-31	1.0	6.5	476	160	20	3.4	819	8.0
AUG.								
01-31	.5	5.3	300	140	36	1.8	516	7.5
SEPT.								
01-30	.8	6.2	418	150	16	3.0	693	8.0
WTD. AVG.	.5	4.8	333	146	32	2.0	576	7.6
TIME WTD.								
AVG.	.6	5.5	377	152	32	2.5	646	7.7
TOT. LOAD (TONS)	658	6430	443000	--	--	--	--	--

TRINITY RIVER BASIN

08065350 TRINITY RIVER NEAR CROCKETT, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1300	1650	8.8	44	3.0	--	31	--	129	0
DEC. 07...	1230	811	15	57	6.4	98	--	8.2	221	0
FEB. 22...	1345	1600	11	35	5.6	63	--	6.6	86	0
APR. 24...	1325	2880	9.0	59	4.0	35	--	5.1	143	0
JUNE 19...	1300	403	7.0	57	4.9	--	66	--	156	0
AUG. 20...	1200	3340	11	48	3.1	37	--	7.4	136	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)
OCT. 19...	35	26	.3	.87	.000	.00	2.8	1.1	223	470
DEC. 07...	86	91	.8	1.2	.33	6.3	3.5	3.5	496	56
FEB. 22...	60	78	.4	.84	.12	1.9	2.6	2.0	316	140
APR. 24...	70	31	.4	.05	.40	2.2	2.0	1.2	296	620
JUNE 19...	73	60	.5	.53	.020	.00	4.1	.22	363	87
AUG. 20...	47	31	.4	.68	.98	3.6	1.5	1.2	266	516

DATE	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HAP- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
OCT. 19...	84	120	16	1.2	376	7.0	17.5	15	135	6.4
DEC. 07...	5	170	0	3.3	812	6.9	17.0	20	27	5.9
FEB. 22...	4	110	40	2.6	558	7.2	14.0	30	40	6.8
APR. 24...	132	160	46	1.2	500	7.3	22.0	17	200	1.4
JUNE 19...	31	160	34	2.3	628	7.4	29.0	10	25	5.9
AUG. 20...	104	130	21	1.4	453	7.2	29.0	20	150	1.1

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)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)
OCT. 19...	67	24	2.0	0	.04	0	11	0	0	0
DEC. 07...	61	110	20	6	.01	--	--	--	--	--
FEB. 22...	65	30	17	4	.00	110	0	0	0	--
APR. 24...	16	60	33	3	.00	20	0	0	0	--
JUNE 19...	76	24	6.4	0	.00	20	10	0	0	--
AUG. 20...	14	40	33	6	.11	--	--	--	--	--

TRINITY RIVER BASIN

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08065350 TRINITY RIVER NEAR CROCKETT, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED COPALT (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	5	16	0	0	2	<.5	9	260	0
DEC. 07...	--	--	--	--	--	--	--	--	--	--
FEB. 22...	0	6	90	0	10	220	<.5	9	360	7
APR. 24...	0	6	30	0	0	12	<.5	5	380	0
JUNE 19...	0	4	0	0	10	9	.8	7	440	0
AUG. 20...	--	--	--	--	--	--	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	491	294	736	595	740	530	565	632	716	887	520	642
2	564	318	744	636	743	573	564	645	846	869	512	446
3	553	311	759	612	748	541	567	661	523	932	424	506
4	530	332	767	648	701	571	579	719	745	940	414	550
5	632	410	818	738	618	673	565	704	527	681	489	540
6	455	387	818	744	762	707	564	683	673	679	463	544
7	423	364	825	815	755	688	562	723	648	745	498	552
8	410	381	828	861	803	633	550	780	537	851	514	534
9	410	433	776	843	784	707	546	802	593	837	518	567
10	457	451	807	792	765	567	543	696	636	884	456	636
11	442	476	807	776	771	595	630	735	609	804	449	674
12	438	474	825	677	784	627	751	538	607	817	396	710
13	474	475	773	627	851	571	725	493	590	813	463	728
14	495	476	683	661	851	564	788	559	583	722	559	733
15	465	490	667	743	816	567	788	537	604	702	673	725
16	319	528	682	764	813	483	822	589	613	635	514	781
17	334	548	666	736	820	552	803	682	642	730	541	819
18	387	615	676	715	851	486	770	678	644	779	542	835
19	377	691	639	685	751	445	655	615	651	810	750	832
20	396	728	668	685	432	469	768	689	720	872	458	784
21	428	733	655	659	485	506	662	710	717	703	458	710
22	418	727	783	754	556	514	773	688	736	851	464	752
23	410	718	644	803	545	531	765	713	746	872	462	812
24	416	747	579	785	556	544	546	771	750	880	484	790
25	482	750	619	770	672	528	540	811	756	880	504	781
26	485	747	639	743	545	509	553	811	887	711	524	812
27	466	794	643	791	603	514	542	760	770	844	529	875
28	478	779	625	791	672	531	550	715	791	875	543	659
29	562	773	596	743	---	544	623	753	833	768	569	746
30	269	758	607	824	---	545	617	761	809	854	604	784
31	264	---	598	775	---	547	---	835	---	768	727	---
MONTH	443	557	708	735	707	560	643	693	683	806	517	695

TRINITY RIVER BASIN

08065350 TRINITY RIVER NEAR CROCKETT, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	17.0	18.0	12.0	12.0	17.0	17.0	25.0	27.0	29.0	29.0	28.0
2	24.0	15.0	18.0	12.0	12.0	14.0	17.0	24.0	27.0	29.0	29.0	28.0
3	24.0	16.0	18.0	17.0	13.0	14.0	18.0	24.0	27.0	29.0	28.0	28.0
4	24.0	14.0	17.0	17.0	13.0	14.0	18.0	23.0	27.0	29.0	28.0	28.0
5	23.0	14.0	17.0	12.0	13.0	15.0	18.0	24.0	27.0	29.0	28.0	28.0
6	24.0	14.0	17.0	12.0	13.0	14.0	18.0	23.0	28.0	29.0	28.0	28.0
7	25.0	17.0	17.0	12.0	11.0	12.0	18.0	23.0	28.0	27.0	28.0	28.0
8	25.0	17.0	15.0	12.0	11.0	14.0	18.0	27.0	28.0	29.0	28.0	28.0
9	25.0	14.0	17.0	17.0	9.0	15.0	19.0	24.0	28.0	27.0	29.0	28.0
10	21.0	13.0	17.0	12.0	10.0	14.0	19.0	23.0	28.0	29.0	28.0	28.0
11	21.0	14.0	16.0	10.0	12.0	14.0	19.0	23.0	28.0	27.0	28.0	28.0
12	20.0	14.0	13.0	10.0	11.0	14.0	21.0	23.0	30.0	27.0	29.0	28.0
13	20.0	15.0	13.0	13.0	11.0	14.0	21.0	22.0	31.0	28.0	29.0	28.0
14	20.0	15.0	13.0	14.0	13.0	14.0	21.0	22.0	28.0	29.0	28.0	28.0
15	20.0	15.0	13.0	14.0	13.0	14.0	22.0	23.0	28.0	27.0	28.0	28.0
16	19.0	12.0	13.0	13.0	15.0	14.0	19.0	24.0	28.0	28.0	28.0	28.0
17	17.0	12.0	12.0	13.0	15.0	14.0	19.0	24.0	28.0	27.0	28.0	28.0
18	19.0	12.0	13.0	13.0	16.0	14.0	21.0	24.0	28.0	29.0	28.0	28.0
19	17.0	13.0	15.0	13.0	16.0	14.0	21.0	24.0	29.0	27.0	28.0	28.0
20	17.0	12.0	15.0	12.0	15.0	14.0	21.0	24.0	29.0	27.0	28.0	28.0
21	17.0	12.0	15.0	12.0	15.0	14.0	22.0	26.0	28.0	27.0	28.0	28.0
22	17.0	12.0	15.0	14.0	14.0	16.0	22.0	26.0	28.0	29.0	28.0	27.0
23	17.0	12.0	15.0	14.0	14.0	16.0	22.0	26.0	28.0	29.0	28.0	28.0
24	19.0	11.0	15.0	14.0	15.0	16.0	21.0	25.0	28.0	29.0	28.0	28.0
25	20.0	11.0	15.0	16.0	15.0	16.0	21.0	25.0	28.0	29.0	28.0	28.0
26	20.0	12.0	15.0	15.0	16.0	16.0	22.0	26.0	29.0	29.0	28.0	28.0
27	20.0	15.0	15.0	15.0	16.0	17.0	22.0	26.0	29.0	29.0	28.0	28.0
28	18.0	15.0	15.0	15.0	16.0	17.0	22.0	27.0	29.0	29.0	28.0	28.0
29	18.0	15.0	14.0	15.0	---	17.0	23.0	27.0	28.0	29.0	28.0	28.0
30	17.0	16.0	15.0	15.0	---	17.0	23.0	28.0	28.0	29.0	28.0	28.0
31	17.0	---	11.0	14.0	---	18.0	---	28.0	---	29.0	28.0	---
MONTH	20.5	14.0	15.0	13.5	13.5	15.0	20.0	24.5	28.0	28.5	28.0	28.0

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT. 19...	1540	2400	9.2	41	3.1	--	32	--	128	0	34
NOV. 02...	1200	13900	8.1	42	2.9	--	16	--	123	0	27
DEC. 07...	1300	--	16	58	6.2	86	--	3.6	180	0	79
JAN. 25...	1250	--	14	50	7.0	--	90	--	164	0	86
FEB. 25...	1230	--	12	36	5.9	59	--	7.0	92	0	68
MAR. 15...	1330	--	10	50	5.9	53	--	5.5	130	0	61
APR. 19...	1300	--	11	52	6.8	--	91	--	160	0	82
MAY 24...	1300	--	10	49	5.5	--	75	--	146	0	71
JUNE 14...	1130	--	8.4	59	5.4	--	65	--	151	0	110
JULY 12...	1300	--	13	49	6.0	--	110	--	186	0	90
AUG. 16...	1330	--	13	48	4.4	--	61	--	131	0	68
SEP. 21...	1000	--	16	53	5.2	--	94	--	182	0	86

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. 19...	26	.4	--	.000	.00	1.9	1.3	217	120	10
NOV. 02...	13	.3	.83	.15	.07	.7	.86	173	120	16
DEC. 07...	82	.7	.62	.26	1.0	3.5	2.5	438	170	22
JAN. 25...	83	.7	--	.27	3.1	4.8	3.8	438	150	20
FEB. 25...	65	.4	--	.12	1.4	3.0	2.2	313	110	39
MAR. 15...	56	.5	--	.26	1.3	2.6	3.0	320	150	43
APR. 19...	88	.7	--	.30	.57	4.2	2.4	431	160	26
MAY 24...	73	.6	--	.010	.02	3.0	2.0	369	140	26
JUNE 14...	43	.5	--	.000	.02	3.5	.88	377	170	46
JULY 12...	85	.8	--	1.2	.00	4.0	4.2	467	150	0
AUG. 16...	63	.6	--	.010	.00	.3	1.4	323	140	30
SEP. 21...	76	.8	--	.050	.00	2.6	3.0	432	150	4

TRINITY RIVER BASIN

08065500 TRINITY RIVER NEAR MIDWAY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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)	FFCAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)
OCT. 19...	1.3	375	7.8	18.0	6.6	69	3.2	140000	18000	750
NOV. 02...	.6	304	6.8	16.0	5.8	58	2.5	55000	3000	2600
DEC. 07...	2.9	742	7.4	17.0	5.8	60	13	7100	34	6
JAN. 25...	3.2	764	7.6	15.5	7.6	75	18	7700	21	8
FEB. 25...	2.4	538	7.4	15.0	6.9	68	17	19000	280	300
MAR. 15...	1.9	584	7.2	18.5	4.4	47	>8.3	22000	98	140
APR. 19...	3.2	759	7.3	23.0	4.9	56	6.0	68000	20	52
MAY 24...	2.7	667	7.5	25.0	7.2	86	.1	49000	68	95
JUNE 14...	2.2	626	7.0	30.0	4.2	55	2.9	60000	90	14
JULY 12...	3.9	815	7.9	32.0	7.9	107	6.2	4700	12	20
AUG. 16...	2.3	584	7.4	30.0	6.1	80	2.7	9300	110	72
SEP. 21...	3.3	749	7.7	24.5	8.8	105	3.6	15000	130	80

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1445	.20	13	16	5.6	28	54	0	38	28
NOV.										
02...	1100	18	20	14	4.5	23	30	0	38	28
DEC.										
07...	1130	2.2	29	34	10	57	110	0	56	72
JAN.										
25...	1100	.83	23	40	12	77	123	0	75	98
FEB.										
26...	0910	19	9.1	36	12	74	68	0	96	100
MAR.										
15...	1200	1.7	2.9	35	11	63	82	0	82	82
APR.										
19...	1225	16	13	77	28	79	27	0	290	110
MAY										
24...	1200	26	12	19	5.2	44	50	0	40	57
JUNE										
14...	1200	.32	24	43	13	68	104	0	97	87
AUG.										
16...	1210	.44	12	13	3.5	17	39	0	26	16
16...	1230	.45	15	17	4.6	19	50	0	30	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)	SODIUM AD- SORP- TION RATIO
OCT.										
19...	.1	--	.000	.00	.2	.32	157	63	19	1.5
NOV.										
02...	.1	.43	.000	.00	.1	.27	143	53	29	1.4
DEC.										
07...	.2	.73	.000	.16	.00	.25	312	130	36	2.2
JAN.										
25...	.1	--	.14	1.1	.8	.77	390	150	48	2.7
FEB.										
26...	.2	--	.040	.55	1.0	.75	368	140	84	2.7
MAR.										
15...	.2	--	.030	.33	.5	2.1	319	130	66	2.4
APR.										
19...	.2	--	.000	.35	.2	.36	611	310	280	2.0
MAY										
24...	.1	--	.14	.40	.7	.55	206	69	28	2.3
JUNE										
14...	.2	--	.000	.05	.1	.83	384	160	76	2.3
AUG.										
16...	.0	--	--	--	.6	--	109	47	15	1.1
16...	.1	--	.000	.16	.2	.52	134	61	20	1.1

DATE	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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...	267	7.1	15.5	7.1	70	1.7	20000	730	1800
NOV.									
02...	240	6.1	14.0	6.8	65	1.6	49000	380	1100
DEC.									
07...	521	6.7	14.5	3.0	29	4.4	7700	120	120
JAN.									
25...	686	7.1	15.0	3.3	32	6.4	4000	170	95
FEB.									
26...	625	6.8	15.0	5.6	55	12	79000	5300	50000
MAR.									
15...	573	6.7	17.0	2.0	21	>8.4	27000	220	420
APR.									
19...	982	6.6	20.5	4.6	51	3.0	88000	840	1800
MAY									
24...	377	6.8	22.5	4.0	45	5.3	100000	600	2000
JUNE									
14...	649	6.8	26.0	2.7	33	5.3	10000	130	88
AUG.									
16...	188	6.5	28.0	--	--	--	--	--	--
16...	229	6.4	26.0	1.6	20	2.3	22000	220	700

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- SOLVED CHLORIDE (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)	HICAR- 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...	1700	4.6	23	15	2.9	22	20	0	40	28
NOV.										
02...	1430	1.7	27	20	3.4	26	24	0	50	34
DEC.										
08...	1100	1.3	40	23	4.0	37	30	0	54	52
JAN.										
26...	1035	1.6	39	24	4.2	39	30	0	59	54
FEB.										
26...	1130	3.1	34	22	3.6	38	30	0	54	51
MAR.										
16...	0920	1.3	34	24	4.2	42	32	0	60	56
APR.										
21...	1000	39	11	7.0	1.6	7.6	12	0	15	11
MAY										
25...	1130	4.9	32	22	4.0	30	21	0	57	43
JUNE										
15...	0945	.74	53	21	3.8	35	31	0	51	46
AUG.										
17...	1000	.63	44	16	2.8	35	34	0	36	44
SEP.										
21...	1200	4.6	13	14	2.1	13	44	0	16	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 CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.										
21...	.1	--	.000	.00	.00	.050	141	49	33	1.4
NOV.										
02...	.1	.40	.000	.00	.1	.070	173	64	44	1.4
DEC.										
08...	.0	--	.000	.00	.00	.040	225	74	49	1.9
JAN.										
26...	.0	--	.000	.00	.00	.030	234	77	53	1.9
FEB.										
26...	.1	--	.000	.00	.00	.010	218	70	45	2.0
MAR.										
16...	.1	--	.000	.00	.00	.060	236	77	51	2.1
APR.										
21...	.1	--	.000	.35	.2	.17	61	24	14	.7
MAY										
25...	.1	--	.000	.12	.1	.070	199	71	54	1.5
JUNE										
15...	.1	--	.000	.02	.1	.10	225	68	43	1.8
AUG.										
17...	.1	--	.000	.00	.00	.060	195	51	24	2.1
SEP.										
21...	.2	--	.040	.00	.2	.26	93	44	8	.9

DATE	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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.									
21...	225	7.6	21.0	8.9	99	1.0	22000	96	150
NOV.									
02...	267	6.5	17.0	7.5	77	1.2	1500	68	110
DEC.									
08...	336	7.2	15.0	9.8	96	.7	5200	11	28
JAN.									
26...	365	7.1	14.0	9.7	93	1.2	5500	4	25
FEB.									
26...	343	7.5	19.0	9.4	100	1.3	6700	130	140
MAR.									
16...	376	6.8	17.0	9.4	97	3.1	9700	26	24
APR.									
21...	102	6.3	17.0	8.2	85	3.9	410000	6500	3200
MAY									
25...	308	6.3	15.0	8.4	82	1.6	32000	46	160
JUNE									
15...	332	6.9	28.5	7.0	90	1.9	58000	100	210
AUG.									
17...	282	7.2	26.0	7.8	95	1.7	44000	13	53
SEP.									
21...	150	7.0	21.0	8.6	96	3.9	69000	160	340

TRINITY RIVER BASIN

305

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-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.										
21...	1625	44	47	2.8	100	--	12	218	0	33
NOV.										
02...	1500	32	48	2.7	--	63	--	152	0	31
DEC.										
08...	1010	30	50	3.2	--	99	--	212	0	32
JAN.										
26...	1100	30	53	3.7	--	97	--	207	0	36
FEB.										
26...	1045	34	52	3.2	--	120	--	230	0	35
MAR.										
16...	1030	26	52	3.7	--	98	--	204	0	39
APR.										
20...	1030	31	44	3.1	120	--	14	210	0	38
MAY										
25...	1200	22	40	2.8	--	53	--	136	0	34
JUNE										
15...	1000	17	42	3.4	--	67	--	153	0	42
JULY										
13...	0945	29	42	3.3	--	110	--	200	0	46
AUG.										
17...	1030	31	40	3.2	--	110	--	195	0	48
SEP.										
21...	1145	22	30	2.0	--	43	--	110	0	22

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)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)
OCT.										
21...	100	.5	--	.39	2.8	1.0	4.3	456	130	0
NOV.										
02...	75	.2	.58	.32	.00	.9	1.3	332	130	6
DEC.										
08...	100	.5	--	.030	.00	.8	3.2	422	140	0
JAN.										
26...	100	.5	--	.10	.47	1.2	3.0	428	150	0
FEB.										
26...	120	.5	--	.16	.00	1.5	3.8	487	140	0
MAR.										
16...	100	.6	--	.14	.49	1.0	7.5	429	140	0
APR.										
20...	120	.8	--	.18	2.6	.2	3.2	474	120	0
MAY										
25...	57	.3	--	.040	.38	.2	1.2	278	110	0
JUNE										
15...	67	.4	--	.000	.18	.1	1.2	314	120	0
JULY										
13...	100	.6	--	.000	.51	.00	1.9	433	120	0
AUG.										
17...	100	.6	--	.000	.00	.00	1.3	429	110	0
SEP.										
21...	44	.3	--	.10	.53	.5	.90	221	83	0

TRINITY RIVER BASIN

08065980 HARMON CREEK NEAR RIVERSIDE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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. 21...	3.8	774	7.9	20.0	9.5	103	7.5	54000	120	42
NOV. 02...	2.4	562	7.6	18.0	8.3	87	5.4	25000	140	140
DEC. 08...	3.7	719	7.8	16.0	8.6	86	6.8	24000	30	28
JAN. 26...	3.5	751	7.6	14.0	6.6	63	5.5	6000	8	4
FEB. 26...	4.4	838	8.6	15.5	10.0	99	12	6300	32	45
MAR. 16...	3.5	749	7.9	18.0	7.5	79	>8.5	59000	11	51
APR. 20...	4.7	815	7.7	22.0	3.6	41	7.5	100000	60	100
MAY 25...	2.2	488	7.0	24.0	2.4	28	4.4	22000	78	82
JUNE 15...	2.7	552	7.0	29.0	4.6	59	5.1	22000	4	16
JULY 13...	4.4	760	7.4	29.5	3.8	49	4.6	19000	13	12
AUG. 17...	4.5	744	7.6	28.5	3.2	41	5.4	22000	98	26
SEP. 21...	2.1	366	7.2	22.0	4.2	48	6.9	45000	210	46

TRINITY RIVER BASIN

307

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE- 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.										
21...	1610	7.6	37	2.7	--	24	--	114	0	30
NOV.										
02...	1530	5.9	37	2.8	--	17	--	111	0	23
DEC.										
08...	0930	9.4	52	4.2	--	45	--	155	0	49
JAN.										
27...	1200	11	54	5.9	--	69	--	160	0	69
FEB.										
26...	1015	13	52	6.4	91	--	7.6	160	0	80
MAR.										
16...	1100	11	47	6.3	68	--	6.4	128	0	76
APR.										
20...	1100	5.4	42	5.4	--	56	--	126	0	55
MAY										
25...	1200	11	40	4.6	--	53	--	110	0	60
JUNE										
15...	1030	4.8	51	5.8	--	91	--	168	0	83
JULY										
13...	1030	8.3	54	5.6	--	63	--	164	0	80
AUG.										
17...	1045	11	42	4.0	52	--	9.9	128	0	55
SEP.										
21...	1120	11	48	4.4	--	52	--	144	0	64

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.										
21...	16	.5	--	.000	.00	1.7	.51	181	100	10
NOV.										
02...	15	.2	.88	.000	.00	.9	.52	160	100	13
DEC.										
08...	42	.4	--	.020	.00	1.6	.69	285	150	20
JAN.										
27...	67	.5	--	.040	.00	3.0	2.0	369	160	28
FEB.										
26...	88	.5	--	.16	1.5	4.6	2.8	440	160	25
MAR.										
16...	69	.5	--	.080	.10	3.4	4.7	363	140	38
APR.										
20...	59	.4	--	.10	.16	2.2	1.4	297	130	24
MAY										
25...	53	.4	--	.050	.28	1.9	1.2	285	120	29
JUNE										
15...	78	.7	--	.070	.02	3.4	2.0	413	150	14
JULY										
13...	52	.6	--	.18	.78	.9	.90	350	160	23
AUG.										
17...	50	.5	--	.36	1.2	1.6	1.2	297	120	16
SEP.										
21...	42	.5	--	.16	.00	1.8	.80	301	140	20

TRINITY RIVER BASIN

08066000 TRINITY RIVER AT RIVERSIDE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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. 21...	1.0	315	7.3	18.0	5.1	54	3.6	17000	330	250
NOV. 02...	.7	288	6.8	17.5	4.8	50	2.0	95000	660	600
DEC. 08...	3.6	482	7.7	15.5	9.6	95	2.9	13000	6	54
JAN. 27...	2.4	637	8.0	14.0	13.0	125	6.3	1600	2	8
FEB. 26...	3.2	745	7.7	14.5	5.9	57	4.8	6900	3	3
MAR. 16...	2.5	621	7.2	15.5	3.4	34	>9.0	2500	4	11
APR. 20...	2.2	535	7.3	20.0	4.7	51	5.6	21000	540	480
MAY 25...	2.1	508	7.0	24.0	1.9	22	2.3	29000	24	44
JUNE 15...	3.2	720	8.4	30.0	11.0	145	6.4	31000	32	8
JULY 13...	2.2	612	7.2	29.0	1.5	19	3.4	3700	16	23
AUG. 17...	2.1	509	6.9	28.0	1.4	18	7.0	20000	4	8
SEP. 21...	1.9	514	7.1	25.5	1.6	19	3.3	12000	18	26

TRINITY RIVER BASIN

309

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 13...	1655	.20	23	36	2.0	23	98	0	6.4	42
NOV. 30...	1025	.08	21	50	5.4	26	145	0	13	50
DEC. 21...	1410	.17	14	59	5.1	33	142	0	15	76
JAN. 25...	1325	.08	10	50	4.2	37	119	0	12	80
MAR. 01...	1540	.11	14	47	3.1	32	130	0	12	57
MAY 10...	1445	.26	14	22	.3	16	60	0	4.0	26
SEP. 20...	1400	.79	26	18	.8	10	49	0	6.0	16

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 13...	.0	.00	182	98	18	1.0	347	7.7
NOV. 30...	.0	.1	237	150	28	--	427	7.7
DEC. 21...	.0	.1	272	170	52	--	512	7.6
JAN. 25...	.0	.00	252	140	44	--	500	7.3
MAR. 01...	.0	.00	229	130	23	--	429	7.1
MAY 10...	.0	.4	114	56	7	.9	205	6.9
SEP. 20...	.1	.2	101	48	8	.6	178	6.8

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.										
13...	1345	129	3.2	12	1.0	17	18	0	26	19
21...	1525	4.7	7.6	13	3.8	22	24	0	41	23
NOV.										
02...	1300	4.0	12	17	4.2	27	34	0	44	32
DEC.										
08...	1310	1.2	10	29	7.1	51	53	0	84	58
JAN.										
26...	1150	1.4	15	27	6.8	65	71	0	68	76
FEB.										
25...	1120	2.1	12	42	11	130	104	0	130	150
MAR.										
15...	1430	2.5	8.6	32	9.3	73	64	0	98	87
MAY										
25...	1310	1.8	16	34	8.9	70	62	0	93	89
JUNE										
16...	1430	.31	18	38	8.4	120	89	0	130	130
SEP.										
21...	1045	.01	15	46	9.5	210	124	0	240	180

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)	SODIUM AD- SORP- TION RATIO
OCT.										
13...	.0	--	--	--	.9	--	91	34	19	1.3
21...	.2	--	.000	.03	.1	.13	123	48	28	1.4
NOV.										
02...	.1	.42	.000	.00	.1	.18	154	60	32	1.5
DEC.										
08...	.1	--	.000	.00	.00	.060	265	100	58	2.2
JAN.										
26...	.1	--	.000	.00	.00	.070	293	95	37	2.9
FEB.										
25...	.2	--	.000	.00	.00	.020	520	150	65	4.6
MAR.										
15...	.2	--	.000	.00	.00	.22	339	120	66	2.9
MAY										
25...	.1	--	.000	.22	.00	.080	341	120	71	2.8
JUNE										
16...	.2	--	.000	.08	.2	.030	481	130	56	4.6
SEP.										
21...	.2	--	.000	.00	.00	.080	754	150	52	7.4

TRINITY RIVER BASIN

311

08066130 WHITE ROCK CREEK NEAR TRINITY, TEX.--Continued

WATER QUALITY DATA. WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPECIFIC CONDUCTANCE (MICRO- MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)
OCT. 13...	164	6.8	19.0	--	--	--	--	--	--
21...	219	7.8	21.0	9.8	109	2.9	29000	400	490
NOV. 02...	269	6.7	17.0	8.5	88	1.6	8000	90	20
DEC. 08...	457	7.3	13.0	10.0	94	1.8	11000	15	76
JAN. 26...	513	7.4	14.5	9.7	94	2.1	3000	4	16
FEB. 25...	871	7.9	14.5	9.5	92	1.6	11000	100	76
MAR. 15...	596	7.7	23.5	9.5	110	6.5	39000	38	57
MAY 25...	602	7.6	29.0	9.2	118	3.8	61000	140	290
JUNE 16...	842	8.3	33.5	9.2	128	4.5	11000	20	16
SEP. 21...	1270	7.7	20.5	7.9	87	4.5	18000	50	30

TRINITY RIVER BASIN

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 13...	1225	51	5.0	7.0	.1	10	18	0	10	8.4
NOV. 30...	1240	.42	18	18	5.4	33	57	0	31	42
DEC. 21...	1545	.65	26	28	7.3	56	68	0	61	72
JAN. 25...	1520	.36	16	25	7.0	56	66	0	56	71
MAR. 01...	1710	2.4	11	19	5.3	44	34	0	48	60
APR. 06...	0720	.04	7.2	29	8.1	72	73	0	66	94
MAY 10...	1700	.76	24	25	5.5	48	65	0	42	64
JUNE 07...	1500	.12	16	21	5.5	34	58	0	33	46

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 13...	.0	.8	53	18	3	1.0	82	6.7
NOV. 30...	.0	.1	174	67	20	1.8	340	6.4
DEC. 21...	.0	.2	284	100	44	--	493	7.1
JAN. 25...	.0	.2	264	91	37	--	474	7.2
MAR. 01...	.0	.5	206	69	41	--	376	6.6
APR. 06...	.2	.2	313	110	46	3.0	572	6.7
MAY 10...	.0	.5	243	85	32	2.3	434	7.0
JUNE 07...	.0	.5	185	75	27	1.7	356	6.5

TRINITY RIVER BASIN

313

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 30...	1545	.14	33	39	9.6	140	84	0	170	140
DEC. 22...	1030	.68	40	42	9.0	130	72	0	190	120
JAN. 26...	0945	.61	36	60	15	170	83	0	280	160
MAR. 02...	0935	.60	44	54	14	170	81	0	250	160
APR. 06...	1145	.21	36	45	11	260	188	0	210	250
MAY 11...	1230	.67	8.5	26	4.7	35	100	0	79	49
JUNE 07...	1745	.13	35	27	3.5	230	191	0	91	230
JULY 13...	1750	.04	39	12	4.9	380	290	16	36	410
AUG. 20...	0940	.06	31	14	6.1	350	284	6	52	380
SEP. 21...	0820	.16	60	29	6.7	190	156	0	130	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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
NOV. 30...	.0	.00	572	140	68	--	976	7.2
DEC. 22...	.0	.1	569	140	83	--	922	7.2
JAN. 26...	.0	.00	765	210	140	--	1230	7.5
MAR. 02...	.0	.00	737	190	130	--	1180	7.2
APR. 06...	.4	.2	915	160	4	9.0	1510	7.4
MAY 11...	.0	.5	209	84	76	1.7	433	6.0
JUNE 07...	.3	.2	716	82	0	11	1290	7.5
JULY 13...	.6	.3	1050	50	0	23	1820	8.7
AUG. 20...	.5	.1	978	60	0	20	1700	8.4
SEP. 21...	.3	.00	667	100	0	8.3	1070	7.3

TRINITY RIVER BASIN

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 (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.										
21...	1430	7.2	46	4.1	40	130	0	47	40	.4
NOV.										
03...	1100	6.1	36	2.7	18	105	0	25	16	.2
DEC.										
09...	0930	7.5	40	3.4	23	120	0	34	21	.3
JAN.										
27...	1245	4.0	40	4.3	40	128	0	46	36	.3
FEB.										
25...	1030	5.3	47	5.2	62	148	0	61	58	.3
MAR.										
16...	1215	4.6	44	5.6	60	135	0	60	61	.4
APR.										
20...	1130	2.8	37	5.2	49	116	0	52	50	.3
MAY										
25...	1410	6.2	38	4.8	57	118	0	67	51	.3
JUNE										
15...	1100	2.2	42	4.8	54	146	0	45	52	.4
JULY										
13...	1115	2.4	47	5.0	51	164	0	42	49	.4
AUG.										
17...	1130	7.7	50	5.3	81	182	0	65	74	.6
SEP.										
22...	1100	9.2	46	4.8	67	162	0	60	58	.5

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 CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.									
21...	--	.000	.00	1.5	.54	255	130	25	1.5
NOV.									
03...	.51	.000	.00	1.4	.51	162	100	15	.8
DEC.									
09...	--	.000	.00	.2	.29	189	110	15	.9
JAN.									
27...	--	.020	.00	.3	.55	235	120	13	1.6
FEB.									
25...	--	.14	.00	1.7	.21	320	140	18	2.3
MAR.									
16...	--	.070	.25	1.3	2.9	308	130	22	2.3
APR.									
20...	--	.030	.18	.1	.56	254	110	19	2.0
MAY									
25...	--	.040	.34	.2	.68	283	110	18	2.3
JUNE									
15...	--	.000	.02	.1	.59	273	120	5	2.1
JULY									
13...	--	.000	.00	.00	.36	278	140	3	1.9
AUG.									
17...	--	.030	.00	.00	.68	373	150	0	2.9
SEP.									
22...	--	.090	.42	.5	.82	329	130	2	2.5

TRINITY RIVER BASIN

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08066147 WHITEROCK CREEK AT FARM ROAD 356, NEAR TRINITY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPECIFIC CONDUCTANCE (MICRO- MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)
OCT. 21...	451	8.1	20.5	8.1	89	2.1	22000	36	130
NOV. 03...	290	7.0	18.0	4.5	47	1.2	280000	7700	2500
DEC. 09...	330	7.3	16.0	7.8	78	2.5	12000	7	18
JAN. 27...	424	8.7	15.0	14.4	141	7.5	320	2	0
FEB. 25...	556	7.8	13.5	8.3	79	5.0	9700	1	18
MAR. 16...	553	8.1	17.5	9.6	100	>8.8	11000	6	220
APR. 20...	467	7.1	21.0	5.2	58	4.8	43000	350	360
MAY 25...	470	7.4	25.0	6.5	77	5.0	7000	2	24
JUNE 15...	496	7.3	29.0	3.6	46	7.3	9000	2	4
JULY 13...	507	7.2	29.5	3.1	40	3.6	8500	21	19
AUG. 17...	645	8.0	29.0	7.1	91	6.3	10000	1	0
SEP. 22...	575	7.2	24.5	2.6	31	2.6	9000	84	60

TRINITY RIVER BASIN

08066150 BRUSHY CREEK NEAR ONALASKA, TEX.

LOCATION.--Lat 30°50'00", long 95°08'49", Polk County, at gaging station on Farm Road 356, and 3.4 miles northwest of Onalaska.

DRAINAGE AREA.--34.1 sq mi.

PERIOD OF RECORD.--Chemical analyses: March 1966 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 12...	1425	3.0	5.0	6.5	2.6	.8	9	0	10

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 12...	6.2	.0	.60	38	27	20	.1	54	6.4

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 12...	1705	49	7.2	6.0	1.2	18	11	0	28	14
21...	1345	2.8	18	7.2	2.2	16	10	0	31	14
NOV. 03...	1000	4.2	24	14	3.4	32	22	0	56	29
DEC. 09...	1130	.92	40	18	4.0	45	27	0	77	40
JAN. 27...	1035	1.0	39	20	4.6	58	35	0	91	50
FEB. 25...	0935	1.2	34	23	5.0	79	67	0	100	64
MAR. 16...	1300	.55	33	21	4.7	73	48	0	100	60
APR. 21...	1230	.71	24	13	3.2	34	22	0	57	30
MAY 26...	1100	1.3	26	14	4.1	62	61	0	67	47
JUNE 16...	1215	.17	55	20	3.8	66	64	0	78	53
JULY 13...	1200	.04	48	28	5.3	68	60	0	110	54
SEP. 22...	1130	1.2	25	12	3.2	47	45	0	61	31

TRINITY RIVER BASIN

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08066170 KICKAPOO CREEK NEAR ONALASKA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	SODIUM AD- SORP- TION RATIO
OCT.										
12...	.0	--	--	--	.5	--	82	20	11	1.8
21...	.2	--	.000	.00	.00	.12	94	27	19	1.3
NOV.										
03...	.1	.34	.000	.00	.00	.20	170	49	31	2.0
DEC.										
09...	.1	--	.000	.00	.00	.10	237	61	39	2.5
JAN.										
27...	.0	--	.000	.00	.00	.10	280	69	40	.3
FEB.										
25...	.2	--	.000	.00	.00	.16	338	78	23	3.9
MAR.										
16...	.2	--	.000	.00	.1	.39	318	72	32	3.7
APR.										
21...	.1	--	.000	.15	.00	.14	172	46	28	2.2
MAY										
26...	.1	--	.000	.24	.1	.72	251	52	2	3.7
JUNE										
16...	.2	--	.000	.10	.1	.55	308	66	13	3.5
JULY										
13...	.2	--	.000	.06	.00	.28	344	92	42	3.1
SEP.										
22...	.2	--	.000	.00	.1	.38	202	43	6	3.1

DATE	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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.									
12...	132	6.0	19.0	--	--	--	--	--	--
21...	149	7.0	20.0	9.6	104	2.1	110000	1100	890
NOV.									
03...	263	6.4	12.5	9.1	85	1.7	15000	88	72
DEC.									
09...	348	6.8	17.0	9.6	99	1.0	5600	66	79
JAN.									
27...	429	7.4	12.0	9.4	87	1.4	3000	10	10
FEB.									
25...	539	7.0	14.0	9.2	88	1.6	4800	26	17
MAR.									
16...	504	7.5	22.5	11.2	127	4.2	7700	22	14
APR.									
21...	289	6.8	15.5	9.9	98	3.1	50000	60	44
MAY									
26...	410	7.0	25.0	8.8	105	2.5	16000	230	360
JUNE									
16...	466	7.9	33.5	11.2	156	5.0	57000	8	96
JULY									
13...	539	8.0	35.0	12.6	177	2.4	80000	3	8
SEP.									
22...	308	6.8	23.0	8.9	102	3.0	22000	86	40

TRINITY RIVER BASIN

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 12...	1535	64	13	19	.4	15	72	0	4.8	120
DEC. 01...	1135	.53	29	50	3.7	25	155	0	14	37
22...	1530	.76	15	54	4.4	30	155	0	15	54
JAN. 26...	1620	.61	20	48	3.2	25	140	0	13	42
MAR. 02...	1330	1.8	21	28	1.3	18	81	0	11	25
APR. 07...	1415	.04	33	83	7.1	42	242	0	14	80
MAY 11...	1600	21	13	25	.9	13	72	0	5.6	20
JUNE 08...	1335	.06	26	52	2.5	16	163	0	6.0	24
SEP. 21...	1205	.67	36	40	3.0	16	134	0	6.0	22

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 12...	.0	.2	100	49	0	.9	151	6.5
DEC. 01...	.0	.00	235	140	13	.9	434	7.2
22...	.0	.00	248	150	26	1.1	507	7.7
JAN. 26...	.0	.00	220	133	18	--	398	7.4
MAR. 02...	.0	.1	145	75	9	--	246	7.1
APR. 07...	.1	.00	378	240	38	1.2	651	7.5
MAY 11...	.0	.00	114	66	7	.7	206	6.6
JUNE 08...	.0	.1	207	140	6	.6	359	7.5
SEP. 21...	.2	.00	189	110	2	.7	316	7.3

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 24...	1400	305	2.6	53	4.4	33	162	0	42	32
MAR. 17...	1030	1120	.6	53	4.7	34	161	0	42	34
APR. 20...	1300	328	.5	54	4.6	35	166	0	44	34
MAY 26...	1230	1510	2.0	52	4.5	43	166	0	46	41
JUNE 16...	1210	1510	3.2	53	4.5	41	171	0	41	40
JULY 13...	1315	979	1.9	45	4.8	43	151	0	40	42
AUG. 17...	1240	528	1.3	48	4.6	48	159	0	43	48
SEP. 22...	1230	386	1.9	48	4.7	50	166	0	42	47

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
FEB. 24...	.2	.000	.00	.2	.040	--	150	17	--
MAR. 17...	.3	.000	.00	.1	.19	248	150	20	--
APR. 20...	.3	.040	.13	.1	.22	255	150	18	1.2
MAY 26...	.3	.000	.11	.1	.090	271	150	12	1.5
JUNE 16...	.4	.000	.16	.1	.30	268	150	11	1.5
JULY 13...	.4	.000	.18	.00	.14	251	130	8	1.6
AUG. 17...	.3	.000	.00	.00	.10	271	140	8	1.8
SEP. 22...	.4	.020	.00	.1	.15	276	140	3	1.8

DATE	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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)
FEB. 24...	453	7.7	12.5	10.4	97	1.5	92	0	0
MAR. 17...	458	7.5	14.0	10.7	103	>9.0	2500	0	0
APR. 20...	470	7.8	17.5	9.8	102	2.3	7000	2	4
MAY 26...	479	7.7	23.0	9.2	106	1.2	8000	1	0
JUNE 16...	474	7.5	25.0	8.2	98	7.0	3000	7	9
JULY 13...	466	7.7	29.0	10.4	133	2.2	6600	1	2
AUG. 17...	481	7.3	28.0	7.6	96	2.3	2100	0	1
SEP. 22...	491	7.6	25.5	8.0	96	3.9	200	0	0

TRINITY RIVER BASIN

08066200 LONG KING CREEK NEAR 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 1971.

Water temperatures: January 1963 to September 1971.

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 316 mg/l Apr. 1-30; minimum, 116 mg/l Oct. 12-31.

Hardness: Maximum, 200 mg/l Dec. 1-30, Apr 1-30; minimum, 78 mg/l Oct. 12-31.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.									
01-11	6.5	22	51	4.6	35	152	0	9.6	61
12-31	189	12	30	.8	8.6	81	0	8.0	15
NOV.									
01-30	7.9	13	51	3.1	21	144	0	15	36
DEC.									
01-31	2.8	25	73	4.4	33	201	0	17	63
JAN.									
01-31	2.8	24	67	6.6	2.7	186	0	14	61
FEB.									
01-28	5.5	22	70	3.8	35	186	0	18	67
MAR.									
01-31	3.8	18	68	4.2	28	184	0	12	60
APR.									
01-30	4.1	17	71	5.6	37	190	0	15	77
MAY									
01-17	14	19	60	2.5	35	156	0	12	67
18-31	12	16	46	3.7	20	130	0	10	40
JUNE									
01-27	.72	19	48	2.0	22	139	0	8.0	3.8
28-30	.00	--	--	--	--	--	--	--	--
JULY									
01-31	.00	--	--	--	--	--	--	--	--
AUG.									
01-31	.00	--	--	--	--	--	--	--	--
SEP.									
01-30	4.6	18	32	1.7	12	92	0	7.2	20
WTD. AVG.	--	14	38	1.6	13	102	0	9.4	25
TIME WTD.									
AVG.	14	19	57	3.7	24	157	0	13	48
TOT. LOAD (TONS)	--	194	530	22	189	1440	0	132	358

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	479	297	---	527	559	475	577	598	217	---	---	---
2	484	331	500	517	565	470	579	601	---	---	---	141
3	492	358	505	551	565	480	582	601	256	---	---	163
4	493	373	524	527	562	483	582	601	---	---	---	173
5	489	390	539	517	552	488	589	603	282	---	---	194
6	489	407	539	519	545	488	589	592	---	---	---	---
7	472	417	539	495	513	490	589	605	311	---	---	---
8	472	430	548	489	536	500	587	589	323	---	---	---
9	483	211	547	503	557	507	594	576	331	---	---	---
10	484	192	546	504	552	511	594	576	344	---	---	---
11	---	215	556	494	543	507	592	310	350	---	---	273
12	223	246	556	488	539	526	603	294	357	---	---	---
13	123	277	---	486	538	527	607	290	362	---	---	264
14	171	298	569	496	---	518	608	318	368	---	---	266
15	207	---	567	503	---	526	607	351	372	---	---	---
16	238	311	559	510	---	531	605	---	383	---	---	271
17	265	317	556	---	---	541	571	375	387	---	---	281
18	---	332	559	516	---	541	---	383	390	---	---	---
19	315	354	559	516	---	541	538	388	390	---	---	---
20	151	377	568	533	535	547	526	393	388	---	---	312
21	164	388	563	527	532	559	539	404	393	---	---	198
22	---	409	556	526	536	570	566	420	401	---	---	187
23	151	422	565	521	541	---	581	---	404	---	---	209
24	89	440	557	528	548	556	574	429	411	---	---	226
25	141	454	554	---	551	552	---	440	418	---	---	238
26	209	461	554	531	515	555	574	442	421	---	---	---
27	253	468	---	533	---	562	587	440	426	---	---	270
28	284	478	559	536	476	569	589	447	---	---	---	285
29	194	---	567	540	---	572	594	141	---	---	---	294
30	233	479	560	540	---	572	599	219	---	---	---	307
31	285	---	545	548	---	580	---	193	---	---	---	---
MONTH	305	362	551	518	---	528	583	435	362	---	---	---

08066200 LONG KING CREEK NEAR LIVINGSTON, TEX.--Continued

EXTREMES, January 1963 to September 1971.--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 1970 TO SEPTEMBER 1971

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.								
01-11	.1	.3	260	150	21	1.3	482	7.7
12-31	.0	.3	116	78	12	.4	208	7.0
NOV.								
01-30	.1	.1	211	140	22	.8	368	7.8
DEC.								
01-31	.1	.00	314	200	36	1.0	546	7.9
JAN.								
01-31	.1	.00	291	190	42	.1	512	7.9
FEB.								
01-28	.0	.00	307	190	38	1.1	536	7.4
MAR.								
01-31	.0	.00	280	190	36	.9	526	8.0
APR.								
01-30	.1	.1	316	200	44	1.1	582	8.0
MAY								
01-17	.1	.2	274	160	32	1.2	493	7.7
18-31	--	.2	201	130	23	.8	368	7.4
JUNE								
01-27	.1	.2	205	130	14	--	370	7.7
28-30	--	--	--	--	--	--	--	--
JULY								
01-31	--	--	--	--	--	--	--	--
AUG.								
01-31	--	--	--	--	--	--	--	--
SEP.								
01-30	.1	.2	137	87	12	.6	238	7.3
WTD. AVG.	.0	.2	153	100	17	--	275	7.2
TIME WTD.								
AVG.	.1	.1	247	158	29	--	442	7.7
TOT. LOAD (TONS)	.3	3.5	2160	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.5	18.0	---	11.0	13.0	17.0	19.0	26.0	28.0	---	---	---
2	23.0	17.0	20.5	13.0	11.0	17.0	18.0	27.0	---	---	---	29.0
3	23.5	14.5	21.0	16.0	13.0	13.0	18.0	25.0	28.0	---	---	29.0
4	23.0	13.0	21.0	13.0	15.0	12.0	19.0	24.0	---	---	---	28.0
5	23.5	13.0	20.0	9.5	13.0	14.0	19.0	25.0	29.0	---	---	29.0
6	24.0	13.0	18.0	7.0	13.0	15.0	18.0	25.0	---	---	---	---
7	25.5	14.0	16.0	5.0	13.0	14.0	17.0	25.0	28.0	---	---	---
8	24.0	17.0	15.5	5.0	10.0	14.0	17.0	27.0	28.0	---	---	---
9	21.0	18.0	17.0	5.0	9.5	14.0	19.0	25.0	29.0	---	---	---
10	19.0	15.0	17.0	14.0	9.5	15.0	20.0	26.0	29.0	---	---	---
11	---	15.5	17.0	13.0	11.0	16.0	21.0	---	29.0	---	---	29.0
12	19.0	14.0	13.0	15.0	13.0	17.5	22.0	20.0	31.0	---	---	---
13	21.0	14.0	---	17.0	12.0	20.0	23.0	21.0	28.0	---	---	29.0
14	21.5	12.0	11.0	18.0	---	21.5	23.5	22.0	32.0	---	---	30.0
15	20.0	---	11.0	17.0	---	21.0	22.0	23.0	31.0	---	---	---
16	19.0	9.0	13.0	14.0	---	19.5	22.0	---	31.0	---	---	27.0
17	17.0	11.0	12.0	---	---	19.0	21.0	24.0	28.0	---	---	29.0
18	---	12.0	14.0	14.0	---	19.0	---	25.0	29.0	---	---	---
19	19.0	15.0	16.0	11.0	---	16.0	24.0	26.0	28.0	---	---	---
20	17.0	14.0	16.0	10.0	19.0	15.0	22.0	24.0	29.0	---	---	20.0
21	19.0	13.0	18.0	13.0	18.0	16.0	25.0	26.0	29.0	---	---	22.0
22	---	16.0	19.5	16.0	14.0	19.0	26.0	26.0	30.0	---	---	24.0
23	18.0	13.0	19.5	16.0	13.0	---	26.0	---	31.0	---	---	24.0
24	17.0	11.0	16.0	18.0	15.0	17.0	25.0	25.0	30.0	---	---	26.0
25	21.0	11.0	13.5	---	16.0	17.0	---	26.0	30.0	---	---	26.0
26	23.0	13.0	12.0	17.0	19.0	16.0	25.0	27.0	31.0	---	---	---
27	24.5	16.0	---	15.0	---	17.0	26.0	28.0	29.0	---	---	27.0
28	19.0	17.0	14.0	14.0	17.0	19.0	26.0	31.0	---	---	---	28.0
29	16.5	---	16.0	16.0	---	21.0	26.0	25.0	---	---	---	27.0
30	17.0	19.0	14.5	18.0	---	20.0	26.0	24.0	---	---	---	27.0
31	17.0	---	13.0	---	---	19.0	---	27.0	---	---	---	---
MONTH	20.5	14.0	16.0	13.0	---	17.0	22.0	25.0	29.5	---	---	---

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°C miles southeast of Goodrich.

DRAINAGE AREA.--16,844 sq mi.

PERIOD OF RECORD.--Chemical analyses: March 1966 to September 1971.

Specific conductance: October 1969 to September 1971.

Water temperatures: October 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	708	.4	56	3.5	32	172	0	34	32
NOV.									
01-30	449	.0	54	5.2	37	174	0	40	34
DEC.									
01-31	317	3.2	54	4.4	39	172	0	41	36
JAN.									
01-31	321	.2	52	4.9	38	167	0	41	35
FEB.									
01-28	472	.0	53	4.8	35	161	0	41	35
MAR.									
01-31	1010	1.0	54	3.2	38	162	0	42	33
APR.									
01-30	1260	1.1	54	5.2	35	164	0	42	36
MAY									
01-31	1290	2.2	54	3.5	35	162	0	43	33
JUNE									
01-30	1110	2.8	54	4.2	40	166	0	43	40
JULY									
01-31	1040	.0	48	4.2	43	155	0	43	39
AUG.									
01-31	484	7.3	48	4.4	42	158	0	40	40
SEP.									
01-30	455	2.4	48	6.1	46	171	0	40	43
WTD. AVG.	--	1.6	53	4.3	38	164	0	41	36
TIME WTD.									
AVG.	744	1.7	52	4.5	38	165	0	41	36
TOT. LOAD (TONS)	--	1180	38700	3140	27800	120000	0	30300	26500

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	472	476	454	458	464	470	471	479	486	485	495	491
2	476	480	456	463	473	463	474	483	485	485	498	491
3	474	475	457	464	474	470	473	484	486	488	496	488
4	477	478	457	450	477	465	480	482	487	493	494	490
5	472	484	458	463	464	480	481	482	489	492	493	490
6	476	486	458	465	461	469	482	481	488	492	493	488
7	491	486	464	459	465	484	481	485	488	473	493	490
8	489	484	464	467	464	476	482	486	489	472	493	490
9	491	447	465	455	461	471	374	487	489	474	492	491
10	421	448	457	457	475	486	478	485	488	473	489	492
11	413	449	459	454	468	486	478	462	488	473	513	491
12	417	449	459	457	466	479	478	461	489	475	513	492
13	418	478	460	457	466	470	480	462	492	481	513	495
14	467	478	456	453	475	470	479	463	491	481	501	493
15	475	475	456	456	463	466	482	475	489	483	499	495
16	472	480	459	456	478	472	476	475	492	479	500	487
17	474	470	460	465	465	478	479	475	494	479	499	487
18	471	467	458	466	475	476	479	486	492	479	500	487
19	471	477	463	464	465	470	483	484	492	480	499	487
20	448	474	463	459	477	475	482	482	490	479	500	490
21	469	478	460	467	476	480	486	482	487	480	501	491
22	476	473	460	466	468	478	483	484	490	483	501	499
23	473	471	457	456	467	477	480	485	490	483	502	500
24	473	483	462	460	475	475	482	484	488	482	519	501
25	475	464	467	456	449	475	480	485	488	483	502	499
26	400	464	467	462	445	474	483	488	488	485	502	500
27	398	462	461	461	445	474	483	488	488	486	504	501
28	399	466	461	460	443	474	487	487	486	487	504	501
29	475	470	459	462	---	473	483	486	488	482	504	501
30	482	476	459	456	---	472	487	486	486	483	504	505
31	487	---	454	461	---	471	---	486	---	485	504	---
MONTH	460	472	460	460	466	474	477	481	489	482	501	493

08066250 TRINITY RIVER NEAR GOODRICH, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 272 mg/l Sept. 1-30; minimum, 246 mg/l Oct. 1-31.
 Hardness: Maximum, 160 mg/l Nov. 1-30, Apr. 1-30; minimum, 140 mg/l July 1-31, Aug. 1-31, Sept. 1-30.
 Specific conductance: Maximum daily, 519 micromhos Aug. 24; minimum daily, 374 micromhos Apr. 9.
 Water temperatures: Maximum, 30.0°C on many days during July and August; minimum, 9.0°C Jan. 7, 8, 9.

EXTREMES, October 1969 to September 1971.--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, 108 mg/l Jan. 1-31, 1970.
 Specific conductance: Maximum daily, 712 micromhos Dec. 3, 1970; minimum daily, 288 micromhos Mar. 14, 1970.
 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 1970 TO SEPTEMBER 1971

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	.3	.6	246	150	13	1.1	462	7.6
NOV.								
01-30	.4	.8	260	160	13	2.7	470	7.5
DEC.								
01-31	.3	.7	266	150	12	1.4	461	8.0
JAN.								
01-31	.3	.8	257	150	13	1.4	461	7.9
FEB.								
01-28	.2	1.0	252	150	20	2.7	465	7.6
MAR.								
01-31	.2	1.8	259	150	15	1.4	474	8.1
APR.								
01-30	.3	.6	257	160	22	1.2	481	8.0
MAY								
01-31	.4	.3	252	150	16	1.2	482	7.7
JUNE								
01-30	.3	.3	268	150	16	1.4	487	8.0
JULY								
01-31	.5	.4	256	140	10	1.6	480	8.0
AUG.								
01-31	.4	.3	261	140	8	1.6	500	7.5
SEPT.								
01-30	.4	.4	272	140	5	1.7	493	8.0
WTD. AVG.	.3	.6	258	150	15	1.5	478	7.9
TIME WTD.								
AVG.	.3	.6	259	149	14	1.6	476	7.8
TOT. LOAD (TONS)	248	475	189000	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	19.0	18.0	14.0	14.0	18.0	16.0	20.0	25.0	28.0	30.0	28.0
2	25.0	19.0	18.0	15.0	14.0	16.0	16.0	20.0	25.0	28.0	30.0	28.0
3	25.0	19.0	18.0	16.0	10.0	12.0	16.0	20.0	25.0	29.0	30.0	28.0
4	25.0	19.0	18.0	14.0	14.0	14.0	17.0	20.0	25.0	29.0	29.0	28.0
5	25.0	19.0	18.0	10.0	12.0	16.0	16.0	19.0	24.0	30.0	29.0	28.0
6	25.0	19.0	18.0	12.0	12.0	16.0	16.0	20.0	24.0	30.0	29.0	28.0
7	25.0	19.0	18.0	9.0	12.0	15.0	17.0	20.0	24.0	30.0	29.0	27.0
8	25.0	19.0	18.0	9.0	10.0	15.0	17.0	20.0	25.0	30.0	30.0	27.0
9	24.0	19.0	18.0	9.0	10.0	15.0	---	21.0	25.0	30.0	30.0	27.0
10	24.0	19.0	18.0	14.0	10.0	16.0	18.0	21.0	26.0	30.0	30.0	27.0
11	24.0	19.0	18.0	14.0	10.0	17.0	18.0	20.0	26.0	30.0	30.0	27.0
12	24.0	19.0	18.0	16.0	14.0	18.0	19.0	19.0	26.0	30.0	29.0	27.0
13	24.0	19.0	18.0	16.0	14.0	18.0	20.0	19.0	26.0	30.0	29.0	27.0
14	24.0	19.0	18.0	16.0	15.0	18.0	20.0	20.0	26.0	30.0	29.0	27.0
15	24.0	18.0	17.0	15.0	15.0	18.0	20.0	20.0	26.0	30.0	29.0	27.0
16	24.0	18.0	17.0	14.0	16.0	18.0	20.0	20.0	26.0	30.0	29.0	27.0
17	24.0	18.0	18.0	14.0	16.0	19.0	19.0	20.0	26.0	30.0	29.0	27.0
18	20.0	18.0	16.0	15.0	17.0	17.0	20.0	20.0	26.0	30.0	29.0	26.0
19	20.0	18.0	16.0	14.0	17.0	16.0	20.0	22.0	26.0	30.0	29.0	26.0
20	20.0	18.0	16.0	14.0	16.0	16.0	18.0	22.0	27.0	30.0	29.0	26.0
21	20.0	18.0	18.0	15.0	16.0	18.0	19.0	22.0	27.0	30.0	29.0	26.0
22	22.0	18.0	19.0	15.0	14.0	19.0	21.0	22.0	27.0	30.0	29.0	26.0
23	22.0	18.0	19.0	15.0	15.0	17.0	21.0	22.0	27.0	30.0	29.0	26.0
24	22.0	18.0	19.0	16.0	15.0	16.0	21.0	22.0	27.0	30.0	29.0	26.0
25	22.0	18.0	15.0	17.0	16.0	15.0	21.0	23.0	27.0	30.0	28.0	26.0
26	22.0	18.0	14.0	16.0	18.0	15.0	21.0	22.0	27.0	30.0	28.0	26.0
27	22.0	17.0	14.0	15.0	18.0	16.0	21.0	23.0	27.0	30.0	28.0	26.0
28	20.0	17.0	17.0	15.0	18.0	17.0	21.0	24.0	28.0	30.0	28.0	26.0
29	20.0	---	17.0	16.0	---	17.0	21.0	24.0	28.0	30.0	28.0	26.0
30	20.0	18.0	17.0	16.0	---	18.0	20.0	25.0	28.0	30.0	28.0	26.0
31	20.0	---	14.0	17.0	---	16.0	---	25.0	---	30.0	28.0	---
MONTH	23.0	18.5	17.5	14.5	14.0	16.5	19.0	21.0	26.0	30.0	29.0	27.0

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 05...	1050	24	12	21	3.3	81	11	0	28	140
DEC. 04...	1135	11	14	6.5	1.7	11	19	0	1.0	22
JAN. 13...	1035	15	14	5.0	1.8	8.0	17	0	2.0	15
FEB. 12...	1310	12	9.2	6.0	1.2	9.7	17	0	1.6	18
MAR. 19...	1045	14	7.2	6.5	1.2	8.7	17	0	2.0	17
MAY 07...	1130	122	9.4	22	4.2	74	14	0	1.6	160
28...	1040	21	9.5	13	2.1	37	12	0	2.8	76
JULY 07...	1040	5.2	13	12	1.7	27	19	0	2.8	54
AUG. 12...	1355	7.6	11	9.2	2.0	25	15	0	3.2	50
SEP. 15...	1425	7.0	20	8.8	1.7	22	16	0	2.0	43

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
NOV. 05...	.0	.3	296	66	57	4.3	591	6.2
DEC. 04...	.0	.00	65	23	7	--	120	6.9
JAN. 13...	.0	.00	54	20	6	--	100	7.9
FEB. 12...	.0	.00	54	20	6	--	97	6.8
MAR. 19...	.0	.00	51	21	7	--	105	6.5
MAY 07...	.0	.1	275	72	61	3.8	556	6.4
28...	.0	.00	148	41	31	2.5	293	6.2
JULY 07...	.0	.00	120	37	21	1.9	228	6.5
AUG. 12...	.0	.00	107	31	19	1.9	195	6.6
SEP. 15...	.0	.00	106	29	16	1.8	192	6.4

TRINITY RIVER BASIN

325

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 15...	0935	6.4	16	6.0	.7	7.8	13	0	2.8	14
NOV. 24...	1410	4.8	16	4.0	1.2	8.4	17	0	3.6	11
DEC. 23...	1205	5.7	16	4.0	1.2	7.8	17	0	3.0	10
JAN. 27...	1525	5.1	16	4.0	.7	8.6	16	0	3.2	10
MAR. 03...	1200	7.0	15	5.0	1.1	8.4	16	0	4.4	12
APR. 08...	1725	3.3	14	4.5	1.4	9.9	18	0	3.6	14
MAY 12...	0930	32	7.6	6.8	.3	8.0	7	0	12	11
JUNE 08...	1735	3.7	17	5.8	1.3	9.5	20	0	2.8	14
JULY 14...	1635	1.9	14	4.5	1.4	9.4	18	0	4.4	12
AUG. 18...	1700	2.3	15	3.5	2.0	10	22	0	2.8	12
SEP. 21...	1540	5.1	22	4.0	1.0	5.4	12	0	3.2	9.0

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 15...	.0	.4	55	18	7	.8	84	6.6
NOV. 24...	.0	.00	52	15	1	--	83	6.5
DEC. 23...	.0	.2	51	15	1	--	79	6.8
JAN. 27...	.0	.00	52	13	0	--	79	7.1
MAR. 03...	.0	.2	55	17	4	--	88	7.1
APR. 08...	.0	.1	57	17	2	1.0	78	6.6
MAY 12...	.0	.5	51	18	12	.8	83	6.5
JUNE 08...	.0	.0	62	20	4	.9	98	6.6
JULY 14...	.0	.3	56	17	2	1.0	84	6.8
AUG. 18...	.0	.3	58	17	0	1.1	81	7.1
SEP. 21...	.0	.00	51	14	4	.6	68	6.5

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 1971.

Chemical and biochemical analyses: February 1968 to September 1971.

Pesticide analyses: February 1968 to September 1971.

Water temperatures: February 1950 to September 1951, April 1953 to January 1959, March 1961 to September 1971.

Sediment records: April 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.									
01-24	763	3.2	52	4.2	34	160	0	37	36
25-27	945	8.7	28	.3	12	74	0	12	17
28-30	480	3.2	52	4.2	34	160	0	37	36
NOV.									
01-30	449	.0	54	4.7	38	166	0	36	43
DEC.									
01-31	351	4.5	52	4.4	38	166	0	35	40
JAN.									
01-31	347	4.1	47	5.0	37	150	0	34	41
FEB.									
01-28	450	1.1	51	5.5	33	156	0	36	38
MAR.									
01-31	914	1.5	48	4.4	33	146	0	38	36
APR.									
01-30	1180	1.4	49	3.3	37	148	0	41	36
MAY									
01-31	1300	2.4	47	3.3	37	141	0	38	40
JUNE									
01-30	1130	2.5	36	4.9	41	112	0	41	42
JULY									
01-31	936	.0	30	4.7	41	100	0	40	40
AUG.									
01-31	478	2.7	48	4.2	43	153	0	38	45
SEP.									
01-30	469	4.7	48	4.4	47	165	0	36	47
WTD. AVG.	--	2.2	45	4.2	38	140	0	38	40
TIME WTD.									
AVG.	734	2.4	47	4.4	38	146	0	37	40
TOT. LOAD (TONS)	--	1550	32400	3020	27200	101000	0	27300	28400

08066500 TRINITY RIVER AT ROMAYOR, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 269 mg/l Sept. 1-30; minimum, 115 mg/l Oct. 25-27.
 Hardness: Maximum, 150 mg/l Oct. 1-24, 28-30, Nov. 1-30, Dec. 1-31, Feb. 1-28; minimum, 71 mg/l Oct. 25-27.
 Specific conductance: Maximum daily, 552 micromhos Sept. 11; minimum daily, 139 micromhos Oct. 25.
 Water temperatures: Maximum, 29.0°C on several days during August and September; minimum, 5.0°C Jan. 9.
 Sediment concentration: Maximum daily, 672 mg/l Oct. 25; minimum daily, 13 mg/l Sept. 17.
 Sediment loads: Maximum daily, 2,770 tons Oct. 25; minimum daily, 13 tons Jan. 13, Sept. 17.

EXTREMES, October 1945 to September 1950, October 1953 to September 1971.--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, 1961-71): Maximum, 37.0°C July 18, 27, 1953; minimum, 3.0°C Jan. 18, 1956, Jan. 15, 16, 1968.
 Sediment concentration: Maximum daily, 3,310 mg/l June 23, 1968; minimum daily, 5 mg/l Oct. 6, 1969.
 Sediment loads: 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 1970 TO SEPTEMBER 1971

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.								
01-24	.3	.1	246	150	16	1.2	447	7.7
25-27	.1	.2	115	71	10	.6	212	6.9
28-30	.3	.1	246	150	16	1.2	447	7.7
NOV.								
01-30	.3	.4	260	150	18	1.3	481	7.7
DEC.								
01-31	.2	.4	258	150	12	1.4	454	8.0
JAN.								
01-31	.2	.2	243	140	15	.9	444	7.9
FEB.								
01-28	.2	.3	243	150	22	1.2	451	7.6
MAR.								
01-31	.0	.2	234	140	18	1.2	446	8.2
APR.								
01-30	.3	.2	242	140	15	1.4	447	7.9
MAY								
01-31	.3	.00	237	130	15	1.4	438	7.3
JUNE								
01-30	.3	1.0	227	110	18	1.7	421	7.6
JULY								
01-31	.4	.7	208	94	12	1.8	405	7.5
AUG.								
01-31	.3	.3	258	140	12	1.6	490	7.6
SEPT.								
01-30	.4	.2	269	140	3	1.7	496	7.9
WTD. AVG.	.3	.3	238	131	15	1.4	442	7.7
TIME WTD.								
AVG.	.3	.3	243	135	15	1.4	450	7.7
TOT. LOAD (TONS)	193	250	171000	--	--	--	--	--

TRINITY RIVER BASIN

08066500 TRINITY RIVER AT ROMAYOR, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 21...	1445	660	3.5	51	5.5	39	173	0	34	41	.3	.36
DEC. 16...	1450	351	4.6	52	4.4	36	166	0	35	37	.2	.32
FEB. 22...	1700	342	.0	54	5.2	31	168	0	36	34	.2	.23
APR. 06...	1545	1390	.0	53	1.2	41	161	0	42	35	.2	.35
JUNE 15...	1445	1360	2.7	52	4.9	41	170	0	42	40	.0	.69
AUG. 17...	1430	525	2.3	51	2.9	44	162	0	36	46	.3	.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 CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	LOSS ON IGNI- TION (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...	.000	.06	.00	.20	260	24	1	150	8	1.4	462	7.6
DEC. 16...	.010	.09	.2	.050	252	24	16	150	12	1.3	458	7.1
FEB. 22...	.010	.05	.2	.10	244	15	3	160	18	--	456	7.7
APR. 06...	.010	.00	.2	.12	252	43	26	140	71	1.5	463	7.3
JUNE 15...	.000	.08	.00	.16	267	50	6	150	11	1.5	490	7.8
AUG. 17...	.000	.24	.00	.13	263	40	26	140	6	1.6	484	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)
OCT. 21...	21.0	0	15	8.4	93	18	3.1	0	.01	0	0	0
DEC. 16...	12.5	15	10	10.9	102	14	2.1	0	.00	--	--	--
FEB. 22...	15.0	0	15	11.0	108	18	2.0	0	.00	0	0	0
APR. 06...	17.0	25	20	10.4	110	16	1.7	0	.00	--	--	--
JUNE 15...	31.0	50	30	9.2	123	31	.6	0	.00	20	0	0
AUG. 17...	32.0	15	75	8.0	108	23	3.5	0	.00	20	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. 21...	0	0	0	2	11	0	0	7	<.5	8	380	0
DEC. 16...	--	--	--	--	--	--	--	--	--	--	--	--
FEB. 22...	0	--	0	0	26	0	10	30	<.5	0	340	2
APR. 06...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE 15...	0	--	0	10	40	0	10	1	<.5	0	320	40
AUG. 17...	0	--	0	6	10	0	10	120	<.5	2	310	0

TRINITY RIVER BASIN

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08066500 TRINITY RIVER AT ROMAYOR, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1445	660	--	<.2	--	<.2	--	<.2	--	<.2
FEB. 22...	1700	342	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JUNE 15...	1445	1360	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 17...	1430	525	.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)
OCT. 21...	--	.3	--	<.2	--	<.2	--	<.2	--
FEB. 22...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JUNE 15...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
AUG. 17...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
OCT. 21...	<.2	--	<1.0	--	--	<.2	--	<.2	--
FEB. 22...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JUNE 15...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
AUG. 17...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOT- TOM DE- POSITS (UG/KG)
OCT. 21...	<.2	.0	<10	--	<5.3	--	<.6	--	<.6
FEB. 22...	<.2	.0	<10	.00	<1.8	.00	<.2	.00	<.2
JUNE 15...	<.2	.0	<10	.00	<1.2	.01	<.3	.00	<.3
AUG. 17...	<.2	.0	<10	--	<1.4	--	<.4	--	<.4

DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	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	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
OCT., 1970											
25...	0650	1680	18.0	831	77	87	92	96	99	100	3770

TRINITY RIVER BASIN

08066500 TRINITY RIVER AT ROMAYOR, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	457	446	402	437	409	405	330	486	499
2	466	460	467	464	450	418	440	---	326	324	489	501
3	473	472	471	---	441	432	431	459	310	323	465	496
4	---	484	471	449	450	439	---	465	---	---	478	484
5	477	488	467	---	450	425	432	470	327	339	477	---
6	467	486	---	460	452	431	454	472	---	342	506	498
7	462	493	470	---	---	441	443	422	335	360	---	499
8	472	494	464	---	449	433	469	466	339	350	---	499
9	469	490	459	443	456	449	445	---	339	362	492	502
10	483	491	462	447	455	437	437	483	400	334	477	496
11	---	483	460	442	---	439	---	436	419	---	481	552
12	396	---	460	437	453	455	432	339	461	332	489	---
13	442	456	---	452	459	448	445	298	429	350	488	527
14	---	475	451	447	---	---	441	309	398	419	501	499
15	---	---	451	445	459	444	424	344	---	333	---	501
16	451	473	456	439	453	441	442	412	419	---	496	502
17	462	480	457	---	454	447	441	472	488	437	496	511
18	---	478	455	443	461	448	427	483	458	---	496	518
19	471	480	452	438	459	452	431	483	442	462	493	495
20	472	479	---	445	452	444	459	483	---	---	493	498
21	470	478	455	447	---	---	470	468	467	461	---	491
22	455	481	455	436	458	469	461	482	427	463	498	421
23	---	482	456	443	462	452	481	---	467	483	---	469
24	---	483	458	---	463	459	462	470	492	485	498	---
25	139	479	---	440	457	459	---	483	487	---	496	501
26	200	484	---	449	433	446	465	489	452	482	---	---
27	294	483	450	446	414	---	458	490	---	482	496	502
28	329	481	453	---	---	468	453	478	476	486	---	510
29	388	477	451	449	---	472	482	480	479	479	479	506
30	438	479	---	456	---	472	483	477	485	---	507	509
31	---	---	428	459	---	474	---	478	---	487	509	---
MONTH	---	480	---	---	452	446	450	446	421	---	---	499

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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

08066500 TRINITY RIVER AT ROMAYOR, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	678	15	27	420	30	34	357	102	98
2	676	15	27	405	40	44	360	140	136
3	674	17	31	405	42	46	360	71	69
4	670	20	36	387	40	42	357	40	39
5	673	22	40	381	24	25	348	47	44
6	708	26	50	378	22	22	348	52	49
7	713	28	54	378	28	29	348	57	54
8	721	28	55	375	28	28	348	59	55
9	714	31	60	387	28	29	348	75	70
10	652	32	56	450	28	34	348	31	29
11	782	58	122	435	28	33	345	35	33
12	1060	90	258	390	28	29	342	45	42
13	1090	62	182	853	400	921	345	50	47
14	962	91	236	1270	460	1580	348	54	51
15	820	61	135	761	200	411	348	69	65
16	780	44	93	435	50	59	351	65	62
17	760	66	135	420	30	34	345	23	21
18	740	55	110	410	30	33	348	16	15
19	760	45	92	400	30	32	351	28	27
20	740	32	64	400	30	32	354	42	40
21	660	36	64	390	30	32	351	57	54
22	510	32	44	390	28	29	351	28	27
23	495	68	91	380	47	48	354	30	29
24	1270	583	2210	380	40	41	345	33	31
25	1450	672	2770	370	25	25	342	33	30
26	805	170	369	369	23	23	339	33	30
27	580	84	132	372	42	42	345	35	33
28	525	67	95	369	170	169	345	37	34
29	495	63	84	363	198	194	360	33	32
30	465	38	48	360	97	94	381	35	36
31	435	34	40	--	--	--	381	37	38
TOTAL	23063	--	7810	13483	--	4194	10893	--	1420
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	372	50	50	325	16	14	390	50	53
2	375	41	42	325	25	22	381	43	44
3	369	42	42	333	25	22	363	37	36
4	369	43	43	339	39	36	351	35	33
5	354	35	33	339	53	49	351	46	44
6	351	28	27	336	35	32	348	50	47
7	348	25	23	339	32	29	339	43	39
8	354	23	22	333	30	27	339	48	44
9	354	21	20	330	26	23	342	41	38
10	360	30	29	339	36	33	348	50	47
11	357	35	34	336	50	45	420	51	58
12	354	38	36	330	60	53	495	57	76
13	354	14	13	325	60	53	740	200	400
14	354	46	44	930	300	753	1270	300	1030
15	348	55	52	1720	270	1250	1300	130	456
16	342	47	43	1090	56	165	1150	80	248
17	342	48	44	450	56	68	1030	54	150
18	339	48	44	369	48	48	1030	64	178
19	333	43	39	360	40	39	1030	58	161
20	333	31	28	357	46	44	1030	64	178
21	336	41	37	351	98	93	1030	58	161
22	342	50	46	342	135	125	1060	51	146
23	339	23	21	342	41	38	1360	82	301
24	336	28	25	339	33	30	1940	77	403
25	336	32	29	345	31	29	1980	98	524
26	333	31	28	435	51	60	1120	58	175
27	333	27	24	435	53	62	1210	66	216
28	333	28	25	405	52	57	1420	61	234
29	333	30	27	--	--	--	1390	60	225
30	333	29	26	--	--	--	1390	56	210
31	330	22	20	--	--	--	1390	77	289
TOTAL	10746	--	1016	12599	--	3299	28337	--	6244

TRINITY RIVER BASIN

08066500 TRINITY RIVER AT ROMAYOR, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	1420	73	280	1330	49	176	1480	46	184
2	1390	79	296	1330	46	165	1460	33	130
3	1390	82	308	1330	42	151	1300	57	200
4	1390	79	296	1320	60	214	1160	52	163
5	1390	76	285	1340	61	221	1140	46	142
6	1390	71	266	1370	62	229	1120	38	115
7	1390	57	214	1370	45	166	1090	30	88
8	1510	54	220	1360	82	301	1090	46	135
9	1550	70	293	1380	67	250	1100	35	104
10	1550	74	310	1380	52	194	1090	33	97
11	1550	68	285	1560	135	569	1090	33	97
12	1550	43	180	1430	242	934	1100	33	98
13	1550	55	230	931	79	199	1090	32	94
14	1550	46	193	727	57	112	1090	30	88
15	1480	49	196	587	47	74	1360	34	125
16	1450	35	137	522	39	55	1420	37	142
17	1510	46	188	514	28	39	1420	37	142
18	855	35	81	997	31	83	1420	54	207
19	495	27	36	1400	54	204	1420	38	146
20	450	31	38	1630	70	308	1090	32	94
21	420	29	33	1520	65	267	955	26	67
22	405	41	45	1490	59	237	930	48	121
23	405	42	46	1480	56	224	930	65	163
24	390	50	53	1500	53	215	930	24	60
25	704	150	285	1500	51	207	930	22	55
26	930	200	502	1480	51	204	905	41	100
27	1230	82	272	1490	49	197	905	40	98
28	1320	71	253	1530	53	219	905	39	95
29	1330	63	226	1520	50	205	930	29	73
30	1330	50	180	1530	40	165	905	28	68
31	--	--	--	1530	64	264	--	--	--
TOTAL	35274	--	6227	40378	--	7048	33755	--	3491
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	905	57	139	600	90	146	540	23	34
2	905	29	71	620	35	59	560	23	35
3	905	34	83	680	88	162	580	26	41
4	905	36	88	525	53	75	560	26	39
5	905	38	93	420	95	108	540	22	32
6	905	14	34	318	66	57	525	19	27
7	905	30	73	318	38	33	525	16	23
8	880	29	69	390	40	42	525	19	27
9	855	29	67	405	43	47	525	18	26
10	830	26	58	390	35	37	525	20	28
11	830	26	58	363	29	28	450	45	55
12	855	27	62	308	26	22	405	33	36
13	880	22	52	327	36	32	381	21	22
14	855	25	58	366	30	30	363	21	21

TRINITY RIVER BASIN

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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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 05...	1445	.77	7.6	8.5	2.9	2.8	30	0	5.4	5.4
DEC. 08...	1415	.01	9.0	14	3.7	5.1	55	0	4.6	6.6
JAN. 13...	1330	.04	5.9	15	4.5	5.9	62	0	4.8	8.9
FEB. 17...	1430	.02	.0	16	3.7	9.3	62	0	6.0	13
MAR. 19...	1210	.70	.0	12	2.7	9.4	37	0	16	10
APR. 26...	1505	.04	1.9	12	3.7	12	26	0	22	16
MAY 28...	1410	150	2.4	6.0	1.2	5.5	8	0	10	8.0
AUG. 12...	1525	.22	2.3	7.5	2.7	7.2	29	0	6.4	10
Sep. 16...	1000	.01	5.5	7.0	3.8	2.3	32	0	3.8	5.0

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
NOV. 05...	.0	.4	49	33	8	.2	99	6.9
DEC. 08...	.0	.6	73	50	5	--	137	7.1
JAN. 13...	.0	.1	75	56	5	--	155	7.2
FEB. 17...	.0	.00	78	55	4	--	166	7.1
MAR. 19...	.0	.1	68	41	11	--	139	6.4
APR. 26...	.0	1.4	87	45	24	.8	178	6.1
MAY 28...	.0	1.0	42	20	13	.5	91	6.0
AUG. 12...	.0	.3	51	30	6	.6	92	6.5
Sep. 16	.1	.00	44	33	7	.2	91	6.2

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 1971.
Pesticide analyses: May to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-	DIS-	DIS-	DIS-	BICAR-	CAR-	DIS-	DIS-	DIS-	ORGANIC	TOTAL
		SOLVED SILICA (SI02) (MG/L)	SOLVED CAL- CIUM (CA) (MG/L)	SOLVED MAG- NE- SIUM (MG) (MG/L)	SOLVED SODIUM PLUS POTAS- SIUM (MG/L)			SOLVED SULFATE (SO4) (MG/L)	SOLVED CHLO- RIDE (CL) (MG/L)	SOLVED FLUO- RIDE (F) (MG/L)		
MAY												
04...	1540	1.5	53	5.8	47	168	0	42	54	.4	.30	.000
19...	0715	6.3	38	4.2	25	116	0	21	35	.2	.32	.010
JUNE												
10...	1315	1.8	57	2.4	43	176	0	42	40	.3	.21	.000
23...	1545	3.4	54	6.7	40	178	0	38	44	.3	.34	.010
JULY												
14...	0750	2.2	47	6.0	42	160	0	38	43	.4	.29	.000
27...	1245	2.0	47	8.4	40	156	0	48	43	.4	.29	.000
AUG.												
04...	1210	2.2	48	7.4	40	164	0	38	44	.3	.12	.000
25...	1315	3.6	52	4.9	44	170	0	38	46	.3	.37	.000

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)	HAPD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
MAY												
04...	.12	.00	.060	287	3	160	18	1.6	502	8.2	28.0	20
19...	.07	.00	.030	187	--	110	17	1.0	392	7.2	25.0	40
JUNE												
10...	.05	.00	.14	274	--	150	8	1.5	501	7.8	29.5	10
23...	.08	.00	.20	275	34	160	16	1.4	506	8.4	30.0	30
JULY												
14...	.03	.00	.070	258	--	140	11	1.5	478	8.0	30.0	25
22...	.17	.00	.11	266	--	150	24	--	471	7.9	30.0	30
AUG.												
04...	.04	.00	.080	261	62	150	16	--	474	6.8	26.5	30
25...	.00	.3	.11	274	20	150	11	1.6	502	8.2	31.5	35

DATE	TUR- BIO- 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)	OIL AND GREASE (MG/L)
MAY											
04...	20	8.6	109	4	2.2	13000	1	5000	5	.00	0
19...	55	7.1	85	35	3.1	27000	59	51	0	.00	--
JUNE											
10...	25	7.5	97	20	3.1	18000	700	57	1	.01	--
23...	30	9.5	125	27	4.3	6700	5	17	0	.01	0
JULY											
14...	25	6.2	82	19	2.0	20000	11	42	4	.00	--
22...	40	7.0	92	19	2.5	27000	210	88	4	.04	10
AUG.											
04...	30	6.9	84	24	1.4	50000	2500	640	13	.00	10
25...	15	8.0	108	17	2.3	12000	150	430	0	.02	--

[illegible]

TRINITY RIVER BASIN

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08067000 TRINITY RIVER AT LIBERTY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	ALDRIN (UG/L)	DDD (UG/L)	DEE (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										
04...	1540	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUNE										
23...	1545	.00	.00	.00	.00	.00	.00	.00	.00	.00
JULY										
22...	1245	.00	.00	.00	.00	.00	.00	.00	.00	.00
AUG.										
04...	1210	.00	.00	.00	.00	.00	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAY									
04...	.0	.00	.00	.00	.00	.0	.00	.00	.00
JUNE									
23...	.0	.00	.00	.00	.00	.0	.00	.00	.00
JULY									
22...	.0	.00	.00	.00	.00	.0	.00	.02	.00
AUG.									
04...	.0	.00	.00	.00	.00	.0	.02	.01	.00

TRINITY RIVER BASIN

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 to September 1971.
Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAY												
04...	1430	.69	2.4	49	12	120	114	0	33	220	.3	.36
18...	0830	1.7	3.8	38	11	28	120	0	27	52	.5	.38
25...	1240	5.0	7.3	47	6.4	82	154	0	24	120	.7	.17
JUNE												
08...	1030	3.6	2.9	50	8.5	62	190	0	31	76	.3	.23
21...	1140	9.8	12	51	6.1	77	176	0	38	96	.3	.48
JULY												
12...	1300	5.6	10	47	5.5	74	176	0	20	96	.6	.41
23...	0945	7.3	16	60	12	67	231	0	11	100	.6	.36
AUG.												
11...	1310	2.6	14	41	7.7	74	136	0	15	120	.2	.34
25...	1050	1.0	7.6	50	7.5	93	82	0	110	120	.2	.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 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
04...	.000	.27	.00	.000	489	63	170	78	4.0	949	7.6	30.0
18...	.090	.24	.2	.070	221	--	140	42	1.0	417	6.9	21.0
25...	.16	.28	.4	.010	364	--	140	18	3.0	703	7.1	27.5
JUNE												
08...	.010	.33	.00	.050	324	--	160	4	2.1	617	7.2	26.0
21...	.010	.13	.1	.13	368	178	150	1	2.7	672	7.2	26.5
JULY												
12...	.020	.11	.00	.030	340	--	140	0	2.7	643	7.8	28.0
23...	.010	.17	.00	.060	382	--	200	8	2.1	725	7.1	27.5
AUG.												
11...	.020	.11	.1	.060	340	92	130	22	2.8	633	7.3	27.5
25...	.000	.09	.1	.020	434	56	160	89	3.2	756	6.5	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)
MAY												
04...	60	35	7.6	100	15	2.4	7300	1	84	5	.00	0
18...	50	45	6.5	72	40	4.3	35000	120	210	0	.00	--
25...	40	45	7.7	96	35	.3	75000	720	610	0	.00	--
JUNE												
08...	60	45	6.2	76	32	2.5	16000	220	430	4	.01	--
21...	50	80	7.4	90	34	2.8	280000	70000	580	2	.00	--
JULY												
12...	65	60	7.5	95	30	1.7	9000	400	430	2	.00	--
23...	50	60	6.4	80	0	1.8	95000	380	1800	4	.00	--
AUG.												
11...	120	50	7.5	94	39	1.8	8300	6	410	7	.01	60
25...	25	25	5.8	72	27	.7	8200	40	35	1	.02	--

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											
04...	0	0	0	0	4	33	0	50	<.5	10	10
18...	--	--	--	--	--	--	--	--	--	--	--
25...	0	0	0	0	7	110	0	50	<.5	0	40
JUNE											
08...	--	--	--	--	--	--	--	--	--	--	--
21...	0	0	0	0	3	50	0	0	<.5	0	10
JULY											
12...	--	--	--	--	--	--	--	--	--	--	--
23...	0	0	0	0	9	110	0	1	.6	4	10
AUG.											
11...	0	0	0	1	9	790	0	80	<.5	4	120
25...	0	0	0	0	9	110	0	1	.6	4	10

TRINITY RIVER BASIN

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08067120 TURTLE BAYOU NEAR HANKAMER, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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										
04...	1430	.69	.00	.00	.00	.00	.03	.00	.00	.00
25...	1240	5.0	.00	.00	.00	.00	.02	.00	.00	.00
JUNE										
21...	1140	9.8	.00	.00	.00	.00	.03	.00	.00	.00
JULY										
23...	0945	7.3	.00	.00	.00	.00	.01	.00	.00	.00
AUG.										
11...	1310	2.6	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAY										
04...	.00	.0	.00	.00	.00	.00	.0	--	--	--
25...	.00	.0	.00	.00	.00	.00	.0	.00	.02	.00
JUNE										
21...	.00	.0	.00	.00	.00	.00	.0	.00	.13	.00
JULY										
23...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
AUG.										
11...	.00	.0	.00	.00	.00	.00	.0	.00	.01	.00

TRINITY RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08043000 BRIDGEPORT RESERVOIR ABOVE BRIDGEPORT, TEX. (Lat 33°13'22", long 97°49'54")

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/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)
APR. 20...	1410	7.0	40	10	43	6.5	24	150	0	18

DATE	TIME	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED 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)	TEMPERATURE (DEG C)
APR. 20...	31		.2	.20	205	130	11	.9	365	7.9	18.0

08043700 LAKE AMON G. CARTER NEAR BOWIE, TEX. (Lat 33°28'08", long 97°51'56")

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/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)
APR. 20...	1530	3.5	160	30	29	8.9	31	109	0	19

DATE	TIME	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED 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)	TEMPERATURE (DEG C)
APR. 20...	46		.3	.20	193	110	20	1.3	357	7.8	17.0

08045400 LAKE WORTH ABOVE FORT WORTH, TEX. (Lat 32°47'29", long 97°24'54")

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/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)
APR. 19...	1210	5.6	210	10	49	9.2	31	179	0	25

DATE	TIME	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED 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)	TEMPERATURE (DEG C)
APR. 19...	38		.3	.20	247	160	13	1.1	436	8.0	18.0

MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08046500 BENBROOK LAKE NEAR BENBROOK, TEX. (Lat 32°39'02", long 97°26'54")

		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 (HC03) (MG/L)	CAR- RONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	
APR. 19...	1120	2.2	100	10	47	7.5	24	162	0	29	
		DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- RONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
APR. 19...	25		.3	.30	216	150	15	.9	383	8.0	17.5

08049200 LAKE ARLINGTON AT ARLINGTON, TEX. (Lat 32°43'04", long 97°11'36")

DATE	TIME	DIS-	TOTAL	TOTAL	DIS-	DIS-	DIS-	BICAR-	CAR-	DIS-	
		SOLVED SILICA (SiO2) (MG/L)	IRON (FE) (UG/L)	MAN- GANESE (MN) (UG/L)	SOLVED CAL- CIUM (CA) (MG/L)	SOLVED MAG- NE- SIUM (MG) (MG/L)	SOLVED SODIUM PLUS POTAS- SIUM (MG/L)			SOLFATF (SO4) (MG/L)	
APR. 19...	1300	.2	170	40	36	6.9	57	164	0	48	
DATE		DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAL- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
APR. 19...	38		.4	.70	271	120	0	2.3	469	7.8	20.5

08051000 ISLE DU BOIS CREEK NEAR PILOT POINT, TEX. (lat 33°24'23", long 97°00'45")

DATE	TIME	DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
JAN., 1970			
14...	1825	3.7	84
FEB.			
20...	1040	9.9	31
MAR.			
27...	1315	23	31
APR.			
19...	1545	1740	1320
19...	1655	1680	1310
25...	2300	7730	409
MAY			
03...	1710	97	250
JUNE			
03...	1605	58	315
SEP.			
17...	1925	2990	694
NOV.			
04...	1530	2.2	60
JAN., 1971			
14...	1645	16	52
FEB.			
25...	1515	12	372
APR.			
06...	1545	.94	96
AUG.			
25...	1110	.32	88

TRINITY RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08052800 LEWISVILLE LAKE NEAR LEWISVILLE, TEX. (Lat 33°04'09", long 96°57'51")

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)
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APR. 29...	1655	5.1	40	20	47	5.0	25	144	0	33
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DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED 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)	TEMPERATURE (DEG C)
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APR. 29...	27	.3	.50	216	140	20	.9	374	8.0	19.0
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08053500 DENTON CREEK NEAR JUSTIN, TEX. (lat 33°07'08", long 97°17'25")

DATE	TIME	DIS-CHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT CHARGE (T/DAY)
DEC., 1969				
18...	1655	7.4	59	1.2
FEB., 1970				
16...	1635	81	125	27
SEP.				
23...	1230	1120	4930	14900
24...	0925	420	3850	4370
OCT.				
08...	1000	26	55	3.9
FEB., 1971				
25...	1110	15	220	8.9
APR.				
05...	1055	6.3	86	1.5

08054500 GRAPEVINE LAKE NEAR GRAPEVINE, TEX. (Lat 32°58'21", long 97°03'22")

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)
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APR. 19...	1555	4.6	140	20	48	4.9	20	154	0	29
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DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED 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)	TEMPERATURE (DEG C)
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APR. 19...	18	.3	.40	203	140	14	.7	353	7.8	17.0
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TRINITY RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08055000 DENTON CREEK NEAR GRAPEVINE, TEX. (Lat 32°59'13", long 97°00'45")

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)	
MAR. 04...	1045	790	7.8	48	4.2	16	157	0	28	
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 CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
MAR. 04...	7.8	.2	.60	192	140	8	.6	343	8.1	

08055500 ELM FORK TRINITY RIVER NEAR CARROLLTON, TEX. (Lat 32°57'57", long 96°56'39")

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)	
MAR. 04...	1240	960	18	48	4.2	20	150	0	28	
DATE	TIME (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 CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
MAR. 04...	19	.3	.40	213	140	14	.7	346	8.2	

08060500 LAVON LAKE NEAR LAVON, TEX. (Lat 33°01'54", long 96°28'56")

DATE	TIME	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 (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	
APR. 29...	1520	3.6	350	20	56	2.3	20	172	0	
DATE	TIME	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	TEMP- ERATURE (DEG C)
APR. 29...	35	8.7	.4	212	150	8	.7	355	20.0	

TRINITY RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08061550 LAKE RAY HUBBARD NEAR FORNEY, TEX. (Lat 32°48'00", long 96°29'45")

DATE	TIME	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 (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
APR. 29...	1415	1.7	40	20	53	3.6	16	172	0	27

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
APR. 29...	7.6	.3	.40	196	150	6	.6	339	7.9	19.5

08063010 CEDAR CREEK RESERVOIR NEAR TRINIDAD, TEX. (Lat 32°14'34", long 96°08'28")

DATE	TIME	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)
APR. 23...	1120	.9	240	10	21	4.0	16	76	0	19

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
APR. 23...	14	.2	.30	113	69	7	.8	210	7.5	19.0

08063050 NAVARRO MILLS LAKE NEAR DAWSON, TEX. (Lat 31°57'27", long 96°41'21")

DATE	TIME	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)
APR. 29...	1200	1.4	120	20	54	4.2	27	162	0	51

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
APR. 29...	16	.5	.50	236	150	19	1.0	403	8.0	20.0

TRINITY RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE TRINITY RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08063700 BARDWELL LAKE NEAR ENNIS, TEX. (Lat 32°15'00", long 96°38'49")

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)
APR. 30...	1305	.9	140	0	46	4.7	18	150	0	28

DATE	TIME	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED 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)	TEMPERATURE (DEG C)
APR. 30...	12	.4	.60	187	130	11	.7	331	7.8	20.0	

08065330 HOUSTON COUNTY LAKE NEAR CROCKETT, TEX. (Lat 31°24'24", long 95°36'06")

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
JUNE 09...	1845	6.5	9.5	3.0	9.0	37	0	8.4	11

DATE	TIME	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED 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)
JUNE 09...		.0	.30	67	36	6	.7	137	7.0

CEDAR BAYOU BASIN

08067500 CEDAR BAYOU NEAR CROSBY, TEX.

LOCATION.--Lat 29°58'20", long 94°59'10", 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 to September 1971.
Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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												
05...	1130	2.4	4.0	50	8.5	84	152	0	33	130	.3	.39
19...	0810	3.9	4.0	37	6.2	75	148	0	23	95	.4	.36
25...	1045	11	7.7	44	7.3	65	134	0	27	100	.7	.40
JUNE												
10...	1215	3.9	2.6	25	3.5	92	138	0	24	98	.5	.41
23...	1445	15	10	44	8.3	67	160	0	14	100	.3	.66
JULY												
14...	0830	5.0	17	45	6.7	81	176	0	11	110	.4	.24
21...	1510	12	12	44	8.8	68	190	0	14	88	.4	.38
AUG.												
04...	1245	177	17	30	4.4	56	112	0	11	78	.2	.27
25...	1145	6.2	13	50	8.5	78	180	0	12	120	.3	.27

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
05...	.010	.14	.00	.11	385	18	160	36	2.9	741	7.7	24.5
19...	.010	.03	.00	.040	314	--	120	0	3.0	601	7.4	24.5
25...	.070	.20	.2	.040	319	--	140	30	2.4	620	7.3	27.5
JUNE												
10...	.030	.11	.1	.15	314	--	77	0	4.6	602	7.5	30.0
23...	.020	.68	.00	.19	328	68	140	13	2.4	639	8.0	30.0
JULY												
14...	.000	.13	.00	.050	360	--	140	0	3.0	661	7.8	28.0
21...	.020	.13	.00	.060	328	--	150	0	2.4	610	8.1	32.0
AUG.												
04...	.010	.11	.1	.12	252	266	93	1	2.5	456	6.6	24.0
25...	.010	.00	.5	.11	371	72	160	12	2.7	764	8.2	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)
MAY												
05...	20	15	5.7	68	11	3.0	22000	190	48	10	.00	10
19...	50	15	5.5	65	37	3.0	140000	500	180	4	.00	--
25...	30	50	7.4	92	33	3.2	59000	2800	580	12	.00	0
JUNE												
10...	50	80	9.0	118	47	5.5	140000	1600	480	0	.01	--
23...	50	45	8.2	108	38	2.3	19000	150	150	2	.00	10
JULY												
14...	50	35	4.9	62	24	.9	9700	140	160	6	.00	--
21...	40	45	8.5	115	20	2.0	23000	5300	230	5	.01	20
AUG.												
04...	120	100	5.3	62	38	1.6	250000	2700	5400	1	.00	30
25...	35	35	8.8	116	64	.6	10000	170	450	0	.03	--

CEDAR BAYOU BASIN

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08067500 CEDAR BAYOU NEAR CROSBY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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											
05...	0	0	0	0	4	14	0	40	<.5	0	10
19...	--	--	--	--	--	--	--	--	--	--	--
25...	0	0	0	0	5	34	0	40	<.5	0	30
JUNE											
10...	--	--	--	--	--	--	--	--	--	--	--
23...	0	0	0	0	4	60	0	0	<.5	0	10
JULY											
14...	--	--	--	--	--	--	--	--	--	--	--
21...	0	0	0	0	3	70	0	5	2.2	0	10
AUG.											
04...	0	0	0	0	13	310	0	30	<.5	2	150
25...	--	--	--	--	--	--	--	--	--	--	--

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)
MAY										
05...	1130	2.4	.00	.00	.00	.00	.05	.00	.00	.00
25...	1045	11	.00	.00	.00	.00	.02	.00	.00	.00
JUNE										
23...	1445	15	.00	.00	.00	.00	.03	.00	.00	.00
JULY										
21...	1510	12	.00	.00	.00	.00	.01	.00	.00	.00
AUG.										
04...	1245	177	.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)
MAY										
05...	.00	.0	.00	.00	.00	.00	.0	.00	.04	.00
25...	.00	.0	.00	.00	.00	.00	.0	.00	.06	.00
JUNE										
23...	.00	.0	.00	.00	.00	.00	.0	.00	.01	.00
JULY										
21...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
AUG.										
04...	.00	.0	.00	.00	.00	.00	.0	1.1	.01	.00

GOOSE CREEK BASIN

08067520 GOOSE CREEK NEAR McNAIR, TEX.

LOCATION.--Lat 29°48'00", long 95°00'15", Harris County, at bridge on Interstate Highway 10, and about 0.7 mile southeast of McNair.

DRAINAGE AREA.--6.7 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May to September 1971.
Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEBER 1970 TO SEPTEMBER 1971

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)	
MAY												
05...	0915	10	9.7	26	3.7	24	84	0	11	36	.2	
18...	0700	.45	19	42	14	89	242	0	29	90	.8	
25...	0900	8.2	10	28	3.2	25	83	0	14	37	.3	
JUNE												
08...	1140	.19	21	25	11	120	234	0	29	80	.5	
21...	0715	1.9	18	46	5.2	50	168	0	24	52	--	
JULY												
12...	0700	.52	22	32	5.8	94	196	0	20	68	.6	
23...	0800	.50	22	28	9.7	80	204	0	23	65	.6	
AUG.												
04...	0700	7.0	14	40	5.4	36	140	0	18	45	.3	
25...	0650	.41	26	24	10	130	272	0	26	76	.5	
SEP.												
10...	1300	135	11	14	1.7	9.8	47	0	11	8.0	.0	
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)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
MAY												
05...	.56	.010	.31	.7	.21	155	322	80	0	1.2	307	7.5
18...	.43	.020	.48	.1	.020	404	--	160	0	3.0	798	7.1
25...	.01	.020	.30	.5	.27	161	--	83	15	1.2	302	6.9
JUNE												
08...	.64	.35	1.5	7.9	7.4	436	--	110	0	5.0	791	7.3
21...	.44	.080	.26	2.6	1.2	291	146	140	0	1.9	510	7.1
JULY												
12...	.49	.10	.22	8.1	3.0	375	--	100	0	4.0	618	7.7
23...	.63	.12	.27	.00	4.7	329	--	110	0	3.3	639	7.0
AUG.												
04...	.28	.020	.15	.6	.54	231	128	120	7	1.4	408	6.8
25...	.46	.10	.14	4.5	6.2	443	50	100	0	5.6	792	7.6
SEP.												
10...	.21	.010	.14	.7	.37	82	--	42	4	.7	132	7.2
DATE	TEMP- ERATURE (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)
MAY												
05...	23.0	100	140	7.8	90	3	.4	20000	1500	1	12	.00
18...	21.0	30	55	5.8	64	66	4.3	52000	1500	590	0	.00
25...	23.5	70	160	7.0	81	36	.7	75000	5600	3600	5	.00
JUNE												
08...	29.0	40	45	7.8	100	52	5.7	85000	2900	880	0	.04
21...	25.0	60	65	5.3	63	28	2.4	40000	4400	2100	8	.00
JULY												
12...	25.5	55	50	4.2	51	25	3.1	130000	4000	2300	9	.00
23...	26.0	40	40	3.9	48	31	3.5	380000	2000	1900	3	.05
AUG.												
04...	24.5	80	45	8.4	64	30	1.6	50000	4000	1900	1	.01
25...	25.0	50	25	3.8	45	21	4.2	78000	950	3200	0	.10
SEP.												
10...	25.5	110	35	6.2	75	24	2.3	2500000	7000	25000	3	.00

GOOSE CREEK BASIN

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08067520 GOOSE CREEK NEAR McNAIR, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAY												
05...	0	0	0	0	0	5	14	0	40	<.5	0	10
18...	--	--	--	--	--	--	--	--	--	--	--	--
25...	50	0	1	0	0	19	90	90	20	<.5	0	80
JUNE												
08...	--	--	--	--	--	--	--	--	--	--	--	--
21...	20	0	0	0	0	7	150	0	0	.6	0	40
JULY												
12...	--	--	--	--	--	--	--	--	--	--	--	--
23...	10	0	0	0	0	10	40	0	20	1.0	--	10
AUG.												
04...	90	0	0	0	0	14	130	0	30	.8	4	40
25...	--	--	--	--	--	--	--	--	--	--	--	--
SEP.												
10...	--	10	0	0	0	7	90	0	0	<.5	0	10

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)
AUG. 04...	0700	7.0	.00	.00	.00	.00	.02	.00

DATE	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	CHLOR- DANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
AUG. 04...	.00	.00	.00	.0	.00	.10	.00

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 16...	1135	60	13	28	3.4	13	96	0	7.0	16
NOV. 25...	1415	4.5	22	31	3.3	32	80	0	7.6	61
DEC. 21...	1005	6.6	25	36	4.2	37	90	0	7.8	75
JAN. 25...	1015	7.1	18	36	3.9	28	101	0	6.8	55
MAR. 01...	1130	6.0	17	40	4.4	33	108	0	6.8	67
APR. 05...	1010	3.6	16	42	3.2	38	101	0	5.2	80
MAY 10...	1025	4.3	18	31	2.3	28	80	0	4.8	54
JUNE 07...	1025	7.8	20	44	3.0	31	108	0	6.0	66
JULY 13...	0910	2.1	20	28	5.4	45	69	0	3.6	92
AUG. 23...	0915	2.8	20	34	6.6	110	58	0	5.6	210
SEP. 20...	0940	2.6	33	17	3.8	37	47	0	4.0	68

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 16...	.0	.8	131	84	5	.6	246	7.6
NOV. 25...	.0	.00	196	91	25	1.5	394	6.9
DEC. 21...	.0	.1	229	110	33	--	414	7.5
JAN. 25...	.0	.00	198	110	23	--	376	7.6
MAR. 01...	.0	.00	221	120	30	--	424	7.4
APR. 05...	.0	.00	234	120	35	1.5	446	6.9
MAY 10...	.0	.3	178	87	21	1.3	336	7.0
JUNE 07...	.0	.3	224	122	34	1.2	424	7.1
JULY 13...	.0	.1	228	92	35	2.0	435	7.4
AUG. 23...	.0	.1	415	110	64	4.5	721	7.0
SEP. 20...	.0	.00	186	58	20	2.1	325	7.2

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 1971.

Chemical and biochemical analyses: January 1968 to September 1971.

Water temperatures: October 1961 to September 1971.

Sediment records: October 1966 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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. 01-31	103	14	28	1.7	22	80	0	8.8	33
NOV. 01-30	26	13	27	3.8	25	77	0	10	45
DEC. 01-31	23	19	27	3.3	30	76	0	6.6	54
JAN. 01-31	20	21	29	3.8	30	84	0	6.6	54
FEB. 01-28	23	17	29	3.3	30	79	0	6.8	56
MAR. 01-31	20	16	31	2.6	32	82	0	6.8	59
APR. 01-19	18	18	26	3.4	25	67	0	8.4	48
20...	38	15	--	--	--	172	0	--	140
21-30	72	18	26	3.4	25	67	0	8.4	48
MAY 01-31	234	16	32	1.7	22	83	0	7.6	41
JUNE 01-30	34	18	32	2.7	23	94	0	6.0	40
JULY 01-31	11	27	25	3.8	23	77	0	4.8	42
AUG. 01-31	16	28	21	2.6	20	58	0	5.2	37
SEP. 01-30	20	26	20	3.4	22	59	0	5.8	40
WTD. AVG. TIME WTD. AVG.	--	17	29	2.3	24	80	0	7.6	42
TOT. LOAD (TONS)	48	19	27	3.0	25	77	0	6.9	46
	--	797	1370	108	1110	3750	0	354	1990

SAN JACINTO RIVER BASIN

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08068000 WEST FORK SAN JACINTO RIVER NEAR CONROE, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 187 mg/l Mar. 1-31; minimum, 143 mg/l Aug. 1-31.
 Hardness: Maximum, 220 mg/l Apr. 20; minimum, 63 mg/l Aug. 1-31.
 Specific conductance: Maximum daily, 763 micromhos Apr. 20; minimum daily, 131 micromhos May 14.
 Water temperatures: Maximum, 35.0°C July 9; minimum, 6.0°C Jan. 7.

EXTREMES, October 1961 to September 1971.--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, 65 micromhos Feb. 23, 1969.
 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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	.0	.90	150	77	11	1.1	263	7.3
NOV.								
01-30	.1	.00	162	83	20	1.2	297	7.2
DEC.								
01-31	.0	.00	177	81	19	1.5	319	7.6
JAN.								
01-31	.0	.10	186	88	19	1.4	336	7.5
FEB.								
01-28	.0	.10	182	86	21	1.4	331	7.2
MAR.								
01-31	.0	.00	187	88	21	1.5	357	7.7
APR.								
01-19	.0	.50	164	79	24	1.2	303	7.0
20...	--	1.9	--	220	84	--	763	7.7
21-30	.0	.50	164	79	24	1.2	303	7.0
MAY								
01-31	.0	.40	163	87	19	1.0	290	7.5
JUNE								
01-30	.1	.20	169	91	14	1.0	303	7.4
JULY								
01-31	.2	.00	164	78	15	1.1	289	7.6
AUG.								
01-31	.1	.10	143	63	15	1.1	246	7.3
SEP.								
01-30	.1	.10	147	64	16	1.2	250	7.0
WTD. AVG.	.0	.39	163	83	18	1.1	292	7.4
TIME WTD.								
AVG.	.1	.21	166	81	18	1.2	300	7.4
TOT. LOAD (TONS)	.0	18	7620	--	--	--	--	--

SAN JACINTO RIVER BASIN

08068000 WEST FORK SAN JACINTO RIVER NEAR CONROE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1610	34	17	24	2.9	22	69	0	8.6
DEC. 16...	1610	21	--	--	--	27	74	0	6.6
FEB. 19...	1445	21	15	32	3.4	27	87	0	5.6
APR. 06...	1715	14	17	27	3.6	26	69	0	5.2
JUNE 15...	1645	30	16	35	3.1	16	98	0	6.0
AUG. 19...	1445	8.2	17	21	1.8	20	58	0	6.0

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...	38	.1	.010	.10	.2	.090	150	72	15
DEC. 16...	51	--	.000	.05	.00	.030	--	80	19
FEB. 19...	54	.1	.000	.05	.00	.050	180	94	23
APR. 06...	54	.0	.000	.02	.00	.060	167	82	25
JUNE 15...	34	.1	.000	.05	.00	.13	158	100	20
AUG. 19...	35	.0	.000	.00	.00	.070	130	60	12

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATU- RATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT. 21...	1.1	256	6.7	24.5	35	8.8	99	1.4	--
DEC. 16...	1.3	320	6.6	15.5	--	10.9	108	.7	--
FEB. 19...	1.2	338	7.2	22.5	--	10.2	116	3.2	.00
APR. 06...	1.2	316	7.0	20.0	--	10.2	110	1.7	--
JUNE 15...	.7	295	7.3	32.5	--	8.4	114	2.1	--
AUG. 19...	1.1	225	8.2	31.0	--	6.6	88	2.4	--

DATE	TIME	DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
MAR., 1970				
09...	1900	1100	224	665
JAN., 1971				
22...	0820	17	12	0.55
MAY 18...	1343	490	152	201

08068000 WEST FORK SAN JACINTO RIVER NEAR CONROE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	306	318	339	333	319	325	302	---	294	268	163
2	265	288	310	340	323	319	330	299	342	292	---	---
3	259	299	309	340	325	337	331	297	352	296	248	184
4	255	285	304	391	339	---	323	296	360	298	315	272
5	325	285	300	354	325	344	319	296	331	298	264	227
6	264	295	306	357	351	---	324	299	315	293	258	205
7	351	303	323	339	332	372	316	304	305	293	249	247
8	255	300	309	342	319	382	314	312	298	---	254	255
9	259	269	300	339	315	388	310	288	296	284	267	260
10	457	---	305	356	327	382	309	290	296	288	---	239
11	345	305	305	323	340	388	310	---	295	323	277	263
12	319	315	304	321	332	384	309	306	296	316	273	267
13	214	323	307	324	344	372	306	307	297	301	269	275
14	189	253	328	319	358	384	306	131	296	298	215	283
15	204	276	320	331	362	374	313	289	294	270	250	279
16	221	276	323	336	355	371	315	338	292	282	234	267
17	228	287	334	338	349	367	235	288	290	277	228	264
18	251	297	331	325	349	364	294	262	292	270	225	258
19	242	297	323	321	340	332	294	275	292	274	226	249
20	260	291	333	322	318	356	763	281	295	391	226	250
21	268	293	328	---	344	361	331	293	297	266	226	259
22	290	289	316	316	328	341	292	290	282	---	227	271
23	273	302	316	319	342	363	273	292	301	277	225	252
24	200	309	336	357	328	365	283	275	269	282	227	241
25	176	313	325	362	324	355	286	236	293	283	230	256
26	209	337	330	358	316	340	---	290	282	278	158	256
27	224	337	330	320	324	337	298	306	284	279	242	254
28	245	342	331	305	330	335	301	284	301	281	264	255
29	262	310	342	357	---	349	317	282	299	274	258	270
30	286	326	326	330	---	345	305	284	309	272	277	267
31	293	---	316	328	---	337	---	349	---	266	275	---
MONTH	263	300	319	337	335	357	322	288	302	290	247	251

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	20.0	22.0	16.0	15.0	18.0	21.0	27.0	---	30.0	28.0	29.0
2	28.0	17.0	20.0	16.0	14.0	18.0	22.0	23.0	30.0	30.0	---	---
3	29.0	17.0	21.0	16.0	17.0	14.0	21.0	29.0	30.0	31.0	28.0	29.0
4	26.0	15.0	21.0	11.0	20.0	---	20.0	28.0	30.0	31.0	25.0	28.0
5	28.0	17.0	21.0	10.0	15.0	19.0	20.0	25.0	30.0	32.0	28.0	29.0
6	29.0	18.0	19.0	8.0	19.0	---	18.0	26.0	29.0	32.0	28.0	30.0
7	31.0	20.0	19.0	6.0	14.0	15.0	21.0	29.0	30.0	31.0	29.0	30.0
8	27.0	20.0	21.0	9.0	11.0	19.0	23.0	27.0	30.0	---	30.0	29.0
9	26.0	20.0	22.0	10.0	10.0	18.0	23.0	25.0	30.0	35.0	32.0	28.0
10	26.0	---	22.0	15.0	18.0	19.0	24.0	29.0	30.0	28.0	---	28.0
11	19.0	19.0	18.0	19.0	15.0	16.0	22.0	---	30.0	30.0	32.0	28.0
12	21.0	20.0	14.0	18.0	16.0	22.0	25.0	22.0	30.0	26.0	28.0	29.0
13	20.0	19.0	16.0	20.0	15.0	20.0	22.0	20.0	30.0	32.0	31.0	30.0
14	20.0	13.0	13.0	20.0	19.0	20.0	24.0	20.0	30.0	29.0	30.0	30.0
15	20.0	9.0	14.0	20.0	19.0	22.0	22.0	20.0	30.0	27.0	29.0	29.0
16	20.0	11.0	15.0	20.0	21.0	21.0	20.0	25.0	28.0	29.0	29.0	30.0
17	16.0	11.0	15.0	20.0	21.0	21.0	20.0	25.0	30.0	31.0	31.0	30.0
18	21.0	16.0	15.0	19.0	20.0	20.0	24.0	25.0	29.0	30.0	31.0	30.0
19	21.0	19.0	20.0	12.0	20.0	19.0	25.0	27.0	29.0	26.0	33.0	27.0
20	21.0	16.0	20.0	12.0	19.0	19.0	25.0	28.0	27.0	31.0	32.0	22.0
21	21.0	17.0	20.0	---	20.0	15.0	20.0	28.0	29.0	30.0	32.0	27.0
22	22.0	18.0	21.0	19.0	19.0	19.0	25.0	27.0	29.0	---	29.0	22.0
23	21.0	12.0	19.0	20.0	19.0	16.0	20.0	27.0	29.0	31.0	32.0	30.0
24	22.0	10.0	16.0	22.0	20.0	19.0	26.0	22.0	30.0	29.0	33.0	28.0
25	21.0	12.0	15.0	22.0	19.0	19.0	25.0	28.0	30.0	30.0	33.0	29.0
26	22.0	17.0	14.0	19.0	20.0	19.0	---	28.0	30.0	31.0	31.0	30.0
27	23.0	19.0	15.0	19.0	20.0	20.0	25.0	27.0	28.0	30.0	33.0	29.0
28	19.0	21.0	15.0	19.0	16.0	25.0	27.0	29.0	30.0	29.0	32.0	30.0
29	20.0	21.0	16.0	20.0	---	20.0	26.0	27.0	30.0	30.0	31.0	29.0
30	20.0	20.0	16.0	22.0	---	20.0	20.0	29.0	30.0	30.0	33.0	29.0
31	15.0	---	13.0	20.0	---	20.0	---	28.0	---	28.0	30.0	---
MONTH	22.5	16.5	17.5	16.5	17.5	19.0	22.5	26.0	29.5	30.0	30.5	28.5

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 1971.

Pesticide analyses: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 04...	0930	2.0	10	31	4.7	110	126	0	19	150	.2	.33
FEB. 19...	1000	.18	13	48	6.3	820	456	0	13	1100	.7	.41
JUNE 17...	0915	.74	12	26	5.1	150	156	0	7.6	200	.4	.63
AUG. 19...	1130	1.4	30	36	5.3	100	165	0	12	130	.3	.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 CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
DEC. 04...	.010	.14	.00	.050	391	38	30	97	0	--	761	7.2
FEB. 19...	.020	.15	.2	.15	2230	148	8	150	0	--	3820	8.3
JUNE 17...	.000	.05	.00	.16	481	84	0	86	0	7.0	909	8.8
AUG. 19...	.000	.07	.1	.22	396	52	30	110	0	4.1	690	7.8

DATE	TEMP- ERATURE (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. 04...	21.0	5	35	8.1	90	16	1.3	0	.00	--	--	--
FEB. 19...	19.0	110	90	7.4	79	30	4.7	0	.00	70	0	1
JUNE 17...	30.0	140	70	6.0	79	37	.8	7	.00	10	0	0
AUG. 19...	30.0	70	80	4.6	61	49	3.3	1	.00	30	0	1

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. 04...	--	--	--	--	--	--	--	--	--	--	--
FEB. 19...	0	0	7	47	0	180	4	<.5	0	640	10
JUNE 17...	1	0	10	50	0	30	3	<.5	0	200	50
AUG. 19...	0	0	17	130	5	10	4	.8	4	180	80

SAN JACINTO RIVER BASIN

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08068750 CYPRESS CREEK NEAR CYPRESS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
DEC. 04...	0930	2.0	.00	.00	.00	.01	.01	.00	.00	.00
FEB. 19...	1000	.18	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 17...	0915	.74	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 19...	1130	1.4	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 04...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
FEB. 19...	.00	.1	.00	.00	.00	.00	.0	--	--	--
JUNE 17...	.00	.2	.00	.00	.00	.00	.0	.00	.02	.01
AUG. 19...	.00	.0	.00	.00	.00	.00	.0	.00	.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 1971.
Pesticide analyses: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-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. 21...	0935	60	12	15	2.6	25	73	0	7.4	24	.1	.50
FEB. 19...	1230	2.2	4.9	36	8.5	92	177	0	32	96	.2	.47
JUNE 17...	1120	2.9	6.6	25	5.7	52	124	0	16	56	.3	.48
AUG. 19...	1330	8.3	12	20	3.4	26	78	0	11	26	.2	.38

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)	LOSS ON IGNI-TION (MG/L)	HARD-NESS (CA+MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT. 21...	.020	.14	.4	.39	120	86	1	48	0	1.6	213	6.8
FEB. 19...	.050	.06	3.1	2.8	371	19	3	120	0	3.6	713	8.1
JUNE 17...	.000	.06	.1	.70	223	156	14	86	0	2.4	430	7.7
AUG. 19...	1.6	.19	.9	.91	146	222	40	64	0	1.4	260	7.3

DATE	TEMP-ERATURE (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...	18.5	90	50	7.9	84	29	1.8	0	.01	100	0	0
FEB. 19...	19.0	15	15	11.0	117	25	5.4	0	.01	--	--	--
JUNE 17...	30.0	140	45	4.6	61	37	3.9	6	.00	10	0	0
AUG. 19...	31.0	140	160	3.6	48	31	3.3	1	.00	340	0	2

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. 21...	--	0	0	4	29	0	0	16	<.5	5	90	0
FEB. 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE 17...	0	--	2	8	60	0	10	14	<.5	0	150	40
AUG. 19...	0	--	0	230	490	90	0	60	1.0	13	160	730

SAN JACINTO RIVER BASIN

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08069200 CYPRESS CREEK NEAR HUMBLE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT. 21...	0935	60	.00	.00	.00	.00	.00	.00	.00	.00
FEB. 19...	1230	2.2	.00	.00	.00	.00	.01	.00	.00	.00
JUNE 17...	1120	2.9	.00	.00	.00	.00	.01	.00	.00	.00
AUG. 19...	1330	8.3	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT. 21...	.01	.0	.00	.00	.00	.00	.0	.05	.01	.00
FEB. 19...	.04	.0	--	.00	.00	.00	.0	.00	.00	.00
JUNE 17...	.01	.0	.00	.00	.00	.00	.0	.00	.03	.00
AUG. 19...	.00	.0	.02	.00	.00	.00	.0	.00	.03	.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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 15...	1230	24	11	9.0	1.1	28	12	0	4.8	52
NOV. 24...	1200	15	13	12	3.9	31	23	0	4.2	64
DEC. 28...	1150	17	12	12	2.4	32	24	0	3.4	61
JAN. 28...	1010	16	11	14	2.7	31	30	0	3.6	60
MAR. 03...	1640	21	11	14	2.7	26	29	0	4.8	53
APR. 09...	0945	9.2	8.8	17	2.6	34	34	0	2.4	69
MAY 13...	1215	722	6.5	17	1.4	6.9	45	0	4.4	14
JUNE 09...	1620	11	10	21	3.1	24	51	0	5.2	50
JULY 15...	0830	5.5	8.8	16	3.2	36	38	0	3.2	68
AUG. 18...	1510	6.3	9.6	12	3.7	38	23	0	4.4	74
SEP. 22...	1420	14	14	9.2	2.7	39	16	0	2.8	73

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 15...	.0	.2	113	27	17	2.3	215	6.5
NOV. 24...	.0	.00	139	46	27	--	268	7.1
DEC. 28...	.0	.00	135	40	20	--	258	7.1
JAN. 28...	.0	.00	137	46	21	--	280	7.0
MAR. 03...	.0	.00	126	46	22	--	246	6.7
APR. 09...	.0	.00	151	53	25	2.0	294	6.8
MAY 13...	.0	.5	74	48	11	.4	145	6.8
JUNE 09...	.0	.1	139	65	23	1.3	258	7.3
JULY 15...	.0	.1	155	53	22	2.1	292	7.1
AUG. 18...	.0	.1	153	45	26	2.5	295	6.6
SEP. 22...	.0	.00	149	34	21	2.9	303	6.4

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
NOV. 06...	1220	.00	.00	.00	.00	.00	.00	.00	.00	.01
JUNE 03...	1400	.00	.00	.00	.00	.00	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
NOV. 06...	.0	.00	.00	.00	.00	.0	.00	.01	.00
JUNE 03...	.0	.00	.00	.00	.00	.0	.00	.01	.00

SAN JACINTO RIVER BASIN

08072050 SAN JACINTO RIVER NEAR SHELDON, TEX.

LOCATION.--Lat 29°52'34", long 95°05'36", 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.--2,863 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: February 1970 to September 1971.
Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAY												
05...	1310	--	2.7	160	420	3600	114	0	940	6400	1.8	.36
19...	0920	--	2.6	150	500	2900	110	0	800	5500	2.1	.24
JUNE												
10...	1130	--	.7	140	460	2900	92	0	830	5400	1.1	.26
23...	1315	--	2.7	130	380	2900	90	0	740	5200	1.0	.37
JULY												
14...	0915	--	3.6	130	390	3000	78	0	780	5400	.4	.30
22...	1130	--	3.2	130	360	3300	74	0	830	5800	1.2	.34
AUG.												
05...	0720	--	4.9	110	320	2100	81	0	600	3900	.9	.33
25...	1100	--	4.1	150	490	3100	100	0	820	5800	1.2	.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 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
05...	.060	1.2	.3	.58	11600	13	2200	2100	34	20100	7.2	25.0
19...	.30	1.3	1.3	.56	9880	--	2400	2400	26	16900	7.0	26.0
JUNE												
10...	.080	.80	.5	.55	9700	--	2300	2200	27	16600	6.9	29.5
23...	.040	.73	.3	.52	9310	6	1900	1800	29	15900	7.1	30.0
JULY												
14...	.030	.39	.00	.38	9680	--	1900	1900	30	16800	7.5	30.5
22...	.020	.56	.00	.68	10400	--	1800	1700	34	18200	6.7	31.0
AUG.												
05...	.020	.71	.1	.61	7090	32	1600	1500	23	11400	7.0	25.0
25...	.050	.77	.00	.88	10400	10	2400	2300	28	18300	7.6	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)
MAY												
05...	30	7	4.3	52	17	3.5	5800	7	1	5	.00	0
19...	30	20	5.3	65	50	3.0	13000	56	40	2	.00	--
JUNE												
10...	20	0	5.4	70	50	2.8	74000	500	98	0	.02	--
23...	40	20	5.6	74	57	2.1	36000	580	280	0	.00	10
JULY												
14...	35	9	6.3	86	42	1.3	26000000	23	20	5	.01	--
22...	30	20	5.6	75	50	2.8	2400	20	4	3	.03	10
AUG.												
05...	60	25	4.2	50	41	1.2	1600000	6000	2300	1	.03	100
25...	45	5	3.4	45	69	.5	44000	29	380	2	.06	--

SAN JACINTO RIVER BASIN

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08072050 SAN JACINTO RIVER NEAR SHELDON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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											
05...	0	0	0	3	5	15	0	660	<.5	10	60
19...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
10...	--	--	--	--	--	--	--	--	--	--	--
23...	0	0	0	2	3	0	0	570	<.5	0	50
JULY											
14...	--	--	--	--	--	--	--	--	--	--	--
22...	0	0	0	0	2	10	0	650	.6	7	50
AUG.											
05...	0	0	0	0	5	30	0	380	<.5	3	60
25...	--	--	--	--	--	--	--	--	--	--	--

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)
MAY										
05...	1310	--	.00	.00	.00	.00	.00	.00	.00	.00
JUNE										
23...	1315	--	.00	.00	.00	.00	.00	.00	.00	.00
JULY										
22...	1130	--	.00	.00	.00	.00	.00	.00	.00	.00
AUG.										
05...	0720	--	.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									
05...	.02	.0	.00	.00	.00	.00	.00	.00	.00
JUNE									
23...	.01	.0	.00	.00	.00	.00	.00	.03	.01
JULY									
22...	.01	.0	.00	.00	.00	.00	.00	.04	.00
AUG.									
05...	.01	.0	.01	.00	.00	.00	.00	.01	.00

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 1971.
Pesticide analyses: August 1970 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 03...	1430	22	15	56	12	72	202	0	38	95
DEC. 03...	1430	10	15	56	12	72	202	0	38	95
FEB. 09...	0930	50	7.7	19	3.3	29	56	0	20	37
MAY 10...	0700	26	16	50	10	73	192	0	35	90
JULY 21...	1000	186	19	43	12	33	170	0	7.6	56
AUG. 30...	1115	248	19	30	7.1	25	120	0	8.4	36

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 BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
OCT. 03...	2.4	--	.11	.24	.4	1.1	130	392	--
DEC. 03...	2.4	--	.11	.24	.4	1.1	130	392	--
FEB. 09...	.2	--	.11	.56	1.8	.65	90	153	--
MAY 10...	.6	.35	.12	.30	.7	.59	--	372	194
JULY 21...	.4	.32	.030	.11	.3	.28	--	257	--
AUG. 30...	.2	.42	.030	.37	.3	.29	--	187	--

DATE	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)
OCT. 03...	--	190	24	2.3	718	7.5	24.5	--	--
DEC. 03...	--	190	24	2.3	718	7.5	24.5	--	--
FEB. 09...	--	61	15	1.6	300	7.5	6.5	--	--
MAY 10...	--	170	10	2.5	688	7.4	24.0	40	100
JULY 21...	--	160	17	--	483	7.4	30.0	70	75
AUG. 30...	42	100	6	1.1	340	7.2	28.0	110	40

SAN JACINTO RIVER BASIN

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07073500 BUFFALO BAYOU NEAR ADDICKS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	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. 03...	9.8	115	--	3.4	2000	40	--	--	.00
DEC. 03...	9.8	115	--	3.4	2000	40	--	--	.00
FEB. 09...	12.0	97	38	6.9	42000	1200	--	--	.00
MAY 10...	6.8	80	22	4.0	20000	370	440	0	.01
JULY 21...	7.6	100	18	3.2	220000	4800	2400	--	.00
AUG. 30...	5.5	70	31	2.2	380000	6000	530	1	.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)
JULY 21...	1000	186	.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)
JULY 21...	.00	.0	.04	.00	.00	.00	.00	.05	.00

SAN JACINTO RIVER BASIN

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 of 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 1971.
Pesticide analyses: October 1970 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
DEC. 03...	1545	27	21	42	16	97	310	0	32	80	1.1	--
FEB. 09...	1030	161	11	23	4.3	44	90	0	24	45	.2	--
MAY 10...	0745	34	22	47	15	83	242	0	35	88	.5	.56
JULY 21...	1140	180	18	45	7.2	37	166	0	11	52	.4	.34
AUG. 30...	1145	220	19	28	8.8	17	122	0	8.8	24	.2	.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 BORON (B) (UG/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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
DEC. 03...	.11	6.4	.00	4.2	280	450	--	170	0	3.2	792	7.0
FEB. 09...	.18	.40	2.4	1.8	150	208	--	75	1	2.2	381	7.5
MAY 10...	.80	1.9	1.1	2.9	--	419	61	180	0	2.7	792	7.4
JULY 21...	.070	.36	.5	.49	--	255	--	140	6	--	464	7.5
AUG. 30...	.18	.60	.1	.35	--	168	24	110	6	.7	336	7.1

DATE	TEMP- ERATURE (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)
DEC. 03...	23.5	--	--	1.7	20	--	8.7	1500000	33000	--	--	.03
FEB. 09...	9.5	--	--	10.6	93	38	16	32000	3200	--	--	.02
MAY 10...	24.5	30	40	4.1	49	15	23	29000	850	130	0	.02
JULY 21...	29.0	70	100	7.5	96	20	4.5	860000	17000	3900	--	.00
AUG. 30...	27.5	90	25	3.9	49	31	3.0	920000	32000	2800	9	.02

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)
JULY 21...	1140	180	.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)
JULY 21...	.00	.0	.12	.00	.00	.00	.00	.07	.00

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 1971.
Pesticide analyses: October 1968 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (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 CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)
DEC.												
03...	1645	50	21	54	21	80	300	0	30	89	.4	--
FEB.												
09...	1145	145	8.3	23	3.8	45	80	0	23	55	.2	--
MAY												
10...	0900	36	22	51	21	82	274	0	26	100	.7	.44
18...	1030	160	9.7	28	6.8	35	119	0	21	37	.4	.01
24...	1305	580	7.1	28	3.4	26	104	0	14	29	.3	.55
JUNE												
08...	0700	39	10	49	8.1	94	226	0	25	100	.4	.20
21...	0715	250	9.5	25	4.3	24	100	0	12	24	.2	.44
JULY												
14...	1000	145	22	46	8.5	69	214	0	18	70	.4	.24
21...	1315	325	16	42	6.1	51	170	0	13	60	.4	.37
AUG.												
03...	1125	380	13	31	6.0	39	132	0	13	44	.3	.32
03...	1615	400	12	25	9.1	37	130	0	15	40	.3	.37
24...	0730	430	16	25	4.0	20	100	0	7.6	24	.1	.43
SEP.												
10...	1430	6500	5.2	18	1.2	7.8	59	0	7.6	6.5	.0	.22
DATE	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)	TOTAL NON-FIL- TRABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM ADSORP- TION RATIO	SPECIFIC CONDUC- TANCE (MICRO- MHOS)	PH (UNITS)
DEC.												
03...	.26	3.4	.7	5.2	240	452	--	220	0	2.3	808	7.1
FEB.												
09...	.12	.72	1.8	1.2	130	207	--	73	7	2.3	401	7.4
MAY												
10...	.43	2.2	.8	2.2	--	445	19	210	0	2.4	838	6.7
18...	.24	.80	.7	1.0	--	202	--	98	0	1.5	383	6.7
24...	.33	1.1	1.8	.41	--	162	--	84	0	1.2	275	7.1
JUNE												
08...	.16	1.2	1.5	1.5	--	410	--	160	0	3.3	772	7.9
21...	.020	.34	1.2	.84	--	154	702	80	0	--	293	7.9
JULY												
14...	.30	.46	2.0	1.2	--	349	--	150	0	2.5	606	6.9
21...	.24	.33	.8	.68	--	277	--	130	0	--	478	7.5
AUG.												
03...	.18	.43	.6	.90	--	215	228	100	0	--	415	6.8
03...	.26	.73	.6	.85	--	207	216	100	0	--	386	7.1
24...	.070	.54	.3	.65	--	148	96	79	0	1.0	274	7.2
SEP.												
10...	.21	.22	.4	.62	--	78	--	50	2	.5	131	6.9
DATE	TEMP- ERATURE (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)
DEC.												
03...	22.5	--	--	4.7	53	--	5.4	880000	13000	--	--	.02
FEB.												
09...	9.5	--	--	9.4	82	37	6.6	390000	18000	--	--	.00
MAY												
10...	25.0	30	20	3.2	38	10	7.2	93000	15000	310	5	.02
18...	24.0	50	60	3.8	45	39	9.0	120000	25000	2200	18	.00
24...	24.5	60	240	7.0	83	59	11	270000	10000	33000	1	.00
JUNE												
08...	27.0	30	20	3.8	47	33	5.3	73000	3300	370	0	.00
21...	25.0	70	200	4.2	50	51	6.3	360000	140000	17000	9	.00
JULY												
14...	29.0	45	35	4.2	54	18	3.1	61000	4000	180	7	.00
21...	31.0	50	95	5.4	72	25	4.5	660000	20000	1500	0	.00
AUG.												
03...	25.5	60	80	4.2	51	35	2.7	560000	42000	8900	1	.10
03...	25.5	60	80	4.3	52	35	1.8	1100000	74000	19000	7	.05
24...	28.0	240	35	4.0	51	34	2.4	98000	4500	580	2	.08
SEP.												
10...	25.0	110	150	6.5	77	33	1.2	1200000	5800	30000	14	.00

SAN JACINTO RIVER BASIN

08074000 BUFFALO BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
DEC.												
03...	--	--	--	--	--	--	--	--	--	--	--	--
FEB.												
09...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
10...	10	0	0	4	0	6	120	4	150	.6	10	30
18...	--	--	--	--	--	--	--	--	--	--	--	--
24...	10	0	2	4	0	20	98	13	40	.7	0	40
JUNE												
08...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	0	1	0	0	10	100	3	0	.9	0	30
JULY												
14...	--	--	--	--	--	--	--	--	--	--	--	--
21...	10	0	0	0	0	8	40	0	9	7.2	0	40
AUG.												
03...	110	0	0	0	0	18	50	6	16	.6	3	20
03...	50	0	0	0	0	7	60	5	20	<.5	4	0
24...	--	--	--	--	--	--	--	--	--	--	--	--
SEP.												
10...	--	0	0	0	0	6	80	3	12	<.5	2	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)
MAY										
10...	0900	36	.00	.03	.00	.00	.03	.00	.00	.00
24...	1305	580	.00	.08	.00	.14	.07	.00	.00	.00
JUNE										
21...	0715	250	.00	.03	.00	.12	.00	.00	.00	.00
JULY										
21...	1315	325	.00	.04	.00	.02	.04	.00	.00	.00
AUG.										
03...	1125	380	.00	.00	.33	1.7	.54	.00	.00	.00
03...	1615	400	.00	.00	.00	.14	.07	.00	.00	.00
SEP.										
10...	1430	6500	.00	.00	.02	.35	.14	.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)
MAY										
10...	.03	.1	.38	.00	.00	.00	.0	.31	.08	.02
24...	.00	.6	.15	2.9	.00	.00	.0	.00	.10	.00
JUNE										
21...	.08	.3	.00	.00	.00	.00	.0	.00	.63	.00
JULY										
21...	.00	.1	.15	.60	.00	.00	.0	.00	.13	.00
AUG.										
03...	.00	2.1	.12	.00	.00	.00	.0	.05	.13	.00
03...	.00	.4	.15	.00	.00	.00	.0	--	--	--
SEP.										
10...	.00	.6	.11	.00	.00	.00	.0	.00	.10	.00

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.--11.1 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1971.
Pesticide analyses: October 1970 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
DEC.												
01...	1400	1.0	15	71	15	82	336	0	35	73	.5	--
30...	1300	12	7.3	38	6.1	46	183	0	17	37	.3	--
FEB.												
11...	0900	1.4	13	50	12	79	304	0	19	55	.4	--
AUG.												
03...	1000	53	6.9	21	3.5	12	70	0	13	15	.2	.32
30...	1235	1.0	14	69	21	100	152	43	47	170	.4	1.4

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 BORON (B) (UG/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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
DEC.												
01...	.010	.20	.00	.50	310	457	--	240	0	2.3	796	8.6
30...	.040	.53	.4	.59	--	244	--	120	0	1.8	468	6.9
FEB.												
11...	.010	.43	.00	1.2	150	378	--	170	0	2.6	703	7.3
AUG.												
03...	.060	.26	.4	.72	--	108	216	67	10	.6	189	7.4
30...	.000	.00	.1	.60	--	547	18	260	64	2.7	958	9.4

DATE	TEMP- ERATURE (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)
DEC.												
01...	26.5	--	--	11.0	134	--	6.9	53000	3700	--	--	.02
30...	15.5	--	--	7.8	153	--	23	740000	40000	--	--	--
FEB.												
11...	12.0	--	--	8.8	81	24	14	2400000	64000	--	--	.05
AUG.												
03...	24.0	200	95	7.1	84	36	2.5	1400000	23000	120000	3	.10
30...	33.5	45	20	>20.0	>274	36	4.0	400000	6100	3500	11	1.2

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.										
03...	1000	53	.00	.02	.00	.09	.06	.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.										
03...	.00	.2	.00	.00	.00	.00	.0	.00	.50	.00

SAN JACINTO RIVER BASIN

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 1970.
Pesticides analyses: October 1968 to September 1970.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
DEC.											
01...	1500	14	24	77	29	130	424	0	42	150	2.1
30...	1350	180	3.0	34	4.2	28	116	0	32	27	.4
FEB.											
11...	1000	7.0	20	72	21	120	362	0	41	130	.4
MAY											
10...	1200	7.0	25	74	25	110	324	0	58	150	.6
18...	1050	7.0	25	73	20	97	332	0	40	120	.5
JUNE											
08...	0745	11	16	74	13	110	316	0	48	130	.3
21...	0820	20	16	48	10	72	220	0	29	77	.3
JULY											
14...	1100	7.0	24	58	20	99	304	0	38	120	.4
21...	1425	38	13	44	11	51	170	0	26	72	.4
AUG.											
03...	1050	470	7.0	26	1.7	17	83	0	12	20	.2
03...	1530	350	7.9	25	5.3	20	89	0	14	26	.3
24...	0840	23	16	59	19	74	272	0	38	100	.2
SEP.											
10...	1340	5200	4.9	17	2.6	6.6	57	0	9.2	7.5	.1

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 PHOSPHORUS (H) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (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
DEC.											
01...	--	.77	2.2	.7	4.2	280	673	--	310	0	3.2
30...	--	.080	2.0	.8	1.9	--	192	--	100	7	--
FEB.											
11...	--	.28	2.0	2.7	3.4	330	598	--	260	0	3.2
MAY											
10...	.37	.48	4.9	1.2	2.4	--	622	16	290	22	2.8
18...	.25	.47	4.7	.9	5.2	--	552	--	260	0	2.6
JUNE											
08...	.32	.57	4.7	.4	7.2	--	554	--	240	0	3.1
21...	.45	.030	1.7	1.3	3.7	--	368	678	160	0	--
JULY											
14...	.55	.28	7.1	.7	7.5	--	526	--	220	0	2.9
21...	.47	.090	1.6	.4	2.4	--	305	--	150	14	--
AUG.											
03...	.54	.040	.56	.6	.85	--	128	1250	72	4	.9
03...	.58	.080	.36	.8	.80	--	147	876	84	11	--
24...	.18	.030	6.0	.7	3.8	--	452	34	230	3	2.1
SEP.											
10...	.30	.000	.29	.4	.57	--	78	--	53	6	.4

DATE	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	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)
DEC.										
01...	1160	7.9	25.0	--	--	11.0	131	--	32	770000
30...	373	6.9	16.0	--	--	8.6	160	--	60	1200000
FEB.										
11...	1050	7.3	14.0	--	--	9.6	92	24	3.6	100
MAY										
10...	1080	7.4	27.0	20	15	9.5	117	9	8.4	25000
18...	1020	7.4	24.0	20	4	9.7	114	27	6.3	360000
JUNE										
08...	1040	7.7	25.0	30	15	5.1	61	35	10	380000
21...	687	8.5	25.5	70	200	6.3	76	57	7.5	420000
JULY										
14...	991	7.3	30.0	40	10	11.5	151	34	12	1700000
21...	582	7.3	34.0	80	250	8.0	111	34	12	140000
AUG.										
03...	231	6.6	24.5	160	350	7.2	86	51	3.9	2000000
03...	266	7.1	25.0	140	270	7.0	83	49	2.5	1500000
24...	826	7.6	26.5	50	15	6.7	82	20	.3	500
SEP.										
10...	127	6.9	25.5	160	310	7.2	87	36	1.8	31000

08074500 WHITEOAK BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE PLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (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)
DEC.										
01...	20000	--	--	.01	--	--	--	--	--	--
30...	110000	--	--	--	--	200	8	0	0	0
FEB.										
11...	100	--	--	.02	--	--	--	--	--	--
MAY										
10...	270	250	0	.02	10	--	70	0	0	--
18...	6800	3400	3	.01	--	--	--	--	--	--
JUNE										
08...	5300	630	0	.02	--	--	--	--	--	--
21...	11000	2500	6	.00	60	--	10	0	0	--
JULY										
14...	29000	3100	7	.03	--	--	--	--	--	--
21...	29000	530	1	.00	20	--	30	0	0	--
AUG.										
03...	28000	110000	3	.00	20	--	10	0	0	--
03...	68000	31000	7	.00	50	--	10	0	0	--
24...	1	9	2	.21	--	--	--	--	--	--
SEP.										
10...	6500	2900	0	.00	40	--	10	0	9	0

DATE	DIS- SOLVED COPPER (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 STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
DEC.										
01...	--	--	--	--	--	--	--	--	--	--
30...	1	4	78	2	0	31	.6	10	120	390
FEB.										
11...	--	--	--	--	--	--	--	--	--	--
MAY										
10...	0	7	180	0	--	170	1.4	30	--	50
18...	--	--	--	--	--	--	--	--	--	--
JUNE										
08...	--	--	--	--	--	--	--	--	--	--
21...	0	8	30	0	--	30	<.5	0	--	50
JULY										
14...	--	--	--	--	--	--	--	--	--	--
21...	0	6	20	0	--	13	<.5	2	--	30
AUG.										
03...	0	17	50	0	--	1	<.5	2	--	20
03...	0	7	140	3	--	30	<.5	0	--	0
24...	--	--	--	--	--	--	--	--	--	--
SEP.										
10...	0	7	140	0	--	2	<.5	2	--	0

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDT (UG/L)	DDT (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	ETHION (UG/L)	HEPTA- CHLOR (UG/L)
DEC.										
30...	1350	180	.00	.18	.03	.14	.07	.00	.00	.00
MAY										
10...	1200	7.0	.00	.00	.00	.00	.02	.00	.00	.00
JUNE										
21...	0820	20	.00	.02	.00	.03	.00	.00	.00	.00
JULY										
21...	1425	38	.00	.01	.00	.00	.04	.00	.00	.00
AUG.										
03...	1050	470	.00	.02	.00	.02	.06	.00	.00	.00
03...	1530	350	.00	.00	.00	.01	.03	.00	.00	.00
SEP.										
10...	1340	5200	.00	.00	.00	.02	.07	.00	.00	.00

DATE	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)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC.										
30...	.00	.00	.3	.00	.00	.00	.00	.00	.02	.00
MAY										
10...	.00	.00	.0	.18	.06	.00	.00	.00	.02	.02
JUNE										
21...	.00	.00	.2	.00	.00	.00	.00	.00	.26	.00
JULY										
21...	.00	.15	.0	.62	.00	.00	.00	.53	.22	.00
AUG.										
03...	.00	.18	.0	.56	1.8	.00	.00	.75	.30	.00
03...	.00	.03	.1	.10	.00	.00	.00	.09	.21	.00
SEP.										
10...	.00	.00	.1	.00	.00	.00	.00	.19	.18	.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.

PERIOD OF RECORD.--Chemical and biochemical analyses: May to September 1971.
Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAY												
11...	0900	4.4	27	45	23	140	458	0	23	110	1.0	.90
18...	1145	5.2	24	48	18	170	426	0	48	100	.9	.72
JUNE												
10...	0700	3.2	15	51	14	160	420	0	28	130	.8	.49
23...	0800	4.2	15	38	10	77	250	0	23	64	.4	.50
JULY												
14...	1200	2.3	8.3	27	5.3	41	127	0	15	45	.3	.47
21...	1420	6.4	12	38	7.1	69	224	0	21	56	.4	.44
AUG.												
03...	1005	135	4.8	28	3.0	11	94	0	11	13	.2	.36
24...	0925	5.1	8.8	18	3.7	72	126	39	16	25	.2	.46
SEP.												
10...	0945	2600	5.7	22	2.2	12	94	0	8.0	4.0	.0	.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)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
11...	.030	13	.1	6.1	612	27	210	0	4.2	1110	7.4	24.5
18...	.28	1.1	3.3	.000	636	--	200	0	5.3	972	6.9	26.5
JUNE												
10...	.12	6.4	.00	4.1	622	--	180	0	5.1	1120	7.5	27.0
23...	.010	4.7	.00	3.0	357	32	140	0	2.9	661	7.6	27.0
JULY												
14...	.030	1.9	.1	1.0	207	--	89	0	1.9	381	6.9	29.0
21...	.010	3.6	.1	2.9	319	--	120	0	2.7	590	7.0	30.0
AUG.												
03...	.070	.63	.3	.48	119	440	82	5	.5	241	6.5	25.0
24...	.060	1.7	.5	.62	250	100	60	0	4.0	452	9.9	28.5
SEP.												
10...	.010	.29	.3	.62	102	--	64	6	.7	172	7.7	24.0

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												
11...	50	10	.4	5	91	53	11000000	1400000	340000	10	.08	10
18...	40	7	.8	10	54	2.4	15000000	5000000	130000	5	.01	--
JUNE												
10...	30	25	.6	7	58	24	7200000	400000	48000	1	.20	--
23...	70	40	.2	2	76	16	11000000	1300000	200000	8	.25	10
JULY												
14...	90	70	1.3	17	58	26	23000000	990000	40000	2	.08	--
21...	60	110	.1	1	66	23	18000000	1000000	64000	2	.18	10
AUG.												
03...	90	150	5.6	67	70	4.5	3200000	71000	100000	3	.08	20
24...	100	65	3.1	40	54	8.1	870000	2100	98000	6	.81	--
SEP.												
10...	130	190	7.7	91	40	2.5	120000	6000	23000	12	.11	10

SAN JACINTO RIVER BASIN

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08074550 LITTLE WHITEOAK BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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											
11...	0	0	30	0	8	140	0	490	<.5	130	130
18...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
10...	--	--	--	--	--	--	--	--	--	--	--
23...	10	1	0	0	18	60	15	180	<.5	0	160
JULY											
14...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
AUG.											
03...	10	0	2	0	12	60	6	40	<.5	2	20
24...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
10...	10	0	0	0	5	30	3	15	<.5	2	0

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										
11...	0900	4.4	.00	.03	.00	.00	.23	.00	.00	.00
JUNE										
23...	0800	4.2	.00	.03	.00	.00	.05	.00	.00	.00
JULY										
21...	1420	6.4	.00	.03	.00	.00	.02	.00	.00	.00
AUG.										
03...	1005	135	.00	.00	.00	.04	.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)
MAY									
11...	.02	.2	--	--	--	--	.00	.00	.00
JUNE									
23...	.14	.2	.21	.35	.00	.00	.00	.10	.00
JULY									
21...	.00	.1	--	3.8	.00	.00	.00	.18	.00
AUG.									
03...	.00	.3	.03	.00	.00	.00	.09	.09	.00

SAN JACINTO RIVER BASIN

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 to September 1971.

Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SI02) (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)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
MAY												
10...	0750	19	120	240	2000	366	0	490	3400	1.9	.59	.000
18...	1230	14	89	180	1400	240	0	380	2500	1.3	.38	.060
JUNE												
09...	0815	9.7	100	190	1400	304	0	410	2500	.9	.60	.020
22...	0820	12	65	110	870	210	0	240	1500	.6	.48	.010
JULY												
14...	1350	16	120	280	1900	250	0	560	3500	.7	.56	.020
22...	0930	16	80	130	1100	224	0	180	2000	.8	.53	.010
AUG.												
03...	1550	16	37	19	490	171	0	86	720	.4	.49	.50
24...	1200	14	60	110	830	160	0	210	1500	.4	.38	.12
SEP.												
10...	1130	6.5	22	4.2	20	89	0	16	26	.2	1.4	.010

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)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
MAY												
10...	12	.00	4.4	6400	15	1300	980	24	10400	7.1	25.5	40
18...	.05	.2	.020	4700	--	980	780	20	8020	6.7	26.0	50
JUNE												
09...	21	.00	5.8	4840	--	1000	790	19	8630	6.9	28.0	60
22...	8.0	.00	2.6	2910	84	620	450	15	5610	6.8	28.0	60
JULY												
14...	6.8	.00	2.4	6510	--	1400	1200	22	10500	6.6	31.0	65
22...	4.6	.00	2.7	3560	--	750	570	--	6190	7.0	29.0	50
AUG.												
03...	3.8	.00	1.8	1450	48	170	29	16	2640	7.0	27.0	50
24...	6.2	.1	1.4	2770	24	580	450	15	5060	7.3	29.0	120
SEP.												
10...	3.5	.5	3.0	146	48	72	0	1.0	242	6.5	25.0	110

DATE	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	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)
MAY											
10...	10	.7	8	52	18	11000000	6100	2200	18	.08	70
18...	15	.2	2	44	4.1	4500000	430000	27000	0	.01	--
JUNE											
09...	40	.2	3	86	6.6	2400000	600000	7000	6	.05	--
22...	45	.2	3	51	6.6	1200000	50000	7900	5	.03	10
JULY											
14...	35	.2	3	66	10	1900000	30000	8100	3	.05	--
22...	35	.9	12	35	7.2	390000	7000	2100	8	.11	20
AUG.											
03...	30	.8	10	39	1.5	3200000	800000	32000	7	.00	0
24...	15	.6	8	34	4.1	360000	38000	2700	9	.11	--
SEP.											
10...	260	4.7	56	190	13	3100000	6300	95000	23	.00	60

SAN JACINTO RIVER BASIN

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08074700 BUFFALO BAYOU AT 69TH STREET, AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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											
10...	0	0	6	0	3	170	1	190	.5	20	30
18...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
09...	--	--	--	--	--	--	--	--	--	--	--
22...	0	0	2	0	2	70	0	180	.8	0	30
JULY											
14...	--	--	--	--	--	--	--	--	--	--	--
22...	10	0	2	0	3	160	0	140	<.5	9	20
AUG.											
03...	0	0	2	0	4	60	3	110	<.5	8	30
24...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
10...	0	0	0	0	5	80	0	60	<.5	8	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)
MAY									
10...	0750	.00	.01	.00	.00	.04	.00	.00	.00
JUNE									
22...	0820	.00	.00	.00	.00	.01	.00	.00	.00
JULY									
22...	0930	.00	.00	.00	.00	.03	.00	.00	.00
AUG.									
03...	1550	.00	.00	.00	.00	.05	.00	.00	.00
SEP.									
10...	1130	.00	.00	.04	.00	.21	.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									
10...	.03	.0	.41	.00	.00	.00	.15	.06	.00
JUNE									
22...	.00	.0	.29	.41	.00	.00	.00	.33	.00
JULY									
22...	.00	.0	.26	1.4	.00	.00	.00	.11	.00
AUG.									
03...	.02	.2	.13	.00	.00	.00	.15	.12	.00
SEP.									
10...	.00	1.1	.00	.00	.00	.00	.00	.11	.00

SAN JACINTO RIVER BASIN

08074780 KEEGANS BAYOU AT KEEGAN ROAD, NEAR HOUSTON, TEX.

LOCATION.--Lat 29°39'55", long 95°35'42", Harris County, at bridge on Keegan Road about 16 miles southwest of Houston.

DRAINAGE AREA.--5.77 sq mi.

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

Pesticide analyses: October 1969 to September 1971.

Sediment analyses: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
DEC. 02...	0830	.79	21	78	24	40	364	0	46	24	.3	--
FEB. 12...	0920	6.5	15	76	19	44	348	0	27	36	.0	--
MAR. 18...	1800	6.5	15	64	20	43	304	0	27	40	.2	.20
AUG. 06...	1345	2.5	8.7	18	5.6	7.7	65	0	9.6	15	.0	.09

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 BORON (R) (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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
DEC. 02...	.000	.20	.00	.10	80	413	--	290	0	1.0	706	7.2
FEB. 12...	.000	.10	.00	.000	70	388	--	270	0	1.2	689	7.8
MAR. 18...	.020	.00	.1	.14	70	359	--	240	0	1.2	624	7.1
AUG. 06...	.020	.13	.2	.15	--	98	92	68	15	.4	182	6.6

DATE	TEMP- ERATURE (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)
DEC. 02...	20.5	--	--	1.9	21	--	3.3	15000	220	--	--	.00
FEB. 12...	13.0	--	--	8.0	75	13	2.8	8300	250	--	--	.00
MAR. 18...	19.5	--	--	6.9	74	14	3.3	400000	1200	--	--	.00
AUG. 06...	25.0	120	50	5.8	69	36	.7	130000	4000	590	10	.01

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDO (UG/L)	ODE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
AUG. 06...	1345	2.5	.00	.00	.00	.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)
AUG. 06...	.00	.0	.00	.00	.00	.00	.00	.06	.00

SAN JACINTO RIVER BASIN

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08074780 KEEGANS BAYOU AT KEEGAN ROAD, NEAR HOUSTON, TEX.--Continued

DATE	TIME	DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
MAY, 1970				
15...	1705	7.0	290	5.5
15...	2300	51	212	29
16...	1135	63	68	12
17...	1355	25	33	2.2
18...	1400	10	32	0.86
AUG., 1971				
06...	1345	2.5	70	0.47

SAN JACINTO RIVER BASIN

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.--9.28 sq mi.

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

Pesticide analyses: October 1968 to September 1971.

Sediment analyses: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
DEC. 02...	0915	1.8	23	73	28	51	380	0	18	55	.4	--
FEB. 12...	1000	1.8	14	70	16	48	314	0	27	41	.3	--
MAR. 18...	1730	12	10	38	9.5	29	156	0	34	24	.2	1.1
MAY 10...	1240	.72	25	100	28	72	394	0	98	68	.5	.72
24...	1320	50	6.6	18	4.2	17	75	0	20	12	.6	.00
JULY 21...	1220	6.3	12	50	12	43	200	0	48	40	.4	.28
AUG. 03...	1315	5.0	17	30	7.1	22	111	0	34	22	.3	.30
06...	1410	50	8.1	20	2.9	13	76	0	15	8.5	.2	.38
30...	1000	3.5	13	40	11	39	186	0	30	34	.4	.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 BORON (B) (UG/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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
DEC. 02...	.010	.18	.2	16	90	437	--	300	0	1.3	770	7.5
FEB. 12...	.10	.69	.9	1.4	120	376	--	240	0	1.3	669	7.8
MAR. 18...	.11	1.2	.7	1.0	60	227	--	130	6	1.1	404	7.2
MAY 10...	.50	.75	.4	2.9	--	591	50	370	45	1.6	1000	7.1
24...	.020	1.0	.3	1.5	--	118	--	62	1	--	208	7.0
JULY 21...	.060	.85	.2	.70	--	306	--	180	12	--	546	7.3
AUG. 03...	.19	2.1	.4	1.0	--	193	300	100	13	.9	314	7.2
06...	.010	.38	.5	.35	--	107	836	62	0	.7	170	7.6
30...	.44	2.0	.8	1.3	--	266	172	140	0	1.4	479	7.4

DATE	TEMP- ERATURE (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)
DEC. 02...	21.0	--	--	7.3	81	--	3.3	70000	330	--	--	.00
FEB. 12...	13.0	--	--	9.6	91	13	4.2	13000	84	--	--	.00
MAR. 18...	21.5	--	--	7.2	81	45	11	150000	3100	--	--	.00
MAY 10...	25.5	60	25	4.8	58	29	12	--	--	--	0	.00
24...	23.5	70	300	7.0	81	77	3.5	640000	16000	58000	8	.00
JULY 21...	28.0	50	40	4.3	54	16	5.9	3900	1400	800	--	.00
AUG. 03...	25.0	160	150	5.4	64	33	3.6	7700	290	1000	4	.11
06...	25.0	80	340	6.8	81	34	.6	--	--	--	6	.00
30...	25.5	50	100	3.9	47	20	2.4	74000	3100	620	2	.10

SAN JACINTO RIVER BASIN

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08074800 KEEGANS BAYOU AT ROARK ROAD, NEAR HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 18...	1730	12	.00	.00	.00	.03	.02	.00	.00	.00
MAY 10...	1240	.72	.00	--	--	--	--	--	--	--
MAY 24...	1320	50	.00	.00	.00	.11	.06	.00	.00	.00
JULY 21...	1220	6.3	.00	.00	.00	.00	.02	.00	.00	.00
AUG. 03...	1315	5.0	.00	.00	.00	.01	.03	.00	.00	.00
AUG. 06...	1410	50	.00	.00	.00	.01	.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. 18...	.01	.1	.13	.00	.00	.00	.00	.00	.00
MAY 10...	--	--	.32	.00	.00	.00	.00	.00	.00
MAY 24...	.06	.3	.00	.00	.00	.00	.00	.29	.00
JULY 21...	.00	.0	.21	.10	.00	.00	.00	.05	.00
AUG. 03...	.06	.1	.00	.00	.00	.00	.29	.07	.07
AUG. 06...	.00	.4	.06	.00	.00	.00	.07	.35	.03

DATE	TIME	DIS- CHARGE (CFS)	SUS- PENDED SEDIM- ENT (MG/L)	SUS- PENDED SEDIM- ENT DIS- CHARGE (T/DAY)
DEC., 1969				
06...	1110	50	1110	150
MAY, 1970				
15...	1400	91	3180	781
15...	1620	82	1330	294
15...	2210	110	734	218
16...	1100	113	300	92
17...	1330	76	159	33
18...	1430	28	117	8.8
MAR., 1971				
18...	1730	12	632	20
18...	1840	24	1250	81
MAY 24...	1320	50	2170	293
JULY 21...	1220	6.3	146	2.5
AUG. 03...	1315	5.0	292	3.9
AUG. 06...	1410	50	774	104

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 1971.
Pesticide analyses: October 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
DEC. 02...	1030	4.0	23	35	14	81	276	0	28	51	.5	--
FEB. 12...	1050	2.6	19	44	12	100	336	0	38	66	.4	--
MAR. 18...	1640	17	12	33	16	40	188	0	34	47	.2	.44
AUG. 06...	1445	19	9.9	32	4.4	28	122	0	27	22	.2	.01

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 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
DEC. 02...	.17	2.3	.2	5.5	160	373	--	140	0	2.9	670	7.6
FEB. 12...	.19	8.7	.3	5.1	320	459	--	160	0	3.4	827	7.8
MAR. 18...	.10	6.5	.7	1.5	140	286	--	150	0	1.4	551	7.0
AUG. 06...	.050	.77	.5	1.2	--	187	162	98	0	1.2	329	6.8

DATE	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATU- RATION	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)
DEC. 02...	22.5	--	--	4.9	56	--	11	510000	40000	--	--	.00
FEB. 12...	15.5	--	--	8.0	79	27	19	450000	4200	--	--	.04
MAR. 18...	21.0	--	--	5.0	56	35	13	330000	7700	--	--	.00
AUG. 06...	27.0	240	85	2.8	35	44	1.6	1600000	10000	9300	16	.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. 18...	1640	17	.00	.04	.02	.11	.04	.00	.00	.00
AUG. 06...	1445	19	.00	.00	.00	.08	.12	.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. 18...	.05	.1	.12	.00	.00	.00	.31	.08	.04
AUG. 06...	.00	.3	.04	.00	.00	.00	.13	.94	.00

SAN JACINTO RIVER BASIN

379

08075000 BRAYS BAYOU AT HOUSTON, TEX.

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.

DRAINAGE AREA.--88.4 sq mi.

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
DEC.											
02...	1115	43	24	33	23	110	368	0	37	67	.7
FEB.											
12...	1135	37	22	38	11	110	320	0	34	69	.6
MAR.											
18...	1520	750	4.5	22	2.7	31	108	0	13	19	.1
18...	1925	625	7.0	21	5.0	32	112	0	22	22	.2
19...	0900	112	12	35	7.5	45	146	0	38	38	.2
MAY											
10...	1130	32	40	51	27	530	408	0	38	760	.3
24...	1015	380	6.9	26	2.2	29	117	0	15	20	.3
JULY											
21...	1030	155	14	31	6.0	49	150	0	25	43	.4
AUG.											
03...	1150	235	12	26	4.7	37	126	0	19	32	.2
06...	1300	710	8.9	26	5.1	17	97	0	18	17	.0
30...	1115	80	16	36	11	68	228	0	34	52	.4

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 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)
DEC.										
02...	--	.81	7.0	.4	8.5	320	490	--	180	0
FEB.										
12...	--	1.2	7.0	.9	4.3	340	459	--	140	0
MAR.										
18...	.56	.11	1.2	2.0	1.6	70	156	--	66	0
18...	.62	.10	2.4	1.2	2.3	130	173	--	73	0
19...	.60	.17	1.0	1.5	1.2	150	256	--	120	0
MAY										
10...	1.1	.000	18	.00	13	--	1670	25	240	0
24...	.66	.12	1.8	.4	1.7	--	162	--	74	0
JULY										
21...	.39	.10	1.2	.6	3.3	--	247	--	100	0
AUG.										
03...	.33	.16	1.5	.3	1.4	--	197	68	84	0
06...	.33	.030	.60	.5	.62	--	143	330	86	6
30...	.73	.40	5.2	.7	2.2	--	341	48	140	0

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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)
DEC.										
02...	3.6	856	7.5	24.5	--	--	6.8	80	--	25
FEB.										
12...	4.0	821	7.6	21.0	--	--	11.4	127	34	14
MAR.										
18...	1.7	271	7.2	21.5	--	--	7.7	87	130	31
18...	1.6	313	7.0	20.0	--	--	7.3	79	72	20
19...	1.8	468	6.9	16.0	--	--	6.1	61	40	11
MAY										
10...	15	3120	7.6	27.0	80	7	10.8	133	80	21
24...	1.5	266	6.8	22.5	40	45	8.4	95	110	2.9
JULY										
21...	--	475	7.2	28.5	70	55	6.7	86	27	2.8
AUG.										
03...	1.8	368	7.3	26.0	50	30	6.4	78	44	2.4
06...	.8	239	7.2	25.0	70	100	6.8	81	53	2.0
30...	2.5	633	7.2	29.0	50	55	7.3	94	40	9.3

SAN JACINTO RIVER BASIN

08075000 BRAYS BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCHI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (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)
DEC.										
02...	22000	270	--	--	.00	--	--	--	--	--
FEB.										
12...	170	100	--	--	.05	--	--	--	--	--
MAR.										
18...	700000	54000	--	--	.00	--	--	--	--	--
18...	780000	50000	--	--	.00	--	40	0	0	--
19...	20000	250	--	--	.00	--	--	--	--	--
MAY										
10...	--	--	--	0	.05	--	--	--	--	--
24...	180000	20000	22000	4	.00	10	--	--	--	--
JULY										
21...	2100	1100	1	--	.00	10	--	10	1	0
AUG.										
03...	71000	600	76	4	.00	--	--	--	--	--
06...	--	--	--	10	.01	--	--	--	--	--
30...	--	--	--	16	.42	--	--	--	--	--

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)
DEC.										
02...	--	--	--	--	--	--	--	--	--	--
FEB.										
12...	--	--	--	--	--	--	--	--	--	--
MAR.										
18...	--	--	--	--	--	--	--	--	--	--
18...	0	15	44	8	10	40	2.2	0	110	46
19...	--	--	--	--	--	--	--	--	--	--
MAY										
10...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
JULY										
21...	0	13	30	6	--	11	7.6	5	--	50
AUG.										
03...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--

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.										
18...	1520	750	.00	.00	.00	1.0	.43	.00	.00	.00
19...	0900	112	.00	.00	.00	.04	.05	.00	.00	.00
MAY										
10...	1130	32	--	--	--	--	--	--	--	--
24...	1015	380	.00	.06	.00	.25	.11	.00	.00	.00
JULY										
21...	1030	155	.00	.00	.00	.00	.04	.00	.00	.00
AUG.										
03...	1150	235	.00	.02	.00	.07	.00	.00	.00	.00
06...	1300	710	.00	.00	.00	.22	.11	.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.									
18...	.00	15	.26	.00	.00	.00	.34	.17	.07
19...	.05	.4	.34	.00	.00	.00	.24	.35	.13
MAY									
10...	--	--	.53	.01	.00	.00	.00	.07	.00
24...	.04	.7	.49	1.3	.00	.00	.00	.22	.00
JULY									
21...	.00	.1	.68	.16	.00	.00	.00	.48	.03
AUG.									
03...	.00	.2	.00	.00	.00	.00	.27	.39	.00
06...	.00	.9	.30	.00	.00	.00	.00	.37	.00

SAN JACINTO RIVER BASIN

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08075000 BRAYS BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA

DATE	TIME	DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
NOV., 1969				
10...	1330	2.0	56	0.30
DEC.				
06...	1230	15	474	19
MAY, 1970				
15...	1310	472	552	703
15...	1350	2070	354	1980
15...	1435	2810	1325	10100
15...	1545	2900	1390	10900
15...	1730	3500	722	6820
16...	0035	2360	549	3500
16...	1245	1750	234	1110
17...	1445	400	66	71
MAR., 1971				
18...	1520	810	237	518
18...	1925	625	320	540
19...	0900	112	232	70
MAY				
24...	1015	438	370	438
JULY				
21...	1030	155	107	45
AUG.				
03...	1150	235	127	81
06...	1300	750	289	585

SAN JACINTO RIVER BASIN

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.

PERIOD OF RECORD.--Chemical and biochemical analyses: May to September 1971.

Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAY												
10...	1010	36	26	46	19	770	308	0	40	1100	.7	.43
18...	0910	36	25	45	11	250	286	0	45	300	1.0	.00
24...	1140	1070	7.1	30	6.1	160	130	0	13	240	.2	.67
JUNE												
08...	0900	33	18	60	12	1900	310	0	37	2900	.6	.44
22...	0945	40	22	70	13	3600	268	0	75	5600	.5	.30
JULY												
15...	0745	44	24	32	9.2	120	280	0	31	82	.8	.24
21...	0915	245	9.8	30	4.6	250	132	0	23	360	.4	.30
AUG.												
03...	0845	623	6.5	24	2.2	430	90	0	19	650	.2	.28
24...	1315	115	16	51	13	710	244	0	45	1100	.5	.57
SEP.												
10...	1245	8510	5.9	20	2.2	11	68	0	11	8.5	.2	.75

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
10...	.90	3.8	.4	4.6	2180	1	190	0	24	3910	7.1	26.0
18...	.28	5.0	.2	5.6	828	--	160	0	8.7	1600	7.5	25.5
24...	.18	2.1	1.8	2.4	528	--	100	0	7.0	1060	6.9	23.0
JUNE												
08...	.22	5.8	.1	2.8	5110	--	200	0	59	9140	7.7	27.0
22...	.61	4.8	.2	5.7	9500	16	230	10	104	16700	7.5	28.0
JULY												
15...	.30	3.4	.4	4.2	440	--	120	0	4.8	883	7.2	28.0
21...	.10	1.0	.6	1.9	753	--	94	0	--	1390	7.3	27.5
AUG.												
03...	.060	.71	.3	1.2	1180	132	69	0	23	2040	7.3	25.0
24...	.48	5.8	.7	2.9	2030	38	180	0	23	3680	8.0	31.0
SEP.												
10...	.020	.27	.6	.62	95	--	59	2	.6	149	6.4	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												
10...	30	7	7.2	88	12	8.4	100000	5900	12000	0	.01	60
18...	20	9	8.4	101	37	7.5	3200000	44000	2700	8	.03	--
24...	30	30	7.2	83	140	5.9	380000	13000	140000	8	.00	10
JUNE												
08...	40	15	5.7	70	66	4.2	220000	6300	310	0	.02	--
22...	50	20	6.8	86	42	3.1	600000	11000	920	1	.01	20
JULY												
15...	20	10	4.2	53	18	7.0	3600000	18000	480	4	.00	--
21...	80	85	6.1	76	30	6.3	260000	25000	1200	2	.00	10
AUG.												
03...	50	50	6.6	79	58	4.5	540000	14000	22000	11	.15	80
24...	55	20	6.7	89	32	12	2700000	19000	65000	16	.36	--
SEP.												
10...	140	120	8.0	87	32	1.6	1600000	8300	120000	11	.00	30

SAN JACINTO RIVER BASIN

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08075100 BRAYS BAYOU AT SCOTT STREET, AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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											
10...	10	0	34	0	10	38	3	80	<.5	0	30
18...	--	--	--	--	--	--	--	--	--	--	--
24...	10	0	4	0	13	71	22	60	<.5	0	90
JUNE											
08...	--	--	--	--	--	--	--	--	--	--	--
22...	0	0	25	0	12	40	4	60	<.5	0	50
JULY											
15...	--	--	--	--	--	--	--	--	--	--	--
21...	10	0	10	1	7	30	6	6	.9	4	30
AUG.											
03...	0	0	7	0	8	50	16	20	<.5	1	40
24...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
10...	10	0	0	0	14	240	4	3	.5	3	40

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										
10...	1010	36	.00	.00	.00	.00	.04	.00	.00	.00
24...	1140	1070	.00	.11	.00	.30	.15	.00	.00	.00
JUNE										
22...	0945	40	.00	.00	.00	.00	.00	.00	.00	.00
JULY										
21...	0915	245	.00	.00	.00	.04	.04	.00	.00	.00
AUG.										
03...	0845	623	.00	.00	.00	.04	.02	.00	.00	.00
SEP.										
10...	1245	8510	.00	.00	.01	.08	.12	.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									
10...	.00	.1	.46	.00	.00	.00	.00	.02	.01
24...	.00	1.1	.83	2.9	.00	.00	.00	.34	.00
JUNE									
22...	.00	.0	.00	.00	.00	.00	.00	.27	.00
JULY									
21...	.00	.1	.64	.33	.00	.00	.00	.00	.00
AUG.									
03...	.00	.2	.10	.00	.00	.00	.10	.31	.00
SEP.									
10...	.00	.4	.13	.00	.00	.00	.00	.34	.00

SAN JACINTO RIVER BASIN

08075400 SIMS BAYOU AT HIRAM CLARKE STREET, AT HOUSTON, TEX.

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.

DRAINAGE AREA.--20.2 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1971.

Pesticide analyses: October 1970 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 01...	0920	6.9	24	31	25	110	340	0	32	73	.6	--
FEB. 08...	1130	8.0	20	36	18	130	252	0	33	140	.4	--
MAY 06...	1200	9.4	30	38	21	120	368	0	41	86	.6	.62
JULY 21...	1000	13	29	40	13	120	362	0	32	77	.9	.76
AUG. 30...	0910	200	7.5	21	4.3	120	74	0	15	180	.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 BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
DEC. 01...	.17	1.2	2.7	6.5	300	478	--	180	0	3.6	869	7.3
FEB. 08...	.34	1.1	3.7	4.6	270	525	--	160	0	4.4	949	7.8
MAY 06...	.45	6.3	.4	6.5	--	531	130	180	0	--	1000	7.0
JULY 21...	.060	5.5	.00	5.9	--	500	--	150	0	4.2	935	7.9
AUG. 30...	.060	.88	.8	.75	--	385	96	70	10	6.2	747	7.2

DATE	TEMP- ERATURE (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)
DEC. 01...	22.5	--	--	4.8	55	--	16	200000	4000	--	--	.00
FEB. 08...	13.0	--	--	8.6	81	27	3.2	--	--	--	--	.02
MAY 06...	24.5	10	30	2.1	25	11	9.9	620000	420000	1700	21	.00
JULY 21...	29.0	50	55	2.0	26	81	19	16000000	740000	20000	--	.00
AUG. 30...	24.5	220	150	2.4	29	39	2.3	1500000	12000	33000	9	.00

DATE	TIME	DIS- CHARGE (CFS)	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 06...	1200	9.4	.38	.00	.00	.00	.00	.00	.00

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 1971.
Pesticide analyses: October 1968 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
DEC.												
01...	1025	19	15	62	22	360	262	0	140	490	.4	--
FEB.												
08...	1300	22	12	42	16	330	182	0	52	500	.4	--
MAY												
06...	1020	17	21	50	18	560	326	0	36	800	.7	.66
18...	0800	18	21	49	13	220	316	0	52	280	.9	.41
JUNE												
09...	1110	22	17	39	17	220	306	0	48	260	.6	.41
22...	1120	19	18	43	14	380	270	0	46	540	.4	.43
JULY												
15...	1020	18	21	56	19	410	236	0	220	500	.7	.48
21...	1100	46	14	46	9.0	210	148	0	74	300	.5	.23
AUG.												
03...	1400	53	23	37	11	140	174	0	56	190	.4	.36
26...	1400	110	11	42	9.5	280	122	0	27	460	.4	.58
SEP.												
10...	1010	1650	5.9	28	4.9	82	72	0	24	130	2.2	.51

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 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)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
DEC.												
01...	.000	11	.00	3.5	470	1230	--	240	26	10	2210	6.7
FEB.												
08...	.18	6.4	.8	3.2	270	1050	--	170	23	11	1980	7.7
MAY												
06...	.000	10	.00	7.0	--	1660	10	200	0	17	3000	7.0
18...	.010	17	.00	6.0	--	811	--	180	0	7.2	1510	6.9
JUNE												
09...	.010	8.6	.1	21	--	757	--	170	0	7.4	1440	7.4
22...	.020	10	.00	5.1	--	1180	32	170	0	13	2120	7.4
JULY												
15...	.020	9.8	.00	4.8	--	1400	--	220	22	12	2360	6.9
21...	.020	6.2	.00	3.7	--	730	--	150	30	7.4	1390	7.0
AUG.												
03...	.020	10	.1	3.2	--	560	32	140	0	5.2	1040	7.0
26...	.16	5.0	.4	1.4	--	903	78	140	44	10	1670	7.3
SEP.												
10...	.010	.85	.4	1.2	--	313	--	90	31	3.8	582	4.7

DATE	TEMP- ERATURE (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)
DEC.												
01...	22.0	--	--	1.8	20	--	11	320000	32000	--	--	.01
FEB.												
08...	11.0	--	--	5.6	50	29	18	48000	4600	--	--	.09
MAY												
06...	24.0	30	2	1.6	19	18	8.7	2000000	6700	4900	21	.00
18...	23.5	20	5	.3	4	42	8.1	1500000	25000	1800	7	.09
JUNE												
09...	28.0	20	20	3.0	38	37	7.8	1900000	78000	14000	7	.04
22...	29.0	40	20	4.2	54	47	6.8	460000	9000	2700	3	.02
JULY												
15...	29.5	25	30	1.2	16	33	7.2	2300000	29000	5800	1	.00
21...	29.0	40	35	2.3	29	26	9.3	420000	19000	6600	4	.10
AUG.												
03...	26.0	40	20	3.7	45	34	4.4	930000	7700	16000	6	.11
26...	28.5	90	100	.6	8	63	8.7	1700000	79000	6700	8	.03
SEP.												
10...	25.0	140	180	4.3	51	56	4.1	2100000	20000	33000	10	.09

SAN JACINTO RIVER BASIN

08075500 SIMS BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
DEC. 01...	--	--	--	--	--	--	--	--	--	--	--	--
FEB. 08...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 06...	90	0	0	0	0	9	450	5	170	.6	10	160
18...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE 09...	--	--	--	--	--	--	--	--	--	--	--	--
22...	20	10	0	0	0	4	130	0	120	<.5	0	50
JULY 15...	--	--	--	--	--	--	--	--	--	--	--	--
21...	10	--	--	--	--	--	--	--	--	--	--	--
AUG. 03...	50	0	0	0	1	4	120	6	100	<.5	1	170
26...	--	--	--	--	--	--	--	--	--	--	--	--
SEP. 10...	90	10	0	0	0	11	70	0	24	2.8	10	30

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 06...	1020	17	.00	.01	.00	.01	.06	.00	.00	.00
JUNE 22...	1120	19	.00	.00	.00	.00	.00	.00	.00	.00
JULY 21...	1100	46	.00	.00	.00	.00	.04	.00	.00	.00
AUG. 03...	1400	53	.00	.00	.00	.01	.05	.00	.00	.00
SEP. 10...	1010	1650	.00	.00	.00	.02	.11	.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 06...	.00	.1	.48	.00	.00	.00	.00	.00	.60
JUNE 22...	.02	.0	--	--	--	--	.00	.24	.00
JULY 21...	.00	.0	.47	.08	.00	.00	.00	.17	.00
AUG. 03...	.00	.0	.14	.00	.00	.00	.26	.28	.00
SEP. 10...	.00	.3	.03	.00	.00	.00	.00	.18	.03

SAN JACINTO RIVER BASIN

387

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 1971.
Pesticide analyses: October 1968 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 08...	1400	12	13	32	16	250	314	0	34	310	1.0	--
MAY 05...	0920	4.0	19	34	23	530	444	0	29	700	2.2	1.2
18...	0650	4.0	16	30	19	420	414	0	30	540	2.5	.11
JUNE 09...	1320	5.8	12	33	17	430	436	0	23	520	1.6	.55
22...	1245	6.7	16	41	19	520	374	0	27	700	1.3	.50
JULY 15...	0940	12	18	24	18	240	290	0	32	280	1.5	.39
21...	1140	40	6.2	26	4.1	120	130	0	22	160	.6	.26
AUG. 12...	1315	7.7	13	36	18	290	276	0	14	410	1.0	.75
24...	1110	--	15	34	15	320	288	0	36	420	1.1	.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 BORON (B) (UG/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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
FEB. 08...	.060	9.0	.2	4.9	450	826	--	140	0	9.0	1500	7.9
MAY 05...	.050	15	.1	7.0	--	1580	9	180	0	17	3010	6.9
18...	.030	17	.00	8.5	--	1290	--	150	0	15	2380	7.3
JUNE 09...	.19	7.2	.1	5.8	--	1260	--	150	0	15	2340	7.8
22...	.32	6.5	.00	14	--	1510	18	180	0	17	2770	7.8
JULY 15...	.080	6.9	.1	1.5	--	770	--	130	0	9.0	1440	7.1
21...	.040	1.3	.4	2.0	--	400	--	82	0	--	786	7.2
AUG. 12...	.74	7.0	.1	4.6	--	932	46	160	0	--	1790	7.5
24...	.070	8.5	.1	7.2	--	993	6	150	0	12	1850	7.6

DATE	TEMP- ERATURE (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. 08...	15.0	--	--	7.2	71	52	22	23000	5800	--	--	.13
MAY 05...	24.0	60	6	2.6	31	84	22	3400000	770000	55000	21	.12
18...	22.0	35	10	2.2	25	68	20	600000	7700	5200	9	.04
JUNE 09...	30.5	40	35	9.3	122	130	29	360000	3600	1400	7	.03
22...	30.5	60	20	6.2	82	63	16	58000	450	270	4	.02
JULY 15...	28.0	45	20	3.4	43	25	5.6	320000	19000	800	3	.00
21...	28.0	80	90	3.0	38	59	14	940000	16000	2400	1	.00
AUG. 12...	32.0	50	35	9.8	132	56	19	130000	320	130	10	.11
24...	28.0	55	3	4.2	53	24	.7	220000	8700	540	0	.28

SAN JACINTO RIVER BASIN

08075650 BERRY BAYOU AT FOREST OAKS STREET, HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
FEB. 08...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 05...	.0	0	0	0	0	20	66	0	80	.5	10	40
18...	.0	--	--	--	--	--	--	--	--	--	--	--
JUNE 09...	--	--	--	--	--	--	--	--	--	--	--	--
22...	.0	10	0	0	0	9	60	2	70	<.5	0	20
JULY 15...	--	--	--	--	--	--	--	--	--	--	--	--
21...	.0	20	0	4	0	7	50	0	50	.7	9	50
AUG. 12...	.0	0	0	0	0	26	60	2	13	.5	0	50
24...	--	--	--	--	--	--	--	--	--	--	--	--

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 05...	0920	4.0	.07	.06	.00	.00	.33	.00	.00	.00
JUNE 22...	1245	6.7	.00	.00	.00	.00	.00	.00	.00	.00
JULY 21...	1140	40	.00	.00	.00	.00	.04	.00	.00	.00
AUG. 12...	1315	7.7	.00	.00	.00	.00	.13	.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 05...	.06	.7	.74	.00	.09	.55	.00	.00	.00
JUNE 22...	.02	.7	--	--	--	--	.00	.03	.00
JULY 21...	.00	.1	.18	.11	.00	.00	.00	.24	.00
AUG. 12...	.05	1.8	.14	.00	.00	.00	.00	.00	.00

SAN JACINTO RIVER BASIN

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08075720 PLUM CREEK AT HOUSTON, TEX.

LOCATION.--Lat 29°42'11", long 95°17'00", Harris County, at bridge on Berkley Street at Houston.

PERIOD OF RECORD.--Chemical and biochemical analyses: May to September 1971.

Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAY												
06...	0900	.35	12	30	6.1	51	106	0	42	58	.2	.22
17...	1050	.27	9.3	29	4.5	60	131	0	38	52	.5	.12
JUNE												
08...	1155	.30	5.8	28	6.8	66	136	0	37	64	.4	.15
22...	1400	.35	11	30	4.1	78	168	0	31	64	.5	.31
JULY												
13...	1230	.57	10	30	2.7	66	124	0	40	60	.4	.18
22...	1515	.50	11	26	3.9	73	156	0	27	58	.6	.21
AUG.												
03...	1300	4.8	5.4	23	2.6	22	87	0	18	18	.2	.21
24...	1050	.40	10	33	3.8	43	112	0	32	46	.3	.07
SEP.												
01...	1025	175	2.4	20	1.2	3.6	58	0	9.2	3.0	.2	.53
10...	1230	334	4.6	17	3.1	3.1	53	0	11	4.0	.2	.38

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
06...	.060	.85	.1	3.8	253	8	100	13	2.2	459	6.9	23.5
17...	.020	.04	.1	1.5	258	--	91	0	2.7	481	7.3	24.0
JUNE												
08...	.090	.54	.3	1.6	277	--	98	0	2.9	523	8.5	28.0
22...	.22	.27	.00	1.1	303	10	92	0	3.5	580	7.4	30.5
JULY												
13...	.020	.20	.1	.30	271	--	86	0	3.1	469	8.0	30.5
22...	.030	.20	.2	.29	278	--	81	0	--	499	7.8	33.0
AUG.												
03...	.030	.17	.2	.27	133	22	68	0	--	256	7.2	25.5
24...	.040	.20	.2	.44	224	8	98	6	1.9	414	7.5	27.0
SEP.												
01...	.040	.12	.3	.17	70	22	55	7	.2	141	8.0	23.0
10...	.030	.23	.4	.31	71	--	55	12	.2	111	7.6	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 SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
MAY												
06...	10	5	2.8	33	5	3.8	1500000	260000	1600	22	.00	10
17...	20	10	9.4	111	24	3.6	5800	570	1100	1	.00	--
JUNE												
08...	30	10	10.2	129	30	2.8	22000	420	4000	2	.00	--
22...	50	15	4.7	62	57	5.1	300000	1400	2700	2	.04	10
JULY												
13...	15	10	6.5	86	14	1.6	25000	2200	430	6	.00	--
22...	30	40	5.3	73	17	2.0	170000	5200	4400	6	.02	20
AUG.												
03...	50	15	4.3	52	30	2.1	960000	200000	51000	6	.10	20
24...	35	5	4.8	59	10	.8	94000	2600	1900	9	.05	--
SEP.												
01...	80	85	7.4	85	28	2.1	220000	20000	200000	19	.06	--
10...	90	55	7.5	89	25	.9	1500000	7700	120000	11	.04	10

SAN JACINTO RIVER BASIN

08075720 PLUM CREEK AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	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)	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												
06...	0	0	23	--	0	7	73	0	90	1.3	10	40
17...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
08...	--	--	--	--	--	--	--	--	--	--	--	--
22...	0	0	17	--	0	5	70	11	20	<.5	0	20
JULY												
13...	--	--	--	--	--	--	--	--	--	--	--	--
22...	10	0	6	--	0	5	40	0	10	<.5	4	0
AUG.												
03...	0	0	6	--	0	7	60	22	10	<.5	0	0
24...	--	--	--	--	--	--	--	--	--	--	--	--
SEP.												
01...	0	0	6	--	0	7	60	22	10	--	0	0
10...	10	0	14	0	0	8	30	4	9	<.5	0	10

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										
06...	0900	.35	.00	.00	.00	.00	.01	.00	.00	.00
JUNE										
22...	1400	.35	.00	.00	.00	.01	.01	.00	.00	.00
JULY										
22...	1515	.50	.00	.00	.00	.00	.01	.00	.00	.00
AUG.										
03...	1300	4.8	.00	.00	.00	.01	.01	.00	.00	.00
SEP.										
01...	1025	175	.00	.00	.00	.07	.03	.00	.00	.00
10...	1230	334	.00	.00	.01	.06	.07	.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									
06...	.01	.0	.35	.00	.00	.00	.00	.00	.00
JUNE									
22...	.01	.0	.11	.00	.00	.00	.00	.19	.00
JULY									
22...	.00	.0	.06	.00	.00	.00	.12	.19	.00
AUG.									
03...	.00	.0	.02	.00	.00	.00	.06	.13	.00
SEP.									
01...	.00	.2	.01	.00	.00	.00	.00	.09	.00
10...	.05	.2	.12	.00	.00	.00	.11	.12	.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 to September 1971.
Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAY												
05...	1040	3.6	8.7	50	20	71	318	0	16	59	.5	.25
17...	0815	.29	5.6	38	12	120	238	0	44	110	.9	.00
JUNE												
08...	0900	.25	8.2	39	16	170	366	0	41	140	.7	.19
21...	0935	.30	8.1	32	9.8	58	114	20	35	58	.4	.30
JULY												
13...	0715	.35	11	34	12	150	306	0	38	120	1.1	.29
22...	1415	1.1	9.5	19	6.0	120	208	0	26	88	1.0	.28
AUG.												
03...	0745	115	4.4	20	3.4	11	70	0	15	10	.2	.41
24...	0930	1.9	11	27	11	100	224	0	34	84	.8	.14
SEP.												
01...	0950	82	2.0	26	1.3	13	85	0	12	12	.2	.54

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
05...	.000	.18	.00	.11	381	17	208	0	2.1	753	7.1	24.0
17...	.000	.00	.00	.65	445	--	140	0	4.3	830	7.9	20.0
JUNE												
08...	.010	.28	.4	2.5	598	--	160	0	5.8	1090	7.8	25.5
21...	.000	.04	.00	.44	277	36	120	27	--	525	10.0	28.0
JULY												
13...	.020	.79	.00	1.3	517	--	134	0	5.6	959	8.0	24.5
22...	.010	.17	.00	.22	368	--	72	0	--	662	7.3	37.0
AUG.												
03...	.060	.28	.4	.45	101	346	64	7	--	192	7.4	24.5
24...	.020	.88	.2	.90	383	338	110	0	4.1	681	8.0	27.0
SEP.												
01...	.060	.61	.4	.21	111	346	70	0	.7	224	8.0	24.0

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												
05...	10	6	11.4	134	2	2.7	24000	7900	430	11	.00	10
17...	20	6	9.9	108	34	6.4	1600000	7000	3200	12	.02	--
JUNE												
08...	40	20	--	--	35	5.7	9000	5800	330	1	.03	--
21...	50	35	15.5	196	61	3.8	21000	2100	630	11	.00	10
JULY												
13...	25	6	3.7	44	27	3.4	25000	750	290	2	.01	--
22...	50	70	15.2	220	21	3.9	46000	3700	690	4	.02	--
AUG.												
03...	200	120	6.8	81	38	2.1	1300000	12000	92000	0	.00	10
24...	55	160	5.3	65	24	3.4	780000	21000	7500	3	.10	--
SEP.												
01...	100	150	7.1	84	49	6.0	540000	6700	120000	12	.05	--

SAN JACINTO RIVER BASIN

08075730 VINCE BAYOU AT PASADENA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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											
05...	50	0	0	0	5	30	0	50	<.5	0	10
17...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
08...	--	--	--	--	--	--	--	--	--	--	--
21...	280	1	0	0	6	130	2	0	.9	0	20
JULY											
13...	--	--	--	--	--	--	--	--	--	--	--
22...	10	0	0	0	7	50	4	0	<.5	0	0
AUG.											
03...	0	0	0	0	8	70	5	1	<.5	0	0
24...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
01...	--	--	--	--	--	--	--	--	--	--	--

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										
05...	1040	3.6	.00	.00	.00	.00	.01	.00	.00	.00
JUNE										
21...	0935	.30	.00	.00	.00	.00	.00	.00	.00	.00
JULY										
22...	1415	1.1	.00	.01	.00	.01	.01	.00	.00	.00
AUG.										
03...	0745	115	.00	.00	.00	.10	.08	.00	.00	.00
SEP.										
01...	0950	82	.00	.00	.02	.19	.06	.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									
05...	.01	.0	.01	.00	.00	.00	.00	.00	.01
JUNE									
21...	.00	.0	.05	.00	.00	.00	.00	.47	.00
JULY									
22...	.00	.0	.00	.00	.00	.00	.00	.72	.00
AUG.									
03...	.00	.1	.09	.00	.00	.00	.00	.24	.00
SEP.									
01...	.00	.3	.03	.00	.00	.00	.00	.22	.00

SAN JACINTO RIVER BASIN

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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.--3.7 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: May to September 1971.
Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAY												
05...	1400	.13	6.5	24	5.8	170	408	0	11	70	1.3	.68
11...	1700	126	2.2	18	2.5	14	68	0	14	11	.3	.39
17...	0715	.95	9.9	20	2.4	120	258	0	37	50	.9	.18
JUNE												
08...	1000	.20	6.5	30	6.1	170	388	0	18	84	.8	.30
21...	1040	.10	8.4	28	5.9	51	160	0	32	30	.3	.45
JULY												
13...	0830	.15	5.1	26	6.1	170	374	0	22	100	1.2	.43
22...	1230	.51	6.3	26	7.6	28	118	0	27	24	.4	.45
AUG.												
03...	0920	51	3.4	16	1.7	8.4	53	0	11	7.0	.2	.22
24...	1015	.50	4.6	36	8.3	160	396	0	15	94	.8	1.4
SEP.												
10...	1000	380	4.7	18	3.4	5.6	59	0	12	6.5	.1	.84

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
05...	.010	.22	.00	1.3	487	44	84	0	8.1	876	7.8	25.0
11...	.050	.97	.4	.28	98	241	55	0	.8	181	6.5	21.0
17...	.020	.29	.00	.25	368	--	60	0	6.8	614	6.9	25.0
JUNE												
08...	.010	.86	2.0	4.5	512	--	100	0	7.4	939	8.9	26.5
21...	.020	.80	.00	1.9	236	22	94	0	--	442	7.5	27.0
JULY												
13...	.010	2.0	.00	2.0	520	--	90	0	7.8	977	8.5	27.5
22...	.050	.88	.1	.95	179	--	96	0	--	350	7.6	30.0
AUG.												
03...	.030	.28	.2	.39	75	38	47	4	--	144	7.2	24.5
24...	.020	.59	.00	1.2	515	12	120	0	6.3	916	8.7	27.5
SEP.												
10...	.020	.30	.5	.47	82	--	59	11	.3	140	7.9	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 SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
MAY												
05...	20	15	10.0	119	12	5.6	260000	3300	250	5	.00	0
11...	40	90	5.2	58	49	10	--	--	--	0	.01	--
17...	20	15	2.5	30	16	3.1	1000000	75000	4900	7	.00	--
JUNE												
08...	40	20	4.6	56	40	9.0	1300000	7000	9700	0	.02	--
21...	50	20	3.7	46	45	13	1100000	14000	7300	18	.05	30
JULY												
13...	35	10	1.4	18	37	8.1	2000000	54000	49000	7	.03	--
22...	60	120	5.3	70	32	7.7	3400000	140000	25000	3	.03	0
AUG.												
03...	80	35	5.3	63	29	2.2	1300000	7000	76000	5	.06	20
24...	50	10	2.6	32	28	4.9	940000	20000	5500	5	.11	--
SEP.												
10...	130	70	6.7	80	37	2.4	1600000	16000	100000	15	.04	10

SAN JACINTO RIVER BASIN

08075740 LITTLE VINCE BAYOU AT PASADENA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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											
05...	10	0	0	0	7	24	0	40	<.5	0	10
11...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
08...	--	--	--	--	--	--	--	--	--	--	--
21...	10	0	0	0	4	40	2	150	<.5	0	10
JULY											
13...	--	--	--	--	--	--	--	--	--	--	--
22...	10	0	3	0	5	50	0	19	<.5	1	10
AUG.											
03...	0	0	0	2	6	50	11	2	<.5	2	0
24...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
10...	10	0	0	1	7	70	5	0	.5	0	0

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										
05...	1400	.13	.00	.00	.00	.00	.01	.00	.00	.00
11...	1700	126	.00	.04	.02	.68	.04	.00	.00	.00
JUNE										
21...	1040	.10	.00	.00	.00	.00	.01	.00	.00	.00
JULY										
22...	1230	.51	.00	.01	.00	.03	.02	.00	.00	.00
AUG.										
03...	0920	51	.00	.00	.00	.08	.03	.00	.00	.00
SEP.										
10...	1000	380	.00	.00	.00	.05	.07	.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									
05...	.00	.0	.00	.00	.00	.00	.00	.00	.00
11...	.03	.4	.53	.00	.00	.00	.00	.55	.00
JUNE									
21...	.00	.0	.09	.00	.00	.00	.66	.83	.00
JULY									
22...	.01	.0	.19	.00	.00	.00	.00	.23	.00
AUG.									
03...	.00	.1	.10	.00	.00	.00	.00	.29	.00
SEP.									
10...	.04	.3	.05	.00	.00	.00	.00	.27	.00

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 1971.

Pesticide analyses: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
DEC. 02...	1335	4.0	25	77	24	190	424	0	40	220	.6	--
FEB. 12...	1325	1.3	25	91	23	370	448	0	54	500	.6	--
MAR. 18...	1715	30	6.6	32	15	28	111	0	33	51	.2	.68
MAY 06...	1330	.59	29	74	23	310	402	0	25	420	.8	.51
JULY 21...	1505	1.7	12	40	8.3	210	252	0	25	250	.5	.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 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)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
DEC. 02...	.090	.18	.1	.70	190	777	--	290	0	4.8	1440	7.5
FEB. 12...	.040	1.1	.00	1.2	170	1280	--	320	0	9.0	2190	7.2
MAR. 18...	.16	.52	1.4	1.4	90	228	--	140	49	1.0	396	6.5
MAY 06...	.030	.89	.00	1.2	--	1090	149	280	0	8.1	1930	6.9
JULY 21...	.020	.24	.00	.85	--	666	--	130	0	7.9	1230	9.2

DATE	TEMP- ERATURE (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)
DEC. 02...	24.5	--	--	5.3	62	--	4.8	390000	4800	--	--	.00
FEB. 12...	17.0	--	--	2.8	29	44	50	3500000	6700	--	--	.01
MAR. 18...	22.0	--	--	7.6	86	180	54	570000	29000	--	--	.00
MAY 06...	23.5	10	45	1.1	13	33	22	110000	21000	9000	0	.00
JULY 21...	32.0	90	35	4.4	59	63	18	1900000	44000	25000	--	.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)
MAR. 18...	1715	30	.00	.15	.04	.19	.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)
MAR. 18...	.00	.4	1.4	.30	.00	.00	1.0	.17	.00

SAN JACINTO RIVER BASIN

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 1971.
Pesticide analyses: October 1968 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
DEC.											
02...	1415	7.6	19	74	23	120	386	0	92	98	.6
FEB.											
12...	1430	6.1	18	82	19	96	352	0	30	130	.6
MAR.											
18...	1800	62	7.3	50	35	38	217	0	58	80	.4
MAY											
06...	1430	3.2	23	56	23	170	452	0	36	150	.8
19...	1340	3.7	17	68	17	130	368	0	46	140	3.0
25...	1100	47	8.4	47	6.5	36	124	0	54	43	.5
JUNE											
09...	0715	3.7	9.3	59	16	180	392	0	36	170	.5
22...	0720	4.2	18	66	12	120	340	0	73	100	.6
JULY											
14...	1245	2.2	20	52	15	120	320	0	40	130	.6
22...	1045	4.5	16	58	14	110	252	0	74	120	.6
AUG.											
03...	1500	56	10	44	8.8	30	88	0	81	48	.5
24...	1040	2.0	17	57	15	130	346	0	38	130	.4
SEP.											
10...	1230	1500	4.5	23	2.6	8.6	66	0	19	9.0	.2

DATE	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 CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
DEC.										
02...	--	.10	3.9	.00	1.1	250	621	--	280	0
FEB.										
12...	--	.34	4.4	1.0	1.7	980	560	--	280	0
MAR.										
18...	.73	.14	3.7	3.3	2.3	380	395	--	270	90
MAY										
06...	1.1	.010	4.2	.00	4.4	--	687	23	240	0
19...	.44	.14	10	.1	3.5	--	607	--	240	0
25...	.43	.34	2.8	2.9	1.0	--	274	--	140	42
JUNE										
09...	.36	.15	2.0	.00	4.2	--	662	--	210	0
22...	.55	.10	8.2	1.2	2.8	--	572	48	210	0
JULY										
14...	.47	.090	5.5	.00	2.0	--	543	--	190	0
22...	.91	.18	10	3.1	2.8	--	542	--	200	0
AUG.										
03...	.64	.28	9.2	4.7	3.5	--	299	106	150	74
24...	.23	.040	8.8	.00	2.5	--	567	12	200	0
SEP.										
10...	.40	.030	.92	.8	.75	--	104	--	68	14

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATU- RATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
DEC.										
02...	3.1	1100	7.3	23.5	--	--	8.5	99	--	9.6
FEB.										
12...	2.5	1200	7.0	17.0	--	--	7.9	81	25	12
MAR.										
18...	1.0	707	6.7	21.5	--	--	5.7	64	200	42
MAY										
06...	4.8	1290	7.1	24.0	50	6	1.4	16	185	102
19...	3.7	1190	7.7	28.5	20	10	3.1	40	47	3.0
25...	1.3	506	7.0	24.5	50	35	3.1	37	53	1.0
JUNE										
09...	5.4	1210	7.6	25.5	40	20	.4	5	51	5.4
22...	3.6	1000	7.2	26.0	40	25	.4	5	61	17
JULY										
14...	3.8	1020	7.9	31.0	35	15	18.4	245	37	5.2
22...	--	1040	7.1	28.0	70	75	3.6	46	87	13
AUG.										
03...	--	547	6.7	25.0	70	60	1.5	18	60	2.4
24...	4.0	1050	7.6	27.0	35	10	4.0	49	23	4.1
SEP.										
10...	.5	178	4.0	25.0	100	110	5.8	69	44	5.8

08075770 HUNTING BAYOU AT U. S. HIGHWAY 90-A, HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	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)	OIL AND GREASE (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)
DEC.										
02...	1300000	660000	--	--	.00	--	--	--	--	--
FEB.										
12...	130000	500	--	--	.01	--	--	--	--	--
MAR.										
18...	6600000	340000	--	--	.00	--	40	7	0	0
MAY										
06...	840000	100000	6900	0	.03	10	--	0	1	0
19...	1000000	220	--	0	.02	--	--	--	--	--
25...	700000	200000	75000	5	.01	20	--	0	1	0
JUNE										
09...	20000000	25000	1600	0	.02	--	--	--	--	--
22...	7500000	170000	24000	6	.02	50	--	10	0	0
JULY										
14...	1100000	2400	820	2	.02	--	--	--	--	--
22...	4500000	56000	18000	3	.22	20	--	10	0	0
AUG.										
03...	2900000	150000	200000	12	.21	30	--	30	0	0
24...	98000	20000	670	0	.11	--	--	--	--	--
SEP.										
10...	6200000	28000	240000	9	.12	30	--	10	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)
DEC.										
02...	--	--	--	--	--	--	--	--	--	--
FEB.										
12...	--	--	--	--	--	--	--	--	--	--
MAR.										
18...	0	14	40	0	20	220	2.7	9	270	110
MAY										
06...	1	12	270	0	--	250	2.4	10	--	70
19...	--	--	--	--	--	--	--	--	--	--
25...	0	16	45	5	--	80	<.5	0	--	140
JUNE										
09...	--	--	--	--	--	--	--	--	--	--
22...	0	4	120	0	--	200	<.5	0	--	50
JULY										
14...	--	--	--	--	--	--	--	--	--	--
22...	0	8	70	0	--	170	<.5	8	--	60
AUG.										
03...	0	8	60	4	--	40	<.5	3	--	90
24...	--	--	--	--	--	--	--	--	--	--
SEP.										
10...	0	0	50	3	--	16	<.5	4	--	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)
MAR.										
18...	1800	62	--	--	--	--	--	--	--	--
MAY										
06...	1430	3.2	.00	.06	.02	.00	.05	.00	.00	.00
25...	1100	47	.00	.02	.00	.03	.02	.00	.00	.00
JUNE										
22...	0720	4.2	--	--	--	--	--	--	--	--
JULY										
22...	1045	4.5	.00	.07	.00	.06	.03	.00	.00	.00
AUG.										
03...	1500	56	.00	.00	.00	.03	.02	.00	.00	.00
SEP.										
10...	1230	1500	.00	.00	.00	.07	.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.									
18...	--	--	1.2	1.1	--	--	--	--	--
MAY									
06...	.00	.2	--	--	--	--	.37	.00	.00
25...	.00	.0	.18	1.4	.00	.00	2.6	1.1	.00
JUNE									
22...	--	--	--	--	.00	.00	3.2	2.5	.00
JULY									
22...	.00	.0	.18	.04	.00	.00	2.1	.76	.08
AUG.									
03...	.00	.0	.02	.00	.00	.00	.61	1.5	.00
SEP.									
10...	.00	.1	.02	.00	.00	.00	.75	.31	.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 Halls 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 1971.
Pesticide analyses: October 1968 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
DEC. 03...	1030	8.2	27	89	25	130	376	0	20	190	.4	--
FEB. 11...	1445	6.7	44	93	14	110	334	0	46	150	.3	--
MAY 10...	1010	5.2	44	92	18	150	294	0	53	240	.5	.40
JULY 21...	1320	41	21	54	8.6	93	176	0	22	140	.4	.28
AUG. 03...	1450	320	6.4	22	3.4	18	77	0	10	24	.2	.52

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 BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FIL- TABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
DEC. 03...	.18	.30	.7	1.8	260	672	--	320	16	3.1	1210	7.9
FEB. 11...	.17	.10	1.0	1.7	190	624	--	290	14	2.8	1070	7.9
MAY 10...	.45	1.6	1.0	3.1	--	756	157	300	63	--	1380	7.2
JULY 21...	.21	.81	.8	2.3	--	435	--	170	26	--	803	7.5
AUG. 03...	.040	.52	.5	.62	--	125	760	69	6	.9	226	7.4

DATE	TEMP- ERATURE (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)
DEC. 03...	22.0	--	--	6.8	77	--	4.6	16000	5300	--	--	.00
FEB. 11...	15.5	--	--	9.4	93	8	6.6	14000	2100	--	--	.01
MAY 10...	25.0	20	80	4.4	52	12	7.8	17000	520	140	0	.01
JULY 21...	30.0	70	130	2.9	38	32	7.5	900000	23000	9400	--	.00
AUG. 03...	24.0	120	90	4.8	56	39	1.2	1300000	50000	60000	11	.21

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 10...	1010	5.2	.00	.00	.00	.00	.01	.00	.00	.00
JULY 21...	1320	41	.00	.00	.00	.00	.02	.00	.00	.00
AUG. 03...	1450	320	.00	.00	.00	.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)
MAY 10...	.01	.0	.05	.00	.00	.00	.00	.00	.00
JULY 21...	.05	.0	.20	.27	.00	.00	.00	.14	.00
AUG. 03...	.00	.1	.00	.00	.00	.00	.20	.26	.03

SAN JACINTO RIVER BASIN

399

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 1971.
Pesticide analyses: October 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
DEC. 03...	1115	6.1	34	100	32	670	560	0	24	1000	.4	--
FEB. 11...	1345	5.2	30	82	21	820	424	0	33	1200	.0	--
MAY 10...	1045	3.6	27	39	15	98	274	0	39	78	.6	.21
JULY 21...	1300	14	19	43	9.8	400	154	0	25	640	.3	.62
AUG. 03...	1530	157	6.3	17	3.1	45	58	0	15	65	.1	.44
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 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
DEC. 03...	.010	11	.00	4.5	1300	2160	--	390	0	15	3930	7.6
FEB. 11...	.12	8.9	.00	10	1800	2440	--	290	0	21	4350	7.2
MAY 10...	1.7	4.5	1.7	3.8	--	451	6	160	0	--	876	7.6
JULY 21...	.20	8.0	.2	8.5	--	1220	--	150	22	--	2350	7.4
AUG. 03...	.070	1.4	.6	1.5	--	185	222	55	7	--	355	7.0
DATE	TEMP- ERATURE (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)
DEC. 03...	22.5	--	--	.4	5	--	36	>16000000	170000	--	--	.03
FEB. 11...	14.5	--	--	1.4	44	75	31	230000	4300	--	--	.24
MAY 10...	27.0	30	4	6.8	84	19	11	4500000	1400000	14000	0	.04
JULY 21...	29.5	80	15	3.6	47	80	23	5400000	55000	19000	--	.77
AUG. 03...	24.0	120	85	3.0	35	53	2.2	1100000	26000	110000	12	.00
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 (PR) (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. 03...	--	--	--	--	--	--	--	--	--	--	--	--
FEB. 11...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 10...	--	--	--	--	--	--	--	--	--	--	--	--
JULY 21...	--	--	--	--	--	--	--	--	--	--	--	--
AUG. 03...	10	10	0	0	0	11	70	0	18	1.2	0	40

SAN JACINTO RIVER BASIN

08076500 HALLS BAYOU AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 10...	1045	3.6	.00	.02	.00	.01	.07	.00	.00	.00
JULY 21...	1300	14	--	--	--	--	--	--	--	--
AUG. 03...	1530	157	.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 10...	.06	.3	.58	.00	.00	.00	.00	.19	.00
JULY 21...	--	--	--	--	--	--	.00	.15	.00
AUG. 03...	.00	.0	.00	.00	.00	.00	.00	.54	.00

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 Hall's 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 1971.
Pesticide analyses: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.										
03...	1200	--	21	120	25	500	398	0	26	820
FEB.										
11...	1245	--	20	86	24	350	326	0	38	550
MAY										
06...	1045	16	27	99	26	510	322	0	29	840
19...	1140	13	19	100	19	400	278	0	28	680
25...	1215	311	7.9	34	6.1	61	98	0	22	100
JUNE										
10...	0845	13	26	91	20	400	288	0	28	660
23...	0915	69	9.2	61	14	380	104	0	23	660
JULY										
14...	1030	11	30	90	26	390	260	0	24	680
21...	1415	104	25	170	34	800	220	0	25	1500
AUG.										
03...	1400	357	10	48	17	220	116	0	18	390
25...	0835	13	23	92	17	310	286	0	28	520
SEP.										
10...	1445	2000	5.9	29	2.8	59	85	0	12	92

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 BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)
DEC.										
03...	.5	--	.24	4.1	.7	5.5	600	1720	--	410
FEB.										
11...	.4	--	.28	5.6	.8	4.7	470	1240	--	310
MAY										
06...	.6	.65	.090	8.4	.1	5.8	--	1700	12	350
19...	1.5	.52	.66	3.6	1.8	3.4	--	1400	--	340
25...	.4	.43	.080	1.1	.4	1.4	--	283	--	110
JUNE										
10...	.4	.47	.12	6.2	.1	7.5	--	1370	--	310
23...	.3	.49	.090	2.2	.9	1.6	--	1200	266	210
JULY										
14...	.3	.54	.10	6.6	.3	6.2	--	1380	--	330
21...	.4	.54	.32	4.6	.6	5.0	--	2680	--	560
AUG.										
03...	.3	87	.080	1.5	.4	1.6	--	757	2070	190
25...	.3	.54	.060	9.0	.5	5.5	--	1150	20	300
SEP.										
10...	.2	.86	.000	.51	.4	.75	--	245	--	84

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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)
DEC.										
03...	82	11	2950	7.4	22.5	--	--	5.8	66	--
FEB.										
11...	45	8.6	2240	7.2	12.5	--	--	7.6	71	40
MAY										
06...	88	12	2930	7.2	24.4	35	6	1.1	13	26
19...	110	9.6	2550	7.6	26.5	40	10	8.3	101	54
25...	30	2.5	577	7.0	24.0	60	160	3.7	44	45
JUNE										
10...	72	9.9	2570	7.5	26.5	20	25	2.3	28	43
23...	120	11	2310	7.5	25.0	70	100	3.5	42	51
JULY										
14...	120	9.3	2490	7.7	27.5	100	30	2.7	34	36
21...	380	--	5110	7.3	29.0	50	40	5.0	64	55
AUG.										
03...	93	6.9	1410	6.9	24.5	60	400	4.2	50	97
25...	65	7.8	2090	7.7	27.5	45	15	3.7	46	33
SEP.										
10...	14	2.8	427	7.6	25.0	280	300	5.9	70	68

SAN JACINTO RIVER BASIN

08076700 GREENS BAYOU AT LEY ROAD, AT HOUSTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
DEC. 03...	9.6	65000	9600	--	--	.03	--	--	--	--
FEB. 11...	17	10000	980	--	--	.12	--	--	--	--
MAY 06...	10	160000	75000	2000	0	.00	70	0	0	--
19...	11	390000	1100	720	2	.01	--	--	--	--
25...	7.3	1100000	300000	50000	4	.00	0	0	0	--
JUNE 10...	7.2	200000	6700	750	0	.02	--	--	--	--
23...	7.3	3200000	76000	4200	4	.00	10	10	0	0
JULY 14...	20	18000000	50000	2600	8	.01	--	--	--	--
21...	10	10000000	170000	8100	2	.00	20	10	2	0
AUG. 03...	1.8	1200000	140000	65000	12	.00	60	--	--	--
25...	.6	280000	6600	1600	2	.48	--	--	--	--
SEP. 10...	1.0	4000000	28000	79000	6	.00	--	10	0	14

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)
DEC. 03...	--	--	--	--	--	--	--	--	--
FEB. 11...	--	--	--	--	--	--	--	--	--
MAY 06...	--	0	4	57	0	310	1.6	0	10
19...	--	--	--	--	--	--	--	--	--
25...	--	0	8	33	2	40	<.5	0	20
JUNE 10...	--	--	--	--	--	--	--	--	--
23...	--	0	10	100	0	70	<.5	0	50
JULY 14...	--	--	--	--	--	--	--	--	--
21...	--	0	9	40	0	290	160	0	70
AUG. 03...	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--
SEP. 10...	0	0	10	60	2	3	<.5	1	0

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)
MAY 06...	1045	16	.00	.00	.00	.00	.05	.00	.00	.00
25...	1215	311	.00	.01	.00	.02	.03	.00	.00	.00
JUNE 23...	0915	69	.00	.00	.00	.00	.02	.00	.00	.00
JULY 21...	1415	104	.00	.00	.00	.00	.03	.00	.00	.00
AUG. 03...	1400	357	.00	.00	.00	.01	.07	.00	.00	.00
SEP. 10...	1445	2000	.00	.00	.00	.02	.05	.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)
MAY 06...	.09	.1	.25	.00	.00	.00	.00	.01	.00
25...	.04	.1	.36	1.4	.00	.00	.00	.79	.00
JUNE 23...	.00	.0	.39	.00	.00	.00	.00	1.5	.00
JULY 21...	.00	.0	.25	.00	.00	.00	.12	.10	.00
AUG. 03...	.00	.3	.02	.00	.00	.00	.00	.02	.00
SEP. 10...	.00	.1	.02	.00	.00	.00	.50	.21	.20

PERIOD OF RECORD.--Chemical and biochemical analyses: May to September 1971.
Pesticide analyses: May to September 1971.

[illegible]

SAN JACINTO RIVER BASIN

08076800 BUFFALO BAYOU TRIBUTARY AT PASADENA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 04...	1530	2.7	.00	.02	.00	.01	.03	.00	.00	.00
JUNE 21...	1245	1.6	.00	.00	.00	.00	.03	.00	.00	.00
JULY 22...	1135	27	.00	.00	.00	.00	.16	.00	.00	.00
AUG. 03...	1135	30	.00	.00	.03	.00	.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)
MAY 04...	.00	.3	.00	.00	.00	.00	.00	.05	.07
JUNE 21...	.00	.0	--	--	--	--	.00	.07	.00
JULY 22...	.10	.9	.35	.00	.00	.00	.00	.33	.00
AUG. 03...	.00	2.4	.11	.00	.00	.00	.00	.26	.00

SAN JACINTO RIVER BASIN

405

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.

PERIOD OF RECORD.--Chemical and biochemical analyses: May to September 1971.

Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 (CO3) (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)
MAY												
04...	1330	1.3	22	14	14	200	536	0	27	88	3.6	1.5
17...	0855	1.6	18	16	9.7	210	444	0	48	100	2.1	1.0
JUNE												
08...	1030	2.3	13	12	9.0	170	482	0	23	80	1.3	1.2
21...	1145	2.2	20	21	9.4	180	476	0	25	80	1.1	.88
JULY												
13...	0930	.69	20	13	12	170	380	0	20	100	1.2	.94
22...	0950	2.3	15	31	8.4	97	280	0	29	61	.6	.68
AUG.												
03...	1035	8.8	11	26	5.9	26	116	0	23	22	.2	.38
24...	0700	1.5	15	16	4.4	160	384	0	11	68	.9	.72
SEP.												
10...	1540	146	6.4	16	2.5	9.7	60	0	9.2	8.0	.2	.29

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
04...	.38	21	1.0	8.8	667	50	92	0	9.0	1180	7.0	25.0
17...	.10	10	.6	9.2	634	--	80	0	10	1080	7.2	22.5
JUNE												
08...	.66	30	1.6	9.2	594	--	67	0	9.0	1080	7.8	26.5
21...	.76	16	1.5	9.0	601	44	91	0	--	1050	7.7	28.0
JULY												
13...	.010	7.5	1.8	7.2	548	--	82	0	8.2	981	7.4	27.0
22...	.040	7.0	.3	3.6	391	--	110	0	--	719	6.8	29.0
AUG.												
03...	.13	2.2	.4	1.2	176	52	89	0	--	336	7.1	25.0
24...	.090	8.5	.1	4.7	473	22	58	0	9.1	827	7.7	26.0
SEP.												
10...	.010	.14	.3	.34	84	--	50	1	.6	153	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)
MAY												
04...	65	20	7.0	83	110	14	19000	1	1	0	.14	--
17...	30	15	6.0	68	110	.4	2500	60	1	11	.25	--
JUNE												
08...	60	15	5.0	61	--	22	17000	1	1	1	.25	--
21...	60	25	5.6	71	66	24	30000	5400	5600	20	.25	20
JULY												
13...	65	20	4.8	59	100	7.5	550	1	1	8	.23	--
22...	100	50	2.2	28	88	22	51000	3300	180	2	.17	90
AUG.												
03...	120	30	4.5	54	50	5.1	2800	170	260	14	.11	40
24...	45	15	3.0	37	42	.3	520	1	1	6	2.0	--
SEP.												
10...	130	50	6.0	74	28	2.2	970000	10000	8100	23	.08	20

SAN JACINTO RIVER BASIN

08076850 PATRICK BAYOU AT DEER PARK, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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											
04...	0	0	0	0	22	96	4	90	.6	0	50
17...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
08...	--	--	--	--	--	--	--	--	--	--	--
21...	10	0	0	0	17	120	3	20	<.5	0	40
JULY											
13...	--	--	--	--	--	--	--	--	--	--	--
22...	40	0	0	0	14	60	0	110	<.5	0	20
AUG.											
03...	40	0	0	0	12	70	10	30	<.5	1	20
24...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
10...	0	0	0	0	10	120	4	0	1.2	3	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)
MAY										
04...	1330	1.3	.00	.26	.00	.12	.14	.00	.00	.00
JUNE										
21...	1145	2.2	.00	.06	.00	.00	.07	.00	.00	.00
JULY										
22...	0950	2.3	.00	.03	.00	.00	.06	.00	.00	.00
AUG.										
03...	1035	8.8	.00	.02	.01	.01	.03	.00	.00	.00
SEP.										
10...	1540	146	.00	.00	.00	.01	.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)
MAY									
04...	.06	2.5	.33	.53	.00	.00	.00	.08	.00
JUNE									
21...	.00	.4	.71	.00	.00	.00	.00	.09	.00
JULY									
22...	.03	.3	--	--	--	--	.09	.21	.00
AUG.									
03...	.07	.2	.09	.00	.00	.00	.08	.10	.00
SEP.									
10...	.00	.0	.03	.00	.00	.00	.00	.58	.00

SAN JACINTO RIVER BASIN

407

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.

PERIOD OF RECORD.--Chemical and biochemical analyses: May to September 1971.
Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAY												
06...	0930	1.1	23	13	18	120	260	0	34	88	1.0	.73
19...	1030	1.7	15	36	24	240	206	0	80	320	2.8	.67
25...	0955	13	8.6	30	6.1	41	95	0	32	53	.5	.46
JUNE												
08...	1225	2.3	9.5	25	8.6	100	210	0	31	70	.5	.47
21...	1310	6.6	12	30	7.1	55	138	0	18	49	.3	.44
JULY												
14...	1330	3.6	14	30	5.1	63	148	0	16	56	.4	.39
21...	0925	22	6.7	24	5.1	22	85	0	18	28	.4	.43
AUG.												
04...	1445	207	9.7	22	3.9	21	77	0	24	20	.3	.26
25...	1220	2.3	15	28	6.8	93	182	0	41	69	.6	.91
SEP.												
10...	1115	886	4.2	12	2.9	6.5	40	0	10	8.0	.2	.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 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
06...	.30	6.9	2.1	9.8	440	10	110	0	5.1	854	7.2	24.0
19...	.49	5.0	2.7	7.8	836	--	190	21	7.6	1510	7.1	27.5
25...	.10	.58	1.1	.59	224	--	100	22	1.8	417	7.2	24.5
JUNE												
08...	.83	2.3	5.8	7.2	381	--	98	0	4.4	713	7.1	28.5
21...	.10	.71	7.0	1.3	272	180	100	0	--	452	7.3	29.0
JULY												
14...	.28	.64	4.4	2.8	278	--	96	0	2.8	505	7.8	30.0
21...	.13	.54	.6	.65	150	--	81	11	--	288	7.4	27.0
AUG.												
04...	.020	.61	.4	.70	142	454	71	8	1.1	249	6.5	24.0
25...	.080	4.8	7.6	6.8	383	80	98	0	4.1	722	7.4	29.0
SEP.												
10...	.000	.15	.4	.26	66	--	42	9	.4	113	7.2	24.0

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												
06...	30	7	3.2	38	46	7.1	1000	1	1	21	.00	0
19...	40	20	9.1	114	49	8.7	6800	1	23	6	.04	--
25...	70	140	5.3	63	42	5.8	420000	4600	3500	1	.00	10
JUNE												
08...	60	25	5.7	73	41	5.4	11000	1200	70	0	.06	--
21...	70	75	6.3	81	33	3.9	500	1	1	2	.00	10
JULY												
14...	120	65	7.2	95	27	4.0	140000	9300	590	8	.00	--
21...	140	230	4.8	59	31	3.8	250000	7000	600	10	.00	20
AUG.												
04...	200	160	6.1	72	48	3.8	2500000	19000	31000	12	.00	10
25...	50	35	3.2	41	56	6.5	120000	2000	500	0	.06	--
SEP.												
10...	280	180	7.6	89	31	.8	1400000	18000	64000	10	.00	70

SAN JACINTO RIVER BASIN

08076900 CARPENTERS BAYOU AT CLOVERLEAF, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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											
06...	0	0	0	0	14	38	0	200	.6	0	10
19...	--	--	--	--	--	--	--	--	--	--	--
25...	0	0	0	0	6	16	0	0	<.5	0	10
JUNE											
08...	--	--	--	--	--	--	--	--	--	--	--
21...	0	0	0	0	7	40	0	0	<.5	0	0
JULY											
14...	--	--	--	--	--	--	--	--	--	--	--
21...	0	0	0	0	5	90	0	4	1.7	0	0
AUG.											
04...	0	0	0	0	8	90	0	20	<.5	0	20
25...	0	0	0	0	5	90	0	4	1.7	0	0
SEP.											
10...	0	0	0	0	15	1100	6	5	.9	4	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)
MAY										
06...	0930	1.1	.00	.02	.00	.05	.07	.00	.00	.00
25...	0955	13	.00	.01	.00	.02	.02	.00	.00	.00
JUNE										
21...	1310	6.6	.00	.00	.00	.00	.02	.00	.00	.00
JULY										
21...	0925	22	.00	.00	.00	.04	.03	.00	.00	.00
AUG.										
04...	1445	207	.00	.00	.00	.04	.09	.00	.00	.00
SEP.										
10...	1115	886	.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)	SILVEX (UG/L)
MAY									
06...	.06	.4	.29	.00	.00	.00	.00	.01	.00
25...	.02	.0	.21	.00	.00	.00	.00	.14	.00
JUNE									
21...	.00	.0	.08	.00	.00	.00	.11	.37	.00
JULY									
21...	.13	.1	.00	.00	.00	.00	.00	.40	.00
AUG.									
04...	.00	.1	.07	.00	.00	.00	.15	.14	.00
SEP.									
10...	.00	.0	.00	.00	.00	.00	.00	.08	.01

SAN JACINTO RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE SAN JACINTO RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08068500 SPRING CREEK NEAR SPRING, TEX., (lat 30°06'37", long 95°26'10")

DATE	TIME	DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
MAR., 1970				
09...	1415	610	120	198
JULY				
31...	1530	6.4	15	.26
DEC.				
23...	1440	17	11	.50
JAN., 1971				
22...	0930	14	44	1.7

08070500 CANEY CREEK NEAR SPLENDORA, TEX., (lat 30°15'34", long 95°18'08")

DATE	TIME	DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
MAY , 1970				
13...	1430	17	97	4.5
16...	1300	215	89	52
28...	1250	19	6	.31

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.

PERIOD OF RECORD.--Chemical and biochemical analyses: May to September 1971.

Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAY												
04...	0910	7.9	16	35	21	180	392	0	29	170	1.6	.51
17...	0745	4.5	14	43	19	150	312	0	50	160	1.2	.40
JUNE												
09...	0835	3.2	9.4	34	14	190	384	0	23	160	1.0	.29
22...	0820	28	15	40	12	130	284	0	38	110	.7	.36
JULY												
16...	0745	15	14	38	17	130	296	0	24	130	1.2	.34
21...	1410	26	1.0	32	7.3	61	162	0	19	63	.5	.59
AUG.												
05...	1015	120	8.6	30	7.3	32	110	0	27	39	.3	.36
30...	0920	50	13	34	12	100	232	0	34	98	.5	.43
SEP.												
10...	1610	789	7.1	16	3.4	15	59	0	14	17	.2	.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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
04...	.080	8.2	1.4	4.7	666	28	170	0	5.9	1280	6.9	22.0
17...	.11	4.6	.5	3.8	601	--	180	0	4.8	1110	7.5	21.5
JUNE												
09...	.070	3.5	1.1	5.9	634	--	140	0	6.9	1180	7.5	26.0
22...	.22	1.3	.8	3.4	494	164	150	0	4.6	857	7.5	26.5
JULY												
16...	.10	.90	.6	2.6	507	--	170	0	4.4	942	7.7	28.5
21...	.16	1.2	.7	1.4	269	--	110	0	--	515	7.9	28.0
AUG.												
05...	.090	.70	.9	.58	203	376	100	15	--	372	7.2	25.5
30...	.28	2.5	.8	3.1	417	34	140	0	3.8	755	7.2	26.0
SEP.												
10...	.010	.48	.5	.39	105	--	54	6	.9	193	6.5	24.0

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												
04...	30	25	4.7	53	12	4.9	10000	120	350	0	.00	10
17...	30	25	4.0	45	35	4.6	26000	270	210	5	.01	--
JUNE												
09...	50	50	3.8	46	32	4.5	19000	98	310	0	.01	10
22...	70	75	3.9	48	34	5.1	300000	850	800	2	.00	0
JULY												
16...	100	60	3.6	46	26	4.1	52000	650	1100	2	.00	10
21...	100	290	3.6	46	38	7.4	440000	28000	7900	5	.00	10
AUG.												
05...	120	160	5.5	66	43	2.6	1400000	19000	5800	3	.00	--
30...	120	60	3.2	39	23	3.0	180000	1300	500	10	.05	--
SEP.												
10...	260	160	6.0	71	34	1.6	1600000	20000	9300	15	.00	10

CLEAR CREEK BASIN

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08077540 CLEAR CREEK AT FARM ROAD 2351, AT FRIENDSWOOD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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											
04...	0	0	0	0	13	72	0	130	.8	0	10
17...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
09...	--	--	--	--	--	--	--	--	--	--	--
22...	0	0	0	0	10	20	0	0	<.5	0	0
JULY											
16...	--	--	--	--	--	--	--	--	--	--	--
21...	0	0	0	0	10	50	0	5	<.5	0	0
AUG.											
05...	0	0	0	0	19	140	3	7	<.5	0	10
30...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
10...	0	0	0	0	26	90	2	0	<.5	1	10

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										
04...	0910	7.9	.00	.00	.00	.00	.01	.00	.00	.00
JULY										
21...	1410	26	.00	.00	.00	.00	.03	.00	.00	.00
AUG.										
05...	1015	120	.00	.00	.00	.00	.11	.00	.00	.00
SEP.										
10...	1610	789	.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)
MAY									
04...	.01	.0	.16	.00	.00	.00	.00	.01	.00
JULY									
21...	.00	.1	.48	.00	.00	.00	.00	.28	.00
AUG.									
05...	.00	.2	.07	.00	.00	.00	.00	.37	.00
SEP.									
10...	.00	.1	.01	.00	.00	.00	.00	.29	.00

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.

PERIOD OF RECORD.--Chemical and biochemical analyses: May to September 1971.
Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAY												
04...	1130	4.2	21	18	17	200	492	0	29	110	2.0	.73
17...	1210	2.2	20	28	13	180	486	0	31	100	1.9	.61
JUNE												
09...	1225	2.1	18	15	15	200	494	0	27	120	1.3	.62
22...	1200	20	12	25	9.1	73	216	0	26	50	.5	.47
JULY												
15...	1250	2.4	22	16	1.9	200	412	0	22	120	2.1	.56
23...	1210	3.9	13	23	10	96	216	0	27	86	.9	.40
AUG.												
05...	0920	22	11	27	12	19	128	0	22	22	.4	.28
06...	1140	37	9.6	29	4.8	21	114	0	14	20	.2	.56
26...	1235	17	8.1	20	9.3	46	174	0	21	32	.5	.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 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
04...	.040	15	.00	7.2	660	25	120	0	8.1	1210	7.0	23.5
17...	.030	16	.00	7.8	640	--	120	0	7.1	1190	7.3	24.0
JUNE												
09...	.040	18	.00	12	659	--	100	0	8.7	1260	7.5	27.5
22...	.020	5.0	.2	8.5	309	296	100	0	3.2	587	7.1	27.5
JULY												
15...	1.5	16	.1	9.0	610	--	48	0	13	1170	7.8	28.0
23...	.12	6.0	.00	3.8	370	--	99	0	--	663	7.3	28.5
AUG.												
05...	.13	.98	.6	1.0	181	142	120	11	--	344	7.0	25.5
06...	.040	.54	1.1	.64	160	974	92	0	1.0	267	7.1	24.5
26...	.20	6.8	.3	2.6	234	22	88	0	2.1	458	7.5	27.0
DATE	COLOR (PLAT- INUM- COBALT UNITS)	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- TOCOCCI (COL- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
MAY												
04...	50	10	1.6	19	22	5.3	420000	1700	1100	9	.00	--
17...	30	15	1.8	21	51	11	59000	15000	2600	7	.01	0
JUNE												
09...	30	25	3.0	38	62	9.6	200000	1500	2500	0	.03	--
22...	60	120	2.1	26	56	1.9	1500000	7000	19000	1	.02	--
JULY												
15...	70	50	1.8	23	41	11	91000	13000	1800	0	.00	--
23...	60	25	2.0	26	30	5.2	110000	1000	1500	10	.08	20
AUG.												
05...	100	75	2.9	35	34	2.6	1000000	13000	7300	1	.02	10
06...	80	290	6.4	76	63	1.9	1500000	13000	27000	9	.00	--
26...	70	85	2.4	30	30	4.5	1600000	42000	30000	7	.10	--

CLEAR CREEK BASIN

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08077620 ARMAND BAYOU NEAR GENOA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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											
04...	0	0	0	0	11	120	0	180	<.5	0	10
17...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
09...	--	--	--	--	--	--	--	--	--	--	--
22...	10	0	0	0	9	140	2	60	<.5	0	20
JULY											
15...	--	--	--	--	--	--	--	--	--	--	--
23...	0	0	0	0	6	140	0	90	<.5	0	0
AUG.											
05...	10	0	0	0	10	90	4	40	<.5	0	10
06...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--

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										
04...	1130	4.2	--	--	--	--	--	--	--	--
JULY										
23...	1210	3.9	.00	.00	.00	.00	.02	.00	.00	.00
AUG.										
05...	0920	22	.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)
MAY									
04...	--	--	.22	.00	.00	.24	.00	.00	.00
JULY									
23...	.02	.0	.03	.00	.00	.00	--	--	--
AUG.									
05...	.00	.1	.12	.00	.00	.00	.00	.23	.00

DICKINSON BAYOU BASIN

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 to September 1971.

Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAY												
03...	1110	6.9	5.5	68	19	89	192	0	100	120	.8	.47
17...	0910	7.7	4.6	63	20	77	120	0	160	100	.5	.46
JUNE												
09...	0930	13	5.7	60	13	65	194	0	68	80	.4	.27
22...	0945	19	14	50	14	63	172	0	65	78	.4	.56
JULY												
15...	0740	14	14	59	20	79	220	0	40	120	.6	.33
23...	0850	11	12	58	20	69	218	0	38	110	.5	.33
AUG.												
05...	1130	41	14	42	14	43	120	0	62	62	.3	.23
26...	0800	.80	4.4	53	18	77	144	0	69	130	.3	.38
SEP.												
13...	1350	205	16	18	4.2	16	75	0	14	14	.2	.38

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
03...	.060	.22	.4	.15	505	106	250	90	2.5	955	6.7	21.5
17...	.10	1.1	.2	.010	487	--	240	140	2.2	837	7.2	22.5
JUNE												
09...	.090	.20	.2	.16	389	--	200	45	2.0	703	7.3	26.0
22...	.020	.24	.1	.17	370	146	180	43	2.0	668	7.2	26.5
JULY												
15...	.020	.14	.1	.050	447	--	230	46	2.3	798	7.8	27.0
23...	.010	.07	.00	.060	417	--	230	48	--	783	7.6	27.0
AUG.												
05...	.030	.08	1.3	.10	302	76	160	66	--	550	7.3	25.0
26...	.060	.29	.2	.060	423	7	210	90	2.3	788	7.4	25.0
SEP.												
13...	.000	.10	.1	.34	120	76	62	1	.9	6	6.3	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)
MAY												
03...	35	50	7.2	81	11	4.4	9300	3800	480	0	.00	--
17...	30	65	6.8	77	39	4.6	79000	520	540	6	.00	0
JUNE												
09...	40	70	6.3	77	33	2.1	7000	280	2000	0	.00	--
22...	50	60	5.9	72	32	7.5	81000	520	2200	3	.00	60
JULY												
15...	65	55	6.3	78	23	1.0	81000	2100	630	0	.00	--
23...	40	55	6.3	78	25	.9	92000	1400	1200	9	.00	10
AUG.												
05...	80	40	5.7	68	28	1.4	200000	2200	3800	10	.02	40
26...	60	70	3.6	43	14	1.4	68000	1300	2600	3	.00	--
SEP.												
13...	140	15	1.8	23	38	1.8	99000	510	3700	1	.00	10

DICKINSON BAYOU BASIN

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08077640 DICKINSON BAYOU NEAR ALVIN, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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											
03...	0	0	0	0	6	48	0	40	.6	0	0
17...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
09...	--	--	--	--	--	--	--	--	--	--	--
22...	0	0	0	0	4	60	0	0	<.5	0	20
JULY											
15...	--	--	--	--	--	--	--	--	--	--	--
23...	0	0	0	0	3	40	0	0	<.5	0	0
AUG.											
05...	0	0	0	1	3	100	2	4	<.5	1	0
26...	--	--	--	--	--	--	--	--	<.5	--	--
SEP.											
13...	0	0	0	0	8	190	0	2	<.5	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)
MAY										
03...	1110	6.9	.00	.00	.00	.02	.02	.00	.00	.00
JUNE										
22...	0945	19	.00	.00	.00	.01	.02	.00	.00	.00
JULY										
23...	0850	11	.00	.00	.00	.00	.01	.00	.00	.00
AUG.										
05...	1130	41	.00	.00	.00	.00	.01	.00	.00	.00
SEP.										
13...	1350	205	.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									
03...	.00	.0	.00	.00	.00	.00	.00	.00	.00
JUNE									
22...	.00	.0	.00	.00	.00	.00	.00	.01	.00
JULY									
23...	.00	.0	.00	.00	.00	.00	.00	.00	.00
AUG.									
05...	.00	.0	.00	.00	.00	.00	.00	.29	.00
SEP.									
13...	.00	.0	.00	.00	.00	.00	.00	.02	.00

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 to Franks' Oil Field, 0.5 mile north of State Highway 6, and about 2.0 miles east of Alto Loma.

PERIOD OF RECORD.--Chemical and biochemical analyses: May to September 1971.
Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED	DIS-SOLVED	DIS-SOLVED	DIS-SOLVED	BICAR-BONATE (HC03) (MG/L)	CAR-BONATE (C03) (MG/L)	DIS-SOLVED	DIS-SOLVED	ORGANIC	
			SILICA (SI02) (MG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM PLUS POTAS-SIUM (MG/L)			SULFATE (S04) (MG/L)	CHLO-RIDE (CL) (MG/L)		FLUO-RIDE (F) (MG/L)
MAY												
03...	0930	.36	21	55	21	240	404	0	28	290	.9	.62
17...	1015	.31	16	63	20	200	366	0	34	250	.8	.45
JUNE												
09...	1045	.16	30	40	18	310	416	0	32	340	.6	.49
22...	1030	.40	24	50	15	160	320	0	24	190	.5	.41
JULY												
15...	1140	.10	30	46	26	430	420	0	27	570	.9	.64
22...	1110	.70	20	36	19	370	242	0	41	530	.6	.66
AUG.												
05...	0740	3.8	16	38	7.1	63	167	0	22	76	.4	.23
26...	0950	7.9	9.3	44	6.8	150	130	0	24	240	.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 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
03...	.12	6.4	.6	4.8	862	50	220	0	7.0	1620	7.1	21.0
17...	.72	6.5	.6	3.6	775	--	240	0	5.6	1470	7.5	22.0
JUNE												
09...	.10	3.5	.6	11	974	--	180	0	10	1810	7.5	25.5
22...	.080	5.8	.1	7.2	634	38	190	0	5.1	1230	7.4	26.0
JULY												
15...	.36	5.2	.1	9.2	1350	--	220	0	13	2440	8.1	28.0
22...	.070	7.5	.1	11	1140	--	170	0	--	2130	7.6	27.5
AUG.												
05...	.080	2.0	.1	2.1	308	74	120	0	--	586	7.0	24.5
26...	.28	3.2	.8	1.6	553	44	140	32	5.6	1050	7.6	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 SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
MAY												
03...	30	30	2.8	31	11	6.6	17000	750	430	0	.00	--
17...	30	35	3.6	41	34	14	98000	2100	2200	2	.01	10
JUNE												
09...	50	25	2.6	31	53	4.2	9300	250	950	1	.02	--
22...	60	50	2.6	32	45	6.0	38000	290	1200	0	.01	--
JULY												
15...	45	65	2.0	25	44	11	23000	2300	900	0	.00	--
22...	70	170	2.9	36	58	17	78000	5800	2100	9	.12	10
AUG.												
05...	80	45	2.4	29	33	2.4	120000	2000	6500	1	.06	10
26...	100	55	3.0	36	36	6.6	580000	6000	9700	1	.10	--

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HIGHLAND BAYOU BASIN

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08077680 HIGHLAND BAYOU NEAR ALTO LOMA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 03...	0930	.36	.00	.00	.00	.00	.01	.00	.00	.00
JULY 22...	1110	.70	.00	.00	.00	.00	.01	.00	.00	.00
AUG. 05...	0740	3.8	.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 03...	.00	.0	.00	.00	.00	.00	.00	.00	.01
JULY 22...	.00	.0	.00	.00	.00	.00	.00	.00	.00
AUG. 05...	.00	.0	.02	.00	.00	.00	.09	.18	.00

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.

PERIOD OF RECORD.--Chemical and biochemical analyses: May to September 1971.
Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAY 19...	1230	2.6	8.8	51	10	37	168	0	47	38	.8	.23
JUNE 10...	1130	1.6	4.9	65	18	42	184	0	66	74	.4	.20
23...	1230	2.4	9.0	79	14	99	208	0	90	150	.4	.27
JULY 15...	1000	2.9	9.9	62	29	46	224	0	56	94	.4	.23
23...	1000	1.6	11	72	23	94	223	0	84	150	.4	.25
AUG. 05...	0940	1.7	12	46	15	46	180	0	28	71	.4	.21
26...	1245	.03	9.1	74	14	59	248	0	52	78	.3	.26

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY 19...	.070	.12	2.1	.080	285	--	170	30	1.2	511	7.1	26.5
JUNE 10...	.040	.14	.6	.12	363	--	240	85	1.2	680	7.5	29.0
23...	.000	.11	.00	.16	540	180	260	86	2.7	981	7.6	30.0
JULY 15...	.040	.13	.00	.050	408	--	272	88	1.2	741	7.9	31.0
23...	.010	.09	.00	.030	542	--	270	90	2.5	975	7.6	28.5
AUG. 05...	.020	.10	.2	.070	308	116	180	28	--	571	7.2	25.5
26...	.010	.00	.4	.040	410	254	240	41	1.6	737	7.5	29.5

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)
MAY 19...	40	200	7.3	89	32	2.4	64000	4800	2400	1	.00	--
JUNE 10...	30	120	8.5	109	19	3.1	14000	60	7000	2	.01	--
23...	40	65	8.2	108	25	2.7	50000	500	1200	0	.00	20
JULY 15...	45	65	7.0	93	10	1.1	25000	3900	900	0	.00	--
23...	20	55	7.6	97	16	1.6	31000	120	590	6	.00	30
AUG. 05...	70	50	6.8	82	59	1.2	240000	3500	8300	5	.00	10
26...	30	100	8.5	110	11	.6	14000	390	900	3	.00	

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HALLS BAYOU BASIN

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08077800 HALLS BAYOU NEAR ALGOA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
JUNE 23...	1230	2.4	.00	.00	.00	.00	.00	.00	.00	.00
JULY 23...	1000	1.6	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 05...	0940	1.7	.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)
JUNE 23...	.00	.0	.00	.00	.00	.00	.00	.00	.00
JULY 23...	.00	.0	.00	.00	.00	.00	.00	.00	.00
AUG. 05...	.00	.0	.00	.00	.00	.00	.00	.04	.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.

PERIOD OF RECORD.--Chemical and biochemical analyses: May to September 1971.
Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAY												
03...	1305	7.5	13	62	18	150	294	0	63	180	.7	.35
19...	1110	8.0	13	75	21	150	288	0	61	210	1.0	.33
25...	1440	22	11	57	14	98	218	0	39	140	.2	.30
JUNE												
10...	1015	6.2	8.8	66	26	110	280	0	52	150	.5	.30
23...	1130	20	14	60	13	120	182	0	58	180	.4	.33
JULY												
16...	1320	6.4	17	64	21	120	280	0	39	170	.6	.30
22...	1545	26	18	60	22	93	246	0	31	150	.5	.38
AUG.												
04...	1340	43	12	43	10	66	154	0	36	90	.3	.30
26...	1115	59	5.6	26	10	49	112	0	16	74	.2	.40
SEP.												
13...	1140	439	10	17	5.0	16	62	0	8.8	26	.1	.30

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- FIL- TRABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
03...	.19	.16	.7	1.2	634	83	230	0	4.3	1200	6.9	25.5
19...	.28	.29	.5	2.4	676	--	270	36	3.9	1250	7.4	25.5
25...	.33	.54	.9	1.3	466	--	200	22	3.0	886	7.6	28.5
JUNE												
10...	.29	.70	.2	1.4	554	--	270	40	2.9	1040	7.3	28.0
23...	.30	.96	.5	1.0	546	146	200	52	3.7	1000	7.3	29.0
JULY												
16...	.090	.19	.2	1.0	570	--	240	14	3.3	1030	7.9	30.5
22...	.050	.29	.1	.70	493	--	240	40	2.6	920	7.6	31.0
AUG.												
04...	.060	.25	.3	.60	335	262	150	24	2.4	622	7.2	25.0
26...	.080	.69	.5	1.1	239	160	110	16	2.1	448	7.5	26.0
SEP.												
13...	.000	.10	.2	.23	114	--	63	12	.9	207	6.8	28.0

DATE	COLOR (PLAT- INUM- COBALT UNITS)	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- TOCOCCI (COLI- ONIES PER 100 ML)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)
MAY												
03...	30	50	7.6	92	2	5.7	17000	3000	56	0	.00	--
19...	20	10	6.5	78	35	6.9	50000	2000	92	0	.00	--
25...	30	45	7.5	96	29	.1	79000	4800	1	0	.00	20
JUNE												
10...	20	55	4.0	51	34	5.1	17000	1	50	0	.01	--
23...	60	65	4.6	59	36	3.0	55000	390	110	2	.00	10
JULY												
16...	35	45	7.8	103	15	3.2	98000	190	250	0	.00	--
22...	--	85	5.7	76	28	2.1	44000	1400	750	2	.02	20
AUG.												
04...	60	110	5.1	61	31	1.0	250000	11000	4200	1	.04	10
26...	110	85	3.8	46	20	4.7	700000	12000	78000	8	.00	--
SEP.												
13...	260	60	4.3	54	31	.9	380000	1600	2400	4	.00	20

MUSTANG BAYOU BASIN

421

08077900 MUSTANG BAYOU NEAR LIVERPOOL, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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											
03...	0	1	16	0	16	120	3	130	.5	0	90
19...	--	--	--	--	--	--	--	--	--	--	--
25...	0	0	0	0	6	37	0	40	<.5	0	30
JUNE											
10...	--	--	--	--	--	--	--	--	--	--	--
23...	10	0	0	0	4	30	0	130	<.5	0	20
JULY											
16...	--	--	--	--	--	--	--	--	--	--	--
22...	0	0	0	0	4	20	0	70	.6	5	10
AUG.											
04...	0	0	0	0	6	70	2	60	<.5	1	20
26...	0	0	0	0	4	--	0	--	.6	5	10
SEP.											
13...	0	0	0	0	6	480	0	0	<.5	3	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)
MAY										
03...	1305	7.5	.00	.00	.00	.00	.00	.00	.00	.00
25...	1440	22	.00	.00	.00	.00	.01	.00	.00	.00
JUNE										
23...	1130	20	.00	.00	.00	.00	.01	.00	.00	.00
JULY										
22...	1545	26	.00	.00	.00	.00	.01	.00	.00	.00
AUG.										
04...	1340	43	.00	.00	.00	.00	.02	.00	.00	.00
SEP.										
11...	1615	1120	.00	.00	.00	.00	.01	.00	.00	.00
13...	1140	439	.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									
03...	.01	.0	.00	.00	.00	.00	.00	.04	.00
25...	.00	.0	.08	.00	.00	.00	.00	.07	.00
JUNE									
23...	.00	.0	.05	.00	.00	.00	.00	.02	.00
JULY									
22...	.00	.0	.01	.00	.00	.00	.00	.00	.00
AUG.									
04...	.00	.0	.00	.00	.00	.00	.00	.05	.00
SEP.									
11...	.00	.0	.00	.00	.00	.00	.00	.02	.00
13...	.00	.0	.00	.00	.00	.00	.00	.01	.00

CHOCOLATE BAYOU BASIN

08078000 CHOCOLATE BAYOU NEAR ALVIN, TEX.

LOCATION.--Lat 29°22'19", 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 to September 1971.
Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-	DIS-	DIS-	BICAR- BONATE (HC03)	CAR- BONATE (C03)	DIS-	DIS-	ORGANIC NITRO- GEN (N)		
			SOLVED SILICA (SiO2) (MG/L)	SOLVED CAL- CIUM (CA) (MG/L)	SOLVED MAG- NE- SIUM (MG) (MG/L)			SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	SOLVED SULFATE (SO4) (MG/L)		SOLVED CHLO- RIDE (CL) (MG/L)	SOLVED FLUO- RIDE (F) (MG/L)
MAY												
03...	0950	37	8.7	72	18	97	170	0	130	130	.8	.49
19...	1000	23	7.6	63	20	77	194	0	96	100	1.1	.38
JUNE												
10...	0715	35	6.3	61	18	77	194	0	83	100	.4	.32
23...	0730	165	16	53	17	64	184	0	52	96	.3	.41
JULY												
15...	0955	50	17	62	16	88	238	0	40	120	.6	.25
22...	1300	110	17	63	20	79	236	0	36	130	.6	.32
AUG.												
04...	0845	250	15	47	16	53	154	0	47	86	.3	.22
26...	0715	8.2	12	50	16	81	154	0	73	120	.4	.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)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
03...	.12	.94	1.3	.11	550	69	250	110		977	7.7	24.5
19...	.050	.06	.6	.000	465	--	240	81	2.2	841	7.8	26.0
JUNE												
10...	.020	.07	.00	.11	445	--	220	65	2.2	824	6.9	28.0
23...	.010	.16	.1	.18	389	230	200	49	2.0	728	7.5	25.0
JULY												
15...	.020	.10	.1	.040	465	--	220	25	2.6	824	8.1	29.0
22...	.010	.14	.00	.040	459	--	240	46	--	855	7.9	29.0
AUG.												
04...	.010	.06	.1	.10	341	122	180	58	--	624	7.3	25.0
26...	.010	.00	.1	.20	425	156	190	64	2.6	732	7.7	24.0

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- DIAE 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												
03...	40	40	7.8	93	29	5.9	3200000	120	94	0	.00	--
19...	30	55	8.0	98	37	3.3	60000	140	170	4	.00	--
JUNE												
10...	20	90	4.5	57	33	5.1	72000	200	340	0	.01	--
23...	70	95	7.0	83	40	1.9	74000	880	1400	1	.00	0
JULY												
15...	55	45	7.0	90	23	1.3	75000	8000	310	2	.00	--
22...	40	90	5.2	67	24	1.2	50000	1200	800	3	.00	10
AUG.												
04...	80	55	7.2	86	31	1.2	180000	1500	1900	3	.02	20
26...	70	65	6.6	78	44	9.3	2600000	5700	24000	6	.03	--

[illegible]

CHOCOLATE BAYOU BASIN

423

08078000 CHOCOLATE BAYOU NEAR ALVIN, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 03...	0950	37	.00	.00	.00	.00	.03	.00	.00	.00
JUNE 23...	0730	165	.00	.00	.00	.00	.03	.00	.00	.00
JULY 22...	1315	112	.00	.00	.00	.00	.03	.00	.00	.00
AUG. 04...	0845	250	.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 03...	.00	.0	.00	.00	.00	.00	.00	.00	.00
JUNE 23...	.00	.0	.00	.00	.00	.00	.00	.00	.01
JULY 22...	.00	.0	.00	.00	.00	.00	.00	.00	.00
AUG. 04...	.00	.0	.00	.00	.00	.00	.00	.00	.00

BASTROP BAYOU BASIN

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.

PERIOD OF RECORD.--Chemical and biochemical analyses: May to September 1971.
Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAY												
03...	1105	13	6.5	67	19	89	158	0	120	130	.6	.54
19...	0900	18	7.1	57	21	59	156	0	92	92	.8	.00
25...	1210	31	9.1	51	20	37	132	0	73	74	.8	.52
JUNE												
10...	0805	3.2	4.9	61	17	62	192	0	76	83	.4	.22
23...	0900	39	15	62	19	68	202	0	64	100	.3	.40
JULY												
16...	1025	29	16	63	19	74	228	0	30	130	.5	.28
22...	1420	26	15	62	21	77	224	0	36	130	.5	.32
AUG.												
04...	0945	64	15	57	18	88	170	0	59	150	.3	.25
26...	0850	22	13	53	17	46	142	0	91	76	.2	.50
SEP.												
13...	1055	860	16	16	5.1	14	63	0	16	16	.2	.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 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
03...	.20	.78	1.8	.11	518	62	240	110	2.5	972	7.3	23.0
19...	.050	.05	.4	.010	408	--	230	100	1.7	737	7.4	24.0
25...	.080	.59	.5	.010	333	--	210	100	1.1	621	7.4	24.0
JUNE												
10...	.070	.09	.8	.090	402	--	220	62	1.8	748	7.2	26.0
23...	.020	.18	.2	.13	432	218	230	66	1.9	784	7.5	26.0
JULY												
16...	.020	.11	.1	.030	441	--	230	47	2.1	816	7.9	28.0
22...	.010	.12	.00	.030	454	--	240	56	--	844	7.9	29.0
AUG.												
04...	.010	.14	.00	.11	468	98	220	78	--	830	7.4	25.0
26...	.040	5.0	.6	.090	375	152	200	86	1.4	666	7.6	25.5
SEP.												
13...	.000	.14	.1	.17	115	--	61	9	.8	194	6.2	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)
MAY												
03...	45	40	6.6	76	26	5.1	14000	130	140	0	.00	--
19...	35	60	7.0	82	39	3.3	260000	520	560	1	.00	--
25...	40	70	6.2	73	38	.1	200000	6400	1400	4	.00	10
JUNE												
10...	30	40	4.8	59	27	2.5	11000	180	800	1	.01	--
23...	60	85	6.4	78	40	1.8	15000	360	670	4	.00	10
JULY												
16...	55	45	6.3	80	16	1.2	81000	200	500	0	.00	--
22...	40	60	6.4	82	25	.9	26000	900	570	6	.00	10
AUG.												
04...	70	45	6.0	71	31	1.4	100000	920	1800	1	.02	10
26...	65	85	5.6	67	26	4.0	410000	4100	7900	3	.00	--
SEP.												
13...	120	15	2.0	26	27	.3	230000	500	1200	9	.00	50

BASTROP BAYOU BASIN

425

08078400 AUSTIN BAYOU NEAR LIVERPOOL, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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											
03...	0	0	0	0	5	45	0	50	<.5	0	10
19...	--	--	--	--	--	--	--	--	--	--	--
25...	0	0	0	3	10	57	4	0	<.5	0	30
JUNE											
10...	--	--	--	--	--	--	--	--	--	--	--
23...	0	0	0	0	4	40	0	0	<.5	0	10
JULY											
16...	--	--	--	--	--	--	--	--	--	--	--
22...	0	0	0	0	2	40	0	2	<.5	0	0
AUG.											
04...	0	0	0	0	3	50	0	1	<.5	1	0
26...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
13...	0	0	0	0	7	170	0	0	<.5	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)
MAY										
03...	1105	13	.00	.00	.00	.00	.02	.00	.00	.00
25...	1210	31	.00	.00	.00	.00	.02	.00	.00	.00
JUNE										
23...	0900	39	.00	.00	.00	.00	.02	.00	.00	.00
JULY										
22...	1420	26	.00	.00	.00	.00	.00	.00	.00	.00
AUG.										
04...	0945	64	.00	.00	.00	.00	.01	.00	.00	.00
SEP.										
11...	1500	880	.00	.00	.00	.00	.01	.00	.00	.00
13...	1055	860	.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									
03...	.00	.0	.00	.00	.00	.00	.00	.00	.00
25...	.00	.0	.00	.00	.00	.00	.00	.02	.00
JUNE									
23...	.00	.0	.00	.00	.00	.00	.00	.02	.00
JULY									
22...	.00	.0	.00	.00	.00	.00	.00	.00	.00
AUG.									
04...	.00	.0	.00	.00	.00	.00	.00	.06	.00
SEP.									
11...	.00	.0	.00	.00	.00	.00	.00	.03	.00
13...	.00	.0	.00	.00	.00	.00	.00	.03	.00

BASTROP BAYOU BASIN

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.

PERIOD OF RECORD.--Chemical and biochemical analyses: May to September 1971.

Pesticide analyses: May to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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												
03...	1310	.46	2.6	62	19	88	112	0	140	130	.5	.47
19...	0805	2.2	6.0	63	21	49	168	0	87	84	.8	.41
JUNE												
10...	0905	1.2	4.6	63	17	73	200	0	81	96	.3	.30
23...	1000	2.2	9.0	58	18	64	208	0	45	100	.4	.30
JULY												
16...	1110	3.5	14	60	17	91	220	0	25	150	.6	.31
21...	1120	.44	12	57	19	110	234	0	43	160	.5	.41
AUG.												
04...	1130	16	16	64	18	91	150	0	93	150	.3	.24
26...	0945	13	11	35	13	23	91	0	60	39	.0	.50
SEP.												
11...	1330	612	--	--	--	--	--	--	--	--	--	--
13...	1005	288	16	19	5.5	17	71	0	20	19	.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)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
MAY												
03...	.050	.26	.2	.12	500	45	230	140	2.5	946	8.4	30.5
19...	.10	.34	.3	.020	396	--	240	110	1.4	720	7.2	23.0
JUNE												
10...	.080	.22	.1	.070	434	--	230	64	2.1	788	7.7	26.5
23...	.020	.27	.00	.34	397	100	220	50	1.9	764	7.6	26.0
JULY												
16...	.030	.17	.1	.14	465	--	220	38	2.7	851	7.9	30.0
21...	.14	.75	.2	1.8	514	--	220	28	--	932	7.8	30.5
AUG.												
04...	.030	.17	.1	.16	507	188	230	110	2.6	921	7.2	25.0
26...	.18	.81	.5	.45	230	60	140	65	.8	420	7.4	25.0
SEP.												
11...	--	--	--	--	--	188	--	--	--	921	7.2	27.0
13...	.000	.12	.1	.27	132	--	70	12	.9	226	6.6	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)
MAY												
03...	30	35	15.2	200	16	5.5	11000	72	51	0	.00	--
19...	30	90	6.3	72	41	4.3	98000	560	430	3	.00	--
JUNE												
10...	20	55	7.6	93	30	4.5	48000	250	1000	2	.01	--
23...	60	60	6.4	78	39	2.4	36000	350	520	6	.00	0
JULY												
16...	55	75	6.2	82	21	2.1	55000	1100	1000	0	.00	--
21...	40	80	8.4	111	19	2.1	23000	2300	230	4	.04	10
AUG.												
04...	80	95	5.2	62	51	2.1	200000	3500	4000	3	.00	10
26...	120	40	4.6	55	33	3.0	660000	5800	9800	7	.00	--
SEP.												
11...	80	95	5.2	62	51	2.1	200000	3500	4000	3	.00	--
13...	110	30	1.7	22	35	1.2	400000	550	2400	5	.00	20

BASTROP BAYOU BASIN

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08078700 FLORES BAYOU NEAR DANBURY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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											
03...	0	0	3	0	15	74	5	70	<.5	0	80
19...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
10...	--	--	--	--	--	--	--	--	--	--	--
23...	0	0	0	0	3	50	0	20	<.5	0	20
JULY											
16...	--	--	--	--	--	--	--	--	--	--	--
21...	0	0	0	0	3	10	0	50	<.5	0	0
AUG.											
04...	0	0	0	0	4	40	2	4	<.5	2	10
26...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
11...	--	--	--	--	--	40	--	4	--	--	--
13...	0	0	0	0	32	210	2	1	<.5	3	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)
MAY										
03...	1310	.46	.00	.00	.00	.00	.02	.00	.00	.00
JUNE										
23...	1000	2.2	--	--	--	--	--	--	--	--
JULY										
21...	1120	.44	.00	.00	.00	.00	.01	.00	.00	.00
AUG.										
04...	1130	16	.00	.00	.00	.00	.01	.00	.00	.00
SEP.										
11...	1330	612	.00	.00	.00	.00	.01	.00	.00	.00
13...	1005	288	.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									
03...	.00	.0	.00	.00	.00	.00	.00	.00	.00
JUNE									
23...	--	--	.00	.00	.00	.00	.00	.00	.00
JULY									
21...	.00	.0	.11	.00	.00	.00	.00	.00	.00
AUG.									
04...	.00	.0	.00	.00	.00	.00	.00	.09	.00
SEP.									
11...	.00	.0	.00	.00	.00	.00	.00	.03	.00
13...	.00	.0	.00	.00	.00	.00	.03	.01	.00

Brazos River Basin

08080500 DOUBLE MOUNTAIN FORK BRAZOS RIVER NEAR ASPERMONT, TEX.

LOCATION.--Lat 33°00'36", long 100°10'48", Stonewall County, at gaging station at bridge on U.S. Highway 83, 8 miles downstream from Mountain 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 1970.

Water temperatures: November 1949 to November 1951, October 1956 to September 1970.

Sediment records: November 1949 to September 1951.

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 4,900 mg/l Oct. 15, 20-23; minimum, 567 mg/l Sept. 25-27.

Hardness: Maximum, 2,400 mg/l Oct. 15, 20-23; minimum, 240 mg/l Sept. 25-27.

Water temperatures: Maximum, 26.5°C on several days during July and August.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	MEAN 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.										
01-14	.00	--	--	--	--	--	--	--	--	--
15...	.12	11	760	120	740	--	14	112	0	1800
16...	12	6.6	350	37	--	200	--	48	0	860
17...	62	6.8	260	19	--	54	--	62	0	600
18-19	6.1	6.6	350	37	--	200	--	48	0	860
20-23	.16	11	760	120	740	--	14	112	0	1800
24-31	.00	--	--	--	--	--	--	--	--	--
NOV.										
01-30	.00	--	--	--	--	--	--	--	--	--
DEC.										
01-31	.00	--	--	--	--	--	--	--	--	--
JAN.										
01-31	.00	--	--	--	--	--	--	--	--	--
FEB.										
01-28	.00	--	--	--	--	--	--	--	--	--
MAR.										
01-31	.00	--	--	--	--	--	--	--	--	--
APR.										
01-15	.00	--	--	--	--	--	--	--	--	--
16-20	18	6.6	350	37	--	200	--	48	0	860
21-30	.00	--	--	--	--	--	--	--	--	--
MAY										
01-07	.00	--	--	--	--	--	--	--	--	--
08-09	117	17	400	32	--	120	--	113	0	820
10-11	7.9	12	610	54	--	350	--	80	0	1500
12-26	.00	--	--	--	--	--	--	--	--	--
27-29	3780	17	400	32	--	120	--	113	0	820
30-31	2050	19	140	20	--	120	--	139	0	370
JUNE										
01-05	208	12	160	21	--	160	--	127	0	430
06-08	29	11	250	52	--	420	--	116	0	770
09-15	7.0	13	460	94	--	810	--	120	0	1300
16-21	120	11	250	52	--	420	--	116	0	770
22-26	543	12	160	21	--	160	--	127	0	430
27-30	12	11	250	52	--	420	--	116	0	770
JULY										
01-09	1.5	14	490	78	690	--	13	94	0	1400
10-22	.00	--	--	--	--	--	--	--	--	--
23-24	.22	14	490	78	690	--	13	94	0	1400
25-29	.00	--	--	--	--	--	--	--	--	--
30...	13	9.2	480	97	--	300	--	70	-	1000
31...	281	11	300	38	--	430	--	103	0	1200
AUG.										
01...	202	12	280	49	--	360	--	112	0	770
02-11	452	11	200	23	--	150	--	124	0	530
12-18	2370	10	170	15	--	74	--	116	0	420
19-24	188	11	200	23	--	150	--	124	0	530
25-26	3660	10	170	15	--	74	--	116	0	420
27-31	835	11	200	23	--	150	--	124	0	530
SEP.										
01-02	169	9.0	220	39	--	240	--	118	0	580
03-07	82	12	350	70	--	570	--	108	0	1000
08-14	42	14	480	83	--	870	--	86	0	1300
15-17	79	12	350	70	--	570	--	108	0	1000
18-22	1230	9.2	110	18	--	140	--	140	0	310
23-24	1350	9.0	220	39	--	240	--	118	0	580
25-27	3590	9.8	75	12	--	100	--	130	0	220
28-30	463	9.2	110	18	--	140	--	140	0	310
WTD. AVG.	211	--	--	--	--	--	--	--	--	483
TOT. LOAD (TONS)	--	--	--	--	--	--	--	--	--	74500

08080500 DOUBLE MOUNTAIN FORK BRAZOS RIVER NEAR ASPERMONT, TEX.--Continued

EXTREMES, October 1948 to November 1951, October 1956 to September 1971.--Dissolved solids: Maximum, 6,560 mg/l Aug. 19, 1970; minimum, 567 mg/l Sept. 25-27, 1971.
 Hardness: Maximum, 3,070 mg/l Aug. 19, 1970; minimum, 193 mg/l Oct. 22-28, 1957.
 Specific conductance: Maximum daily, 10,500 micromhos March 4, 1966; minimum daily, 735 micromhos Oct. 24, 1957.
 Water temperatures (1949-51, 1956-67, 1969-70): 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 1970 TO SEPTEMBER 1971

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.									
01-14	--	--	--	--	--	--	--	--	--
15...	1400	--	1.1	4900	2400	2300	6.6	6740	7.0
16...	360	.2	1.1	1840	1000	1000	2.7	2570	7.0
17...	110	--	1.1	1080	710	660	.9	1530	7.5
18-19	360	.2	1.1	1840	1000	1000	2.7	2570	7.0
20-23	1400	--	1.1	4900	2400	2300	6.6	6740	7.0
24-31	--	--	--	--	--	--	--	--	--
NOV.									
01-30	--	--	--	--	--	--	--	--	--
DEC.									
01-31	--	--	--	--	--	--	--	--	--
JAN.									
01-31	--	--	--	--	--	--	--	--	--
FEB.									
01-28	--	--	--	--	--	--	--	--	--
MAR.									
01-31	--	--	--	--	--	--	--	--	--
APR.									
01-15	--	--	--	--	--	--	--	--	--
16-20	360	.2	1.1	1840	1000	1000	--	2570	7.0
21-30	--	--	--	--	--	--	--	--	--
MAY									
01-07	--	--	--	--	--	--	--	--	--
08-09	320	--	.9	1770	1100	1000	1.6	2210	7.2
10-11	600	--	2.8	3200	1800	1700	3.6	4220	7.0
12-26	--	--	--	--	--	--	--	--	--
27-29	320	--	.9	1770	1100	1000	1.6	2210	7.2
30-31	140	--	8.0	884	440	330	2.5	1320	7.2
JUNE									
01-05	200	.9	2.8	1050	490	380	3.2	1600	7.5
06-08	600	--	1.2	2170	840	750	6.3	3290	7.5
09-15	1300	--	.8	4050	1500	1400	9.0	6000	7.4
16-21	600	--	1.2	2170	840	750	6.3	3290	7.5
22-26	200	.9	2.8	1050	490	380	3.2	1600	7.5
27-30	600	--	1.2	2170	840	750	6.3	3290	7.5
JULY									
01-09	1100	--	1.2	3820	1500	1500	7.7	5470	7.4
10-22	--	--	--	--	--	--	--	--	--
23-24	1100	--	1.2	3820	1500	1500	7.6	5470	7.4
25-29	--	--	--	--	--	--	--	--	--
30...	800	--	2.0	2720	1600	1500	3.3	3940	7.4
31...	350	--	--	2380	900	820	--	2930	--
AUG.									
01...	560	--	.5	2090	900	810	5.2	3060	7.9
02-11	180	.5	.9	1160	600	500	2.6	1680	8.0
12-18	76	.4	1.6	824	480	380	1.5	1170	7.8
19-24	180	.5	.9	1160	600	500	2.6	1680	7.9
25-26	76	.4	1.6	824	480	380	1.5	1170	7.8
27-31	180	.5	.9	1160	600	500	2.6	1680	8.0
SEP.									
01-02	390	.6	.6	1500	720	620	4.0	2360	8.1
03-07	900	--	.3	2960	1200	1100	7.3	4360	7.9
08-14	1400	--	.2	4230	1500	1500	9.7	6430	7.9
15-17	900	--	.3	2960	1200	1100	7.3	4360	7.9
18-22	150	.9	1.0	812	340	230	3.3	1270	8.1
23-24	390	.6	.6	1550	720	620	4.0	2360	8.1
25-27	82	.8	1.2	567	240	130	2.9	896	8.1
28-30	150	.9	1.0	812	340	230	3.3	1270	8.1
WTD. AVG.	178	--	--	1070	--	--	--	--	--
TOT. LOAD (TONS)	27400	--	--	16500	--	--	--	--	--

BRAZOS RIVER BASIN

08080500 DOUBLE MOUNTAIN FORK BRAZOS RIVER NEAR ASPERMONT, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	1430	4620	2930	2280
2	---	---	---	---	---	---	---	---	1610	5120	1910	2760
3	---	---	---	---	---	---	---	---	1750	5480	---	3340
4	---	---	---	---	---	---	---	---	1800	5870	---	3850
5	---	---	---	---	---	---	---	---	2110	6100	---	4290
6	---	---	---	---	---	---	---	---	2820	5300	---	4630
7	---	---	---	---	---	---	---	---	3380	5340	---	4970
8	---	---	---	---	---	---	---	2490	3920	5360	---	5370
9	---	---	---	---	---	---	---	1780	5560	5400	3420	5240
10	---	---	---	---	---	---	---	3910	5050	5450	1760	5740
11	---	---	---	---	---	---	---	4540	5610	5490	1510	6290
12	---	---	---	---	---	---	---	---	5990	5530	1230	6610
13	---	---	---	---	---	---	---	---	6300	5560	1360	6910
14	---	---	---	---	---	---	---	---	6500	5590	1180	8770
15	6860	---	---	---	---	---	---	---	6780	5590	1120	4350
16	2140	---	---	---	---	---	---	---	4020	5590	911	4710
17	1530	---	---	---	---	---	---	---	2790	5580	1090	4680
18	2100	---	---	---	---	---	---	---	2880	5590	---	1460
19	3470	---	---	---	---	---	---	---	3400	5590	1430	1120
20	5100	---	---	---	---	---	---	---	4080	5590	1580	996
21	6190	---	---	---	---	---	---	---	2770	5450	1930	1080
22	6600	---	---	---	---	---	---	---	1400	5450	2330	1230
23	7030	---	---	---	---	---	---	---	1250	5390	2760	2230
24	---	---	---	---	---	---	---	---	1390	5240	1920	2140
25	---	---	---	---	---	---	---	---	1460	3930	1180	941
26	---	---	---	---	---	---	---	---	1750	3980	1260	840
27	---	---	---	---	---	---	---	2650	2230	3990	1510	911
28	---	---	---	---	---	---	---	2590	2820	4020	1340	1040
29	---	---	---	---	---	---	---	1970	3420	4030	1310	1420
30	---	---	---	---	---	---	---	1280	4040	3750	1480	1740
31	---	---	---	---	---	---	---	1370	---	2930	1720	---
MONTH	---	---	---	---	---	---	---	---	3340	5090	---	3400

BRAZOS RIVER BASIN

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08080500 DOUBLE MOUNTAIN FORK BRAZOS RIVER NEAR ASPERMONT, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	22.0	23.0	21.5	24.5
2	---	---	---	---	---	---	---	---	24.5	24.5	19.5	24.5
3	---	---	---	---	---	---	---	---	23.5	23.0	---	24.5
4	---	---	---	---	---	---	---	---	22.0	23.0	---	23.5
5	---	---	---	---	---	---	---	---	23.5	24.5	---	25.0
6	---	---	---	---	---	---	---	---	23.5	26.0	---	25.5
7	---	---	---	---	---	---	---	---	23.5	26.0	---	24.5
8	---	---	---	---	---	---	---	9.5	23.0	26.5	---	26.0
9	---	---	---	---	---	---	---	11.0	22.0	26.0	26.5	25.0
10	---	---	---	---	---	---	---	16.5	21.5	25.5	26.5	23.5
11	---	---	---	---	---	---	---	16.0	24.5	26.5	23.0	23.0
12	---	---	---	---	---	---	---	---	23.0	26.5	22.0	23.0
13	---	---	---	---	---	---	---	---	21.5	26.0	21.0	21.5
14	---	---	---	---	---	---	---	---	24.0	26.0	23.0	21.5
15	11.0	---	---	---	---	---	---	---	23.0	25.5	24.5	20.5
16	9.5	---	---	---	---	---	---	---	23.5	26.0	24.5	20.0
17	9.5	---	---	---	---	---	---	---	23.5	25.5	24.0	15.5
18	13.0	---	---	---	---	---	---	---	24.0	26.0	24.0	14.5
19	8.0	---	---	---	---	---	---	---	24.0	25.5	24.5	13.0
20	12.0	---	---	---	---	---	---	---	22.0	22.0	24.5	15.5
21	13.5	---	---	---	---	---	---	---	23.5	21.5	24.5	18.5
22	15.5	---	---	---	---	---	---	---	23.5	24.5	25.0	18.5
23	15.5	---	---	---	---	---	---	---	24.5	24.0	26.5	15.5
24	---	---	---	---	---	---	---	---	25.0	23.5	23.5	15.0
25	---	---	---	---	---	---	---	---	23.0	25.5	26.0	15.5
26	---	---	---	---	---	---	---	---	23.0	26.0	25.0	20.0
27	---	---	---	---	---	---	---	19.0	22.0	25.0	23.0	23.5
28	---	---	---	---	---	---	---	14.0	23.0	26.0	25.0	23.5
29	---	---	---	---	---	---	---	19.0	23.5	25.0	26.0	23.0
30	---	---	---	---	---	---	---	19.0	24.0	19.0	25.5	21.5
31	---	---	---	---	---	---	---	21.5	---	20.0	24.0	---
MONTH	---	---	---	---	---	---	---	---	23.0	24.5	24.0	21.0

Brazos River Basin

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 1971.
Water temperatures: October 1966 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	MEAN DTS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DTS- MAG- NE- SIUM (MG)	DTS- 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)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
01-14	.00	--	--	--	--	--	--	--	--	--
15-19	.78	7.7	520	240	12000	--	29	216	0	2000
20-31	.00	--	--	--	--	--	--	--	--	--
NOV.										
01-30	.00	--	--	--	--	--	--	--	--	--
DEC.										
01-04	.00	--	--	--	--	--	--	--	--	--
05-22	.01	2.2	510	220	--	12000	--	236	0	2100
23-24	.00	--	--	--	--	--	--	--	--	--
29-31	.01	2.2	510	220	--	12000	--	236	0	2100
JAN.										
01-03	.01	2.9	440	220	12000	--	33	184	0	2100
04-10	.00	--	--	--	--	--	--	--	--	--
11-12	.03	2.9	440	220	12000	--	33	184	0	2100
13-14	.00	--	--	--	--	--	--	--	--	--
15...	.01	2.9	440	220	12000	--	33	184	0	2100
16-17	.00	--	--	--	--	--	--	--	--	--
18-31	.01	2.9	440	220	12000	--	33	184	0	2100
FEB.										
01-15	.01	1.0	540	280	--	14000	--	176	0	2500
16-20	.00	--	--	--	--	--	--	--	--	--
21-24	.06	1.0	540	280	--	14000	--	176	0	2500
25-24	.00	--	--	--	--	--	--	--	--	--
MAR.										
01-31	.00	--	--	--	--	--	--	--	--	--
APR.										
01-16	.00	--	--	--	--	--	--	--	--	--
17-18	.02	.0	760	320	16000	--	52	146	0	3300
19-30	.00	--	--	--	--	--	--	--	--	--
MAY										
01-07	.00	--	--	--	--	--	--	--	--	--
08-04	1.2	15	320	85	--	4100	--	159	0	960
10-19	.00	--	--	--	--	--	--	--	--	--
20-22	5.4	10	78	18	--	670	--	100	0	200
23-27	.00	--	--	--	--	--	--	--	--	--
28-29	5.5	15	110	51	--	1200	--	150	0	290
30-31	64	18	52	17	--	470	--	173	0	120
JUNE										
01...	.02	10	110	40	--	1500	--	156	0	350
02-04	.00	--	--	--	--	--	--	--	--	--
05-07	3.6	11	40	9.8	--	310	--	166	8	98
08-10	.00	--	--	--	--	--	--	--	--	--
11-14	5.6	11	66	17	--	730	--	146	0	180
15-30	.00	--	--	--	--	--	--	--	--	--
JULY										
01-29	.00	--	--	--	--	--	--	--	--	--
30...	2.8	6.5	160	46	--	1900	--	96	0	480
31...	.00	--	--	--	--	--	--	--	--	--
AUG.										
01-02	2.4	6.5	160	46	--	1900	--	96	0	480
03-08	.00	--	--	--	--	--	--	--	--	--
09-14	10	12	96	32	--	1200	--	156	0	250

EXTREMES, October 1965 to September 1967.--Dissolved solids: Maximum, 27,700 mg/l Apr. 24, 1966; minimum, 590 mg/l Aug. 29-31, 1966.
Hardness: Maximum, 2,650 mg/l Sept. 16-29, 1966; minimum, 119 mg/l Aug. 23-24, 1966.
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.

		DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RINE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED SULFOS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CAL/MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH
DATE										(UNITS)
OCT.										
01-14		--	--	--	--	--	--	--	--	--
15-19		19000	--	--	33500	2300	2120	109	51200	7.5
20-31		--	--	--	--	--	--	--	--	--
NOV.										
01-30		--	--	--	--	--	--	--	--	--
DEC.										
01-04		--	--	--	--	--	--	--	--	--
05-22		19000	--	--	33900	2200	2000	112	52700	7.5
23-28		--	--	--	--	--	--	--	--	--
29-31		19000	--	--	33900	2200	2000	112	52700	7.5
JAN.										
01-03		19000	--	--	33500	2100	2000	114	52000	7.2
04-10		--	--	--	--	--	--	--	--	--
11-12		19000	--	--	33600	2100	2000	114	52000	7.2
13-14		--	--	--	--	--	--	--	--	--
15...		19000	--	--	33600	2100	2000	114	52000	7.2
16-17		--	--	--	--	--	--	--	--	--
18-31		19000	--	--	33600	2100	2000	114	52000	7.2
FEB.										
01-15		22000	--	--	38900	2500	2400	122	59300	7.4
16-20		--	--	--	--	--	--	--	--	--
21-24		22000	--	--	38900	2500	2400	--	59300	7.4
25-28		--	--	--	--	--	--	--	--	--
MAR.										
01-31		--	--	--	--	--	--	--	--	--
APR.										
01-16		--	--	--	--	--	--	--	--	--
17-18		25000	--	--	46200	3200	3100	123	68000	7.2
19-30		--	--	--	--	--	--	--	--	--
MAY										
01-07		--	--	--	--	--	--	--	--	--
08-09		6300	--	1.9	11800	1200	1000	53	19300	7.4
10-19		--	--	--	--	--	--	--	--	--
20-22		1000	--	1.4	2030	270	190	18	3740	7.4
23-27		--	--	--	--	--	--	--	--	--
28-29		2000	--	1.6	3780	490	370	24	6930	7.5
30-31		680	1.5	.2	1440	200	56	15	2400	7.8
JUNE										
01...		2300	--	--	4370	440	320	31	7530	7.3
02-04		--	--	--	--	--	--	--	--	--
05-07		390	1.2	2.9	966	140	0	11	1750	8.4
08-10		--	--	--	--	--	--	--	--	--
11-14		1100	--	1.5	2140	230	120	21	3770	7.5
15-30		--	--	--	--	--	--	--	--	--
JULY										
01-29		--	--	--	--	--	--	--	--	--
30...		2900	--	--	5520	590	510	--	9450	7.6
31...		--	--	--	--	--	--	--	--	--
AUG.										
01-02		2900	--	--	5520	590	510	34	9450	7.6
03-08		--	--	--	--	--	--	--	--	--
09-14		1800	--	1.3	3410	370	240	26	6120	8.0
15-16		500	1.0	.8	1060	150	28	12	1980	8.0
17-19		2200	--	--	4040	390	260	31	7170	8.0
20-22		--	--	--	--	--	--	--	--	--
23-26		3600	--	--	6780	600	500	43	11600	7.7
27-31		--	--	--	--	--	--	--	--	--
SEP.										
01-08		--	--	--	--	--	--	--	--	--
09-10		420	--	.7</						

BRAZOS RIVER BASIN

435

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAY 31...	2000	26	26	78	26	680	260	0	260
AUG. 17...	1245	16	10	38	8.0	420	151	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 CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
MAY 31...	920	--	.60	2100	300	87	17	3610	7.2
AUG. 17...	540	.7	.20	1230	130	4	16	2180	7.3

BRAZOS RIVER BASIN

437

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1615	.11	16	840	290	9900	84	0	2700
DEC. 09...	1005	.71	11	900	230	6000	136	0	2500
JAN. 12...	1030	1.5	14	740	200	4100	182	0	2200
FEB. 17...	1330	1.7	8.6	730	210	4300	97	0	2300
MAR. 23...	1230	1.1	6.6	850	240	5800	106	0	2500
APR. 27...	1400	.34	18	980	300	8500	94	0	2900
MAY 31...	1835	111	23	170	38	1000	288	0	510
JULY 14...	1725	.10	14	800	300	11000	180	0	2600
AUG. 17...	0900	123	13	110	24	440	156	0	240
SEP. 22...	1000	46	8.7	160	37	930	144	0	470

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	SPECI- FIC CONDU- CTANCE (MICRO- MHOS)	PH (UNITS)
NOV. 04...	16000	.00	29400	3300	3200	--	45300	7.3
DEC. 09...	9500	--	19200	3200	3100	46	27800	7.5
JAN. 12...	6500	--	13900	2700	2500	35	19800	7.6
FEB. 17...	6800	--	14300	2700	2600	36	20700	7.5
MAR. 23...	9200	--	18600	3100	3000	45	25600	7.4
APR. 27...	13600	.00	26400	3700	3600	61	39300	7.4
MAY 31...	1400	.30	3330	580	350	18	5840	7.2
JULY 14...	18000	--	32500	3200	3100	84	49600	7.0
AUG. 17...	680	.5	1600	380	250	9.9	2830	7.1
SEP. 22...	1400	.4	3080	550	430	17	5210	8.0

BRAZOS RIVER BASIN

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 1971.
Water temperatures: December 1949 to September 1951, October 1964 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.										
17...	2.0	4.4	430	72	2700	--	9.2	68	0	1100
30...	.05	13	840	220	--	6400	--	153	0	2400
MAR.										
17...	.10	6.8	960	280	--	7200	--	215	0	2800
MAY										
05...	2.0	7.0	680	110	--	2400	--	93	0	1800
09...	55	8.6	640	93	--	2800	--	86	0	1600
30...	101	10	320	33	--	640	--	92	0	830
31...	121	12	430	46	--	1400	--	120	0	1100
JUNE										
03...	35	15	410	87	--	3000	--	160	0	1100
06...	10	14	780	190	--	7000	--	114	0	2200
11...	3.6	12	960	250	--	8500	--	104	0	2600
JULY										
01...	6.0	12	960	250	7800	--	67	86	0	2500
31...	1.4	6.9	540	79	--	3900	--	78	0	1300
AUG.										
02...	5.3	5.3	760	180	--	5600	--	84	0	2000
06...	6.7	5.7	960	260	--	11000	--	112	0	2600
15...	1160	9.1	200	16	--	430	--	104	0	490
22...	7.8	12	660	180	--	7700	--	150	0	1700
SEP.										
19...	751	7.7	54	11	--	370	--	128	0	160
21...	145	7.8	93	21	--	750	--	115	0	260
23...	352	7.7	220	53	--	2000	--	136	0	520

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs days)	Specific conduct- ance (micro- mos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970 ..	3.81	20500	13600	4.5	140	6860	2.3	71	1660	0.6	17
November.....	.04	32000	21900	.08	2.4	11200	.04	1.2	2500	.01	.3
December.....	0	--	--	--	--	--	--	0	--	--	0
January 1971..	.01	35000	22700	.02	.6	11400	.01	.3	2750	.00	.07
February.....	1.65	34700	22500	3.6	100	11300	1.8	50	2740	.4	12
March.....	3.44	35100	22700	6.8	211	11400	3.4	106	2750	.8	26
April.....	0	--	--	--	0	--	--	0	--	--	0
May.....	2255.91	4490	2920	575	17800	991	195	6030	850	167	5180
June.....	1558.23	6600	4310	604	18100	1750	246	7370	940	132	3950
July.....	21.9	35700	23100	44	1370	12100	23	714	2380	4.5	141
August.....	5642.3	4350	2520	1240	38400	1230	605	18700	330	162	5020
September.....	9501.3	3520	2010	1720	51600	950	813	24400	270	230	6900
Total	18988.59	--	--	--	128000	--	--	27400	--	--	21200
Weighted average	52.0	4180	2490	350	--	1120	160	--	420	58	--

BRAZOS RIVER BASIN

439

08081000 SALT FORK BRAZOS RIVER NEAR PEACOCK, TEX.--Continued

EXTREMES, December 1949 to September 1951, October 1964 to September 1970.--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): 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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
17...	4200	--	--	8550	1400	1300	32	13700	6.8
30...	10000	--	--	19900	3000	2900	51	29300	7.5
MAR.									
17...	11000	--	--	22700	3600	3400	53	35000	7.3
MAY									
05...	3800	--	--	8900	2200	2100	23	13500	6.8
09...	4600	--	--	9720	2000	1900	27	15100	7.3
30...	980	--	1.0	2860	940	860	9.1	4360	7.4
31...	2200	--	--	5270	1300	1200	17	8210	7.2
JUNE									
03...	4600	--	--	9270	1400	1200	35	14800	7.6
06...	11000	--	--	21300	2700	2600	58	33200	7.5
11...	14000	--	--	26000	3400	3300	63	39300	7.5
JULY									
01...	13000	--	--	24400	3400	3400	58	37700	7.2
31...	6200	--	--	12100	1700	1600	42	18900	7.1
AUG.									
02...	9000	--	--	17600	2600	2600	47	27300	7.3
06...	17000	--	--	32300	3500	3400	81	49100	7.6
15...	640	--	.7	1830	560	480	7.9	3010	7.3
22...	12000	--	--	22600	2400	2300	69	35600	7.7
SEP.									
19...	500	.6	1.3	1170	180	74	12	2100	8.0
21...	1100	--	.7	2310	320	220	18	4090	7.8
23...	3100	--	--	5890	750	640	31	10100	7.3

BRAZOS RIVER BASIN

08081000 SALT FORK BRAZOS RIVER NEAR PEACOCK, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	31700	---	---	---	34900	---	---	5990	37700	27400	25700
2	---	33000	---	---	35000	34700	---	---	9580	36600	27300	27600
3	---	---	---	---	---	35000	---	---	14800	36400	28600	34100
4	---	---	---	35000	---	35200	---	40000	18500	36400	35000	37000
5	---	---	---	---	---	35000	---	20000	25100	---	49100	36900
6	---	---	---	---	---	34500	---	36600	33200	---	40000	37500
7	---	---	---	---	---	35400	---	45800	37000	---	31900	41000
8	---	---	---	---	35000	35500	---	6970	35400	---	21900	41600
9	---	---	---	---	---	34700	---	12000	38700	---	3930	43000
10	---	---	---	---	---	35900	---	24000	41900	---	3460	44800
11	---	---	---	---	---	36000	---	33300	39300	---	2710	22400
12	---	---	---	---	---	35500	---	35100	41400	---	2890	8460
13	---	---	---	---	---	35500	---	36500	46000	---	4820	8560
14	---	---	---	---	---	35300	---	35400	45900	---	3300	17500
15	30000	---	---	---	---	35100	---	34300	33800	---	1860	27900
16	30000	---	---	---	---	35000	---	34600	15900	---	2540	34700
17	13700	---	---	---	---	35000	---	---	26300	---	4520	16800
18	27400	---	---	---	---	35200	---	10700	28900	---	6560	3430
19	27300	---	---	---	---	---	---	10000	29800	---	12700	2100
20	27300	---	---	---	---	---	---	14000	30000	---	19300	2620
21	27800	---	---	---	36900	---	---	17100	3290	---	25900	4090
22	28200	---	---	---	35700	---	---	25000	3050	---	35600	6630
23	24900	---	---	---	35000	---	---	33800	5240	---	35600	9200
24	28800	---	---	---	34300	---	---	32100	7750	---	9200	1200
25	28900	---	---	---	34500	---	---	31300	14600	---	3620	1000
26	29100	---	---	---	34000	---	---	31800	25600	---	5000	2000
27	29500	---	---	---	34300	---	---	8460	25600	---	3150	4970
28	29400	---	---	---	35000	---	---	4670	29400	---	2100	6560
29	29300	---	---	---	---	---	---	2880	34200	---	7000	10300
30	29300	---	---	---	---	---	---	4360	37000	---	13800	12400
31	30000	---	---	---	---	---	---	8210	---	18900	20600	---
MONTH	---	---	---	---	---	---	---	23290	26110	---	15850	19070

BRAZOS RIVER BASIN

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08081000 SALT FORK BRAZOS RIVER NEAR PEACOCK, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	8.0	---	---	---	---	---	---	25.0	22.0	20.0	22.0
2	---	4.0	---	---	---	---	---	---	29.0	22.0	31.0	22.0
3	---	---	---	---	---	---	---	---	27.0	22.0	28.0	22.0
4	---	---	---	---	---	---	---	---	23.0	23.0	20.0	22.0
5	---	---	---	---	---	---	---	7.0	21.0	---	20.0	30.0
6	---	---	---	---	---	---	---	13.0	30.0	---	20.0	23.0
7	---	---	---	---	---	---	---	6.0	21.0	---	21.0	23.0
8	---	---	---	---	---	---	---	5.0	19.0	---	27.0	22.0
9	---	---	---	---	---	---	---	8.0	20.0	---	22.0	25.0
10	---	---	---	---	---	---	---	5.0	21.0	---	24.0	27.0
11	---	---	---	---	---	---	---	22.0	21.0	---	22.0	20.0
12	---	---	---	---	---	---	---	11.0	21.0	---	24.0	20.0
13	---	---	---	---	---	---	---	23.0	21.0	---	22.0	21.0
14	---	---	---	---	---	---	---	12.0	20.0	---	27.0	18.0
15	---	---	---	---	---	---	---	22.0	21.0	---	22.0	16.0
16	---	---	---	---	---	---	---	22.0	21.0	---	22.0	18.0
17	12.0	---	---	---	---	---	---	7.0	21.0	---	22.0	17.0
18	9.0	---	---	---	---	---	---	22.0	20.0	---	23.0	---
19	7.0	---	---	---	---	---	---	4.0	21.0	---	22.0	12.0
20	8.0	---	---	---	---	---	---	20.0	21.0	---	22.0	12.0
21	14.0	---	---	---	---	---	---	15.0	21.0	---	22.0	7.0
22	6.0	---	---	---	---	---	---	20.0	22.0	---	29.0	18.0
23	5.0	---	---	---	---	---	---	27.0	23.0	---	24.0	15.0
24	9.0	---	---	---	---	---	---	3.0	22.0	---	26.0	5.0
25	16.0	---	---	---	---	---	---	3.0	20.0	---	22.0	---
26	6.0	---	---	---	---	---	---	8.0	24.0	---	24.0	23.0
27	8.0	---	---	---	---	---	---	7.0	23.0	---	27.0	26.0
28	4.0	---	---	---	---	---	---	7.0	21.0	---	---	21.0
29	5.0	---	---	---	---	---	---	9.0	22.0	---	---	21.0
30	5.0	---	---	---	---	---	---	7.0	22.0	---	---	22.0
31	7.0	---	---	---	---	---	---	22.0	---	18.0	---	---
MONTH	---	---	---	---	---	---	---	12.5	22.0	---	23.5	19.5

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 1971.
Water temperatures: October 1961 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
MAY								
18...	134	8.3	560	49	1200	85	0	1500
28...	.36	--	--	--	--	--	--	--
29...	116	19	360	38	520	228	0	860
JUNE								
01...	30	9.4	1100	130	3400	80	0	2900
03...	5.5	11	850	78	1800	86	0	2200
21...	247	7.0	400	33	780	64	0	990
AUG.								
10...	115	8.3	760	90	2700	79	0	2000
SEP.								
01...	5.9	10	1000	110	2900	104	0	2500
28...	15	--	810	62	1100	95	0	1100

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Month	Discharge (cfs-days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970 ..	14.87	30200	20000	26	805	9640	12	387	3030	3.9	122
November.....	0	--	--	--	0	--	--	0	--	--	0
December.....	0	--	--	--	0	--	--	0	--	--	0
January 1971 ..	0	--	--	--	0	--	--	0	--	--	0
February.....	0	--	--	--	0	--	--	0	--	--	0
March.....	0	--	--	--	0	--	--	0	--	--	0
April.....	0	--	--	--	0	--	--	0	--	--	0
May.....	795.86	4920	3340	231	7170	990	68	2120	1150	80	2470
June.....	313.89	4330	2990	84	2530	770	22	652	1150	32	973
July.....	0	--	--	--	0	--	--	0	--	--	0
August.....	2966.30	3980	2750	710	22000	860	222	6870	890	229	7100
September.....	1731.58	4950	3310	516	15500	1140	177	5320	960	150	4500
Total	5822.50	--	--	--	48000	--	--	15300	--	--	15200
Weighted average	16.0	4480	3050	130	--	980	42	--	970	42	--

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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.

DATE	DIS- SOLVED CHLO- RIDE (CL) (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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
MAY								
18...	1900	2.5	5210	1600	1500	13	7870	7.3
28...	1400	--	--	--	--	--	6070	7.0
29...	790	.8	2710	1100	880	7.0	3960	7.3
JUNE								
01...	5400	--	12900	3200	3200	26	18700	7.0
03...	2800	--	7740	2400	2400	16	11100	7.3
21...	1200	1.4	3490	1100	1100	10	5430	6.8
AUG.								
10...	4400	--	9940	2300	2200	25	15300	7.1
SEP.								
01...	4700	--	11400	3000	2900	23	16700	7.6
28...	2400	--	5620	2300	2200	10	10100	7.5

[illegible]

BRAZOS RIVER BASIN

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 feet upstream from streamflow station Salt Croton Creek near Aspermont, and 20 miles northwest of Aspermont.

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1445	1.2	4.4	2300	900	73000	35	0	4700
NOV.									
09...	1350	.47	3.4	2100	1400	120000	29	0	3300
DEC.									
01...	1540	.76	3.5	2200	1300	110000	26	0	3800
22...	1120	.93	3.6	2100	1000	88000	33	0	4000
FEB.									
02...	1530	.63	4.0	2200	1200	99000	32	0	4100
25...	1145	.88	3.5	2200	1100	98000	26	0	4000
MAR.									
16...	1125	.48	3.3	2100	1500	120000	29	0	3200
APR.									
06...	1015	.48	3.2	2100	1700	120000	29	0	2200
27...	1100	.08	3.3	2200	1700	120000	31	0	2400
MAY									
19...	1205	.58	7.3	1900	440	28000	34	0	4000
JUNE									
08...	1040	.46	5.8	2400	1100	76000	32	0	4000
JULY									
01...	1030	5.7	2.9	2400	1200	120000	24	0	3000
20...	1115	.66	33	2500	1900	120000	33	0	2200
AUG.									
11...	1150	1.5	6.0	1300	300	21000	30	0	2600
31...	1215	.82	5.0	2400	650	53000	37	0	3200
SEP.									
22...	1200	.79	4.6	2200	1100	80000	43	0	4000

DATE	DIS- SOLVED CHLO- RIDE (CL) (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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
19...	120000	.00	197000	9500	9400	--	207000	6.8
NOV.								
09...	180000	.00	309000	110000	110000	--	249000	6.6
DEC.								
01...	170000	.00	291000	11000	11000	--	244000	6.7
22...	140000	--	235000	9300	9300	396	226000	6.7
FEB.								
02...	160000	--	263000	10000	10000	422	236000	6.4
25...	160000	--	260000	10000	10000	426	235000	6.6
MAR.								
16...	190000	--	317000	11000	11000	489	248000	6.4
APR.								
06...	187000	--	310000	12000	12000	472	243000	6.7
27...	190000	--	311000	12000	12000	467	240000	6.7
MAY								
19...	44000	--	78700	6600	6600	151	107000	6.2
JUNE								
08...	120000	--	204000	11000	11000	322	208000	6.3
JULY								
01...	200000	.00	325000	11000	11000	499	246000	6.1
20...	190000	--	315000	14000	14000	440	245000	6.4
AUG.								
11...	33000	--	57800	4400	4400	137	81100	6.2
31...	85000	--	144000	8700	8700	248	171000	6.5
SEP.								
22...	130000	--	216000	10000	10000	348	217000	6.9

08081450 HAYSTACK CREEK AT WEIR E, NEAR ASPERMONT, TEX.

LOCATION.--Lat 33°24'05", 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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.									
19...	1400	.21	6.9	1800	540	37000	77	0	4600
NOV.									
09...	1325	.15	6.0	2000	580	43000	74	0	4900
DEC.									
01...	1515	.12	4.9	2000	560	45000	67	0	4900
22...	0950	.16	5.2	1800	510	39000	69	0	4400
FEB.									
02...	1515	.13	5.7	2000	590	48000	62	0	4800
25...	1115	.16	5.3	1800	520	39000	71	0	4400
MAR.									
16...	1115	.18	5.3	1900	580	43000	74	0	4600
APR.									
06...	1000	.17	7.0	2000	640	43000	66	0	4300
27...	1045	.16	12	2100	720	46000	68	0	4500
MAY									
19...	1150	.13	12	2100	560	39000	82	0	4500
JUNE									
08...	1020	.06	6.0	2100	660	42000	62	0	4600
JULY									
01...	0930	.34	1.0	2200	600	66000	49	0	4500
20...	1050	.10	12	2200	800	53000	64	0	4700
AUG.									
11...	1145	.35	6.9	2000	620	34000	72	0	3700
31...	1200	.13	4.7	2000	430	36000	70	0	4400
SEP.									
22...	1125	.21	4.4	2000	540	38000	124	0	4400

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
19...	58000	.00	102000	6800	6700	--	134000	7.2
NOV.								
09...	68000	.00	118000	7400	7300	--	148000	7.2
DEC.								
01...	71000	.00	124000	7300	7200	--	151000	7.1
22...	61000	--	106000	6700	6600	209	136000	7.1
FEB.								
02...	76000	--	132000	7500	7500	242	160000	7.1
25...	61000	--	106000	6600	6600	208	135000	7.1
MAR.								
16...	68000	--	118000	7200	7100	222	148000	7.1
APR.								
06...	68000	--	118000	7500	7400	214	143000	7.4
27...	74000	.00	128000	8200	8100	221	154000	7.3
MAY								
19...	62000	--	108000	7400	7400	195	134000	6.9
JUNE								
08...	67000	--	116000	8000	7900	205	142000	6.7
JULY								
01...	100000	--	179000	8100	8100	322	195000	6.5
20...	85000	.00	146000	8800	8800	246	176000	6.9
AUG.								
11...	55000	--	95300	7400	7300	170	123000	6.6
31...	57000	--	99800	6700	6600	191	130000	7.2
SEP.								
22...	60000	--	105000	7100	7000	195	135000	6.9

BRAZOS RIVER BASIN

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.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT. 19...	1.4	4.9	2300	860	67000	--	210	44	0
NOV. 09...	.81	4.4	2200	1200	--	100000	--	34	0
DEC. 01...	.84	4.3	2200	1100	--	98000	--	35	0
MAR. 16...	.57	--	2100	1300	--	100000	--	--	--
APR. 06...	.60	--	2100	1300	100000	--	400	--	--
APR. 27...	.28	--	--	--	--	--	--	--	--
MAY 19...	.73	--	2000	440	--	34000	--	--	--
JUNE 08...	.42	--	2400	760	--	69000	--	--	--
JULY 20...	1.4	--	--	--	--	--	--	--	--
AUG. 11...	1.8	8.4	1300	290	--	21000	--	38	0
31...	.64	5.1	2300	680	--	52000	--	45	0
SEP. 22...	1.1	3.5	2100	870	--	70000	--	45	0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	68.92	--	118000	706	2190	69400	416	12900	2940	18	548
November.....	25.65	--	272000	628	18800	162000	374	11200	4160	9.6	288
December.....	25.74	235000	260000	583	18100	155000	347	10800	4060	9.1	282
January 1971..	23.92	--	290000	604	18700	173000	360	11200	3600	7.5	233
February.....	22.56	--	248000	539	15100	148000	321	9000	3860	8.4	235
March.....	18.03	237000	266000	418	12900	159000	250	7740	3880	6.1	189
April.....	27.09	--	183000	445	13400	109000	265	7940	2870	7.0	210
May.....	427.54	--	28200	1050	32500	15500	579	17900	1520	56	1750
June.....	259.79	--	46500	1090	32600	26500	620	18600	1980	46	1390
July.....	52.28	--	149000	678	21000	86200	392	12200	3700	17	523
August.....	1006.60	--	32100	2810	87200	17500	1530	47500	2310	209	6280
September.....	245.52	--	59700	1320	39600	33800	745	22400	2820	62	1870
Total	2203.64	--	--	--	312000	--	--	189000	--	--	13800
Weighted average	6.04		55800	860	--	31800	519	--	2320	38	--

08081500 SALT CROTON CREEK NEAR ASPERMONT, TEX.--Continued

DRAINAGE AREA.--64.3 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 19...	4600	110000	185000	9200	9200	303	197000	6.5
NOV. 09...	4200	160000	268000	10000	10000	426	240000	6.7
DEC. 01...	4100	160000	265000	10000	10000	426	235000	6.5
MAR. 16...	3900	160000	266000	11000	--	423	237000	--
APR. 06...	3700	160000	265000	--	--	423	237000	--
27...	--	120000	--	--	--	--	213000	--
MAY 19...	4500	54000	94100	6800	--	179	120000	--
JUNE 08...	4600	110000	187000	9000	--	314	200000	--
JULY 20...	--	160000	--	--	--	--	239000	--
AUG. 11...	2600	33000	58600	4500	4500	137	83900	6.6
31...	3800	84000	143000	8600	8600	245	169000	7.3
SEP. 22...	4100	110000	188000	8800	8800	324	202000	6.6

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	242000	---	237000	213000	---	---	---	---
2	---	---	---	---	242000	---	237000	213000	---	---	---	---
3	---	---	---	---	242000	---	237000	213000	---	---	---	---
4	---	---	---	---	242000	---	237000	213000	---	---	---	---
5	---	---	---	---	242000	---	237000	213000	---	---	---	---
6	---	---	---	---	242000	---	237000	213000	---	---	---	---
7	---	---	---	---	242000	---	237000	213000	---	---	---	---
8	---	---	---	---	242000	---	237000	---	200000	---	---	---
9	---	---	---	---	242000	---	237000	---	---	---	---	---
10	---	---	---	---	242000	---	237000	---	---	---	---	---
11	---	---	---	---	242000	---	237000	---	---	---	---	---
12	---	---	---	---	242000	---	237000	---	---	---	---	---
13	---	---	---	---	242000	---	237000	---	---	---	---	---
14	---	---	---	---	242000	---	237000	---	---	---	---	---
15	89200	---	---	---	242000	---	---	---	---	---	---	---
16	75000	---	---	---	242000	---	160000	---	---	---	---	---
17	72000	---	---	---	242000	---	155000	---	---	---	---	---
18	---	---	---	---	242000	---	---	76300	---	---	---	---
19	197000	---	---	---	242000	---	160000	120000	---	---	---	---
20	---	---	---	---	242000	---	170000	---	---	---	---	---
21	---	---	---	---	---	---	213000	---	40200	---	---	---
22	---	---	---	---	219000	---	213000	---	---	---	---	---
23	---	---	---	---	219000	---	213000	---	---	---	---	---
24	---	---	---	---	219000	---	213000	---	---	---	---	---
25	---	---	---	---	219000	---	213000	---	---	---	---	---
26	---	---	---	---	219000	---	213000	---	---	---	---	---
27	---	---	---	---	219000	---	213000	108000	---	---	---	---
28	---	---	---	---	219000	---	213000	8000	---	---	---	---
29	---	---	---	---	---	---	213000	8120	---	---	---	---
30	---	---	---	---	---	---	213000	60000	---	---	---	---
31	---	---	---	---	---	---	---	110000	---	---	---	---
MONTH	---	---	---	---	236040	---	215280	---	---	---	---	---

BRAZOS RIVER BASIN

08082000 SALT FORK BRAZOS RIVER NEAR ASPERMONT, TEX.

LOCATION.--Lat 33°20'01", long 00°14'16", Stonewall County, at gaging station at bridge on U.S. Highway 83, 5.5 miles downstream from Salt Croton Creek, 13.2 miles north of Aspermont, and 27.3 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 1971.
Water temperatures: October 1948 to September 1951, October 1956 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT.									
03...	1.0	9.2	1400	400	29000	--	90	144	0
04...	.44	10	1400	390	24000	--	74	160	0
08...	.12	9.2	1500	390	18000	--	63	136	0
15...	126	6.4	600	140	--	--	35	110	0
NOV.									
11...	.27	8.3	1400	380	--	16000	--	164	0
14...	.44	11	1200	370	--	14000	--	154	0
16...	.51	9.1	1400	430	--	23000	--	158	0
DEC.									
01...	.59	7.7	1400	380	--	19000	--	149	0
11...	.59	8.4	1400	4000	--	21000	--	155	0
23...	.68	8.6	1400	420	--	24000	--	170	0
JAN.									
01...	.78	8.9	1500	450	24000	--	140	164	0
29...	.68	7.9	1400	410	--	19000	--	182	0
FEB.									
03...	.68	8.8	1400	390	--	17000	--	164	0
22...	3.6	6.2	1800	770	--	57000	--	118	0
23...	2.2	6.8	1800	680	--	46000	--	132	0
24...	1.4	8.8	1600	530	--	33000	--	152	0
25...	1.1	8.1	1700	500	--	29000	--	156	0
27...	.51	9.1	1600	440	--	24000	--	177	0
MAR.									
01...	.37	7.5	1600	420	--	20000	--	154	0
16...	.22	6.7	1600	420	--	18000	--	140	0
26...	.22	6.5	1440	410	--	16000	--	156	0
APR.									
06...	.15	--	1500	420	17000	--	7900	--	--
17...	.59	7.8	1100	280	--	11000	--	146	0
18...	2.0	--	--	--	--	--	--	--	--
19...	.78	--	--	--	--	--	--	--	--
21...	.18	--	--	--	--	--	--	--	--
MAY									
19...	93	13	770	89	--	3300	--	152	0
22...	3.3	9.3	950	160	--	6300	--	106	0
30...	351	12	480	47	--	1500	--	119	0
JUNE									
01...	314	16	370	46	--	1200	--	137	0
10...	15	8.4	1200	240	--	10000	--	78	0
14...	10	6.7	1300	280	--	13000	--	77	0
26...	24	10	600	85	--	3300	--	96	0
JULY									
01...	1.6	6.5	1200	270	11000	--	57	91	0
10...	.32	9.8	1700	410	--	20000	--	99	0
30...	22	6.8	1500	620	--	44000	--	7200	0
AUG.									
01...	.14	7.7	1200	320	--	23000	--	103	0
03...	.30	10	1700	430	--	28000	--	116	0
07...	8.0	6.2	1000	270	--	20000	--	68	0
11...	529	13	520	34	--	600	--	109	0
24...	804	7.7	580	91	--	5800	--	113	0
SEP.									
19...	893	9.0	130	21	--	620	--	134	0
22...	96	7.9	190	36	--	1300	--	123	0
30...	93	8.0	300	60	--	2100	--	132	0

08082000 SALT FORK BRAZOS RIVER NEAR ASPERMONT, TEX.--Continued

EXTREMES, October 1948 to September 1951, October 1956 to September 1970.--Dissolved solids (1948-51, 1956-68):

Maximum, 148,000 mg/l July 2, 1961; 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, 155,000 micromhos Feb. 15, 1969; 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 if recorded continuously at this station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
03...	3200	45000	--	79200	5100	5000	176	108000	7.5
04...	3500	36000	--	65500	5100	5000	146	90700	7.4
08...	3800	29000	--	52800	5300	5200	107	75200	7.3
15...	1100	16000	--	27900	2100	2000	--	45500	7.3
NOV.									
11...	3500	26000	--	47400	5100	4900	98	67800	7.6
14...	3200	22000	--	40900	4500	4400	91	58300	7.6
16...	3400	36000	--	64300	5300	5100	138	89000	7.6
DEC.									
01...	3300	31000	--	55200	5000	4800	116	79200	7.3
11...	3300	34000	--	60200	5200	5000	65	86400	7.4
23...	3300	38000	--	67200	5400	5200	145	95000	7.5
JAN.									
01...	3300	39000	--	68500	5500	5400	140	95800	7.5
29...	3300	31000	--	56600	5200	5000	115	79000	7.6
FEB.									
03...	3300	28000	--	50500	5100	5000	104	75600	7.5
22...	3700	90000	--	153000	7700	7600	283	176000	7.4
23...	3700	72000	--	124000	7200	7100	234	152000	7.5
24...	3600	53000	--	92200	6200	6100	183	121000	7.6
25...	3200	46000	--	80900	6200	6100	159	110000	7.8
27...	3600	38000	--	67800	5900	5700	137	94000	7.5
MAR.									
01...	3700	32000	--	57700	5600	5500	115	81600	7.5
16...	3700	29000	--	52500	5600	5500	104	74800	7.3
26...	3500	26000	--	47000	5200	5100	96	67700	7.5
APR.									
06...	3800	28000	--	51700	--	--	100	72400	--
17...	2800	18000	--	33500	3800	3700	77	50100	7.6
18...	--	76000	--	--	--	--	--	161000	--
19...	--	60000	--	--	--	--	--	136000	--
21...	--	41000	--	--	--	--	--	101000	--
MAY									
19...	2000	5200	--	11500	2300	2200	30	17200	7.1
22...	2000	10000	--	19700	3000	2900	50	29600	7.5
30...	1200	2400	--	5710	1400	1300	18	9080	7.4
JUNE									
01...	1100	1800	2.0	4570	1100	1000	16	7010	7.2
10...	2800	16000	--	30900	4000	3900	69	45500	7.1
14...	3100	21000	--	38800	4400	4300	85	57000	7.0
26...	1400	5200	--	10600	1800	1800	33	16400	7.5
JULY									
01...	2800	18000	--	33700	4000	4000	75	50800	7.1
10...	4000	32000	--	57500	6000	5900	113	81400	7.1
30...	2600	71000	--	119000	6300	6300	241	151000	6.5
AUG.									
01...	2600	36000	--	63500	4300	4300	152	90000	7.2
03...	3900	45000	--	79100	6100	6000	157	107000	7.4
07...	2100	32000	--	55500	3600	3600	145	80900	7.2
11...	1300	950	1.2	3560	1400	1300	6.9	5090	7.8
24...	1200	9300	--	17000	1800	1700	59	27100	7.5
SEP.									
19...	340	920	1.5	2100	410	300	13	3630	8.0
22...	500	2000	.5	4050	620	520	22	7050	7.4
30...	800	3400	--	6730	1000	900	29	11100	7.9

BRAZOS RIVER BASIN

08082000 SALT FORK BRAZOS RIVER NEAR ASPERMONT, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs days)	Specific conductance (micro- mos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	366.83	49900	33000	1050	32700	17700	567	17600	2670	85	2650
November.....	12.90	70500	49600	58	1730	27300	32	951	3540	4.1	123
December.....	21.10	83500	58500	108	3330	33000	61	1880	3010	5.5	171
January 1971..	20.59	85700	60400	108	3360	33800	61	1880	3460	6.2	192
February.....	24.59	112000	86400	205	5740	49800	118	3310	3360	8.0	223
March.....	7.99	76800	52700	37	1140	29700	21	641	3530	2.5	76.2
April.....	7.73	105000	79300	55	1660	45300	31	945	3580	2.5	74.7
May.....	3702.44	10000	6570	2120	65700	2930	945	29300	1160	375	11600
June.....	2716.5	14300	9370	2290	68700	4470	1090	32800	1380	336	10100
July.....	45.59	118000	89900	357	11100	52600	209	6480	2770	11	341
August.....	10923.2	7520	5050	4800	149000	2120	2010	62400	1020	968	30000
September.....	8471.4	6210	3730	2840	85200	1790	1370	41000	480	366	11000
Total	26320.86	--	--	--	429000	--	--	199000	--	--	66600
Weighted average	72.1	9230	6040	1180	--	2800	550	--	940	180	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61000	71600	79200	95800	82800	81600	79600	78000	6700	50000	90000	17200
2	85600	69800	83000	92800	80500	77500	75300	81000	6800	59600	140000	20300
3	108000	69700	78700	92000	76000	73400	76000	82000	9700	67400	107000	23900
4	90700	66100	79800	91200	82500	78700	78500	82300	13000	61400	91600	26000
5	81400	69800	74400	86600	86000	83300	75600	71300	15300	88800	88800	23000
6	78800	68200	76600	82800	85700	88200	73400	79800	40000	86000	88100	43600
7	77300	65800	72700	78700	79900	82400	75100	81000	35400	85000	85000	42900
8	75200	66800	71900	82800	80600	78700	76500	82900	36500	82700	20000	40600
9	76500	65900	77500	84100	82400	75800	76200	79100	40900	82100	15000	38400
10	73600	68200	82000	89200	84500	76900	75000	52000	45500	81400	7000	38800
11	72500	67800	86400	90000	88200	75300	77500	60000	47500	82300	5100	39500
12	73000	66800	80500	88100	87500	73400	80100	71600	48800	82800	6310	35900
13	73000	67600	79200	86300	80200	73900	77100	79200	52100	83500	6490	20000
14	74000	58300	78700	89300	76000	78700	77400	80700	57000	83100	7540	15300
15	37600	77000	77800	87000	76600	77800	78600	81000	60600	83500	6000	20800
16	68700	89000	92100	82900	73000	74400	67800	84300	67000	83700	5000	25700
17	40500	83400	92700	82500	71500	73700	50100	83300	73000	84000	7000	32700
18	50000	78400	90100	80500	68100	76900	161000	30200	69800	84700	7000	10000
19	67000	74600	86100	83500	79600	74700	136000	17000	72500	85400	8990	3630
20	73000	73100	79200	82400	85600	73900	113000	15000	72200	77700	13900	3870
21	80100	70300	78900	85200	150000	75000	101000	19600	17600	82200	18100	5760
22	82000	70300	86400	84200	176000	71700	85700	29600	9230	85700	21800	6500
23	76400	68500	95000	84900	152000	75800	89900	49500	6620	74400	25100	13800
24	80500	65900	93000	83500	121000	74700	81300	53600	8310	82600	10000	12300
25	78500	65700	90000	84200	110000	72900	82600	70300	13300	83600	8000	2800
26	77600	68100	85000	85200	100000	67700	85100	73200	16400	87000	4290	2500
27	75400	68500	81000	82500	94000	71700	83000	77100	23700	85600	5640	4300
28	73400	65500	82400	79700	87900	75800	81600	50400	27800	85600	5200	5500
29	72100	65100	85400	79000	---	73900	79100	5610	37100	84600	5040	8000
30	68500	71000	89400	84500	---	73600	81000	8140	44600	150000	6860	11100
31	67700	---	93700	87700	---	74600	---	6200	---	130000	11200	---
MONTH	73210	69890	83190	85450	92790	76020	84340	58550	35830	84080	29910	19820

BRAZOS RIVER BASIN

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08082000 SALT FORK BRAZOS RIVER NEAR ASPERMONT, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	9.0	9.5	1.5	4.5	13.0	15.5	13.0	22.0	31.0	24.0	21.0
2	24.0	9.0	4.5	4.0	3.0	1.0	4.5	22.0	22.0	29.5	28.5	20.5
3	18.5	10.0	10.0	4.5	4.5	10.0	7.0	13.0	20.5	32.0	26.5	21.0
4	24.0	3.5	4.5	1.5	3.0	10.0	13.0	13.5	24.0	32.0	26.5	23.0
5	24.0	13.0	9.5	3.0	13.0	5.5	5.5	15.5	21.0	29.5	26.5	26.5
6	22.0	16.5	11.0	1.5	1.5	2.0	4.0	12.0	24.0	32.0	26.5	26.5
7	24.0	11.0	14.5	1.5	1.0	10.0	4.0	10.5	24.0	29.5	27.0	21.0
8	10.0	15.5	8.0	6.0	5.5	15.5	9.0	13.0	28.5	32.0	26.5	21.0
9	18.5	7.0	7.0	1.0	7.0	8.0	11.0	19.5	28.0	31.0	26.5	21.5
10	12.0	6.5	10.0	13.0	1.0	15.5	13.0	11.5	24.0	32.0	24.0	21.5
11	18.5	9.0	7.0	13.0	3.5	20.5	---	13.0	28.5	33.0	24.5	21.0
12	18.5	5.5	1.5	2.0	11.5	7.0	20.5	9.0	28.0	32.0	24.0	26.5
13	21.0	7.0	11.0	4.5	1.5	8.5	14.0	6.0	24.0	31.5	24.0	20.0
14	18.0	6.0	3.5	14.5	13.0	10.0	9.0	7.0	26.5	29.5	21.0	18.5
15	9.0	10.0	6.0	0.0	14.5	15.5	13.0	13.0	27.0	30.5	24.0	18.5
16	10.0	3.0	3.5	10.0	17.0	17.0	13.5	24.0	29.5	32.0	---	15.5
17	9.0	4.5	1.5	13.0	5.5	5.5	15.5	15.5	30.0	---	24.0	18.5
18	13.5	4.5	15.5	4.0	11.0	6.0	20.0	15.5	28.5	---	24.5	14.5
19	15.5	7.0	5.5	3.5	5.5	3.0	15.5	9.0	29.5	29.5	26.5	13.0
20	20.0	13.0	6.0	10.0	10.0	1.5	9.5	10.0	29.5	24.0	24.0	10.0
21	21.0	7.0	13.0	10.5	---	18.5	11.0	15.5	21.0	29.5	24.0	10.0
22	20.0	7.0	6.0	13.5	7.0	4.5	13.0	20.5	26.5	29.5	29.5	15.0
23	18.5	1.5	1.5	3.0	1.0	13.0	11.0	19.5	29.5	27.0	24.0	13.0
24	10.5	0.5	---	11.0	1.5	13.0	13.0	13.0	26.5	26.5	24.0	15.0
25	22.0	1.5	---	3.5	15.5	13.0	21.0	10.0	26.5	30.5	21.0	15.5
26	21.0	7.0	---	0.5	---	4.5	21.5	18.5	26.5	26.5	21.0	---
27	14.5	7.0	12.0	10.0	7.0	15.5	10.0	16.5	26.5	29.5	23.0	26.5
28	15.5	9.5	9.0	13.0	10.0	15.0	13.0	25.0	29.5	29.5	26.5	20.5
29	13.0	17.0	10.0	4.5	---	9.0	11.0	16.5	29.5	29.5	24.0	18.5
30	7.0	18.5	10.0	4.5	---	8.5	13.0	21.0	30.5	24.0	21.0	18.5
31	7.0	---	1.5	7.0	---	18.5	---	---	---	26.5	21.0	---
MONTH	17.0	8.0	7.5	6.0	7.0	10.5	12.0	14.5	26.5	29.5	24.5	19.0

BRAZOS RIVER BASIN

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08082100 STINKING CREEK NEAR ASPERMONT, TEX.

LOCATION.--Lat 33°14'06", long 100°12'42", 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 1971.
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 1970 TO SEPTEMBER 1971

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)
JAN. 12...	0945	.01	.4	620	240	840	132	0	2000
FEB. 11...	1705	.01	.3	760	300	1100	108	0	2500
MAY 30...	1745	83	10	120	18	72	82	0	260
SEP. 23...	0930	.74	3.6	600	220	850	192	0	1900

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
JAN. 12...	1600	--	.70	5300	2500	2400	7.3	7430	7.1
FEB. 11...	2000	--	.00	6660	3100	3000	8.6	8950	7.7
MAY 30...	120	.2	.60	647	360	300	1.6	1070	7.1
SEP. 23...	1500	--	.30	5170	2400	2200	7.5	7260	8.1

Brazos River Basin

08082180 NORTH CROTON CREEK NEAR KNOX CITY, TEX.

LOCATION.--Lat 33°22'59", long 100°04'51", Knox 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 1971.

Water temperatures: October 1965 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	.07	1.2	900	270	--	3300	--	100	0	2500
09-14	.00	--	--	--	--	--	--	--	--	--
15-16	7.4	4.6	590	170	1200	--	15	84	0	1700
17...	6.4	5.8	430	83	--	550	--	73	0	1100
18...	3.6	4.3	920	280	--	8000	--	86	0	2200
19-31	.27	1.2	900	270	--	3300	--	100	0	2500
NOV.										
01-30	.07	.8	940	320	--	3000	--	156	0	2800
DEC.										
01-31	.07	.5	830	320	--	1900	--	184	0	2600
JAN.										
01-31	.07	1.5	820	350	1800	--	27	174	0	2600
FEB.										
01-28	.04	.0	870	390	--	2100	--	174	0	2800
MAR.										
01-17	.02	.0	1000	460	--	2500	--	157	0	3300
18-31	.00	--	--	--	--	--	--	--	--	--
APR.										
01-15	.00	--	--	--	--	--	--	--	--	--
16...	.99	10	210	39	210	--	9.9	122	0	520
17...	.75	6.9	280	71	--	480	--	84	0	740
18...	.05	6.0	380	140	--	1000	--	80	0	1700
19-25	.02	1.2	980	510	--	2600	--	148	0	3300
26-30	.00	--	--	--	--	--	--	--	--	--
MAY										
01-04	.00	--	--	--	--	--	--	--	--	--
05...	.02	1.2	980	510	--	2600	--	148	0	3300
06-27	.00	--	--	--	--	--	--	--	--	--
28-29	40	17	400	96	--	110	--	82	0	820
30-31	23	12	520	250	--	690	--	77	0	1100
JUNE										
01-11	.20	3.3	880	190	--	3200	--	86	0	2100
12-20	.00	--	--	--	--	--	--	--	--	--
21...	42	10	290	20	--	73	--	110	0	660
22-25	.36	11	590	40	--	180	--	72	0	1400
26-30	.00	--	--	--	--	--	--	--	--	--
JULY										
01-29	.00	--	--	--	--	--	--	--	--	--
30-31	.16	3.3	880	190	--	3200	--	86	0	2100
AUG.										
01...	.01	3.3	880	190	--	3200	--	86	0	2100
02-05	.00	--	--	--	--	--	--	--	--	--
06-10	.10	9.0	240	12	--	81	--	92	0	540
11-13	16	9.0	500	52	--	590	--	91	0	1200
14-16	262	8.2	340	22	--	210	--	86	0	790
17-18	9.8	9.0	500	52	--	590	--	91	0	1200
19-23	1.8	8.0	780	180	--	2300	--	132	0	1800
24...	1750	9.0	240	12	--	81	--	92	0	540
25-29	322	8.2	340	22	--	210	--	86	0	790
30-31	15	8.0	780	180	--	2300	--	132	0	1800
SEP.										
01-04	5.3	5.9	970	230	--	3600	--	124	0	2200
05-06	15	6.5	580	100	--	1200	--	114	0	1500
07-22	2.9	5.9	970	230	--	3600	--	124	0	2200
23-24	46	6.5	580	100	--	1200	--	114	0	1500
25...	80	7.9	290	36	--	310	--	80	0	710
26...	20	6.0	400	54	--	600	--	109	0	1000
27-30	5.4	6.5	580	100	--	1200	--	114	0	1500
WTD. AVG.	13.1	--	--	--	--	--	--	--	--	762
TOT. LOAD (TONS)	--	--	--	--	--	--	--	--	--	9860

BRAZOS RIVER BASIN

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08082180 NORTH CROTON CREEK NEAR KNOX CITY, TEX.--Continued

EXTREMES, October 1965 to September 1970.--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, 625 mg/l Aug. 30-31, 1966.
 Specific conductance: Maximum daily, 47,400 micromhos Oct. 23, 1969; minimum daily, 1,060 micromhos Aug. 30, 1966.
 Water temperatures: Maximum, 34.0°C July 26, 1967, June 19, 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 1970 TO SEPTEMBER 1971

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	5600	--	--	12600	3300	3200	--	18400	7.3
09-14	--	--	--	--	--	--	--	--	--
15-16	2000	--	--	5720	2200	2100	11	8290	7.2
17...	970	--	.4	3180	1400	1400	6.4	4600	7.6
18...	13000	--	--	24400	3400	3400	59	37800	7.5
19-31	5600	--	--	12600	3300	3200	25	18400	7.3
NOV.									
01-30	5100	--	--	12200	3700	3500	22	17400	7.5
DEC.									
01-31	3300	--	--	9040	3400	3200	14	12700	7.3
JAN.									
01-31	3300	--	--	9040	3500	3300	13	12500	7.7
FEB.									
01-28	3700	--	--	9930	3800	3600	15	14200	7.6
MAR.									
01-17	4500	--	--	11800	4400	4300	16	16400	7.3
18-31	--	--	--	--	--	--	--	--	--
APR.									
01-15	--	--	--	--	--	--	--	--	--
16...	350	.3	1.6	1420	690	590	3.5	2170	7.5
17...	850	--	.8	2480	1000	930	6.6	3720	7.1
18...	1400	--	3.2	4750	1500	1500	11	5970	7.0
19-25	4800	--	--	12300	4500	4400	17	16700	7.2
26-30	--	--	--	--	--	--	--	--	--
MAY									
01-04	--	--	--	--	--	--	--	--	--
05...	4800	--	--	12300	4500	4400	17	16700	7.2
06-27	--	--	--	--	--	--	--	--	--
28-29	490	.2	1.2	2000	1400	1300	1.3	2850	7.1
30-31	1800	--	1.0	4480	2300	2300	6.2	7470	7.2
JUNE									
01-11	5400	--	--	11800	3000	2900	26	17100	6.9
12-20	--	--	--	--	--	--	--	--	--
21...	120	.3	2.8	1240	800	710	1.1	1620	7.3
22-25	350	--	1.0	2620	1600	1600	1.9	3230	7.1
26-30	--	--	--	--	--	--	--	--	--
JULY									
01-29	--	--	--	--	--	--	--	--	--
30-31	5400	--	--	11800	3000	2900	26	17100	6.9
AUG.									
01...	5400	--	--	11800	3000	2900	26	17100	6.9
02-05	--	--	--	--	--	--	--	--	--
06-10	120	.3	1.9	1050	640	560	1.4	1440	7.6
11-13	980	--	.8	3420	1500	1400	6.8	4900	7.6
14-16	360	.3	1.0	1780	940	870	3.0	2540	7.8
17-18	980	--	.8	3420	1500	1400	6.8	4900	7.6
19-23	4000	--	--	9100	2700	2600	19	14000	7.8
24...	120	.3	1.9	1050	640	560	1.4	1440	7.6
25-29	360	.3	1.0	1780	940	870	3.0	2540	7.8
30-31	4000	--	--	9100	2700	2600	19	14000	7.8
SEP.									
01-04	6200	--	--	13300	3400	3200	27	20200	7.8
05-06	2100	--	--	5550	1900	1800	12	8580	8.0
07-22	6200	--	--	13300	3400	3200	27	20200	7.8
23-24	2100	--	--	5550	1900	1800	12	8580	8.0
25...	520	.3	.9	1920	870	800	4.5	2760	7.5
26...	980	--	.2	3090	1200	1100	7.4	4570	7.9
27-30	2100	--	--	5550	1900	1800	12	8580	8.0
WTD. AVG.	491	--	--	1960	--	--	--	--	--
TOT. LOAD (TONS)	6360	--	--	25400	--	--	--	--	--

BRAZOS RIVER BASIN

08082180 NORTH CROTON CREEK NEAR KNOX CITY, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9410	20500	13900	11500	13500	13400	---	---	11700	---	---	15800
2	14800	20800	13900	11500	13600	13600	---	---	14500	---	---	17800
3	16600	---	13500	11500	13600	14600	---	---	15100	---	---	19300
4	17100	21000	13500	12200	13700	13800	---	---	16100	---	---	20400
5	17400	20900	13400	13600	13900	14400	---	---	16800	---	---	8140
6	17600	20900	13400	13100	13900	15000	---	---	17700	---	---	9040
7	18100	20600	13300	14100	14400	15300	---	---	17700	---	---	14300
8	18400	20400	13300	14300	15300	15600	---	---	18800	---	---	15800
9	---	20800	13100	14200	20600	16000	---	---	21000	---	1570	20500
10	---	20600	13300	12700	14200	16300	---	---	21200	---	1250	21500
11	---	20600	13300	10500	14200	16600	---	---	---	---	4730	22600
12	---	20800	13300	10400	14400	16900	---	---	---	---	7420	23800
13	---	18100	12800	10800	14400	17300	---	---	---	---	6740	23900
14	---	18200	12800	11800	14400	18100	---	---	---	---	1260	24200
15	---	16600	12600	11600	14800	18500	---	---	---	---	4370	24400
16	7050	16200	12400	11300	15100	19000	2170	---	---	---	2640	24700
17	4600	15900	12300	11500	15100	19500	3720	---	---	---	4980	21900
18	37800	15200	12500	11800	18000	---	5970	---	---	---	7670	21700
19	23500	15200	12300	12200	15600	---	14900	---	---	---	12300	37300
20	19600	15100	12300	12500	15800	---	14800	---	---	---	13300	24900
21	19700	15100	12000	12800	14000	---	16400	---	1620	---	15600	19800
22	17900	15000	12000	13000	---	---	16500	---	2720	---	16300	19700
23	16900	15100	12100	13100	12400	---	17200	---	3150	---	17000	8950
24	16900	15000	11900	13100	12100	---	17800	---	3240	---	1490	4560
25	16300	15100	12000	13100	12000	---	18700	---	3500	---	2520	2760
26	16200	15000	12000	13100	12400	---	---	---	---	---	2450	4580
27	18200	15000	12000	13300	12800	---	---	---	---	---	5590	6740
28	18900	14800	12000	13300	13100	---	---	---	---	---	1910	10000
29	19300	14600	11900	13300	---	---	---	2850	---	---	6010	13200
30	19300	14100	11900	13300	---	---	---	6020	---	---	10900	13200
31	20000	---	11800	13300	---	---	---	8900	---	---	12800	---
MONTH	---	17490	12670	12510	14340	---	---	---	---	---	---	17180

BRAZOS RIVER BASIN

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08082180 NORTH CROTON CREEK NEAR KNOX CITY, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.5	10.5	10.0	5.0	5.5	9.5	---	---	25.0	---	---	26.5
2	20.0	11.5	6.5	3.5	4.0	3.0	---	---	31.0	---	---	24.0
3	19.5	---	13.5	5.5	5.5	1.5	---	---	28.0	---	---	25.5
4	25.5	11.0	13.0	0.5	6.0	6.5	---	---	24.0	---	---	24.5
5	26.5	14.0	10.0	0.0	5.0	10.0	---	---	26.5	---	---	30.5
6	24.5	7.0	5.5	0.5	1.5	10.0	---	---	25.5	---	---	25.5
7	24.5	15.5	11.0	0.5	0.5	11.0	---	---	25.0	---	---	33.5
8	14.0	11.0	9.0	0.5	3.5	6.5	---	---	35.0	---	---	24.5
9	---	15.5	10.5	0.5	8.5	12.0	---	---	25.5	---	22.0	31.0
10	---	9.0	11.0	3.5	13.0	7.0	---	---	24.5	---	30.5	24.0
11	---	7.0	5.5	8.0	11.0	11.0	---	---	---	---	25.5	23.0
12	---	8.0	1.5	5.5	9.0	10.0	---	---	---	---	23.5	29.5
13	---	6.5	4.5	8.5	3.5	8.5	---	---	---	---	22.0	20.0
14	---	6.0	4.0	13.0	9.0	14.5	---	---	---	---	21.0	20.5
15	---	9.5	10.5	8.0	9.0	11.5	---	---	---	---	26.5	20.5
16	10.5	7.0	11.0	10.5	11.5	11.5	19.0	---	---	---	24.0	19.5
17	10.0	12.0	11.0	8.5	10.0	12.0	16.5	---	---	---	24.0	18.5
18	14.5	8.5	10.0	5.0	18.5	---	16.5	---	---	---	24.0	14.5
19	10.0	13.0	7.0	6.5	9.5	---	17.0	---	---	---	26.5	14.0
20	15.5	5.5	6.0	10.5	15.5	---	17.0	---	---	---	24.0	16.5
21	18.5	8.0	5.5	9.0	0.0	---	28.0	---	21.5	---	25.5	24.0
22	18.0	8.5	6.0	6.5	---	---	28.0	---	30.5	---	25.5	18.5
23	15.5	5.5	5.0	4.5	13.0	---	19.5	---	31.0	---	26.5	15.5
24	---	2.0	3.5	5.5	10.5	---	13.0	---	28.0	---	23.0	16.5
25	15.5	4.5	5.5	9.0	12.0	---	22.0	---	25.5	---	25.5	16.5
26	14.5	7.0	4.5	3.5	11.5	---	---	---	---	---	24.0	21.0
27	12.0	9.0	10.0	9.0	8.5	---	---	---	---	---	25.5	21.5
28	16.5	6.0	10.0	3.5	12.0	---	---	---	---	---	24.5	28.5
29	17.0	9.0	9.5	7.0	---	---	---	18.5	---	---	26.5	27.0
30	10.5	8.5	8.5	6.0	---	---	---	20.0	---	---	31.0	26.5
31	13.0	---	4.5	6.5	---	---	---	24.0	---	---	23.5	---
MONTH	---	9.0	8.0	5.5	8.5	---	---	---	---	---	---	22.5

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 1971.

Specific conductance: August 1959 to October 1971.

Water temperatures: August 1959 to October 1971.

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 44,800 mg/l May 24-27; minimum, 784 mg/l Aug. 1, 24-28.

Hardness: Maximum, 6,600 mg/l May 24-27; minimum, 240 mg/l Aug. 1, 24-28.

Specific conductance: Maximum daily, 80,400 micromhos May 24; minimum daily, 1,050 micromhos July 31.

Water temperatures: Maximum, 35.0°C on several days during June and July; minimum, 6.0°C Dec. 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	MEAN 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.										
01-14	5.4	7.7	360	80	--	2010	--	108	0	1100
15...	12	6.9	180	44	--	830	--	126	0	590
16-18	153	7.2	140	24	--	330	--	94	0	420
19...	128	7.7	360	80	--	2010	--	108	0	1100
20-31	43	6.6	510	110	--	4610	--	118	0	1300
NOV.										
01-30	4.4	8.1	370	120	--	2500	--	180	0	1300
DEC.										
01-31	4.0	3.1	280	120	--	1700	--	146	0	1200
JAN.										
01-31	4.5	3.9	330	110	--	1910	--	185	0	1300
FEB.										
01-28	4.2	.7	330	130	--	1900	--	162	0	1300
MAR.										
01-31	2.3	1.5	360	150	--	2300	--	182	0	1500
APR.										
01-04	.30	1.0	320	180	2800	--	23	156	0	1900
05...	.00	--	--	--	--	--	--	--	--	--
06-09	.21	1.0	320	180	--	2820	--	156	0	1900
10-15	.00	--	--	--	--	--	--	--	--	--
16...	1.8	1.0	320	180	--	2820	--	156	0	1900
17-30	6.1	5.2	420	180	--	1600	--	163	0	1400
MAY										
01...	.10	3.7	440	240	--	1400	--	145	0	670
02-04	.00	--	--	--	--	--	--	--	--	--
05-07	1.8	3.7	440	240	--	1400	--	145	0	670
08...	.00	--	--	--	--	--	--	--	--	--
09-10	.10	3.7	440	240	--	1400	--	145	0	670
11-23	.00	--	--	--	--	--	--	--	--	--
24-27	1.4	17	1800	520	--	14000	--	128	0	4400
28...	.00	--	--	--	--	--	--	--	--	--
29-31	5830	17	220	25	--	250	--	141	0	480
JUNE										
01-08	536	13	280	35	--	610	--	123	0	770
09-22	42	13	440	86	--	1800	--	127	0	1200
23-30	498	13	280	35	--	610	--	123	0	770
JULY										
01-03	27	4.0	320	54	--	1000	--	74	0	950
04-19	3.7	13	520	110	--	2100	--	106	0	1600
20...	.00	--	--	--	--	--	--	--	--	--
21-26	.36	4.0	320	--	--	54	--	74	0	950
27...	.00	--	--	--	--	--	--	--	--	--
28-31	70	6.1	110	21	--	210	--	104	0	260
AUG.										
01...	25	8.6	72	15	--	190	--	154	0	160
02-11	160	9.4	190	21	--	240	--	136	0	490
12-13	1230	14	270	39	--	700	--	140	0	690
14-20	3250	9.4	190	21	--	240	--	136	0	490
21-23	444	12	210	22	--	440	--	116	0	520
24-28	4240	8.6	72	15	--	190	--	154	0	160
29-31	1770	12	210	22	--	440	--	116	0	520
SEP.										
01-04	476	9.8	180	20	--	430	--	132	0	440
05-19	233	11	410	72	--	1400	--	120	0	1000
20-25	1430	9.8	180	20	--	430	--	132	0	440
26-30	3230	9.5	120	20	--	300	--	132	0	330
WTD. AVG.	311 --	--	--	--	--	--	--	--	--	455
TOT. LOAD (TONS)	--	--	--	--	--	--	--	--	--	13900

BRAZOS RIVER BASIN

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08082500 BRAZOS RIVER AT SEYMOUR, TEX.--Continued

EXTREMES, August 1959 to September 1971.--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 1970 TO SEPTEMBER 1971

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.									
01-14	3000	--	--	--	1200	1100	--	10400	7.6
15...	1200	--	.7	2920	620	520	14	4630	8.1
16-18	450	.3	.8	1420	450	370	6.8	2260	7.6
19...	3000	--	--	--	1200	1100	--	10400	7.6
20-31	7300	--	--	--	1700	1600	--	21800	7.7
NOV.									
01-30	3800	--	--	8190	1400	1300	29	12900	7.5
DEC.									
01-31	2600	--	--	5980	1200	1000	21	9500	7.7
JAN.									
01-31	2800	--	--	--	1300	1100	--	10200	7.6
FEB.									
01-28	2800	--	--	6580	1300	1200	22	10500	7.8
MAR.									
01-31	3400	--	--	7840	1500	1300	26	11900	7.6
APR.									
01-04	3900	--	--	9260	1500	1400	31	13800	7.3
05...	--	--	--	--	--	--	--	--	--
06-09	3900	--	--	--	1500	1400	--	13800	7.3
10-15	--	--	--	--	--	--	--	--	--
16...	3900	--	--	9260	1500	1400	--	13800	7.3
17-30	2400	--	--	6080	1500	1300	17	9170	7.5
MAY									
01...	3000	--	.3	5830	2100	1900	13	11700	7.0
02-04	--	--	--	--	--	--	--	--	--
05-07	3000	--	.3	5830	2100	1900	--	11700	7.0
08...	--	--	--	--	--	--	--	--	--
09-10	3000	--	.3	5830	2100	1900	--	11700	7.0
11-23	--	--	--	--	--	--	--	--	--
24-27	24000	--	.8	44800	6600	6500	75	66100	6.8
28...	--	--	--	--	--	--	--	--	--
29-31	400	.4	.4	1460	650	530	4.3	2160	7.7
JUNE									
01-08	900	--	1.5	2670	860	750	9.0	4100	7.8
09-22	2800	--	--	6400	1400	1400	20	9910	7.9
23-30	900	--	1.5	2670	860	750	9.0	4100	7.8
JULY									
01-03	1500	--	--	3860	1000	960	14	6110	--
04-19	3200	--	.1	7580	1800	1700	22	11500	7.6
20...	--	--	--	--	--	--	--	--	--
21-26	1500	--	--	3860	1000	960	--	6110	--
27...	--	--	--	--	--	--	--	--	--
28-31	340	--	--	1000	360	280	4.8	1680	--
AUG.									
01...	260	.4	.9	784	240	110	5.4	1310	7.8
02-11	310	.4	2.0	1330	550	440	4.4	2040	7.9
12-13	1100	--	1.0	2870	840	730	10	4570	7.8
14-20	310	.4	2.0	1330	550	440	4.4	2040	7.9
21-23	660	--	.7	1930	620	520	7.7	3100	7.8
24-28	260	.4	.9	784	240	110	5.4	1310	7.8
29-31	660	--	.7	1930	620	520	7.7	3100	7.8
SEP.									
01-04	640	--	1.0	1800	530	420	8.2	2920	8.1
05-19	2200	--	--	5140	1300	1200	16	8310	8.0
20-25	640	--	1.0	1800	530	420	8.2	2920	8.1
26-30	420	.7	.8	1270	380	270	6.8	2120	8.1
WTD. AVG.	569	--	--	1700	--	--	--	--	--
TOT. LOAD (TONS)	174000	--	--	521000	--	--	--	--	--

BRAZOS RIVER BASIN

08082500 BRAZOS RIVER AT SEYMOUR, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11500	20100	9730	10000	10600	10800	12100	11200	2370	5470	1240	2420
2	11300	17900	9430	10100	10600	12800	12200	11500	4390	5920	2340	2680
3	11900	16000	9570	10100	10600	9630	12900	12100	3740	6830	2700	3380
4	12500	15300	9560	10100	10700	11200	13400	12300	3930	8170	4040	4070
5	12700	15100	9690	10800	10500	11500	13400	9170	4370	8170	2660	5350
6	12800	15000	9730	10400	10400	12800	13800	11000	4520	8950	2100	5840
7	13200	14700	9640	10100	10500	12100	14300	11800	4160	9620	1720	5660
8	7980	14600	9520	10200	10600	12300	14900	11800	4420	9950	1640	6980
9	12900	14300	9310	9270	9810	12400	14800	11800	5770	10500	1670	9860
10	7940	13900	9110	9910	10300	12200	14800	12400	6690	10700	1840	5940
11	6610	13700	8900	9680	10400	12100	14900	12800	7450	11300	2220	6960
12	6250	13200	9680	9860	10600	11900	15000	13100	10800	11700	4830	9410
13	6680	12000	9050	10100	10700	12000	14600	11900	9860	12100	4440	10300
14	7100	12000	9080	10100	10700	12300	13300	10400	10000	12400	2580	10800
15	4630	11400	8980	10200	10700	12800	12100	10800	9300	12500	2610	10800
16	2230	11200	9010	10300	10600	12500	15600	12700	12000	13000	1720	10600
17	2570	11300	9240	10200	10700	12900	10600	---	11500	13100	1820	9040
18	1990	11300	9200	10200	10700	13200	9660	---	11900	13600	1730	9630
19	11200	11500	9430	10300	10700	13400	12400	---	12300	13800	2010	7510
20	19900	11300	9560	10400	10800	13400	6620	---	12400	13700	2280	3090
21	39400	11200	9470	10400	9710	13100	10100	---	11500	12800	3410	2570
22	25400	11300	9480	10400	10200	12600	9900	---	11100	13000	3390	2420
23	21800	11400	9520	10400	10000	12300	5780	---	5570	12300	3220	2490
24	17300	11300	9600	10400	9760	12200	8070	80400	4390	11200	1370	2410
25	16900	11300	9600	10400	10200	11600	3660	65400	4460	11300	1510	3400
26	17600	11100	9720	10400	10500	10900	10100	62700	4140	11300	1880	1960
27	19600	10700	9820	10400	10700	10800	9900	62100	3700	11100	1900	1990
28	20900	10800	9860	10300	10900	10900	10200	59700	3770	1840	1710	2080
29	21300	10500	9860	10300	---	10700	10500	1870	4270	2670	4900	2250
30	20900	9810	9690	10300	---	10600	10700	2130	4870	1170	2570	2330
31	21100	---	9820	10400	---	11100	---	2490	---	1050	2950	---
MONTH	13740	12840	9480	10210	10470	11970	11680	---	6990	9720	2480	5470

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.5	13.0	21.0	15.5	15.5	24.0	21.0	29.5	19.5	32.0	18.5	25.0
2	26.5	10.0	21.5	13.0	18.5	14.0	26.5	34.5	21.0	30.5	21.0	26.0
3	27.0	14.5	18.5	10.0	24.0	18.5	25.0	26.5	32.0	32.0	24.5	25.0
4	25.5	15.5	19.5	7.0	13.0	21.0	18.5	29.5	32.0	32.0	24.0	24.5
5	21.0	16.0	15.0	10.0	24.0	24.0	15.5	28.0	29.5	33.0	23.0	26.5
6	24.0	18.5	14.5	10.0	10.0	21.0	18.5	31.0	32.0	35.0	21.0	25.0
7	22.0	21.0	15.5	10.0	13.0	24.0	25.0	30.5	33.0	32.0	21.0	29.5
8	15.5	15.5	21.0	13.0	15.0	26.5	26.5	18.0	31.0	35.0	23.5	29.5
9	19.5	17.0	20.5	15.5	18.5	24.0	29.5	24.5	32.0	32.0	18.5	25.0
10	18.5	18.5	21.0	21.0	21.0	26.5	26.5	25.5	30.5	35.0	24.0	24.5
11	18.5	13.0	12.0	21.5	21.0	26.5	26.5	18.5	32.0	32.0	22.0	25.5
12	21.0	18.5	6.0	15.5	18.5	29.5	26.5	23.0	32.0	31.5	22.0	24.5
13	26.5	13.0	15.0	23.5	24.0	26.5	24.0	29.0	30.5	32.0	20.5	26.5
14	18.5	8.0	13.0	24.0	21.0	24.0	26.0	26.5	35.0	31.5	21.0	25.5
15	10.5	13.5	17.0	20.0	24.0	26.5	26.5	29.5	32.0	35.0	18.5	26.5
16	12.0	15.5	17.0	15.5	26.0	29.5	21.0	24.0	35.0	32.0	22.0	26.0
17	13.0	18.0	18.5	21.0	29.5	26.5	24.0	---	34.5	35.0	21.0	16.0
18	15.5	18.5	15.5	18.5	24.0	18.5	26.5	---	32.0	26.5	24.5	10.0
19	13.0	16.0	13.0	15.5	28.5	23.0	18.5	---	35.0	21.0	23.0	9.5
20	21.5	18.5	13.0	20.5	21.0	24.0	24.0	---	32.0	20.5	24.0	14.5
21	24.0	15.0	18.0	21.0	13.0	24.5	26.5	---	28.5	23.5	24.0	16.0
22	24.0	9.5	20.0	21.0	15.5	24.0	26.5	---	35.0	24.0	26.5	15.0
23	18.5	8.5	12.0	18.5	24.0	24.0	26.5	---	32.0	24.0	22.0	13.5
24	24.0	10.0	15.0	24.0	21.0	18.5	26.5	26.5	29.5	26.5	19.5	13.0
25	20.5	15.5	13.0	23.0	26.0	24.0	29.5	29.5	32.0	29.5	21.0	17.0
26	21.0	18.5	14.0	24.0	21.0	26.5	31.5	31.0	32.0	23.5	21.0	16.0
27	15.0	16.5	16.5	21.0	24.0	29.5	25.0	31.5	32.0	23.5	21.5	21.0
28	19.5	10.5	17.0	24.5	24.0	21.0	17.0	32.0	32.5	24.0	26.5	23.0
29	18.5	12.0	15.5	26.0	---	24.0	25.5	18.5	32.0	26.5	24.0	22.0
30	20.0	15.5	15.0	25.0	---	24.0	23.5	17.0	29.5	19.0	28.0	21.5
31	18.5	---	9.5	18.5	---	26.5	---	23.0	---	21.5	24.0	---
MONTH	20.0	15.0	16.0	18.5	20.5	24.0	24.5	---	31.5	28.5	22.5	21.5

BRAZOS RIVER BASIN

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08083000 BRAZOS RIVER NEAR GRAHAM, TEX.

LOCATION.--Lat 33°04'55", long 98°43'35", 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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 20...	0735	177	9.4	140	54	390	266	0	400
DEC. 28...	1630	5.8	7.6	290	92	1400	96	0	990
JAN. 26...	1555	6.0	2.6	280	94	1400	126	0	1000
MAR. 02...	1630	9.0	1.2	270	97	1300	140	0	1000
APR. 07...	1230	.23	14	380	120	1500	80	0	1200
JUNE 16...	1500	39	15	290	55	860	94	0	830
JULY 20...	1300	3.2	13	400	75	1300	118	0	1200
AUG. 23...	1230	900	11	200	21	320	120	0	500
SEP. 27...	1400	4270	9.1	56	17	49	125	0	96

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 20...	540	.5	5.2	1690	570	350	7.1	2570	7.5
DEC. 28...	2200	--	--	4980	1100	1000	18	8070	7.6
JAN. 26...	2100	--	--	4970	1100	990	19	7890	7.7
MAR. 02...	2000	--	--	4740	1100	960	17	7680	7.5
APR. 07...	2400	--	.10	5600	1400	1400	17	9460	7.2
JUNE 16...	1300	--	.30	3440	950	870	12	5730	7.0
JULY 20...	2000	--	.20	5090	1300	1200	16	8150	7.6
AUG. 23...	470	.6	.00	1590	580	490	5.8	2500	7.6
SEP. 27...	76	.3	1.4	371	210	110	1.5	647	7.7

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 1971.
Water temperatures: October 1967 to September 1971.

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 4,980 mg/l Jan. 1-31; minimum, 276 mg/l Aug. 1-3, 12-19, 24-31.
Hardness: Maximum, 2,000 mg/l Dec. 1-31; Jan. 1-31; Feb. 1-28; minimum, 160 mg/l Sept. 25.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

		MEAN 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.												
01-31		7.7	13	440	140	--	747	--	240	0	1600	
NOV.												
01-30		7.9	13	500	160	--	840	--	282	0	1800	
DEC.												
01-31		6.2	10	530	170	--	900	--	288	0	1900	
JAN.												
01-31		8.1	8.1	520	160	--	970	--	240	0	1900	
FEB.												
01-28		7.2	3.8	520	170	--	870	--	242	0	1900	
MAR.												
01-31		6.3	3.2	500	170	--	860	--	204	0	1900	
APR.												
01-16		4.3	3.8	460	170	850	--	8.0	190	0	2000	
17-18		40	8.6	100	88	--	570	--	212	0	900	
19-21		12	3.8	460	170	850	--	8.0	190	0	2000	
22-30		5.0	8.6	100	88	--	570	--	212	0	900	
MAY												
01-11		17	13	420	120	--	490	--	227	0	1100	
12-26		5.8	15	270	75	--	320	--	249	0	740	
27-31		768	14	71	14	--	31	--	134	0	130	
JUNE												
01-10		94	10	200	63	--	210	--	200	0	540	
11-12		26	16	350	96	--	610	--	208	0	1100	
13-22		29	10	200	63	--	210	--	200	0	540	
23-25		193	11	91	25	--	87	--	142	0	210	
26-30		14	10	200	63	--	210	--	200	0	540	
JULY												
01-23		6.2	13	300	110	--	400	--	220	0	1000	
24-26		88	11	60	16	--	41	--	144	0	100	
27-28		7.6	10	82	17	--	80	--	120	0	180	
29...		133	13	140	38	--	210	--	160	0	400	
30-31		202	10	82	17	--	80	--	120	0	180	
AUG.												
01-03		745	11	56	9.8	--	25	--	129	0	72	
04-08		183	15	80	16	--	37	--	162	0	120	
09-11		89	13	170	46	--	180	--	192	0	480	
12-19		596	11	56	9.8	--	25	--	129	0	72	
20-23		36	13	170	46	--	180	--	192	0	480	
24-31		1260	11	56	9.8	--	25	--	129	0	72	
SEP.												
01-23		101	16	380	150	--	550	--	264	0	1400	
24...		771	13	140	40	--	88	--	272	0	240	
25...		2550	--	50	8.6	--	--	--	104	0	79	
26-28		891	13	140	40	--	88	--	272	0	240	
29-30		170	14	250	96	--	280	--	148	0	750	
WTD. AVG.		--	12	118	34	--	126	--	161	0	302	
TIME WTD.												
AVG.		98	10	373	123	--	609	--	225	0	1330	
TOT. LOAD (TONS)		--	1070	11400	3240	--	11200	--	15500	0	29000	
DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .002 MM	SUS. SED. SIEVE DIAM. % FINER THAN .004 MM	SUS. SED. SIEVE DIAM. % FINER THAN .008 MM	SUS. SED. SIEVE DIAM. % FINER THAN .016 MM	SUS. SED. SIEVE DIAM. % FINER THAN .031 MM
AUG., 1971												
16...	1010	1160	25.5	697	2180	--	--	--	--	--	--	--
SEP.												
24...	1415	825	16.5	1510	3360	98	100	55	64	75	87	95

BRAZOS RIVER BASIN

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08083240 CLEAR FORK BRAZOS RIVER AT HAWLEY, TEX.--Continued

EXTREMES, October 1967 to September 1971.--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; 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 1970 TO SEPTEMBER 1971

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	1000	--	5.8	4080	1700	1500	--	5650	7.9
NOV.									
01-30	1200	--	5.1	4680	1900	1600	8.4	6320	7.7
DEC.									
01-31	1200	--	6.3	4880	2000	1800	8.7	6860	7.8
JAN.									
01-31	1200	--	8.3	4980	2000	1800	--	6690	7.7
FEB.									
01-28	1200	--	7.3	4800	2000	1800	8.5	6600	7.7
MAR.									
01-31	1200	--	4.1	4690	1900	1800	8.5	6370	7.5
APR.									
01-16	1100	--	3.0	4670	1800	1700	8.6	6020	8.0
17-18	520	--	2.0	2300	620	440	10	3210	8.1
19-21	1100	--	3.0	4670	1800	1700	8.6	6020	8.0
22-30	520	--	2.0	2300	620	440	10	3210	8.1
MAY									
01-11	890	--	.8	3100	1500	1300	5.4	4620	7.4
12-26	500	.4	1.0	2040	980	770	4.4	2710	7.6
27-31	39	--	1.3	369	240	130	.9	557	7.5
JUNE									
01-10	340	.3	1.9	1470	750	590	3.3	2220	7.9
11-12	870	--	3.4	3200	1300	1100	7.5	4580	7.6
13-22	340	.3	1.9	1470	750	590	3.3	2220	7.9
23-25	130	--	1.9	626	330	210	2.1	1010	7.6
26-30	340	.3	1.9	1470	750	590	3.3	2220	7.9
JULY									
01-23	600	--	3.6	2560	1200	1000	--	3630	7.3
24-26	54	.2	1.8	361	220	98	1.2	612	7.8
27-28	100	--	1.9	535	270	180	2.0	883	8.0
29...	280	--	1.0	1150	500	360	4.0	1830	7.3
30-31	100	--	1.9	535	270	180	2.0	883	8.0
AUG.									
01-03	35	.2	.9	276	180	74	.8	476	7.1
04-08	54	--	2.3	416	270	130	1.0	696	7.5
09-11	240	--	1.4	1220	610	460	3.1	1840	7.8
12-19	35	.2	.9	276	180	74	.8	476	7.1
20-23	240	--	1.4	1220	610	460	3.1	1840	7.8
24-31	35	.2	.9	276	180	74	.8	476	7.1
SEP.									
01-23	760	--	5.0	3410	1600	1300	6.1	4700	7.5
24...	150	.2	1.3	809	500	280	1.7	1290	7.9
25...	48	--	--	--	160	75	--	488	7.4
26-28	150	.2	1.3	809	500	280	1.7	1290	7.9
29-30	410	.3	2.4	1960	1000	740	3.7	2860	7.2
WTD. AVG.	171	--	1.7	--	434	296	--	1260	7.4
TIME WTD.									
AVG.	831	--	4.2	--	1440	1250	--	4700	7.7
TOT. LOAD (TONS)	16500	--	147	--	--	--	--	--	--

Brazos River Basin

08083240 CLEAR FORK BRAZOS RIVER AT HAWLEY, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 20...	1215	.16	9.7	80	44	110	151	0	280
MAY 30...	1400	4.2	16	42	10	15	140	0	31
JUNE 03...	1140	.12	15	50	19	48	121	0	82
AUG. 16...	1114	8.5	13	40	12	28	123	0	40
SEP. 21...	0840	.09	9.3	100	100	300	208	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 CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
APR. 20...	140	.1	--	741	380	260	2.5	1170	7.5
MAY 30...	18	.2	1.6	208	150	31	.5	363	7.5
JUNE 03...	84	.3	.80	362	200	100	1.5	663	7.4
AUG. 16...	46	.1	.00	241	150	47	1.0	438	7.1
SEP. 21...	420	.3	.40	1570	680	510	5.1	2500	8.1

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	HICAR- BONATE (HCO ₃) (MG/L)
JAN. 06...	0840	8.7	8.6	460	160	770	--	6.5	288
FEB. 12...	1820	8.0	5.2	440	160	--	750	--	246
MAR. 29...	1820	5.2	2.6	400	170	--	700	--	210
MAY 17...	1850	4.5	9.4	430	160	--	720	--	228
JULY 19...	0910	.10	22	150	82	--	230	--	200
SEP. 13...	1820	59	17	400	140	--	600	--	252

DATE	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)	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)
JAN. 06...	0	1700	1100	.6	.020	.01	4.5	.030	4340
FEB. 12...	0	1600	1000	.5	.040	.04	4.6	.020	4150
MAR. 29...	0	1500	1000	.6	.010	.12	1.0	.040	3910
MAY 17...	0	1600	1000	.4	.020	.22	.5	.080	4070
JULY 19...	0	420	420	.3	.000	.00	.1	.15	1420
SEP. 13...	0	1500	810	.5	.000	.08	2.4	.060	3590

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
JAN. 06...	1800	1600	7.9	6060	8.1	2.0	12.7	93	1.0
FEB. 12...	1700	1500	7.8	5840	8.0	12.5	14.0	132	1.4
MAR. 29...	1700	1500	7.4	5510	8.0	17.0	14.9	155	1.8
MAY 17...	1800	1600	7.5	5670	8.0	24.0	9.7	115	3.8
JULY 19...	710	550	3.8	2290	7.0	27.0	.6	7	6.4
SEP. 13...	1600	1400	6.6	4950	7.8	26.5	8.8	107	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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.									
28...	1456	3.8	12	80	37	--	220	--	238
DEC.									
09...	1406	3.8	9.3	90	41	--	260	--	272
JAN.									
06...	0800	4.6	12	82	110	--	160	--	280
12...	1305	4.5	8.5	60	37	--	250	--	204
FEB.									
16...	1745	2.0	8.9	66	35	230	--	21	257
17...	1130	1.5	9.4	54	33	--	260	--	188
MAR.									
29...	1740	6.8	9.6	94	49	--	340	--	286
APR.									
29...	0910	4.3	21	100	48	--	260	--	268
MAY									
17...	1800	3.7	18	88	49	--	300	--	278
JUNE									
03...	0825	12	24	80	22	--	140	--	174
JULY									
19...	0830	2.2	17	66	34	--	260	--	232
AUG.									
16...	1530	--	11	42	12	--	92	--	132
SEP.									
13...	1730	7.4	14	58	26	190	--	19	160
21...	1430	17	5.2	62	28	--	220	--	156

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 NITRATE (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...	0	190	310	.7	--	--	1.0	--	971
DEC.									
09...	0	240	340	.6	--	--	3.8	--	1140
JAN.									
06...	0	270	330	.7	.040	.00	4.0	12	1110
12...	0	240	290	.2	--	--	8.0	--	1030
FEB.									
16...	0	240	280	.8	.60	7.9	2.3	13	1020
17...	0	240	280	.5	--	--	11	--	1000
MAR.									
29...	0	330	430	.8	.040	.00	.3	3.4	1390
APR.									
29...	0	230	370	.5	--	--	5.2	--	1200
MAY									
17...	0	260	400	.6	.040	.42	.6	3.6	1250
JUNE									
03...	0	130	200	.4	--	--	6.0	--	705
JULY									
19...	0	200	330	.7	.12	.00	1.4	6.5	1030
AUG.									
16...	0	72	120	.2	--	--	2.2	--	420
SEP.									
13...	0	190	230	.8	1.3	1.9	4.5	8.0	836
21...	0	170	250	7.0	--	--	9.3	--	--

BRAZOS RIVER BASIN

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08084100 DEADMAN CREEK NEAR NUGENT, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 28...	350	160	5.1	1700	7.5	19.0	--	--	--
DEC. 09...	390	170	5.7	1930	7.7	17.0	--	--	--
JAN. 06...	640	410	2.7	1930	8.3	.0	13.0	89	3.2
12...	300	130	6.3	1730	7.9	7.0	--	--	--
FEB. 16...	310	98	5.7	1710	8.3	17.0	12.8	132	11
17...	270	120	6.9	1670	7.9	13.0	--	--	--
MAR. 29...	440	200	7.1	2320	9.0	20.0	15.4	167	20
APR. 29...	440	230	5.3	2040	7.6	19.5	--	--	--
MAY 17...	420	190	6.4	2190	8.8	26.0	11.2	137	19
JUNE 03...	290	150	3.6	1230	8.0	25.0	--	--	--
JULY 19...	300	110	6.5	1790	7.6	26.0	4.0	49	3.7
AUG. 16...	150	46	3.2	754	7.3	29.0	--	--	--
SEP. 13...	250	120	5.2	1420	7.6	30.0	6.9	91	13
21...	270	92	5.8	1460	--	20.5	--	--	--

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 1971.
Water temperatures: October 1962 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	.13	11	660	420	4000	--	22	229	0	1300
NOV.										
01-30	.11	18	440	360	--	2500	--	380	0	1300
DEC.										
01-31	.16	18	830	550	--	4700	--	308	0	2300
JAN.										
01-31	.25	7.3	470	510	2400	--	26	268	0	3600
FEB.										
01-28	.31	2.9	420	490	--	1800	--	276	0	3300
MAR.										
01-31	.30	3.4	410	460	--	1500	--	272	0	3100
APR.										
01-19	1.9	5.4	310	380	1300	--	11	316	0	2200
20-23	3.5	8.9	150	100	--	330	--	168	0	720
24-30	.60	2.7	220	190	--	560	--	186	0	1300
MAY										
01-28	.74	9.1	400	450	--	1100	--	232	0	2800
29...	941	10	55	16	--	46	--	126	0	100
30-31	1600	10	40	6.2	--	12	--	114	0	31
JUNE										
01...	216	14	54	12	--	39	--	128	0	74
02...	58	12	96	46	--	150	--	128	0	310
03...	28	10	160	110	--	320	--	180	0	710
04-07	9.4	9.9	330	280	--	720	--	232	0	1700
08...	333	10	160	110	--	320	--	180	0	710
09...	205	14	54	12	--	39	--	128	0	74
10...	27	12	96	46	--	150	--	128	0	310
11-13	5.4	10	160	110	--	320	--	180	0	710
14-21	1.7	9.9	330	280	--	720	--	232	0	1700
22-23	34	12	96	46	--	150	--	128	0	310
24-30	2.5	10	160	110	--	320	--	180	0	710
JULY										
01-31	1.3	7.1	260	290	--	1060	--	207	0	2000
AUG.										
01-14	20	11	68	26	--	59	--	115	0	170
15-16	1080	9.6	45	11	--	24	--	114	0	44
17-19	1590	11	90	30	--	89	--	116	0	200
20-23	55	14	300	210	--	500	--	222	4	1400
24...	2980	9.6	45	11	--	24	--	114	0	44
25-27	4950	12	35	8.2	--	18	--	98	0	39
28-29	1570	9.6	45	11	--	24	--	114	0	44
30-31	210	10	120	76	--	200	--	176	0	470
SEP.										
01-03	76	14	230	150	--	410	--	212	12	910
04-23	30	11	430	400	--	880	--	288	0	2300
24-25	2030	7.9	40	12	--	38	--	99	0	76
26...	1390	11	64	21	--	56	--	134	0	120
27-28	398	11	100	32	--	100	--	150	0	190
29-30	94	14	230	150	--	410	--	212	12	910
WTD. AVG.	--	11	62	26	--	--	--	115	0	155
TIME WTD.										
AVG.	113	9.6	412	372	--	--	--	255	0	2100
TOT. LOAD (TONS)	--	1050	6030	2540	--	--	--	11100	16	14900

BRAZOS RIVER BASIN

471

08084800 CALIFORNIA CREEK NEAR STAMFORD, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 16,900 mg/l Dec. 1-31; minimum, 175 mg/l May 30-31.

Hardness: Maximum, 4,300 mg/l Dec. 1-31; minimum, 120 mg/l Aug. 25-27.

Specific conductance: Maximum daily, 33,500 micromhos Dec. 10; minimum daily, 227 micromhos Aug. 25.

Water temperatures: Maximum, 33.0°C July 3, Sept. 6; minimum, 1.0°C Feb. 7.

EXTREMES, October 1962 to September 1971.--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.

Winter 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 1970 TO SEPTEMBER 1971

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 COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	7500	--	--	14000	3400	3200	30	21500	7.4
NOV.									
01-30	4400	--	--	9200	2600	2300	21	14500	6.9
DEC.									
01-31	8400	--	--	16900	4300	4100	31	25100	7.0
JAN.									
01-31	3400	--	--	10500	3300	3000	18	14100	7.3
FEB.									
01-28	2400	--	--	8540	3100	2800	14	11000	7.3
MAR.									
01-31	2000	--	4.4	7550	2900	2700	12	9910	7.3
APR.									
01-19	1800	--	4.7	6220	2300	2100	12	8890	7.8
20-23	430	.4	2.2	1830	780	650	5.1	2690	7.5
24-30	780	--	2.8	3120	1400	1200	6.7	4420	7.7
MAY									
01-28	1500	--	2.6	6360	2800	2600	9.0	8350	7.0
29...	64	.4	.8	359	200	100	1.4	607	7.5
30-31	16	--	9.0	175	130	32	.5	304	7.6
JUNE									
01...	57	.2	1.6	320	180	79	1.3	531	7.7
02...	230	--	.9	907	430	320	3.1	1480	7.5
03...	470	--	1.2	1880	860	710	4.8	2830	7.5
04-07	1100	--	1.5	4250	2000	1800	7.0	5910	7.6
08...	470	--	1.2	1880	860	710	4.8	2830	7.5
09...	57	.2	1.6	320	180	79	1.3	531	7.7
10...	230	--	.9	907	430	320	3.1	1480	7.5
11-13	470	--	1.2	1880	860	710	4.8	2830	7.5
14-21	1100	--	1.5	4250	2000	1800	7.0	5910	7.6
22-23	230	--	.9	907	430	320	3.1	1480	7.5
24-30	470	--	1.2	1880	860	710	4.8	2830	7.5
JULY									
01-31	1300	--	--	5020	1800	1700	11	6740	--
AUG.									
01-14	93	--	.7	488	280	180	1.5	824	7.8
15-16	48	--	.5	240	160	64	.8	469	8.2
17-19	160	.2	.9	648	350	250	2.1	1100	8.1
20-23	780	--	1.7	3280	1600	1400	5.5	4600	8.3
24...	48	--	.5	240	160	64	.8	469	8.2
25-27	26	--	.7	189	120	41	.7	326	8.0
28-29	48	--	.5	240	160	64	.8	469	8.2
30-31	300	--	1.0	1280	620	480	3.5	2030	8.0
SEP.									
01-03	650	--	2.4	2480	1200	1000	5.2	3570	8.3
04-23	1400	--	2.4	5600	2700	2500	7.3	7690	8.2
24-25	49	.2	.7	275	150	69	1.3	466	8.0
26...	96	.2	.8	433	240	130	1.6	743	8.1
27-28	200	.2	.9	719	390	260	2.3	1230	8.0
29-30	650	--	2.4	2480	1200	1000	5.2	3570	8.3
WTD. AVG.	109	--	--	494	264	169	1.4	786	8.0
TIME WTD.									
AVG.	2970	--	--	7820	2560	2350	15	11200	7.4
TOT. LOAD (TONS)	10600	--	--	47700	--	--	--	--	--

BRAZOS RIVER BASIN

08084800 CALIFORNIA CREEK NEAR STAMFORD, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23100	---	13700	21500	13800	11300	9340	5960	537	3730	812	3350
2	23300	18500	14800	18400	10300	11300	9300	5990	1500	4090	759	4190
3	23200	17600	18400	16000	9380	11500	9220	6230	2980	4510	1240	4770
4	22000	17000	22000	16700	9330	11700	9110	6490	4240	4710	504	5630
5	20600	16600	25800	18700	10000	10800	8730	6530	5140	5300	727	6130
6	21300	15800	28000	17900	9630	11200	8490	6510	5590	5590	926	6440
7	21000	15800	28500	16100	9910	11200	8200	6420	6110	5970	1260	6730
8	20200	15600	28700	15600	10700	11100	7960	6570	3870	6400	1310	7080
9	19500	15100	33100	13800	11400	10900	7810	5780	535	6650	1420	7360
10	19000	15000	33500	12700	11100	10900	7640	6900	1500	6970	1690	7360
11	18800	14900	33100	12800	10800	11100	7510	7020	2300	6990	2090	7630
12	18200	14700	30000	12900	10900	10800	7460	10400	2920	7410	2260	7740
13	17600	14200	27900	12500	11100	10500	7350	10500	3490	7570	2490	8120
14	17300	13700	27200	12700	11300	10400	7330	10500	4150	7540	2530	8180
15	16100	13400	---	12100	10900	10100	7330	10700	4740	7670	415	8280
16	16500	12700	26400	11800	10700	9820	6930	10700	5440	7710	606	8380
17	16500	13000	25900	12300	10700	9510	14700	10700	6130	7970	1490	8480
18	23200	12600	25200	11800	10600	9300	11600	10600	6820	7850	946	8180
19	26000	12700	24600	11700	10800	9150	8590	10400	7230	7880	1310	8310
20	27000	12600	24300	12500	10800	8880	2500	9760	7810	11100	2720	8150
21	26100	12800	22900	13300	10400	8350	2680	9490	7350	7490	3600	8370
22	25900	13000	22500	12800	12200	8260	2700	9270	1160	8020	4150	8580
23	25000	13200	24100	13400	13800	7980	2900	8910	1740	9010	5230	8550
24	24800	13300	26200	13500	13600	7830	3240	8910	2360	4640	438	508
25	24000	13200	26000	13600	12000	7690	3580	8400	2360	---	227	445
26	22700	12900	24800	13300	10900	7830	4090	8130	2310	9680	286	744
27	22700	13000	24200	12800	10800	8590	4390	7970	2400	9770	328	1100
28	21800	13100	24000	12200	10000	9470	4850	7290	2690	4580	523	1510
29	20400	12800	23700	12100	---	9770	5310	604	2960	8460	754	2370
30	---	13100	24100	13700	---	9600	5600	298	3400	4690	2100	3130
31	19100	---	23900	---	---	9470	---	312	---	3770	1360	---
MONTH	21430	14200	25250	14040	10990	9880	6880	7560	3730	6790	1500	5860

BRAZOS RIVER BASIN

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08084800 CALIFORNIA CREEK NEAR STAMFORD, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	---	16.5	9.5	4.5	8.0	18.5	24.0	23.5	31.0	21.0	25.5
2	19.0	9.0	15.5	7.0	9.0	5.5	20.0	20.0	25.5	32.0	21.0	23.5
3	23.0	9.0	18.0	8.5	15.5	2.0	20.0	18.5	24.5	33.0	27.0	24.5
4	20.0	8.0	14.5	5.0	8.0	8.0	14.5	28.5	26.5	25.5	21.0	26.5
5	21.0	9.0	13.5	4.5	9.0	11.0	16.5	24.0	29.5	32.0	28.0	30.0
6	23.5	11.5	15.5	3.5	7.0	9.0	19.5	25.5	24.5	27.0	26.5	33.0
7	24.0	14.5	14.0	2.0	1.0	7.0	20.0	26.0	30.5	28.0	23.0	31.0
8	15.5	14.5	14.5	5.5	3.5	---	23.5	20.0	24.0	31.5	24.0	29.5
9	14.5	11.5	16.5	3.5	4.5	13.0	22.0	20.0	23.5	31.0	23.5	29.5
10	18.0	16.5	16.0	8.5	9.0	15.0	16.5	26.5	28.5	32.0	23.0	27.0
11	14.5	13.5	13.0	6.0	8.0	13.0	18.5	23.5	28.0	28.5	27.0	23.5
12	15.5	12.0	11.5	5.0	12.0	17.0	23.5	16.5	29.0	31.0	23.5	23.5
13	22.0	9.0	12.0	6.5	13.5	20.0	22.0	22.0	25.0	31.5	26.0	28.0
14	16.0	7.0	10.5	13.5	9.0	18.0	23.5	20.0	29.0	24.5	23.0	28.5
15	14.0	9.0	---	9.5	13.5	18.5	21.0	16.5	28.5	31.5	25.0	27.0
16	14.0	9.5	12.0	10.0	16.0	18.0	20.0	20.0	30.5	29.5	25.5	27.0
17	13.0	11.0	13.0	8.5	17.0	18.0	17.0	25.5	31.0	31.0	27.0	22.0
18	15.0	15.5	14.0	10.0	15.0	16.5	17.0	21.0	30.5	26.0	30.0	18.5
19	13.0	14.0	10.5	9.0	10.5	10.5	18.0	18.5	29.5	28.5	30.0	14.5
20	19.0	12.0	9.5	10.0	15.5	10.0	16.5	27.0	31.0	24.5	30.5	13.5
21	20.0	13.0	11.5	12.0	6.5	16.5	24.5	21.0	26.5	28.0	31.5	15.5
22	18.5	15.5	14.5	13.0	6.5	11.5	25.5	20.5	28.0	30.5	26.0	18.5
23	18.0	8.0	9.0	8.0	11.0	17.0	25.0	22.0	30.0	27.0	29.0	18.0
24	16.5	9.0	11.0	7.0	8.0	11.0	25.0	18.0	30.0	23.5	23.5	17.0
25	18.0	6.5	6.5	13.0	11.0	12.0	26.0	26.5	26.5	---	25.5	22.0
26	20.0	14.0	8.0	12.0	12.0	15.5	28.0	21.5	31.0	28.5	29.0	25.5
27	13.5	14.5	8.5	15.5	11.0	22.0	23.0	26.5	31.0	29.0	25.5	25.5
28	10.5	12.0	10.0	12.0	13.5	18.5	22.0	28.5	30.5	24.0	29.0	24.0
29	11.0	16.5	11.5	9.0	---	19.5	25.5	20.5	25.5	22.0	27.0	25.0
30	---	13.0	11.0	---	---	20.0	22.0	21.0	---	24.0	26.5	24.0
31	12.0	---	9.5	8.0	---	17.0	---	22.0	---	20.0	25.5	---
MONTH	17.0	11.5	12.5	8.5	10.0	14.0	21.0	22.5	28.0	28.0	26.0	24.0

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 1971.

Water temperatures: November 1949 to September 1951, November 1967 to September 1971.

Sediment records: November 1949 to September 1951.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.										
01-31	8.2	14	140	47	220	--	9.5	220	0	280
NOV.										
01-30	1.9	18	160	49	--	270	--	306	0	280
DEC.										
01-31	8.1	11	270	130	--	530	--	272	0	950
JAN.										
01-31	9.8	6.3	240	95	390	--	13	286	0	750
FEB.										
01-28	11	6.1	190	70	--	340	--	330	0	470
MAR.										
01-08	9.3	1.5	190	73	--	370	--	264	8	590
09-31	5.1	2.7	280	120	--	550	--	248	0	1000
APR.										
01-30	11	1.4	320	140	620	--	17	218	0	1200
MAY										
01-27	2.5	3.3	420	150	--	620	--	200	0	1100
28-30	824	16	210	77	--	280	--	192	0	530
31...	3480	15	58	19	--	30	--	134	0	80
JUNE										
01-04	927	12	54	11	--	29	--	126	0	70
05-10	126	11	70	19	--	67	--	136	0	140
11...	119	11	100	44	--	140	--	136	0	300
12-14	64	11	180	100	--	310	--	152	0	700
15-17	34	11	100	44	--	140	--	136	0	300
18-30	48	11	70	19	--	67	--	136	0	140
JULY										
01-13	3.9	11	85	22	74	--	7.6	185	0	150
14-23	.00	--	--	--	--	--	--	--	--	--
24-31	39	10	110	30	--	130	--	224	0	210
AUG.										
01-24	560	11	98	30	--	120	--	136	0	220
25-31	6070	11	45	8.8	--	32	--	124	0	53
SEP.										
01-02	912	9.0	62	21	--	61	--	150	0	120
03-11	371	4.1	90	43	--	110	--	172	0	250
12-24	174	5.8	170	89	--	260	--	172	0	600
25-30	3890	8.0	53	14	--	54	--	122	0	94
WTD. AVG.	--	10	68	20	--	--	--	133	0	134
TIME WTD.										
AVG.	275	8.5	197	77	--	--	--	225	0	572
TOT. LOAD (TONS)	--	2750	18400	5460	--	--	--	36100	2	36300

BRAZOS RIVER BASIN

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08085500 CLEAR FORK BRAZOS RIVER AT FORT GRIFFIN, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 3,610 mg/l May 1-27; minimum, 257 mg/l Aug. 25-31.

Hardness: Maximum, 1,700 mg/l May 1-27; minimum, 150 mg/l Aug. 25-31.

EXTREMES, November 1949 to September 1951, November 1967 to September 1971.--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): Maximum daily, 6,590 micromhos Mar. 9, 1970; minimum daily, 204 micromhos July 27, 1950.

Water temperatures (1949-51, 1967-70): Maximum, 36.0°C Aug. 31, 1951.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	400	.3	1.0	1220	540	360	4.1	2000	8.0
NOV. 01-30	450	.3	1.2	1380	590	340	4.8	2240	8.1
DEC. 01-31	800	--	.8	2830	1200	960	6.6	4180	7.7
JAN. 01-31	610	--	1.2	2250	990	760	5.4	3360	7.4
FEB. 01-28	510	.5	1.0	1750	750	480	5.4	2730	7.9
MAR. 01-08	520	.6	1.1	1890	770	540	5.8	2790	8.3
09-31	790	--	.5	2910	1200	1000	6.9	4110	7.7
APR. 01-30	940	--	.9	3390	1400	1200	7.3	4860	7.9
MAY 01-27	1200	--	.1	3610	1700	1500	6.6	5820	7.6
28-30	520	.4	1.4	1740	840	690	4.2	2590	8.1
31...	61	--	2.2	339	220	110	.9	509	7.4
JUNE 01-04	44	.2	1.1	287	180	77	.9	497	7.2
05-10	98	--	.7	475	250	140	1.8	804	7.5
11...	220	--	.6	885	440	330	2.8	1440	7.7
12-14	500	--	.9	1890	890	770	4.5	2870	7.4
15-17	220	--	.6	885	440	330	2.8	1440	7.7
18-30	98	--	.7	475	250	140	1.8	804	7.5
JULY 01-13	110	.3	.3	554	300	150	1.8	910	7.6
14-23	--	--	--	--	--	--	--	--	--
24-31	200	--	.4	801	400	220	2.8	1320	7.9
AUG. 01-24	200	.2	1.1	745	370	260	2.7	1240	8.0
25-31	41	--	1.1	257	150	47	1.1	440	8.1
SEP. 01-02	83	.2	1.1	439	240	120	1.7	735	7.2
03-11	180	.2	.4	760	400	260	2.5	1260	7.6
12-24	410	.3	.5	1630	790	650	4.1	2490	7.7
25-30	74	.2	1.0	362	190	88	1.7	618	6.9
WTD. AVG. TIME WTD. AVG.	110	--	1.1	485	253	143	1.8	794	7.7
TOT. LOAD (TONS)	527	--	.8	1840	812	623	4.7	2810	7.8
	29800	--	290	131000	--	--	--	--	--

BRAZOS RIVER BASIN

08085500 CLEAR FORK BRAZOS RIVER AT FORT GRIFFIN, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1730	2180	---	---	2550	---	4500	---	445	872	1070	728
2	1700	2200	---	---	2540	2790	4510	---	534	859	---	833
3	1660	2190	---	---	2580	---	4590	---	494	863	---	---
4	1600	2190	---	---	2940	---	4560	5650	522	883	---	987
5	1590	2460	---	---	2890	---	4620	5680	662	893	1620	1060
6	2050	2220	---	---	2560	---	4600	5680	670	897	1290	1110
7	---	2220	---	---	2900	---	4600	5720	725	915	1720	1200
8	1530	2210	---	---	---	---	4600	5630	729	919	1730	1280
9	2040	2220	---	---	2880	3630	4600	5640	737	926	---	1360
10	2060	2220	---	---	2840	---	4630	---	738	941	---	1500
11	1660	2230	---	---	2740	3710	4620	5740	1230	938	---	1600
12	2060	2250	---	---	2690	3770	---	5830	3130	954	---	1710
13	2050	2250	---	---	2650	3840	4670	5790	3150	958	---	1920
14	1950	---	---	---	2600	---	4680	5750	2360	---	---	1930
15	1980	---	---	---	2620	---	4660	---	1900	---	---	2110
16	2060	---	---	---	---	4010	4650	---	1460	---	---	2120
17	2090	---	---	---	2570	4030	4640	---	1160	---	---	2290
18	2090	---	---	---	---	4050	4650	5890	888	---	---	2470
19	2120	---	---	---	---	4090	4720	5890	888	---	1160	---
20	2090	---	---	---	---	4140	4730	5860	891	---	1030	2490
21	2170	---	---	---	---	4160	5200	5850	853	---	1030	2890
22	2180	---	---	---	---	4200	5400	5820	851	---	1030	3010
23	2120	---	---	3580	---	---	5440	5850	---	---	987	3170
24	2120	2480	---	3550	---	4240	5510	---	841	---	942	3630
25	2140	---	---	3540	---	4300	5510	5950	829	974	381	717
26	2140	---	---	3480	---	4320	5590	6000	794	1140	309	614
27	2140	---	---	3440	---	4340	5570	5960	836	1140	380	523
28	2390	---	---	3380	---	4380	5570	---	861	1550	447	750
29	2160	---	4180	3340	---	4390	5640	---	916	1550	494	---
30	2170	---	---	3280	---	4420	---	2500	---	1540	504	---
31	2180	---	---	2580	---	---	---	509	---	---	507	---
MONTH	2000	---	---	---	---	---	4900	---	1070	---	---	1690

BRAZOS RIVER BASIN

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08085500 CLEAR FORK BRAZOS RIVER AT FORT GRIFFIN, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.5	15.5	---	---	8.0	---	18.5	---	22.0	29.0	24.5	28.5
2	23.0	11.5	---	---	6.5	---	19.0	---	21.5	28.5	---	28.0
3	19.5	12.0	---	---	11.5	---	21.0	---	25.0	28.5	---	---
4	22.0	10.0	---	---	10.0	---	18.0	24.0	24.0	29.5	---	28.5
5	23.0	11.5	---	---	10.5	---	15.5	24.0	24.5	31.5	29.0	29.0
6	20.5	14.5	---	---	10.0	---	18.5	27.0	27.0	30.5	28.0	28.5
7	---	11.5	---	---	5.5	---	18.5	26.0	26.0	31.0	26.0	29.5
8	20.0	18.0	---	---	---	---	20.0	25.0	28.5	32.0	26.5	30.0
9	16.5	17.0	---	---	6.5	14.5	16.5	21.5	28.0	31.5	---	29.0
10	19.0	16.5	---	---	8.0	---	18.0	---	28.5	31.0	---	28.5
11	16.5	16.5	---	---	9.5	16.0	24.0	24.0	28.5	31.5	---	29.0
12	18.0	15.5	---	---	9.5	16.5	---	21.0	29.0	31.5	---	28.0
13	16.5	15.0	---	---	9.5	18.5	19.5	20.0	27.0	29.5	---	28.5
14	18.0	---	---	---	9.0	---	21.0	23.5	28.5	---	---	27.0
15	15.0	---	---	---	11.0	---	21.5	---	28.0	---	---	28.0
16	15.0	---	---	---	---	19.5	20.5	---	29.0	---	---	28.0
17	15.0	---	---	---	11.0	18.0	17.0	---	29.0	---	---	24.5
18	15.0	---	---	---	---	15.5	18.5	25.5	29.5	---	---	23.0
19	16.5	---	---	---	---	15.5	19.5	24.0	29.0	---	28.0	---
20	14.0	---	---	---	---	15.0	21.0	21.5	30.0	---	26.5	20.0
21	18.0	---	---	---	---	18.5	20.5	24.5	29.0	---	28.0	19.0
22	18.5	---	---	---	---	15.0	22.0	28.0	29.5	---	28.0	19.0
23	19.5	---	---	7.0	---	---	21.5	28.0	---	---	29.0	18.5
24	18.0	9.0	---	8.0	---	13.0	21.0	---	29.5	---	26.0	18.0
25	19.5	---	---	11.0	---	13.5	21.5	29.0	28.5	29.5	24.0	18.5
26	19.5	---	---	10.0	---	16.5	23.5	26.0	29.0	28.5	25.5	20.0
27	19.5	---	---	9.0	---	20.0	22.0	28.0	28.5	29.0	26.5	23.5
28	15.5	---	---	9.5	---	18.0	23.0	---	28.0	29.5	27.0	24.0
29	18.5	---	9.0	12.0	---	17.0	---	---	29.0	28.5	27.0	---
30	18.0	---	---	12.0	---	20.0	---	21.5	---	26.0	26.5	---
31	16.5	---	---	9.0	---	---	---	21.5	---	---	27.0	---
MONTH	18.0	---	---	---	---	---	20.0	---	27.5	---	---	25.0

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 1971.
Water temperatures: October 1962 to September 1971.

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 12,900 micromhos Apr. 15; minimum daily, 290 micromhos Aug. 14, 15.
Water temperatures: Minimum, 1.0°C Jan. 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	.10	4.9	500	220	1300	--	2.3	116	0	1000
31...	.09	2.0	550	250	--	1400	--	122	0	1300
NOV.										
30...	.12	.1	580	260	--	1400	--	130	0	1400
DEC.										
11...	.05	.3	580	280	--	1500	--	133	0	1400
JAN.										
03...	.14	.8	440	200	--	1000	--	100	0	1000
11...	.14	.8	600	290	1500	--	9.8	109	0	1400
FEB.										
16...	.06	.5	640	300	--	1500	--	150	0	1500
MAR.										
31...	.02	.1	660	300	--	1800	--	122	0	1600
MAY										
30...	1100	4.3	40	5.9	--	23	--	110	0	19
JUNE										
01...	6.2	--	--	--	--	--	--	--	--	37
02...	3.5	8.8	51	11	--	60	--	100	0	59
05...	1.1	--	--	--	--	--	--	--	--	63
JULY										
01...	.63	6.2	77	20	140	--	6.6	110	0	60
28...	1.0	6.2	230	74	--	530	--	124	0	250
AUG.										
02...	2.1	5.5	130	47	--	230	--	82	0	270
14...	342	7.1	33	5.0	--	20	--	92	0	26
17...	7.1	7.7	36	7.6	--	41	--	96	0	28
SEP.										
08...	.29	6.8	82	23	--	100	--	140	0	96
09...	--	6.8	82	23	--	100	--	140	0	96
20...	.33	5.5	98	30	--	150	--	140	0	110
22...	.67	4.3	140	42	--	260	--	124	0	140

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (second- foot days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	3.25	9730	6220	1.8	55	2840	0.80	25
November.....	2.62	10100	6500	1.5	46	2850	.67	20
December.....	2.96	10700	6870	1.8	55	3040	.8	24
January 1971..	3.87	10500	6720	2.3	70	3100	1.0	32
February.....	1.93	10700	7010	1.3	37	3130	.6	16
March.....	.89	11100	7460	.6	18	3320	.3	8.0
April.....	.55	12600	8340	.4	12	3810	.2	5.7
May.....	2913.2	340	180	46	1430	40	10	319
June.....	127.10	730	410	4.6	140	140	1.6	47
July.....	32.15	1800	980	2.7	85	470	1.3	40
August.....	675.38	350	200	12	362	45	2.6	81
September.....	325.23	550	290	8.6	258	100	2.9	87
Total	4089.13	--	--	--	2570	--	--	700
Weighted average	11.2	420	230	7.0	--	64	1.9	--

08086050 DEEP CREEK AT MORAN, TEX.--Continued

EXTREMES, October 1962 to September 1971.--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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED CHLORIDE (CL) (MG/L)	DIS- SOLVED FLUORIDE (F) (MG/L)	DIS- SOLVED 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 SULFATE RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01...	2800	--	--	5880	2200	2100	12	9480	7.5
31...	2900	--	--	6460	2400	2300	12	10000	7.6
NOV.									
30...	2900	--	--	6600	2500	2400	12	10300	7.6
DEC.									
11...	3000	--	--	6830	2600	2500	13	10700	7.7
JAN.									
03...	2100	--	--	4790	1900	1800	9.9	7780	7.4
11...	3100	--	--	6950	2700	2600	13	10800	7.5
FEB.									
16...	3200	--	--	7210	2800	2700	12	10900	7.7
MAR.									
31...	3500	--	--	7910	2900	2800	15	11800	7.1
MAY									
30...	44	.2	.70	198	120	34	.9	367	7.8
JUNE									
01...	81	--	--	--	--	--	--	491	--
02...	110	.2	.80	352	170	90	2.0	624	7.5
05...	160	--	--	--	--	--	--	825	--
JULY									
01...	300	.3	.40	668	270	180	3.7	1260	7.7
24...	1200	--	.50	2340	470	770	7.8	4210	7.4
AUG.									
02...	460	.3	.70	1180	510	450	4.3	2070	7.4
14...	27	--	1.7	171	100	28	.9	290	7.6
17...	72	--	.50	242	120	42	1.6	442	7.5
SEP.									
08...	220	.3	.04	593	300	180	2.5	1090	7.7
09...	220	.3	.04	593	300	180	2.5	1090	7.7
20...	340	--	.03	795	370	250	3.4	1490	7.7
22...	580	--	.06	1230	510	410	5.0	2290	7.5

08086050 DEEP CREEK AT MORAN, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9480	9910	10500	9300	10300	10900	---	---	491	1260	2060	1010
2	9460	9950	10500	9900	10800	10900	---	---	624	1270	2070	1020
3	9550	9950	10500	7780	10800	10800	---	---	730	1280	2050	1040
4	9550	9950	10500	9950	10700	10800	---	---	784	1290	2060	1040
5	9590	10000	10500	10800	10400	10900	---	---	825	1300	2040	1050
6	9630	10000	10500	9710	10800	10900	---	---	902	1310	2040	1050
7	9680	10000	10500	10800	10800	10900	---	---	940	1320	2040	1050
8	9680	10000	10500	10900	10700	10900	---	---	970	1330	2040	1090
9	9810	10000	10600	10700	10800	10900	---	---	1000	---	2040	1090
10	9810	10100	10500	10800	10800	10900	12600	---	1010	---	2060	1090
11	9910	10000	10700	10800	10800	10000	12700	---	1060	---	2070	1100
12	9810	10100	10600	10800	10800	11000	12800	---	1080	---	2070	1100
13	9860	10100	10600	10700	10800	11100	12800	---	1100	---	310	1120
14	9860	10000	10600	10700	10800	11200	---	---	1140	---	290	1120
15	9950	10000	10600	10700	10800	11200	12900	---	1260	---	290	1130
16	9910	10000	10700	10700	10900	11300	12800	---	1240	---	600	1130
17	9770	10100	10700	10700	10800	11300	12800	---	1270	---	442	1130
18	9770	10100	10700	10700	10800	11300	12500	---	1320	---	480	1130
19	9860	10100	10700	10700	10900	11400	12500	---	1320	---	490	1210
20	9810	10200	10800	10700	10900	11500	12500	---	1350	---	500	1490
21	9910	10200	10800	10800	10600	11500	12500	---	800	---	510	1490
22	9910	10200	10800	10700	10800	11600	12600	---	633	---	510	2290
23	9380	10200	10800	10700	10800	11600	---	---	550	---	520	700
24	9770	10300	10800	10700	10800	11500	---	---	1160	---	530	580
25	9770	10300	10800	10700	10800	11500	---	---	1180	---	540	370
26	9810	10300	10800	10700	10700	11400	---	---	1210	---	540	400
27	9860	10300	10800	10700	10800	11400	---	---	1210	---	540	430
28	9910	10300	10800	10700	10800	11500	---	1000	1240	4210	600	450
29	9950	10300	10800	10700	---	11500	---	340	1240	3000	600	490
30	9950	10300	10700	10700	---	11600	---	367	1240	1500	450	540
31	10000	---	10800	10800	---	11800	---	400	---	2150	760	---
MONTH	9770	10110	10660	10510	10760	11190	---	---	1030	---	1100	998

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.0	13.0	16.0	8.0	6.0	11.0	---	---	26.0	33.0	24.0	30.0
2	31.0	12.0	14.0	9.0	6.0	8.0	---	---	29.0	33.0	28.0	26.0
3	31.0	---	16.0	10.0	8.0	5.0	---	---	30.0	---	27.0	30.0
4	31.0	12.0	14.0	5.0	10.0	7.0	---	---	30.0	---	29.0	---
5	32.0	12.0	---	3.0	9.0	9.0	---	---	28.0	---	28.0	30.0
6	32.0	15.0	---	2.0	6.0	10.0	---	---	30.0	---	29.0	30.0
7	32.0	20.0	14.0	1.0	5.0	8.0	---	---	29.0	---	29.0	29.0
8	30.0	---	13.0	2.0	4.0	9.0	---	---	---	---	30.0	29.0
9	15.0	14.0	15.0	3.0	3.0	14.0	---	---	30.0	---	28.0	30.0
10	14.0	14.0	16.0	5.0	4.0	14.0	17.0	---	26.0	---	28.0	28.0
11	26.0	13.0	12.0	7.0	8.0	14.0	22.0	---	29.0	---	26.0	27.0
12	16.0	12.0	9.0	6.0	9.0	16.0	21.0	---	27.0	---	---	25.0
13	20.0	11.0	9.0	8.0	8.0	15.0	19.0	---	28.0	---	25.0	29.0
14	17.0	10.0	8.0	9.0	9.0	14.0	---	---	31.0	---	24.0	24.0
15	16.0	8.0	10.0	8.0	10.0	16.0	18.0	---	31.0	---	26.0	29.0
16	14.0	8.0	9.0	6.0	13.0	17.0	22.0	---	33.0	---	29.0	27.0
17	14.0	9.0	8.0	7.0	12.0	18.0	18.0	---	32.0	---	30.0	29.0
18	19.0	9.0	11.0	8.0	15.0	---	21.0	---	28.0	---	32.0	19.0
19	14.0	11.0	10.0	6.0	14.0	15.0	20.0	---	31.0	---	32.0	18.0
20	15.0	10.0	9.0	6.0	13.0	15.0	21.0	---	31.0	---	30.0	20.0
21	16.0	11.0	11.0	9.0	10.0	16.0	21.0	---	29.0	---	30.0	19.0
22	18.0	13.0	11.0	8.0	5.0	15.0	23.0	---	27.0	---	31.0	19.0
23	20.0	8.0	10.0	8.0	7.0	16.0	---	---	29.0	---	---	19.0
24	19.0	5.0	7.0	9.0	9.0	17.0	---	---	30.0	---	28.0	20.0
25	19.0	5.0	8.0	9.0	11.0	13.0	---	---	32.0	---	29.0	23.0
26	20.0	9.0	6.0	9.0	12.0	18.0	---	---	31.0	---	30.0	26.0
27	18.0	11.0	6.0	8.0	11.0	---	---	---	30.0	---	29.0	28.0
28	15.0	11.0	9.0	9.0	10.0	20.0	---	25.0	---	---	34.0	25.0
29	14.0	14.0	9.0	10.0	---	19.0	---	20.0	31.0	29.0	28.0	---
30	14.0	14.0	10.0	10.0	---	21.0	---	21.0	28.0	23.0	31.0	25.0
31	14.0	---	8.0	9.0	---	21.0	---	23.0	---	28.0	27.0	---
MONTH	20.5	11.0	10.5	7.0	9.0	14.0	---	---	29.5	---	28.5	25.5

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 1971.

Water temperatures: February 1962 to September 1971.

Sediment records: January 1966 to September 1971.

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 1970 TO SEPTEMBER 1971

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)
MAY										
31...	100	8.7	43	5.6	--	17	--	118	0	20
JUNE										
02...	12	8.9	40	7.2	--	41	--	92	0	34
23...	22	9.9	140	41	--	260	--	162	0	180
JULY										
30...	29	9.7	130	42	220	--	8.4	156	0	150
AUG.										
01...	3.3	7.9	95	27	--	160	--	157	0	110
18...	5.9	5.9	33	6.4	--	28	--	92	0	24
SEP.										
21...	.45	5.5	47	9.4	--	38	--	130	0	25

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
MAY									
31...	34	.3	.60	189	130	34	.6	348	7.3
JUNE									
02...	74	.2	.70	253	130	54	1.6	448	7.3
23...	530	--	.40	1240	520	380	5.0	2210	7.8
JULY									
30...	500	.3	.20	1130	500	380	4.3	2060	8.0
AUG.									
01...	320	.3	1.8	810	350	220	3.8	1450	8.1
18...	48	--	.50	192	110	33	1.2	348	7.7
SEP.									
21...	74	.3	.20	264	160	49	1.3	503	7.6

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (second- foot days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	0	--	--	0	0	--	0	0
November.....	0	--	--	0	0	--	0	0
December.....	0	--	--	0	0	--	0	0
January 1971..	0	--	--	0	0	--	0	0
February.....	0	--	--	0	0	--	0	0
March.....	0	--	--	0	0	--	0	0
April.....	0	--	--	0	0	--	0	0
May.....	5030	600	320	140	4330	95	42	1290
June.....	150.82	1190	670	9.1	273	270	3.7	112
July.....	43	1850	1000	3.7	116	440	1.6	51
August.....	862.83	540	290	22	685	97	7.3	225
September.....	853.29	490	250	19	576	66	5.1	153
Total	6939.94	--	--	--	5980	--	--	1830
Weighted average	19.0	600	320	16	--	98	5.0	--

[illegible][illegible]

BRAZOS RIVER BASIN

483

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 1971.

Water temperatures: November 1962 to September 1971.

Sediment records: October 1967 to September 1971.

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 6,400 micromhos Nov. 25, 30; minimum daily, 600 micromhos Aug. 24.

EXTREMES, November 1962 to September 1971.--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. 28-30, 1968; minimum daily, 560 micromhos May 5, 1969.

Water temperatures (1962-64, 1965-69): 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 1970 TO SEPTEMBER 1971

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.										
11...	.13	12	300	110	620	--	3.8	190	0	170
NOV.										
02...	.24	12	300	110	--	640	--	176	0	180
DEC.										
30...	.13	12	330	110	--	680	--	216	0	170
JAN.										
02...	.13	6.0	200	69	380	--	2.3	116	0	100
12...	.13	9.6	350	130	--	680	--	202	0	180
FEB.										
17...	.13	6.9	340	120	--	710	--	174	0	190
APR.										
28...	.04	8.8	330	120	700	--	5.5	222	0	200
JUNE										
02...	.31	9.9	120	34	--	210	--	146	0	67
AUG.										
18...	.03	13	260	97	--	600	--	184	0	200
27...	.35	8.4	70	16	--	110	--	102	0	33
SEP.										
23...	12	7.5	120	32	--	210	--	138	0	50
24...	2.5	6.2	68	15	--	110	--	114	0	29

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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 COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
11...	1600	--	.00	2910	1200	1000	7.8	5250	7.3
NOV.									
02...	1600	--	.00	2930	1200	1100	8.0	5370	7.3
DEC.									
30...	1700	--	1.1	3110	1300	1100	8.3	6030	7.7
JAN.									
02...	990	--	.10	1800	780	690	5.9	3390	7.3
12...	1800	--	.30	3250	1400	1200	7.9	5980	7.4
FEB.									
17...	1800	--	.00	3270	1400	1200	8.4	5990	7.4
APR.									
28...	1800	--	.60	3230	1300	1100	8.4	5840	7.6
JUNE									
02...	500	.9	.30	1020	440	320	4.4	1930	7.8
AUG.									
18...	1400	--	.10	2650	1000	880	8.1	4710	7.8
27...	250	--	1.1	546	240	160	3.1	1060	7.1
SEP.									
23...	510	.2	.40	1000	420	310	4.5	1920	7.6
24...	240	--	.30	530	230	140	3.1	1020	7.4

BRAZOS RIVER BASIN

08086150 NORTH FORK HUBBARD CREEK NEAR ALBANY, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (second- foot days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	5.30	4510	2510	1.2	36	1370	0.7	20
November.....	5.56	5750	3140	1.6	47	1720	.9	26
December.....	4.48	5940	3350	1.3	41	1840	.7	22
January 1971..	4.01	5370	2900	1.0	31	1610	.6	17
February.....	3.32	5770	3140	1.0	28	1740	.6	16
March.....	2.85	5950	3340	.8	26	1860	.5	14
April.....	2.93	5930	3280	.9	26	1790	.5	14
May.....	322.0	1810	990	28	863	510	14	444
June.....	1.75	3000	1650	.3	7.8	900	.1	4.2
July.....	0	--	--	0	0	--	0	0
August.....	102.99	640	340	3.1	95	130	1.2	37
September.....	24.92	1740	910	2.1	62	450	1.0	31
Total	480.11	--	--	--	1260	--	--	645
Weighted average	1.32	1780	970	3.5	--	500	1.8	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

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 1971.

Water temperatures: October 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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- RONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
MAY										
30...	3250	8.8	44	5.3	--	22	--	116	0	16
JUNE										
01...	26	9.0	44	7.4	--	44	--	91	0	26
25...	5.4	10	90	21	--	130	--	160	0	88
27...	1.3	11	96	23	--	160	--	162	0	91
JULY										
01...	.04	10	100	24	180	--	7.2	166	0	94
26...	.09	9.1	110	30	--	250	--	140	0	89
AUG.										
01...	10	9.4	130	37	--	240	--	146	0	150
16...	67	6.5	36	6.6	--	29	--	96	0	24
30...	.83	6.2	58	13	--	100	--	88	0	31
SEP.										
05...	1.2	7.3	65	14	--	100	--	121	0	34
21...	.17	1.7	210	51	--	620	--	84	0	50

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (second- foot days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970 ..	0	--	--	0	0	--	0	0
November.....	0	--	--	0	0	--	0	0
December.....	0	--	--	0	0	--	0	0
January 1971 ..	0	--	--	0	0	--	0	0
February.....	0	--	--	0	0	--	0	0
March.....	0	--	--	0	0	--	0	0
April.....	0	--	--	0	0	--	0	0
May.....	6985.80	680	360	222	6870	130	79	2450
June.....	160.67	890	470	6.8	205	180	2.6	79
July.....	71.29	1970	1050	6.5	202	510	3.1	97
August.....	989.81	900	480	41	1280	210	18	557
September.....	899.79	850	450	36	1080	180	15	448
Total	9107.36	--	--	--	9640	--	--	3630
Weighted average	25.0	730	390	26	--	150	9.9	--

BRAZOS RIVER BASIN

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08086212 HUBBARD CREEK BELOW ALBANY, TEX.--Continued

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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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 AN- ION- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
MAY									
30...	44	.2	1.2	203	130	37	.8	368	7.4
JUNE									
01...	93	.2	.80	272	140	66	1.6	510	7.7
25...	260	--	.40	679	310	180	3.2	1260	7.9
27...	320	--	.40	774	330	200	3.8	1440	7.9
JULY									
01...	360	.3	.40	869	360	220	4.2	1590	7.8
26...	530	--	.80	1100	410	290	5.5	2050	7.8
AUG.									
01...	500	.3	1.0	1140	470	350	4.8	2070	7.7
16...	52	--	1.1	206	120	38	1.2	370	7.5
30...	220	--	.70	478	200	130	3.2	922	7.5
SEP.									
05...	210	.3	.60	495	220	120	2.9	943	7.8
21...	1400	--	.00	2350	720	660	10	4400	7.6

Brazos River Basin

08086212 HUBBARD CREEK BELOW ALBANY, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	510	1590	2070	910
2	---	---	---	---	---	---	---	---	580	1590	2200	810
3	---	---	---	---	---	---	---	---	665	1590	2240	850
4	---	---	---	---	---	---	---	---	720	---	2250	890
5	---	---	---	---	---	---	---	---	800	---	2280	943
6	---	---	---	---	---	---	---	---	800	---	2280	940
7	---	---	---	---	---	---	---	---	900	---	2290	970
8	---	---	---	---	---	---	---	2000	1000	---	2300	980
9	---	---	---	---	---	---	---	1850	1000	---	2300	1030
10	---	---	---	---	---	---	---	---	1050	---	---	1100
11	---	---	---	---	---	---	---	---	1050	---	---	1220
12	---	---	---	---	---	---	---	---	1100	---	---	1310
13	---	---	---	---	---	---	---	---	1100	---	1800	1850
14	---	---	---	---	---	---	---	---	1150	---	1240	2000
15	---	---	---	---	---	---	---	---	1150	---	380	2500
16	---	---	---	---	---	---	---	---	1200	---	370	2600
17	---	---	---	---	---	---	---	---	---	---	420	---
18	---	---	---	---	---	---	---	---	---	---	450	1010
19	---	---	---	---	---	---	---	---	---	2290	480	2000
20	---	---	---	---	---	---	---	---	---	2290	500	3100
21	---	---	---	---	---	---	---	---	---	2630	530	4400
22	---	---	---	---	---	---	---	---	1250	2630	530	4500
23	---	---	---	---	---	---	---	---	770	2600	575	1180
24	---	---	---	---	---	---	---	---	1050	2300	1100	1200
25	---	---	---	---	---	---	---	---	1260	2100	1610	600
26	---	---	---	---	---	---	---	---	1280	2050	980	540
27	---	---	---	---	---	---	---	---	1440	2050	870	500
28	---	---	---	---	---	---	---	---	1440	1930	840	540
29	---	---	---	---	---	---	---	1000	1510	2220	910	570
30	---	---	---	---	---	---	---	368	1530	2170	920	560
31	---	---	---	---	---	---	---	400	---	1750	1270	---
MONTH	---	---	---	---	---	---	---	---	1050	---	1290	1430

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

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 1971.
Water temperatures: October 1966 to September 1971.

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 1970 TO SEPTEMBER 1971

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)
MAY										
30...	53	6.9	48	6.8	--	62	--	68	0	23
31...	9.1	7.3	68	12	--	120	--	65	0	28
JUNE										
02...	.19	7.9	80	14	--	140	--	74	0	32
JULY										
31...	2.5	6.2	39	5.2	56	--	3.0	47	0	22
AUG.										
02...	.07	5.7	46	7.0	--	71	--	62	0	25
17...	.15	4.4	87	17	--	190	--	66	0	45
SEP.										
01...	.07	3.4	100	21	--	240	--	68	0	35
27...	.05	4.6	42	7.2	--	75	--	73	0	17

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
MAY									
30...	140	.3	.70	325	150	92	2.2	631	7.1
31...	280	--	.80	543	220	170	3.5	1050	6.8
JUNE									
02...	320	.3	.60	630	260	200	3.8	1240	7.4
JULY									
31...	120	.4	.80	283	120	80	2.2	555	7.4
AUG.									
02...	150	.4	.80	343	140	93	2.6	700	7.7
17...	430	--	1.1	812	290	230	5.0	1560	7.2
SEP.									
01...	540	.4	.40	966	340	280	5.5	1890	7.0
27...	160	--	.10	338	130	74	2.8	669	7.1

BRAZOS RIVER BASIN

08086260 PECAN CREEK NEAR EOLIAN, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (second- foot days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	0	--	--	0	0	--	0	0
November.....	0	--	--	0	0	--	0	0
December.....	0	--	--	0	0	--	0	0
January 1971..	0	--	--	0	0	--	0	0
February.....	0	--	--	0	0	--	0	0
March.....	0	--	--	0	0	--	0	0
April.....	0	--	--	0	0	--	0	0
May.....	204.1	710	360	6.4	199	160	2.8	88
June.....	2.03	1200	600	.11	3.3	300	.06	1.7
July.....	4.0	720	370	.1	4.0	180	.06	1.9
August.....	1.57	1340	680	.09	2.9	360	.05	1.5
September.....	93.87	540	260	2.2	67	110	.9	27
Total	305.57	--	--	--	280	--	--	120
Weighted average	.84	660	330	.8	--	150	.3	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971[illegible]

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 1971.

Water temperatures: February 1962 to September 1971.

Sediment records: October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
APR.										
29...	.56	3.6	250	73	570	--	6.4	78	0	210
30...	.32	3.0	280	82	--	650	--	66	0	250
MAY										
30...	1670	9.4	42	4.0	--	15	--	116	0	16
JUNE										
02...	5.8	9.9	52	7.1	--	48	--	101	0	27
06...	.45	11	83	14	--	110	--	128	0	46
JULY										
20...	25	9.4	32	3.5	26	--	6.9	83	0	20
29...	.34	9.9	54	8.0	--	70	--	123	0	23
AUG.										
17...	2.2	7.1	44	5.4	--	40	--	106	0	27
23...	.14	5.8	57	8.7	--	70	--	111	0	39
SEP.										
02...	.78	6.0	62	9.0	--	95	--	90	0	32
21...	.08	4.4	100	23	--	190	--	72	0	74
WTD. AVG.	--	9.4	42	4.0	--	15	--	115	0	16
TIME WTD.										
AVG.	155	7.2	96	22	--	143	--	98	0	69
TOT. LOAD (TONS)	--	43	194	19	--	70	--	532	0	75

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970 ..	1.53	1580	860	0.11	3.6	420	0.06	1.7
November.....	0	--	--	0	0	--	0	0
December.....	0	--	--	0	0	--	0	0
January 1971 ..	0	--	--	0	0	--	0	0
February.....	0	--	--	0	0	--	0	0
March.....	0	--	--	0	0	--	0	0
April.....	6.58	2360	1300	.8	23	680	.4	12
May.....	3338	380	200	59	1840	60	16	499
June.....	31.57	620	340	1.0	30	130	.4	11
July.....	133.16	550	300	3.5	109	110	1.2	38
August.....	194.8	490	270	4.6	142	84	1.4	44
September.....	113.47	910	470	4.8	144	210	2.2	66
Total	3819.11	--	--	--	2290	--	--	672
Weighted average	10.5	410	220	6.3	--	69	1.8	--

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 1970 TO SEPTEMBER 1971

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)
APR.									
29...	1300	--	.7	2500	920	860	8.2	4440	7.5
30...	1500	--	.6	2830	1000	990	8.8	5160	7.2
MAY									
30...	28	.3	.6	174	120	26	.6	318	7.4
JUNE									
02...	100	.2	.7	302	160	76	1.7	561	7.3
06...	240	--	1.0	567	260	160	2.9	1070	7.7
JULY									
20...	48	.2	1.2	192	94	26	1.2	342	7.6
29...	140	--	.6	364	170	66	2.4	686	7.8
AUG.									
17...	72	.2	.6	250	130	45	1.5	461	7.5
23...	140	--	.5	377	180	87	2.3	708	7.7
SEP.									
02...	200	.2	.8	456	190	120	3.0	891	7.2
21...	MN								
WTD. AVG.	29	--	.6	176	120	27	.6	322	7.4
TIME WTD.									
AVG.	383	--	.7	807	325	251	3.4	1490	7.5
TOT. LOAD (TONS)	136	--	2.8	812	--	--	--	--	--

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 1971.

Water temperatures: April 1955 to September 1971.

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 1970 TO SEPTEMBER 1971

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)
DEC.										
11...	.24	4.2	84	9.2	--	130	--	146	0	74
21...	.01	4.5	98	11	--	150	--	164	0	120
JAN.										
02...	.02	3.6	78	16	82	--	4.5	117	0	110
09...	1.0	4.6	120	25	--	130	--	175	0	130
15...	.01	4.8	140	30	--	150	--	196	0	200
FEB.										
10...	.06	3.6	120	26	--	140	--	168	0	150
MAY										
30-31	--	6.0	230	54	--	340	--	228	0	650
JULY										
27...	2.1	9.4	120	27	150	--	9.4	122	0	210
30...	.20	9.6	40	4.5	--	23	--	78	0	40
AUG.										
29...	3.5	8.6	34	4.2	--	7.0	--	58	0	54
SEP.										
26...	1.2	7.3	52	7.4	--	18	--	86	0	84

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
DEC.									
11...	240	--	.00	614	250	130	3.6	1110	7.6
21...	250	--	.00	714	290	160	3.8	1230	7.7
JAN.									
02...	160	.2	.00	512	260	160	2.2	926	7.6
09...	280	--	.20	776	390	250	2.8	1390	7.7
15...	300	--	.80	924	470	309	3.0	1610	7.7
FEB.									
10...	290	.3	.40	813	400	260	3.0	1440	7.8
MAY									
30-31	480	--	.20	1870	810	620	5.2	2840	7.9
JULY									
27...	300	.3	.90	889	420	320	3.2	1520	7.7
30...	37	--	2.8	204	120	54	.9	347	7.6
AUG.									
29...	8.3	--	.50	147	100	55	.3	244	7.4
SEP.									
26...	28	--	.50	241	160	90	.6	417	7.5

BRAZOS RIVER BASIN

08086500 HUBBARD CREEK NEAR BRECKENRIDGE, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (second- foot days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970 ..	0	--	--	0	0	--	0	0
November.....	66.56	1050	580	3.5	104	230	1.4	41
December.....	37.07	1050	580	1.9	58	230	.73	23
January 1971 ..	8.70	1270	730	.5	17	230	.2	5.7
February.....	16.44	1280	730	1.2	33	270	.4	12
March.....	4.66	1390	780	.3	9.8	290	.1	3.6
April.....	.29	2430	1500	.04	1.2	450	.01	.4
May.....	0	--	--	0	0	--	0	0
June.....	.75	1540	940	.06	1.9	260	.02	.5
July.....	25.84	840	490	1.1	34	160	.4	11
August.....	96.81	270	160	1.4	43	13	.1	3.5
September.....	36.91	270	160	.5	16	8	.03	.8
Total	294.03	--	--	--	318	--	--	100
Weighted average	.81	700	400	.9	--	130	.3	--

BRAZOS RIVER BASIN

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08086500 HUBBARD CREEK NEAR BRECKENRIDGE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	1100	1100	---	1420	---	---	---	---	404	290
2	---	---	1140	926	---	1460	---	---	---	---	---	310
3	---	---	1100	986	1550	1440	---	---	---	---	---	350
4	---	---	1140	732	1380	1510	---	---	---	---	---	390
5	---	---	---	1290	1380	1280	---	---	---	---	---	430
6	---	---	---	1370	1410	1290	---	---	---	---	---	---
7	---	---	---	1470	1350	1440	---	---	---	---	---	---
8	---	---	1140	1470	1310	1420	---	---	1500	---	---	---
9	---	---	1070	1390	1450	1400	---	---	1700	---	---	---
10	---	---	1080	1390	1440	1460	---	---	2000	---	---	---
11	---	---	1110	1470	1270	1460	2180	---	---	---	---	---
12	---	---	---	1360	1340	1450	---	---	---	---	---	---
13	---	---	---	1350	1340	1510	---	---	---	---	---	---
14	---	---	---	1480	1360	1510	---	---	---	---	---	---
15	---	---	1030	1610	1420	---	---	---	---	---	---	---
16	---	---	1040	---	1440	---	2360	---	---	---	---	---
17	---	---	1080	1590	1480	---	2450	---	---	---	---	---
18	---	---	1060	1630	1290	---	2530	---	---	---	---	---
19	---	---	1140	1700	1100	---	2400	---	---	---	---	---
20	---	---	1160	1620	1150	---	2370	---	---	---	---	---
21	---	---	1230	1270	1150	---	2390	---	---	---	---	---
22	---	---	---	1240	1150	---	2390	---	---	---	---	250
23	---	---	---	1240	1130	1880	---	---	---	---	---	210
24	---	---	---	1370	1130	1900	---	---	---	---	290	320
25	---	---	---	1380	1200	1970	---	---	---	---	280	340
26	---	---	1330	1330	1300	1950	---	---	---	1550	240	417
27	---	---	1380	1390	1440	1970	---	---	---	1520	270	420
28	---	---	---	1390	1400	2050	---	---	---	800	250	450
29	---	---	---	1470	---	2040	---	---	---	285	244	470
30	---	---	1470	1500	---	2030	---	---	---	347	250	510
31	---	---	932	1580	---	---	---	---	---	364	270	---
MONTH	---	---	---	1370	1320	---	---	---	---	---	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	10.0	---	10.0	---	---	---	---	23.0	26.0
2	---	---	---	9.0	---	8.0	---	---	---	---	---	25.0
3	---	---	---	11.0	7.0	4.0	---	---	---	---	---	28.0
4	---	---	---	7.0	10.0	9.0	---	---	---	---	---	26.0
5	---	---	---	5.0	8.0	13.0	---	---	---	---	---	28.0
6	---	---	---	6.0	4.0	11.0	---	---	---	---	---	---
7	---	---	---	5.0	7.0	12.0	---	---	---	---	---	---
8	---	---	13.0	7.0	8.0	12.0	---	---	---	---	---	---
9	---	---	13.0	7.0	9.0	16.0	---	---	---	---	---	---
10	---	---	15.0	9.0	6.0	16.0	---	---	---	---	---	---
11	---	---	11.0	9.0	12.0	13.0	23.5	---	---	---	---	---
12	---	---	---	7.0	12.0	17.0	---	---	---	---	---	---
13	---	---	---	7.0	8.0	14.0	---	---	---	---	---	---
14	---	---	---	14.0	10.0	11.0	---	---	---	---	---	---
15	---	---	12.0	10.0	8.0	---	---	---	---	---	---	---
16	---	---	11.0	---	11.0	---	16.0	---	---	---	---	---
17	---	---	12.0	8.0	11.0	---	17.0	---	---	---	---	---
18	---	---	14.0	7.0	16.0	---	19.0	---	---	---	---	---
19	---	---	10.0	11.0	13.0	---	19.0	---	---	---	---	---
20	---	---	14.0	9.0	19.0	---	20.0	---	---	---	---	---
21	---	---	12.0	9.0	12.0	---	22.0	---	---	---	---	---
22	---	---	---	10.0	10.0	---	23.0	---	---	---	---	---
23	---	---	---	9.0	12.0	14.0	---	---	---	---	---	19.0
24	---	---	---	12.0	11.0	12.0	---	---	---	---	25.0	19.0
25	---	---	---	13.0	12.0	11.0	---	---	---	---	24.0	21.0
26	---	---	11.0	13.0	12.0	11.0	---	---	---	---	29.0	28.0
27	---	---	12.0	13.0	11.0	12.0	---	---	---	27.0	31.0	28.0
28	---	---	---	8.0	15.5	18.0	---	---	---	26.0	25.0	25.0
29	---	---	---	15.0	---	20.0	---	---	---	29.0	29.5	23.0
30	---	---	11.0	---	---	20.0	---	---	---	24.0	31.0	26.0
31	---	---	7.0	9.0	---	---	---	---	---	27.0	27.0	---
MONTH	---	---	---	9.5	10.5	---	---	---	---	---	---	---

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 1971.

Pesticide analyses: January 1968 to September 1971.

Water temperatures: October 1961 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.										
01-04	.01	10	220	88	700	--	11	92	0	290
05-17	.00	--	--	--	--	--	--	--	--	--
18-31	2.8	10	220	88	700	--	11	92	0	290
NOV.										
01-30	.45	8.9	320	100	--	820	--	134	0	250
DEC.										
01-31	.20	8.7	330	100	--	860	--	128	0	260
JAN.										
01-31	2.8	7.3	290	94	740	--	15	171	0	300
FEB.										
01-28	9.0	4.7	260	82	--	660	--	202	0	280
MAR.										
01-31	2.8	7.0	230	73	--	580	--	198	0	280
APR.										
01-30	1.5	4.8	240	81	580	--	15	194	0	280
MAY										
01-30	7.3	8.1	310	83	--	650	--	154	0	290
31...	2960	1.0	230	63	--	390	--	169	0	440
JUNE										
01-30	346	10	59	14	--	57	--	126	0	97
JULY										
01-09	5.8	7.7	68	18	81	--	9.1	134	0	120
10-22	.00	--	--	--	--	--	--	--	--	--
23-29	47	7.7	68	18	81	--	9.1	134	0	120
30...	94	8.6	140	63	--	230	--	112	0	460
31...	58	7.3	100	42	--	160	--	104	0	320
AUG.										
01-04	96	8.7	120	40	--	170	--	156	0	290
05-08	142	8.0	64	17	--	86	--	142	0	100
09-16	229	8.7	120	40	--	170	--	156	0	290
17-19	3060	9.5	52	10	--	41	--	128	0	64
20-23	415	8.7	120	40	--	170	--	156	0	290
24-26	2810	9.5	52	10	--	41	--	128	0	64
27-29	8330	9.0	40	5.9	--	27	--	124	0	33
30-31	5620	9.5	52	10	--	41	--	128	0	64
SEP.										
01-03	1810	8.6	58	16	--	51	--	132	0	99
04-16	303	2.0	82	43	--	84	--	172	0	190
17-25	261	2.8	120	47	--	176	--	176	0	330
26...	4530	13	190	95	--	330	--	176	0	710
27-30	5100	8.6	58	16	--	51	--	132	0	99
WTD. AVG.	--	8.7	69	19	--	--	--	135	0	126
TIME WTD.										
AVG.	300	7.4	214	68	--	--	--	156	0	243
TOT. LOAD (TONS)	--	2560	20300	5760	--	--	--	39900	0	37200

BRAZOS RIVER BASIN

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08087300 CLEAR FORK BRAZOS RIVER AT ELIASVILLE, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 3,630 mg/l Dec. 1-31; minimum, 211 mg/l Aug. 27-29.

Hardness: Maximum, 1,300 mg/l Dec. 1-31; minimum, 120 mg/l Aug. 27-29.

Specific conductance: Maximum daily, 7,400 micromhos Jan. 9; minimum daily, 322 micromhos Aug. 27.

Water temperatures: Maximum, 29.5°C on several days during July and September; minimum, 2.0°C Jan. 11.

EXTREMES, October 1961 to September 1971.--Dissolved solids: Maximum, 3,630 mg/l Dec. 1-31, 1970; minimum, 180 mg/l Sept. 10-11, 1966.

Hardness: Maximum, 1,370 mg/l Feb. 1-24, 26-28, 1970; 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 1970 TO SEPTEMBER 1971

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.									
01-04	1500	--	1.2	2870	920	850	10	5140	7.3
05-17	--	--	--	--	--	--	--	--	--
18-31	1500	--	1.2	2870	920	850	10	5140	7.3
NOV.									
01-30	1900	--	1.0	3470	1200	1100	10	6240	7.2
DEC.									
01-31	2000	--	1.1	3630	1300	1200	11	6500	7.4
JAN.									
01-31	1600	--	1.0	3170	1100	980	9.7	5630	7.2
FEB.									
01-28	1400	--	.8	2790	1000	830	9.1	4840	7.6
MAR.									
01-31	1200	--	.6	2470	870	710	8.5	4220	7.7
APR.									
01-30	1200	--	1.0	2520	930	770	8.3	4380	7.8
MAY									
01-30	1500	--	.2	2900	1100	990	8.5	5360	7.6
31...	760	--	2.4	2000	840	700	5.9	3160	7.1
JUNE									
01-30	84	.2	1.3	389	200	100	1.7	665	7.4
JULY									
01-09	130	.3	1.2	509	240	130	2.3	880	7.4
10-22	--	--	--	--	--	--	--	--	--
23-29	130	.3	1.2	509	240	130	2.3	880	7.4
30...	380	--	.8	1330	610	520	4.0	2130	7.6
31...	240	--	1.1	929	430	340	3.3	1520	7.6
AUG.									
01-04	280	.3	.4	985	460	330	3.4	1630	7.7
05-08	140	.3	1.0	487	230	110	2.5	854	7.9
09-16	280	.3	.4	985	460	330	3.4	1630	7.7
17-19	58	.2	1.9	306	170	67	1.4	511	7.8
20-23	280	.3	.4	985	460	330	3.4	1630	7.7
24-26	58	.2	1.9	306	170	67	1.4	511	7.8
27-29	28	.2	1.6	211	120	22	1.1	351	7.8
30-31	58	.2	1.9	306	170	67	1.4	511	7.8
SEP.									
01-03	74	.2	1.4	378	210	100	1.5	645	8.1
04-16	160	.2	1.0	648	380	240	1.9	1100	8.1
17-25	260	.2	.6	1030	480	340	3.5	1670	8.2
26...	500	.3	2.4	1940	870	730	4.9	2810	7.8
27-30	74	.2	1.4	378	210	100	1.5	645	8.1
WTD. AVG.	121	--	1.6	494	249	140	1.8	809	7.8
TMD. WTD.									
AVG.	1090	--	.9	2220	815	692	7.1	3910	7.6
TOT. LOAD (TONS)	35800	--	462	146000	--	--	--	--	--

BRAZOS RIVER BASIN

08087300 CLEAR FORK BRAZOS RIVER AT ELIASVILLE, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
JAN. 28...	2200	6.2	.00	<.2	.00	<.2	.00	.3	.00	<.2
JUNE 08...	1900	70	.00	<.2	.00	.4	.00	1.0	.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)
JAN. 28...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JUNE 08...	.00	1.6	.00	<.2	.00	<.2	.00	<.2	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
JAN. 28...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JUNE 08...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOT- TOM DE- POSITS (UG/KG)
JAN. 28...	<.2	.0	<10	.00	<9.4	.03	<1.2	.00	<.8
JUNE 08...	<.2	.0	--	.00	<4.2	.08	<1.2	.00	<1.2

08087300 CLEAR FORK BRAZOS RIVER AT ELIASVILLE, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4430	6250	6360	6830	4850	4430	4240	4840	726	844	1600	497
2	4440	6270	6350	6830	4820	4370	4260	4950	552	842	1720	540
3	4450	6250	6360	6930	4810	4430	4260	4950	614	836	1650	629
4	4470	6230	6360	6980	4730	4400	4270	5110	503	851	1460	741
5	---	6270	6360	7050	4820	4360	4270	5170	525	851	878	845
6	---	6230	6380	7140	4880	4300	4290	5250	538	867	846	916
7	---	6190	6380	7270	5210	4250	4290	5240	557	867	788	970
8	---	6170	6380	7390	5340	4280	4310	5240	597	858	909	1010
9	---	6170	6400	7400	5120	4220	4320	5220	606	874	1220	1060
10	---	6170	6440	5510	5140	4210	4320	5200	628	---	1470	1100
11	---	6160	6460	4670	5220	4160	---	5250	669	---	1370	1140
12	---	6160	6450	5470	5260	4120	4330	5280	663	---	2230	1190
13	---	6160	6440	5900	5340	4090	4350	5260	611	---	2480	1230
14	---	6120	6450	4330	5340	4100	4350	5280	620	---	1970	1280
15	---	6140	6470	5340	5270	4120	4350	5290	654	---	1580	1350
16	---	6150	6470	5450	4720	4090	4350	5300	669	---	1580	1390
17	---	6170	6470	4880	4750	4100	4360	5360	697	---	486	1440
18	4750	6150	6530	4850	4720	4110	4300	5370	693	---	---	1480
19	4790	6170	6510	5700	4690	4130	4310	5380	687	---	432	1540
20	4880	6150	6520	5210	4640	4110	4330	5400	683	---	1540	1630
21	4930	6170	6560	5250	4530	4160	4340	5410	690	---	1410	1670
22	5180	6170	6560	4900	4600	4150	4340	5420	681	---	1350	1720
23	5270	6190	6560	5100	4590	4130	4400	5470	690	838	1310	1760
24	5320	6170	6590	4890	4460	4160	4360	5490	691	850	513	1870
25	6060	6190	6590	4940	4400	4120	4410	5490	702	880	469	1890
26	6300	6200	6600	4910	4450	4120	4530	5510	704	912	685	2810
27	6080	6220	6650	4690	4470	4140	4680	5540	792	923	322	602
28	6250	6220	6670	4450	4480	4140	4690	5520	817	912	327	641
29	6340	6240	6670	4360	---	4110	4760	5340	848	1190	402	619
30	6340	6220	6450	4430	---	4150	4860	6380	859	2130	508	979
31	6330	---	6740	4560	---	4160	---	3160	---	1520	492	---
MONTH	---	6190	6490	5600	4840	4190	4390	5260	666	---	1130	1220

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	16.0	14.5	8.5	5.5	12.0	16.5	---	22.0	28.5	25.5	27.0
2	21.0	14.5	13.0	9.0	8.0	11.5	16.0	24.0	24.0	29.0	21.5	28.0
3	22.0	14.0	14.5	10.0	9.0	---	15.5	21.0	25.0	28.5	22.0	28.0
4	21.0	13.5	13.0	7.0	10.0	10.0	16.0	21.5	25.5	29.0	26.5	28.0
5	---	12.0	14.5	---	9.0	10.5	15.5	23.5	26.5	29.0	25.5	28.5
6	---	13.0	12.0	6.5	9.0	10.5	15.5	24.0	26.5	29.5	25.5	28.5
7	---	13.5	11.5	6.0	9.0	10.0	14.5	23.0	27.0	29.5	25.5	29.0
8	---	15.0	13.0	5.5	6.5	13.5	16.0	23.0	27.0	29.5	25.5	29.5
9	---	15.0	14.5	---	6.5	12.0	18.0	22.0	26.5	29.0	25.5	29.5
10	---	17.0	15.0	4.0	6.5	12.0	18.5	23.0	28.5	---	27.0	29.5
11	---	13.5	13.0	2.0	8.0	13.0	---	23.0	28.0	---	26.5	26.5
12	---	13.0	13.0	5.0	9.0	13.0	20.0	21.5	28.5	---	27.0	29.0
13	---	13.5	13.0	7.0	9.0	14.0	20.0	20.5	29.0	---	26.5	26.5
14	---	11.5	13.0	5.0	10.0	15.5	18.5	20.5	28.0	---	26.5	26.5
15	---	10.0	13.0	6.5	10.0	17.0	19.0	20.5	28.0	---	26.0	26.5
16	---	10.0	10.5	4.5	11.0	14.0	19.0	22.0	26.0	---	25.5	26.5
17	---	11.0	10.0	4.5	11.0	14.5	18.5	23.0	26.5	---	25.5	26.5
18	15.0	10.5	10.5	7.0	12.0	14.5	19.0	23.0	28.5	---	---	24.5
19	15.0	11.0	10.0	7.0	13.0	13.5	19.0	23.0	28.5	---	26.0	22.0
20	15.5	16.0	10.0	6.0	14.0	13.0	20.0	21.0	28.5	---	26.5	22.0
21	16.0	12.0	10.5	6.5	13.0	14.0	20.0	---	28.5	---	28.0	20.0
22	18.5	13.0	10.5	7.0	10.0	15.0	21.5	23.5	28.0	---	29.0	20.0
23	19.0	10.0	11.5	8.0	10.0	14.0	21.0	24.5	28.5	27.0	28.5	21.0
24	18.5	9.0	6.5	8.0	13.0	13.5	20.0	24.0	28.0	29.5	23.0	20.0
25	19.0	9.0	9.0	8.0	12.0	13.5	20.0	23.5	28.0	28.0	24.0	20.5
26	20.0	15.5	8.5	5.5	12.0	13.0	22.0	24.0	28.5	29.5	24.0	20.5
27	18.5	11.0	8.0	7.0	13.0	14.5	25.5	24.0	28.0	---	28.0	21.0
28	16.5	11.5	8.0	8.0	11.0	21.0	22.0	24.0	28.0	28.5	26.5	22.0
29	16.0	13.0	8.5	8.5	---	18.5	22.0	24.0	29.0	26.5	26.5	23.5
30	15.5	14.5	9.0	10.0	---	18.5	21.0	24.0	28.5	26.0	26.5	24.0
31	15.5	---	9.0	9.0	---	16.0	---	23.5	---	26.0	26.5	---
MONTH	---	12.5	11.5	7.0	10.0	14.0	19.0	23.0	27.5	---	26.0	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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)
OCT. 12...	1430	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JAN. 28...	2115	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JUNE 08...	1810	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00

DATE	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)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)	MALA- THION (UG/L)	MALA- THION IN BOTTOM DE- POSITS (UG/KG)
OCT. 12...	<.2	.00	<.2	.00	<.2	.00	<.2	.0	<1.0	.00	.00	<.2
JAN. 28...	<.2	.00	<.2	.00	<.2	.00	<.2	.0	<1.0	.00	.00	<.2
JUNE 08...	<.2	.00	<.2	.00	<.2	.00	<.2	.0	<1.0	.00	.00	<.2

DATE	METHYL PARA- THION (UG/L)	METHYL PARA- THION IN BOT- TOM DE- POSITS (UG/KG)	PARA- THION (UG/L)	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
OCT. 12...	.00	<.2	.00	<.2	.0	<10	.00	<1.8	.01	<.4	.00	<.2
JAN. 28...	.00	<.2	.00	<.2	.0	<10	.00	<8.6	.00	<.9	.00	<.8
JUNE 08...	.00	<.2	.00	<.2	.0	<10	.00	<1.5	.00	<.4	.00	<.4

BRAZOS RIVER BASIN

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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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 19...	1520	6.6	230	63	810	104	0	700	1300
NOV. 23...	1455	4.6	320	90	1600	56	0	840	2600
DEC. 28...	1400	6.4	400	120	1700	144	0	930	2900
JAN. 26...	1645	4.4	370	120	1500	128	0	650	2700
MAR. 02...	1705	1.9	320	100	1200	140	0	660	2100
APR. 06...	0800	9.1	290	120	960	100	0	700	1800
MAY 10...	1810	11	180	54	520	24	0	470	890
JUNE 15...	1745	16	200	34	460	124	0	530	700
JULY 20...	1515	13	380	72	1100	114	0	1100	1700

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 19...	2.4	3130	840	750	--	4960	7.5
NOV. 23...	.00	5450	1200	1100	--	9100	6.6
DEC. 28...	--	6120	1500	1400	19	10000	7.8
JAN. 26...	--	5360	1400	1300	17	8800	7.2
MAR. 02...	--	4430	1200	1100	15	7460	7.9
APR. 06...	8.1	3930	1200	1200	12	6860	7.6
MAY 10...	14	2210	680	660	8.7	3740	6.3
JUNE 15...	.8	2000	630	530	7.9	3290	7.6
JULY 20...	.5	4420	1200	1200	14	7160	7.4

08088600 BRAZOS RIVER AT POSSUM KINGDOM DAM, NEAR GRAFORD, TEX.

LOCATION.--Lat 32°52', long 98°26', 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 1971.

Water temperatures: October 1949 to September 1955, October 1965 to September 1971.

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 1,650 mg/l Oct. 1-31; minimum, 1,470 mg/l Dec. 1-31.

Hardness: Maximum, 500 mg/l Sept. 1-30; minimum, 460 mg/l Dec. 1-30, Apr. 1-30.

Specific conductance: Maximum daily, 3,040 micromhos Oct. 2; minimum daily, 2,460 micromhos May 29.

Water temperatures: Maximum, 26.5°C on several days during September; minimum, 10.0°C Nov. 24.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAP- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-31	235	6.8	140	34	410	--	13	144	0	320
NOV.										
01-30	247	6.8	130	32	--	380	--	134	0	310
DEC.										
01-31	119	6.0	130	32	--	360	--	128	0	280
JAN.										
01-31	56	5.1	130	33	370	--	6.9	134	0	310
FEB.										
01-24	12	3.8	130	32	--	390	--	136	0	320
MAR.										
01-31	23	4.6	140	33	--	380	--	136	0	310
APR.										
01-30	26	5.5	140	30	380	--	9.7	136	0	330
MAY										
01-31	27	6.5	140	32	--	370	--	140	0	280
JUNE										
01-30	55	5.7	140	33	--	390	--	140	0	310
JULY										
01-31	34	6.2	140	33	380	--	7.9	142	0	300
AUG.										
01-31	470	7.2	140	32	--	400	--	143	0	300
SEP.										
01-30	2510	6.4	140	34	--	390	--	134	0	320
WTD. AVG. TIME WTD.	--	6.6	139	33	--	--	--	137	0	313
AVG.	362	5.9	137	33	--	--	--	137	0	307
TOT. LOAD (TONS)	--	2340	49500	11900	--	--	--	48700	0	112000

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3030	2900	2600	2600	2600	2630	2650	2650	2650	2660	2670	2920
2	3040	2880	2610	2610	2610	2630	2640	2660	2660	2670	2680	2940
3	2790	2690	2600	2600	2610	2630	2640	2660	2660	2670	2680	2840
4	2730	2720	2600	2610	2610	2630	2640	2660	2660	2670	2680	2860
5	2760	2710	2580	2610	2620	2630	2640	2660	2660	2670	2670	2780
6	2920	2670	2610	2610	2620	2630	2640	2650	2680	2670	2690	2700
7	2880	2680	2600	2610	2620	2630	2650	2650	2680	2690	2670	2820
8	2810	2700	2600	2620	2610	2630	2660	2650	2670	2690	2670	2750
9	2840	2710	2610	2620	2610	2630	2650	2650	2670	2690	2680	2750
10	2960	2650	2600	2610	2620	2640	2650	2640	2670	2650	2670	2740
11	2980	2780	2610	2620	2620	2630	2660	2650	2670	2670	2680	2720
12	2720	2690	2610	2620	2610	2640	2660	2660	2660	2670	2660	2750
13	2860	2650	2610	2610	2620	2630	2650	2660	2660	2660	2670	2750
14	2920	2690	2620	2620	2620	2640	2650	2650	2660	2670	2670	2760
15	2900	2640	2610	2620	2620	2640	2650	2650	2660	2660	2640	2770
16	2940	2620	2620	2620	2620	2650	2650	2650	2660	2670	2650	2680
17	2940	2600	2620	2620	2620	2640	2640	2650	2660	2670	2670	2750
18	2950	2600	2610	2620	2620	2640	2640	2650	2660	2660	2670	2690
19	2960	2600	2620	2620	2620	2650	2640	2660	2660	2660	2680	2710
20	2950	2590	2610	2620	2620	2640	2640	2650	2660	2670	2670	2710
21	2920	2600	2630	2620	2600	2640	2660	2660	2670	2660	2670	2700
22	---	2600	2620	2620	2610	---	2660	2650	2660	2670	2670	2560
23	2670	2580	2620	2630	2620	2630	2650	2650	2660	2660	2680	2600
24	2690	2570	2620	2620	2620	2640	2640	2650	2660	2630	2690	2660
25	2900	2590	2620	2610	2610	2630	2640	2650	2660	2660	2720	2650
26	2780	2590	2620	2620	2610	2640	2650	2650	2690	2670	2730	2680
27	2690	2580	2620	2620	2620	---	2640	2650	2680	2660	2740	2660
28	2750	2580	2630	2620	2620	2630	2650	2650	2680	2650	2750	2670
29	---	2580	2630	2620	---	2640	2640	2640	2670	2660	2770	2720
30	2870	2570	2610	2620	---	2640	2650	2530	2670	2660	2780	2720
31	2910	---	2620	2630	---	2650	---	2620	---	2660	2800	---
MONTH	2860	2650	2610	2620	2620	2640	2650	2640	2670	2670	2690	2730

08088600 BRAZOS RIVER AT POSSUM KINGDOM DAM, NEAR GRAFORD, TEX.--Continued

EXTREMES, January 1942 to September 1971.--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, 1965-71): 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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECT- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	660	.3	.80	1650	480	370	8.1	2860	7.6
NOV.									
01-30	610	.3	.50	1540	470	360	7.7	2660	7.6
DEC.									
01-31	600	.4	.40	1470	460	360	7.3	2610	7.5
JAN.									
01-31	600	.4	.30	1520	470	360	7.5	2600	7.2
FEB.									
01-28	620	.4	.30	1570	470	350	7.9	2630	7.6
MAR.									
01-31	620	.4	.40	1550	480	360	7.5	2640	7.3
APR.									
01-30	620	.3	.70	1590	460	350	7.6	2630	7.6
MAY									
01-31	620	.5	.20	1510	470	360	7.3	2640	7.4
JUNE									
01-30	620	.4	.50	1570	480	360	7.7	2660	7.3
JULY									
01-31	620	.4	.20	1550	480	360	7.5	2670	7.4
AUG.									
01-31	640	.4	.20	1580	470	350	7.9	2690	7.4
SEP.									
01-30	630	.4	.30	1590	500	390	7.5	2730	7.6
WTD. AVG.	631	.4	.33	1580	488	375	7.6	2720	7.5
TIME WTD.									
AVG.	622	.4	.40	1560	474	361	7.6	2670	7.5
TOT. LOAD (TONS)	225000	138	116	564000	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	20.0	16.0	15.5	12.0	14.5	16.0	15.5	18.0	20.0	19.0	26.5
2	22.0	20.0	18.5	15.5	12.0	14.5	16.0	15.5	18.5	20.0	19.0	26.5
3	22.0	20.0	18.5	15.5	13.5	12.0	16.0	15.5	18.5	20.0	19.0	26.5
4	22.0	19.0	18.5	15.5	13.5	12.0	16.0	15.5	18.5	20.0	20.0	26.5
5	22.0	19.0	18.5	15.5	13.5	12.0	16.0	21.0	18.5	20.0	20.0	26.5
6	22.0	19.0	18.5	13.5	13.5	12.0	16.0	21.0	18.5	20.0	20.0	26.5
7	21.0	19.0	18.5	13.5	13.5	12.0	16.5	21.0	18.5	22.0	20.0	26.5
8	21.0	19.0	18.5	13.5	13.5	12.0	16.5	21.0	18.5	22.0	20.0	23.0
9	21.0	19.0	15.5	13.5	13.5	12.0	16.5	21.0	19.0	22.0	20.0	23.0
10	22.0	19.0	15.5	13.5	13.5	15.5	16.5	21.0	19.0	22.0	20.0	23.0
11	21.0	19.5	15.5	13.5	13.5	15.5	16.5	21.0	19.0	22.0	20.0	23.0
12	21.0	19.5	15.5	13.5	13.5	15.5	16.5	18.0	19.0	22.0	20.0	23.0
13	21.0	19.5	15.5	14.0	13.5	15.5	16.5	18.0	19.0	22.0	20.0	23.0
14	20.0	19.5	15.5	14.0	13.5	15.5	18.0	18.0	19.0	22.0	20.0	23.0
15	21.0	19.5	15.5	14.0	13.5	15.5	18.0	18.0	19.0	22.0	20.0	21.5
16	21.0	19.5	15.0	14.0	13.5	15.5	18.0	18.0	18.0	22.0	20.0	21.5
17	20.0	19.5	15.0	14.0	15.0	15.5	18.0	18.0	18.0	22.0	20.0	21.5
18	20.0	19.5	15.0	14.0	15.0	15.5	18.0	18.0	18.0	22.0	17.0	21.5
19	20.0	19.5	15.0	14.0	15.0	15.5	18.0	20.0	18.0	22.0	17.0	21.5
20	20.0	19.5	15.0	13.0	15.0	15.5	18.0	20.0	18.0	22.0	17.0	21.5
21	20.0	19.5	15.0	13.0	15.0	15.5	18.0	20.0	18.0	19.0	17.0	21.5
22	---	19.5	15.0	13.0	15.0	---	18.0	20.0	18.0	19.0	17.0	21.0
23	17.0	19.5	14.5	13.0	15.0	15.5	18.0	20.0	19.0	19.0	17.0	21.0
24	17.0	10.0	14.5	13.0	14.5	14.5	18.0	20.0	19.0	16.5	17.0	21.0
25	17.0	16.0	14.5	13.0	14.5	14.5	18.0	20.0	19.0	16.5	20.0	21.0
26	17.0	16.0	14.5	13.0	14.5	14.5	18.0	20.0	19.0	16.5	20.0	21.0
27	17.0	16.0	14.5	12.0	14.5	---	18.0	20.0	19.0	16.5	20.0	21.0
28	20.0	16.0	14.5	12.0	14.5	14.5	15.5	20.0	19.0	19.0	20.0	21.0
29	---	16.0	14.5	12.0	---	14.5	15.5	20.0	19.0	19.0	20.0	23.5
30	20.0	16.0	15.5	12.0	---	14.5	15.5	20.0	20.0	19.0	20.0	23.5
31	20.0	---	15.5	12.0	---	16.0	---	20.0	---	19.0	20.0	---
MONTH	20.5	18.5	16.0	13.5	14.0	14.5	17.0	19.0	18.5	20.0	19.0	23.0

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.

PERIOD OF RECORD.--Chemical analyses: October 1970 to September 1971.
Water Temperatures: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.										
12...	672	6.5	80	21	--	180	--	156	0	160
21...	140	4.2	120	28	310	--	5.8	140	0	250
NOV.										
16...	299	3.9	130	32	--	370	--	148	0	290
DEC.										
14...	328	2.7	130	31	--	350	--	152	0	280
JAN.										
04...	76	1.3	120	26	280	--	6.2	164	0	240
14...	121	1.2	130	29	--	350	--	144	0	280
FEB.										
09...	34	1.7	120	28	--	240	--	184	0	210
21...	35	1.1	120	29	--	280	--	186	0	230
MAR.										
01...	34	2.2	110	27	--	260	--	180	0	210
24...	26	1.2	110	31	--	300	--	182	0	250
APR.										
12...	19	.4	120	37	330	--	8.5	168	0	280
MAY										
08...	13	1.1	100	30	--	290	--	144	0	230
24...	4.4	1.0	120	41	--	410	--	140	0	320
30...	2290	5.7	43	4.4	--	17	--	124	0	24
31...	687	5.0	54	9.2	--	86	--	110	0	78
JUNE										
04...	100	3.4	76	18	--	200	--	130	0	160
15...	22	2.1	120	36	--	410	--	121	0	310
30...	191	3.5	96	26	--	290	--	120	0	230
JULY										
06...	22	1.3	120	34	380	--	10	108	0	280
17...	12	3.1	120	40	--	490	--	75	0	340
18...	8.1	3.1	120	40	--	490	--	75	0	340
31...	191	3.6	71	17	--	200	--	94	0	150
AUG.										
06...	139	5.9	40	8.2	--	87	--	84	0	62
09...	108	3.7	71	21	--	220	--	102	0	180
SEP.										
03...	8010	4.4	150	36	--	430	--	112	0	370
26...	294	4.9	110	26	--	260	--	140	0	220

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Month	Discharge (cfs-days)	Specific conductance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	15218	1850	1060	1400	43400	400	527	16400	200	269	8330
November.....	6619	2580	1520	906	27200	610	363	10900	290	175	5240
December.....	5674	2420	1410	698	21600	550	273	8450	280	138	4270
January 1971..	3019	2280	1320	346	10700	500	131	4060	270	70	2190
February.....	950	1920	1130	104	2900	416	38	1070	220	21	576
March.....	827	1980	1180	85	2630	430	31	965	230	17	524
April.....	812	2260	1290	95	2840	490	36	1070	260	19	581
May.....	3399.2	770	450	133	4110	140	41	1270	100	30	930
June.....	1850.0	2050	1180	196	5890	460	76	2290	230	38	1130
July.....	1257.2	2300	1310	144	4450	540	59	1840	240	27	823
August.....	13955	2500	1430	1740	53900	570	692	21400	300	361	11200
September.....	79975	2820	1670	12000	361000	660	4720	142000	350	2530	75900
Total	133555.4	--	--	--	541000	--	--	212000	--	--	112000
Weighted average	366	2550	1500	1480	--	590	580	--	310	310	--

08090800 BRAZOS RIVER NEAR DENNIS, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 3,250 micromhos July 20; minimum daily, 500 micromhos May 31.

Water temperature: Maximum, 35.5°C Aug. 23; minimum, 1.0°C Jan. 8.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.									
12...	280	--	.2	805	290	160	--	1400	7.8
21...	510	.3	.2	1300	410	300	--	2270	7.6
NOV.									
16...	600	.3	--	1500	460	330	--	2540	7.5
DEC.									
14...	560	.3	.1	1430	450	320	7.2	2450	7.5
JAN.									
04...	440	.3	.9	1200	400	270	6.0	2080	7.7
14...	560	--	.1	1430	440	320	7.2	2450	7.7
FEB.									
09...	400	.3	.8	1090	400	250	--	1860	7.8
21...	450	--	.7	1210	420	270	--	2040	7.8
MAR.									
01...	400	.3	.6	1100	380	230	--	1840	7.8
24...	460	--	.5	1250	410	260	--	2120	7.8
APR.									
12...	530	.4	.1	1380	450	310	6.8	2410	7.5
MAY									
08...	460	.3	.4	1180	380	260	6.5	2090	7.9
24...	650	--	.7	1610	480	360	8.2	2780	7.4
30...	22	--	1.3	183	120	24	.7	302	7.7
31...	130	--	1.1	421	170	82	2.8	737	7.6
JUNE									
04...	300	.4	.4	811	260	160	--	1430	7.9
15...	640	--	.4	1580	450	350	--	2730	7.6
30...	440	--	4.6	1160	350	250	--	2010	7.0
JULY									
06...	620	.4	1.4	1500	430	340	7.9	2640	7.2
17...	800	--	.7	1850	470	410	9.9	3200	7.4
18...	800	--	.7	1850	470	410	9.9	3200	7.4
31...	320	--	.8	802	250	170	5.5	1460	7.2
AUG.									
06...	130	.2	1.1	380	130	64	3.3	693	7.5
09...	330	--	.9	888	260	180	5.9	1570	7.3
SEP.									
03...	690	.4	.4	1740	520	430	8.2	2940	7.7
26...	420	--	.6	1120	380	260	5.9	1970	7.9

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1730	2590	2440	2170	2000	1830	2200	2310	1200	2600	1590	2910
2	1780	2560	2380	2120	1940	1830	2230	2370	1370	2430	1880	2910
3	1830	2500	2330	2090	1950	1830	2250	2390	1470	2380	2200	2950
4	1860	2450	2320	2090	1930	1850	2270	2420	1400	2410	2290	2960
5	1880	2420	2440	2120	1900	1910	2330	2400	1540	2560	1000	2910
6	1530	2590	2510	2080	1930	1960	2380	2380	1840	2640	693	2900
7	1600	2610	2560	2100	1900	1950	2380	2370	2470	2700	1780	2830
8	1340	2570	2520	2090	1880	1920	2390	2090	2660	2740	1950	2850
9	1160	2560	2470	2390	1860	1920	2400	2190	2790	2790	1580	2860
10	1800	2530	2420	2480	1850	1940	2390	2140	2780	2800	2520	2840
11	1560	2470	2430	2430	1860	1930	2420	2320	2820	2870	2300	2820
12	1300	2440	2320	2560	1890	1930	2350	2410	2740	2950	2170	2820
13	1130	2400	2110	2460	1890	1940	2440	2360	2760	3150	1910	2820
14	1050	2300	2450	2450	1910	1940	2420	2380	2740	3220	1980	2830
15	2000	2290	2460	2400	1900	1940	2440	2480	2720	3210	2090	2840
16	2580	2650	2460	2370	1870	1940	2420	2640	2730	3200	2130	2850
17	2490	2650	2420	2280	1860	1970	2330	2700	2730	3210	2130	2840
18	2480	2640	2540	2250	1930	1980	2240	2750	2760	3210	2040	2870
19	2380	2590	2540	2240	1990	2030	2270	2790	2760	3220	1950	2940
20	2350	2630	2500	2230	2020	2060	2270	2770	2770	3250	2040	2910
21	2260	2630	2440	2210	2050	2070	2210	2780	1990	3150	2150	2910
22	2250	2670	2380	2160	2040	2060	2260	2790	2290	3070	2200	2770
23	1970	2660	2360	2120	2000	2080	2230	2790	2320	3030	2150	2490
24	1830	2590	2340	2100	1950	2100	2200	2780	2530	2090	2150	2450
25	1830	2570	2330	2080	1820	2100	2240	2800	2550	2660	2110	2180
26	2540	2580	2220	2060	1820	2100	2270	2810	2610	2770	2060	1940
27	2530	2590	2400	2040	1860	2100	2280	2780	2620	2780	2040	1970
28	2490	2560	2340	2040	1860	2090	2290	2760	2750	2530	1790	2570
29	2660	2560	2300	2030	---	2110	1570	1500	1980	2590	2500	2660
30	2630	2460	2200	2020	---	2120	2200	600	2050	1590	2730	2540
31	2630	---	2220	2020	---	2140	---	500	---	1460	2790	---
MONTH	1990	2540	2390	2200	1920	1990	2280	2370	2360	2750	2030	2730

BRAZOS RIVER BASIN

08090800 BRAZOS RIVER NEAR DENNIS, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.7	15.5	18.0	12.5	8.5	13.5	17.5	22.5	26.5	30.0	26.5	25.5
2	25.5	13.0	18.0	12.0	21.0	9.5	17.0	30.0	29.0	31.0	23.0	26.0
3	26.5	12.5	20.0	13.0	12.5	6.0	17.5	21.5	29.0	30.5	31.5	28.0
4	26.5	13.5	16.5	5.0	11.0	9.0	21.5	23.5	27.5	32.5	32.0	28.0
5	24.0	16.0	16.5	2.5	8.5	17.0	14.5	27.5	29.5	27.5	28.0	30.0
6	24.5	15.0	14.0	2.5	8.5	15.0	14.0	24.5	26.0	33.5	27.5	29.5
7	24.5	14.0	12.5	1.5	6.5	15.5	16.0	22.0	30.5	32.5	25.0	30.0
8	20.5	16.5	15.5	1.0	1.5	12.0	17.0	25.0	31.0	29.0	26.0	29.5
9	15.5	15.0	16.0	4.0	4.5	14.5	21.0	23.0	29.0	31.5	32.5	29.0
10	16.5	15.0	18.5	9.0	6.5	14.0	22.0	24.5	29.0	31.0	32.0	28.0
11	18.0	16.5	10.5	8.0	10.5	12.0	25.0	24.0	28.0	27.0	31.0	28.5
12	19.0	15.0	10.0	7.0	10.0	18.5	23.0	20.0	28.5	31.5	30.0	---
13	22.5	11.5	12.0	12.0	9.0	19.5	21.5	17.5	31.5	32.0	27.5	30.0
14	20.0	9.5	9.0	10.0	11.5	21.5	17.0	21.0	30.5	31.0	28.0	27.5
15	18.5	8.0	13.0	9.0	---	15.5	19.0	24.0	29.5	31.5	31.0	27.0
16	15.0	9.5	11.0	8.5	15.0	15.0	18.5	27.0	32.0	31.0	30.0	30.0
17	16.0	10.0	11.5	14.0	19.5	16.0	19.0	---	31.0	34.5	32.0	25.0
18	15.0	11.0	13.5	10.0	19.0	16.0	21.5	26.0	30.5	33.0	30.0	22.5
19	19.0	13.0	12.0	7.0	16.0	16.5	23.0	23.0	29.0	31.0	27.0	17.0
20	21.0	12.5	10.0	8.0	19.0	13.0	22.0	24.0	27.5	27.5	31.0	28.0
21	24.5	14.0	12.5	10.0	10.0	18.0	22.5	23.5	25.0	25.0	30.5	19.0
22	22.5	14.0	18.0	12.0	9.5	13.0	25.5	25.0	28.0	29.5	34.5	20.5
23	21.0	9.0	11.0	10.0	8.0	15.5	22.0	27.5	29.5	27.0	35.5	20.0
24	26.0	6.5	10.5	14.0	13.5	12.0	23.5	24.5	31.5	29.0	29.5	21.0
25	23.0	12.5	9.5	15.0	15.0	11.0	26.5	27.5	29.5	---	29.0	23.5
26	24.0	10.5	9.5	14.5	14.0	13.0	25.5	26.5	30.0	29.0	31.5	24.5
27	18.5	14.5	7.0	9.0	11.5	18.5	23.5	28.0	30.0	27.5	33.0	25.0
28	16.0	15.5	13.0	10.5	12.0	23.0	21.5	27.0	31.0	28.0	31.5	27.0
29	17.5	17.0	12.0	13.0	---	17.5	18.5	24.0	30.0	29.0	---	27.0
30	16.0	17.5	12.0	12.0	---	18.0	20.0	22.5	30.0	25.5	27.0	24.5
31	16.5	---	12.0	10.5	---	19.5	---	22.5	---	27.5	25.0	---
MONTH	20.5	13.0	13.0	9.5	11.5	15.0	20.5	24.5	29.5	30.0	29.5	26.0

BRAZOS RIVER BASIN

509

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 northwest 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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 22...	1230	2.9	9.0	58	3.7	37	218	0	29
DEC. 11...	1045	5.2	7.0	84	5.0	70	340	0	49
JAN. 30...	1600	5.8	6.9	62	9.1	76	294	0	54
APR. 24...	1900	13	8.3	58	3.8	55	212	0	41
JUNE 24...	1130	6.4	6.5	56	6.0	65	264	0	35
AUG. 26...	1805	4.0	6.8	43	4.1	49	200	0	31

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. 22...	21	.7	.010	.00	.3	.81	267	160	0
DEC. 11...	36	--	.13	.58	1.1	.87	424	230	0
JAN. 30...	38	.7	.030	.09	1.8	.41	399	190	0
APR. 24...	42	.4	.21	.57	1.5	.84	321	160	0
JUNE 24...	37	.6	.000	.27	.00	1.2	336	160	0
AUG. 26...	23	.5	.010	.13	.1	1.4	256	120	0

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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. 22...	1.3	431	8.7	23.0	15.2	175	2.5	--
DEC. 11...	2.0	714	7.5	8.5	10.3	87	1.2	--
JAN. 30...	2.4	672	8.6	19.5	16.6	178	3.1	--
APR. 24...	1.9	500	7.8	24.0	8.0	94	4.3	--
JUNE 24...	2.2	578	8.4	30.0	10.5	138	5.9	--
AUG. 26...	1.9	432	8.9	31.0	13.2	176	2.1	.16

BRAZOS RIVER BASIN

08092600 BRAZOS RIVER AT WHITNEY DAM, NEAR WHITNEY, TEX.

LOCATION.--Lat 31°52', long 97°22', 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 1971.
Water temperatures: October 1947 to May 1948, October 1948 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.										
01-31	416	5.2	71	16	130	--	4.3	140	0	120
NOV.										
01-30	158	4.4	71	16	--	140	--	138	0	120
DEC.										
01-31	170	5.7	72	16	--	140	--	136	0	120
JAN.										
01-31	568	5.1	74	17	140	--	4.6	144	0	130
FEB.										
01-28	26	3.9	76	17	--	150	--	146	0	130
MAR.										
01-31	30	4.4	78	17	--	160	--	146	0	130
APR.										
01-30	100	4.9	78	17	160	--	6.0	146	0	140
MAY										
01-31	242	6.5	80	17	--	160	--	151	0	130
JUNE										
01-30	340	6.5	77	17	--	170	--	148	0	140
JULY										
01-31	499	7.3	76	18	150	--	4.6	146	0	140
AUG.										
01-31	65	7.0	72	18	--	170	--	144	0	130
SEP.										
01-30	971	6.8	78	19	--	180	--	140	0	140
WTD. AVG.	--	6.1	76	17	--	--	--	143	0	133
TIME WTD.										
AVG.	300	5.7	75	17	--	--	--	144	0	131
TOT. LOAD (TONS)	--	1810	22300	5170	--	--	--	42300	0	39400

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1010	1110	1170	1170	1210	1230	1260	1280	1290	1250	1280	1300
2	1020	1120	1170	1180	1210	1250	1250	1280	1280	1270	1270	1310
3	1040	1120	1170	1180	1220	1250	1260	1280	1280	1250	1270	1310
4	1060	1110	1160	1190	1190	1250	1250	1280	1280	1290	1270	1290
5	1080	1120	1170	1190	1220	1250	1260	1280	1290	1280	1270	1300
6	1140	1120	1170	1190	1220	1250	1270	1290	1280	1270	1270	1350
7	1240	1120	1170	1200	1220	1260	1270	1280	1280	1270	1270	1360
8	1350	1120	1160	1190	1230	1260	1270	1280	1280	1270	1280	1350
9	1130	1120	1170	1190	1230	1260	1280	1280	1280	1270	1270	1370
10	1290	1120	1170	1200	1230	1260	1260	1280	1280	1300	1290	1360
11	1280	1130	1170	1200	1230	1250	1280	1280	1280	1290	1270	1340
12	1170	1130	1170	1200	1230	1260	1280	1290	1280	1270	1280	1330
13	1170	1130	1170	1200	1230	1260	1280	1290	1290	1260	1280	1350
14	1140	---	1170	1200	1230	1260	1280	1290	1270	1260	---	1350
15	1160	---	1180	1200	1240	1260	1280	1290	1280	1270	---	1360
16	1150	1130	1180	1200	1240	1260	1280	1280	1270	1270	1280	1360
17	1150	1130	1170	1210	1240	1260	1270	1280	1270	1290	---	1360
18	1150	1140	1170	1200	1240	1260	1260	1280	1280	1300	1290	1300
19	1140	1140	1180	1210	1240	1260	1280	1290	1290	1270	1280	1300
20	1140	1130	1170	1200	1240	1260	1280	1290	1280	1270	1290	1360
21	1130	1130	1180	1210	1190	1260	1280	1290	1270	1270	1280	1390
22	1100	1140	1180	1200	1240	1260	1280	1290	1270	1270	1280	1390
23	1110	1140	1180	1200	1250	1270	1280	1280	1270	1280	1280	1330
24	1090	1140	1180	1200	1250	1260	1280	1280	1270	1280	1290	1390
25	1110	1140	1180	1200	1240	1260	1280	1290	1270	1280	1290	1350
26	1110	1140	1180	1210	1240	1260	1280	1290	1290	1260	1290	1360
27	1130	1140	1180	1210	1240	1260	1280	1290	1290	1260	1290	1580
28	1110	1140	1190	1210	1250	1260	1280	1290	1270	1280	1300	1550
29	1110	1150	1180	1210	---	1270	1260	1280	1270	1270	1300	1590
30	1120	1150	1190	1220	---	1270	1280	1270	1270	1270	1300	1620
31	1120	---	1180	1220	---	1270	---	1290	---	1280	1300	---
MONTH	1140	1130	1170	1200	1230	1260	1270	1280	1280	1270	1280	1380

08092600 BRAZOS RIVER AT WHITNEY DAM, NEAR WHITNEY, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 768 mg/l Sept. 1-30; minimum, 629 mg/l Oct. 1-31.
 Hardness: Maximum, 270 mg/l May 1-31, Sept. 1-30; minimum, 240 mg/l Oct. 1-31, Nov. 1-30.
 Specific conductance: Maximum daily, 1,620 micromhos Sept. 30; minimum daily, 1,010 micromhos Oct. 1.
 Water temperatures: Maximum, 28.0°C July 30, Sept. 13, 14; minimum, 6.0°C Feb. 12.

EXTREMES, October 1947 to May 1948, October 1948 to September 1971.--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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	210	.3	.80	629	240	130	3.6	1140	7.3
NOV.									
01-30	220	.2	.90	644	240	130	3.9	1130	7.7
DEC.									
01-31	220	.3	1.1	646	250	130	3.9	1170	7.2
JAN.									
01-31	220	.3	.70	669	250	140	3.8	1200	7.6
FFH.									
01-28	220	.3	.70	675	260	140	4.0	1230	7.4
MAR.									
01-31	250	.4	.90	717	260	140	4.3	1260	7.2
APP.									
01-30	260	.2	1.1	736	260	140	4.3	1270	7.3
MAY									
01-31	250	.3	.20	723	270	150	4.2	1290	7.3
JUNE									
01-30	260	.3	.20	732	260	140	4.5	1280	7.0
JULY									
01-31	250	.2	.30	717	260	140	4.1	1270	7.5
AUG.									
01-31	260	.3	.30	731	250	140	4.6	1280	7.5
SEP.									
01-30	280	.3	.40	768	270	160	4.6	1380	7.6
WTD. AVG.	247	.3	.53	708	258	144	4.2	1260	7.4
TIME WTD.									
AVG.	242	.3	.63	699	256	140	4.1	1240	7.4
TOT. LOAD (TONS)	73000	83	156	204000	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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

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 1971.

Chemical and biochemical analyses: January 1968 to September 1971.

Water temperatures: May 1965 to June 1966, October 1967 to September 1971.

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 996 mg/l Apr. 1-16; minimum, 136 mg/l May 30.

Hardness: Maximum, 390 mg/l June 1-30; minimum, 110 mg/l May 30.

Specific conductance: Maximum daily, 1,560 micromhos Apr. 11-14, 16; minimum daily, 219 micromhos May 30.

Water temperatures: Maximum, 28.0°C July 1, 2; minimum, 4.0°C Jan. 7, 8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (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 (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
01-11	3.8	10	64	5.8	--	270	--	460	0	270
12-26	99	8.6	70	3.6	--	45	--	162	0	120
27-28	2980	10	52	1.6	--	10	--	127	0	43
29-31	34	8.6	70	3.6	--	45	--	162	0	120
NOV.										
01-30	9.6	9.6	114	6.2	--	85	--	284	0	194
DEC.										
01-31	4.8	3.9	120	8.2	--	140	--	360	0	250
JAN.										
01-15	3.2	8.3	120	7.1	--	130	--	318	0	260
16-31	3.4	8.9	120	7.6	--	180	--	388	0	290
FEB.										
01-18	6.5	10	120	8.9	--	190	--	404	0	300
19...	261	12	86	3.2	--	79	--	212	0	170
20-25	23	9.3	83	3.6	--	30	--	128	0	130
26-28	9.8	12	86	3.2	--	79	--	212	0	170
MAR.										
01-31	3.0	9.3	74	6.6	--	140	--	236	0	230
APR.										
01-16	3.8	11	120	9.4	--	230	--	470	14	300
17-19	1780	9.4	61	2.1	--	16	--	139	0	59
20-28	26	12	130	7.7	--	72	--	278	0	210
29-30	418	9.4	61	2.1	--	16	--	139	0	59
MAY										
01...	15	9.1	78	4.0	--	38	--	168	0	120
02-07	10	11	110	6.7	--	62	--	274	0	160
08-23	6.5	11	150	13	--	120	--	352	0	290
24-25	141	9.6	62	2.4	--	22	--	151	0	67
26-29	28	9.1	78	4.0	--	380	--	168	0	120
30...	7680	7.4	41	1.3	--	5.1	--	110	0	20
31...	545	9.6	62	2.4	--	22	--	151	0	67
JUNE										
01-30	7.5	12	130	15	--	120	--	256	0	330
JULY										
01-21	19	8.1	78	19	--	170	--	130	0	370
22-23	4.9	9.3	58	3.3	--	65	--	178	0	110
24-27	69	7.4	68	5.3	--	150	--	270	12	200
28-31	12	9.3	58	3.3	--	65	--	178	0	110
AUG.										
01-09	6.2	12	64	4.4	--	85	--	194	8	140
10-24	4.8	13	90	7.0	--	190	--	378	14	250
25-31	32	8.8	49	2.2	--	28	--	145	0	53
SEP.										
01-05	4.2	7.5	47	2.5	--	20	--	132	0	46
06-22	1.3	9.1	70	5.8	--	51	--	202	0	100
23-28	126	7.5	47	2.5	--	20	--	132	0	46
29-30	1.2	9.1	70	5.8	--	51	--	202	0	100
WTD. AVG.	--	8.9	57	2.6	--	27	--	142	0	67
TIME WTD.										
AVG.	72	9.4	97	7.9	--	124	--	276	2	224
TOT. LOAD (TONS)	--	627	4050	183	--	1870	--	10000	15	4750

BRAZOS RIVER BASIN

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08093500 AQUILLA CREEK NEAR AQUILLA, TEX.--Continued

EXTREMES, October 1965 to June 1966, October 1967 to September 1971.--Dissolved solids: Maximum, 996 mg/l Apr. 1-16, 1971; minimum, 136 mg/l May 30, 1971.

Hardness: Maximum, 448 mg/l Sept. 1-17, 1969; minimum, 69 mg/l Mar. 21, 1968.

Specific conductance: 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 1970 TO SEPTEMBER 1971

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	74	.9	1.4	924	180	0	--	1410	8.1
12-26	17	--	1.6	351	190	56	1.4	550	7.6
27-28	4.5	--	1.0	188	140	32	.4	308	7.4
29-31	17	--	1.6	351	190	56	1.4	550	7.6
NOV.									
01-30	36	.5	2.0	594	310	78	2.1	908	8.1
DEC.									
01-31	50	.6	.9	754	340	40	3.3	1130	7.8
JAN.									
01-15	52	.8	2.9	752	330	73	--	1130	7.9
16-31	62	--	2.7	872	340	23	4.3	1320	7.8
FEB.									
01-18	68	1.0	3.1	915	340	8	4.5	1380	8.1
19...	29	--	1.4	491	230	54	2.3	776	7.7
20-25	25	--	2.0	357	220	120	.9	601	7.6
26-28	29	--	1.4	491	230	54	2.3	776	7.7
MAR.									
01-31	51	.8	2.9	648	210	18	4.2	1000	7.6
APR.									
01-16	74	1.0	2.0	996	340	0	--	1460	8.3
17-19	87	--	2.4	235	160	47	.5	382	7.9
20-28	44	--	3.1	624	360	130	1.7	941	8.0
29-30	87	--	2.4	235	160	47	.5	382	7.9
MAY									
01...	23	.6	1.0	355	210	74	1.1	567	7.5
02-07	35	--	1.1	532	310	88	1.6	813	7.9
08-23	66	--	.9	825	420	130	2.5	1220	7.9
24-25	11	--	.9	252	160	41	.7	408	7.6
26-29	23	.6	1.0	355	210	74	1.1	567	7.5
30...	2.7	--	1.1	136	110	18	.2	219	7.3
31...	11	--	.9	252	160	41	.7	408	7.6
JUNE									
01-30	74	.5	.4	809	390	180	2.7	1190	8.0
JULY									
01-21	120	.6	.5	842	270	170	--	1330	7.9
22-23	23	--	1.2	363	160	12	2.2	586	7.8
24-27	49	--	1.1	625	190	0	4.7	983	8.5
28-31	23	--	1.2	363	160	12	2.2	586	7.8
AUG.									
01-09	29	.6	1.3	442	180	5	2.8	717	8.3
10-24	56	--	1.2	814	250	0	5.2	1240	8.6
25-31	11	--	.9	227	130	12	1.1	378	8.0
SEP.									
01-05	7.9	.5	.9	200	130	19	.8	345	7.9
06-22	21	--	1.1	366	200	33	1.6	592	8.0
23-28	7.9	.5	.9	200	130	19	.8	345	7.9
29-30	21	--	1.1	366	200	33	1.6	592	8.0
WTD. AVG.	30	--	1.4	237	155	38	.7	399	7.6
TIME WTD.									
AVG.	51	--	1.6	610	277	61	2.9	1000	7.9
TOT. LOAD (TONS)	2140	--	102	16300	--	--	--	--	--

BRAZOS RIVER BASIN

08093500 AQUILLA CREEK NEAR AQUILLA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 22...	1330	3.9	4.9	76	5.0	67	206	0	140
DEC. 11...	1120	4.0	5.6	130	8.6	140	396	0	240
JAN. 30...	1650	4.0	6.9	130	11	170	404	0	300
APR. 24...	1807	15	11	120	7.4	59	304	0	210
JUNE 24...	1355	5.1	9.8	130	12	210	416	0	340
AUG. 26...	1700	24	6.7	43	1.6	13	131	0	26

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. 22...	25	.9	.020	.00	1.1	.11	425	210	41
DEC. 11...	54	1.2	.020	.03	.3	.27	776	350	26
JAN. 30...	60	1.7	.060	.14	1.9	3.2	887	360	29
APR. 24...	27	.6	.11	.16	.00	.19	598	380	130
JUNE 24...	86	.9	.020	.00	.5	.11	992	370	30
AUG. 26...	4.6	.3	.030	.25	.6	1.3	162	110	7

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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. 22...	2.0	677	7.5	20.0	7.3	79	2.7	--
DEC. 11...	3.2	1150	7.5	13.0	8.4	79	5.3	--
JAN. 30...	3.8	1310	7.9	15.0	11.8	116	2.1	--
APR. 24...	1.4	958	7.6	21.5	7.6	85	2.3	--
JUNE 24...	4.7	1440	8.0	30.0	7.4	97	4.2	--
AUG. 26...	.5	238	7.7	26.5	5.1	62	5.4	.00

08093500 AQUILLA CREEK NEAR AQUILLA, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1280	709	1080	---	1360	816	1300	591	967	1320	608	277
2	1340	650	1040	1160	1370	835	1270	754	1260	1340	661	314
3	1400	747	1050	1160	1380	950	1370	749	1390	---	749	339
4	1470	803	1040	1220	1320	---	1430	810	928	---	827	412
5	1460	803	1090	1070	1340	854	1420	879	971	---	348	414
6	1480	803	1110	1070	1330	820	1440	969	1050	---	575	454
7	1480	832	1110	1130	---	901	1460	713	879	---	770	488
8	1440	853	1140	1130	1330	894	1490	1050	892	---	765	528
9	1420	856	1180	1110	1370	867	1490	1080	971	---	765	566
10	1400	871	1180	1100	1330	928	1510	1080	1190	---	868	612
11	1380	904	1150	1100	1350	979	1560	1050	1250	---	966	516
12	412	898	1140	1100	1400	946	1560	936	1080	---	---	---
13	477	908	1160	1130	1410	950	1560	1020	1090	---	1080	582
14	495	922	---	1150	1400	1010	1560	1160	1140	---	---	582
15	495	894	1160	1150	1370	1010	1550	---	---	---	1170	548
16	508	937	1120	1240	1370	1030	1560	---	---	---	1370	603
17	524	967	1120	1230	1430	1020	332	1290	1060	---	1420	628
18	553	---	1150	1240	1430	1080	330	1440	1250	---	1430	620
19	586	856	1160	1270	904	974	353	1380	---	---	1400	645
20	613	926	1160	1390	581	1060	816	1440	1210	---	1370	683
21	671	992	---	1390	609	1080	759	1420	1210	---	1320	727
22	671	987	1210	---	648	1090	830	1370	1320	660	---	792
23	622	1020	1210	1230	636	1070	---	1360	1420	711	1260	312
24	554	1030	1110	1370	525	---	953	386	1380	863	1230	290
25	505	1070	---	1370	---	1040	---	422	1310	1090	373	358
26	522	1080	1050	1370	709	1050	1030	507	1360	1260	315	377
27	282	1050	1160	1360	714	1140	1090	626	1400	1020	---	---
28	334	937	1140	1360	---	1150	1120	---	1410	500	429	---
29	484	1040	---	1330	---	1160	373	538	1360	542	502	469
30	---	1050	1150	1330	---	1110	529	219	1480	539	---	---
31	664	---	1120	1330	---	1260	---	418	---	561	298	---
MONTH	851	910	1130	1230	1140	1000	1140	916	1190	---	880	505

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	13.0	15.0	---	8.0	14.0	15.0	17.0	23.0	28.0	23.0	20.0
2	21.0	12.0	17.0	9.0	8.0	12.0	15.0	20.0	24.0	28.0	23.0	22.0
3	22.0	11.0	17.0	10.0	9.0	8.0	15.0	20.0	25.0	---	23.0	22.0
4	22.0	11.0	16.0	8.0	11.0	---	15.0	20.0	25.0	---	23.0	24.0
5	22.0	10.0	17.0	5.0	10.0	10.0	14.0	21.0	24.0	---	23.0	25.0
6	22.0	10.0	13.0	5.0	9.0	11.0	14.0	---	25.0	---	23.0	26.0
7	23.0	15.0	13.0	4.0	---	10.0	13.0	21.0	25.0	---	23.0	26.0
8	21.0	15.0	13.0	4.0	6.0	10.0	15.0	22.0	25.0	---	24.0	26.0
9	18.0	13.0	15.0	6.0	6.0	11.0	16.0	22.0	26.0	---	25.0	25.0
10	17.0	12.0	---	7.0	6.0	11.0	17.0	22.0	26.0	---	25.0	25.0
11	17.0	13.0	13.0	7.0	8.0	13.0	17.0	21.0	26.0	---	26.0	25.0
12	16.0	12.0	11.0	8.0	9.0	14.0	18.0	19.0	26.0	---	---	---
13	15.0	12.0	10.0	9.0	9.0	16.0	18.0	18.0	27.0	---	25.0	25.0
14	17.0	11.0	---	10.0	10.0	17.0	18.0	18.0	27.0	---	---	25.0
15	16.0	9.0	10.0	9.0	12.0	15.0	17.0	---	---	---	27.0	24.0
16	15.0	8.0	10.0	9.0	13.0	15.0	17.0	---	---	---	26.0	25.0
17	15.0	10.0	9.0	9.0	14.0	15.0	16.0	21.0	26.0	---	26.0	24.0
18	15.0	---	10.0	9.0	15.0	16.0	17.0	21.0	27.0	---	26.0	23.0
19	15.0	12.0	10.0	10.0	17.0	13.0	---	20.0	---	---	25.0	21.0
20	14.0	12.0	10.0	10.0	17.0	12.0	---	20.0	27.0	---	25.0	19.0
21	15.0	13.0	---	10.0	14.0	13.0	---	21.0	27.0	---	27.0	19.0
22	16.0	13.0	11.0	---	9.0	13.0	---	22.0	27.0	24.0	---	19.0
23	17.0	10.0	12.0	11.0	9.0	15.0	---	22.0	26.0	25.0	27.0	20.0
24	17.0	8.0	10.0	11.0	10.0	---	---	20.0	25.0	25.0	27.0	20.0
25	18.0	8.0	---	11.0	---	12.0	---	20.0	---	24.0	25.0	22.0
26	19.0	10.0	8.0	12.0	12.0	12.0	21.0	21.0	26.0	25.0	25.0	23.0
27	19.0	14.0	8.0	10.0	12.0	14.0	22.0	21.0	27.0	24.0	---	---
28	15.0	14.0	10.0	10.0	---	14.0	21.0	---	27.0	24.0	26.0	---
29	15.0	15.0	---	11.0	---	13.0	15.0	22.0	27.0	23.0	26.0	25.0
30	---	15.0	9.0	11.0	---	15.0	16.0	18.0	27.0	23.0	---	---
31	14.0	---	9.0	10.0	---	15.0	---	21.0	---	23.0	20.0	---
MONTH	17.5	12.0	12.0	9.0	10.5	13.0	---	20.5	26.0	---	25.0	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 1971.

Pesticide analyses: March 1968 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 22...	1430	97	7.2	74	13	100	180	0	94
DEC. 11...	1330	163	4.7	88	15	110	228	0	100
JAN. 30...	1750	75	3.1	84	17	130	196	0	120
APR. 24...	1700	154	5.9	70	7.2	68	168	0	88
JUNE 24...	1515	275	6.5	68	20	140	152	0	120
AUG. 26...	1615	1230	8.0	46	4.7	23	144	0	33

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. 22...	150	.4	.020	.12	.3	.10	529	240	92
DEC. 11...	160	.4	.010	.10	.3	.000	591	280	93
JAN. 30...	200	.3	.010	.06	.2	.040	658	280	120
APR. 24...	86	.4	.060	.18	.00	.030	409	200	66
JUNE 24...	210	.4	.010	.00	.1	.060	641	250	130
AUG. 26...	22	.3	.010	.07	.4	.090	210	130	16

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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. 22...	2.8	914	7.6	20.0	6.7	73	3.4	--
DEC. 11...	2.9	1020	8.2	14.0	9.6	92	2.6	--
JAN. 30...	3.4	1130	8.2	16.0	11.2	112	2.0	--
APR. 24...	2.1	700	7.6	22.5	7.4	84	2.2	--
JUNE 24...	3.8	1120	8.1	32.0	5.0	68	2.2	--
AUG. 26...	.9	363	7.7	28.0	6.6	84	1.0	.09

BRAZOS RIVER BASIN

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08096500 BRAZOS RIVER AT WACO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDO (UG/L)	DDF (UG/L)	DDI (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
DEC. 11...	1330	163	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 24...	1515	275	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC. 11...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
JUNE 24...	.00	.0	.00	.00	.00	.00	.0	.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 1971.

Chemical and biochemical analyses: January 1968 to September 1971.

Water temperatures: November 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	910	7.0	66	13	94	--	4.0	167	0	95
25-29	1570	8.3	54	7.3	--	51	--	142	0	63
30-31	1010	9.0	48	2.8	--	18	--	125	0	45
NOV.										
01-03	328	5.7	58	4.8	--	26	--	150	0	52
04-11	211	5.3	77	10	--	61	--	220	0	78
12-30	309	4.0	85	14	--	94	--	236	0	97
DEC.										
01-31	227	4.7	85	18	--	120	--	217	0	110
JAN.										
01-31	575	4.3	83	18	130	--	4.5	194	0	120
FEB.										
01-18	88	3.1	94	20	--	130	--	288	0	120
19...	157	6.6	62	11	--	77	--	196	0	70
20-25	233	31	94	20	--	130	--	288	0	120
26...	284	6.6	62	11	--	77	--	196	0	70
27-28	195	31	94	20	--	130	--	288	0	120
MAR.										
01-31	85	4.2	86	18	--	100	--	262	0	120
APR.										
01-18	163	7.0	88	21	120	--	6.0	292	0	120
19-30	793	9.6	61	6.1	--	42	--	152	0	69
MAY										
01-08	275	6.9	71	16	--	94	--	166	0	110
09...	680	9.5	58	8.9	--	46	--	154	0	63
10...	705	11	--	--	--	18	--	173	0	16
11-14	336	9.5	58	8.9	--	46	--	154	0	63
15-31	344	6.9	71	16	--	94	--	166	0	110
JUNE										
01-05	1590	9.6	58	5.1	--	44	--	140	0	57
06-30	315	6.0	79	16	--	140	--	176	0	130
JULY										
01-25	564	5.6	76	16	150	--	5.4	148	0	130
26-29	3210	7.5	48	4.3	--	26	--	113	0	46
30-31	4600	9.1	44	3.1	--	14	--	114	0	34
AUG.										
01-31	990	10	50	5.4	--	28	--	144	0	41
SEP.										
01-03	758	9.0	56	6.9	--	43	--	170	0	46
04-16	1700	7.1	72	20	--	130	--	164	0	110
17-18	592	7.4	55	10	--	73	--	160	0	66
19-28	495	7.1	72	20	--	130	--	164	0	110
29-30	474	7.4	55	10	--	73	--	160	0	66
WTD. AVG.	--	7.5	66	12	--	--	--	165	0	85
TIME WTD.										
AVG.	572	6.8	75	15	--	--	--	196	0	101
TOT. LOAD (TONS)	--	4240	37100	6760	--	--	--	92900	0	48100

BRAZOS RIVER BASIN

519

08098290 BRAZOS RIVER NEAR Highbank, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 690 mg/l July 1-25; minimum, 178 mg/l July 30-31.

Hardness: Maximum, 320 mg/l Feb. 1-18, 20-25, 27-28; minimum, 120 mg/l July 30-31.

Specific conductance: Maximum daily, 1,320 micromhos Sept. 10; minimum daily, 298 micromhos July 31.

Water temperatures: Maximum, 29.0°C on several days during July, August, and September; minimum, 2.0°C Jan. 20.

EXTREMES, November 1967 to September 1971.--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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-24	140	.3	.9	505	220	81	2.8	883	7.5
25-29	62	--	1.4	322	160	48	1.7	560	7.4
30-31	12	--	1.1	201	130	29	.7	340	7.5
NOV.									
01-03	28	.4	1.2	254	160	42	.9	440	7.5
04-11	66	--	2.9	418	230	52	1.7	697	7.6
12-30	120	--	1.1	535	270	76	2.5	939	7.9
DEC.									
01-31	180	.4	1.2	630	290	110	3.1	1120	7.5
JAN.									
01-31	200	.3	1.3	666	280	120	3.4	1180	7.5
FEB.									
01-18	170	.4	.7	688	320	81	3.2	1160	7.8
19...	91	--	1.1	418	200	39	2.4	724	7.5
20-25	170	.4	.7	688	320	81	3.2	1160	7.8
26...	91	--	1.1	418	200	39	2.4	724	7.5
27-28	170	.4	.7	688	320	81	3.2	1160	7.8
MAR.									
01-31	120	.5	.8	587	290	74	2.6	1000	7.8
APR.									
01-18	140	.5	1.1	654	310	66	3.0	1100	8.0
19-30	46	--	2.0	318	180	52	1.4	538	7.5
MAY									
01-08	140	.5	.7	520	240	110	2.6	927	7.3
09...	62	--	.7	326	180	55	1.5	592	7.3
10...	5.5	--	3.5	--	140	30	.7	302	7.8
11-14	62	--	.7	326	180	55	1.5	592	7.3
15-31	140	.5	.7	520	240	110	2.6	927	7.3
JUNE									
01-05	57	.4	1.4	306	170	51	1.5	527	7.5
06-30	200	--	.6	661	260	120	3.7	1160	7.4
JULY									
01-25	240	.3	.5	690	260	130	4.0	1220	8.0
26-29	36	--	1.0	228	140	45	1.0	407	7.3
30-31	15	--	.7	178	120	29	.5	310	7.9
AUG.									
01-31	30	.3	1.0	240	150	29	1.0	409	7.8
SEP.									
01-03	50	.3	.7	298	170	28	1.4	496	7.9
04-16	200	.3	.5	631	260	130	3.5	1130	8.2
17-18	95	.3	.8	389	180	49	2.4	673	8.0
19-28	200	.3	.5	631	260	130	3.5	1130	8.2
29-30	95	.3	.8	389	180	49	2.4	673	8.0
WTD. AVG.	119	.3	.9	461	214	79	2.3	808	7.7
TIME WTD.									
AVG.	140	.4	.9	540	248	87	2.7	940	7.7
TOT. LOAD (TONS)	67300	133	549	259000	--	--	--	--	--

BRAZOS RIVER BASIN

08098290 BRAZOS RIVER NEAR Highbank, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1100	205	7.9	67	9.7	81	174	0	98
DEC. 07...	1100	152	1.6	78	19	130	215	0	120
FEB. 22...	1140	225	4.9	92	21	130	292	0	140
APR. 24...	1530	268	9.6	58	5.4	37	143	0	65
JUNE 19...	1430	142	6.8	75	16	170	180	0	130
AUG. 20...	1400	678	9.9	52	5.7	30	150	0	44

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. 19...	70	.4	.46	.040	.00	1.1	.36	425	210
DEC. 07...	180	.4	1.0	.000	.00	.1	.18	635	270
FEB. 22...	150	.3	--	.000	.00	.00	.48	680	320
APR. 24...	40	.4	--	.13	.00	1.3	.30	292	170
JUNE 19...	240	.3	--	.000	.00	.1	.10	722	250
AUG. 20...	34	.2	--	.010	.00	.1	.14	250	150

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 19...	64	2.4	693	7.6	17.0	9.4	97	2.1
DEC. 07...	96	3.4	1110	7.3	14.0	12.1	116	5.5
FEB. 22...	76	3.2	1120	8.5	9.0	11.1	96	6.5
APR. 24...	50	1.2	499	8.2	27.0	10.6	131	4.2
JUNE 19...	110	4.6	1210	8.2	31.0	9.9	132	18
AUG. 20...	30	1.1	426	8.7	31.0	9.9	132	4.3

BRAZOS RIVER BASIN

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08098290 BRAZOS RIVER NEAR HIGHBANK, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	924	408	1140	1190	1220	950	1150	790	491	1150	373	490
2	867	434	1140	1180	1220	895	1160	849	428	1160	375	500
3	1010	487	1150	1170	1220	878	1160	995	478	1160	386	496
4	1010	542	1150	1180	1220	881	1140	901	567	1120	389	886
5	1020	609	1150	1180	1220	912	1100	766	669	1150	444	1150
6	1060	658	1110	1180	1230	950	1090	700	1070	1250	349	1160
7	1040	708	1120	1100	1210	970	1050	704	1160	1260	332	1290
8	1040	744	1140	1070	1210	966	1030	712	1210	1260	395	1310
9	1040	753	1130	1190	1200	950	1000	649	1270	1260	398	1310
10	1040	784	1090	1190	1200	935	1030	302	1280	1250	467	1320
11	1040	795	1100	1200	1210	939	1060	507	1260	1250	450	1300
12	988	810	1110	1180	1210	950	1100	510	1280	1270	405	1280
13	1000	822	1120	1200	1200	935	1120	613	1270	1280	405	1280
14	887	815	1100	1230	1220	939	1140	673	1240	1280	399	1230
15	601	850	1100	1200	1200	939	1150	757	1260	1290	404	1160
16	772	847	1090	1200	1190	939	1170	837	1270	1270	397	962
17	765	857	1080	1200	1190	975	1100	921	1280	1280	423	650
18	742	874	1070	1200	1200	1020	1160	969	1260	1290	434	648
19	700	884	1090	1210	767	1050	631	1000	1220	1280	428	776
20	707	857	1100	1210	1080	1070	452	978	1200	1280	426	873
21	725	822	1140	1220	1110	1090	441	856	1190	1280	424	957
22	763	853	1150	1200	1140	1090	456	1050	1180	1290	415	1140
23	749	898	1140	1190	1120	1090	473	1050	1060	1240	400	1240
24	727	953	1150	1170	996	1040	505	987	1000	1070	401	1200
25	740	1020	1140	1170	908	1100	524	1010	967	894	397	1070
26	544	1100	1140	1170	683	1090	577	1040	987	508	399	1120
27	507	1120	1130	1160	901	1090	591	965	971	332	396	1010
28	502	1130	1140	1190	962	1090	579	987	1010	350	407	974
29	507	1130	1160	1210	---	1060	591	1080	1060	438	419	706
30	338	1140	1160	1220	---	1110	670	1040	1130	323	497	682
31	343	---	1180	1220	---	1140	---	1120	---	298	473	---
MONTH	797	823	1130	1190	1120	1000	880	849	1060	1060	410	1010

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	16.0	19.0	10.0	10.0	17.0	19.0	21.0	24.0	27.0	25.0	27.0
2	23.0	13.0	20.0	13.0	9.0	16.0	13.0	21.0	25.0	28.0	25.0	26.0
3	24.0	13.0	19.0	17.0	9.0	5.0	14.0	22.0	25.0	28.0	24.0	27.0
4	25.0	11.0	17.0	7.0	16.0	8.0	15.0	22.0	26.0	28.0	25.0	28.0
5	25.0	11.0	19.0	4.0	9.0	10.0	14.0	22.0	25.0	28.0	26.0	28.0
6	24.0	12.0	15.0	3.0	11.0	9.0	14.0	22.0	26.0	28.0	25.0	29.0
7	25.0	13.0	14.0	5.0	8.0	10.0	12.0	23.0	26.0	29.0	25.0	29.0
8	25.0	18.0	14.0	4.0	4.0	10.0	15.0	24.0	26.0	28.0	25.0	28.0
9	17.0	16.0	17.0	5.0	5.0	12.0	16.0	23.0	27.0	28.0	27.0	28.0
10	16.0	14.0	18.0	9.0	5.0	13.0	18.0	23.0	27.0	29.0	28.0	27.0
11	18.0	15.0	15.0	11.0	10.0	13.0	18.0	21.0	27.0	28.0	28.0	26.0
12	23.0	13.0	9.0	12.0	10.0	18.0	19.0	20.0	26.0	28.0	29.0	26.0
13	18.0	15.0	11.0	12.0	9.0	19.0	19.0	18.0	26.0	28.0	28.0	27.0
14	19.0	11.0	10.0	13.0	10.0	20.0	19.0	19.0	27.0	28.0	28.0	27.0
15	19.0	9.0	11.0	12.0	14.0	15.0	19.0	21.0	28.0	29.0	28.0	27.0
16	12.0	8.0	10.0	10.0	16.0	15.0	19.0	23.0	27.0	29.0	29.0	27.0
17	11.0	10.0	9.0	11.0	16.0	15.0	18.0	22.0	28.0	28.0	29.0	27.0
18	16.0	10.0	13.0	12.0	18.0	17.0	20.0	22.0	27.0	28.0	28.0	26.0
19	16.0	13.0	16.0	8.0	17.0	11.0	20.0	22.0	26.0	28.0	28.0	21.0
20	17.0	13.0	12.0	2.0	17.0	11.0	20.0	21.0	25.0	28.0	29.0	19.0
21	19.0	13.0	12.0	10.0	20.0	13.0	18.0	23.0	25.0	28.0	29.0	21.0
22	20.0	17.0	17.0	14.0	7.0	17.0	22.0	24.0	26.0	27.0	29.0	22.0
23	20.0	7.0	17.0	10.0	10.0	11.0	21.0	23.0	26.0	28.0	29.0	24.0
24	19.0	7.0	10.0	14.0	12.0	15.0	20.0	22.0	27.0	28.0	29.0	24.0
25	20.0	7.0	11.0	14.0	14.0	14.0	21.0	22.0	27.0	27.0	29.0	24.0
26	22.0	13.0	8.0	13.0	15.0	12.0	22.0	25.0	28.0	25.0	28.0	26.0
27	23.0	15.0	9.0	11.0	14.0	15.0	24.0	25.0	27.0	26.0	28.0	26.0
28	15.0	16.0	12.0	12.0	15.0	19.0	23.0	26.0	27.0	27.0	29.0	26.0
29	17.0	16.0	15.0	15.0	---	17.0	24.0	28.0	27.0	27.0	28.0	26.0
30	16.0	17.0	13.0	16.0	---	14.0	20.0	26.0	27.0	26.0	27.0	25.0
31	15.0	---	10.0	12.0	---	14.0	---	25.0	---	24.0	27.0	---
MONTH	19.5	12.5	13.5	10.5	12.0	13.5	18.5	22.5	26.5	27.5	27.5	26.0

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 1970 to September 1971.--Water temperatures: Maximum, 26.0°C on July 18; minimum, 14.0°C on several days during January.

EXTREMES, March 1957 to September 1971.--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 1970 TO SEPTEMBER 1971
(RECORDER WITH TEMPERATURE ATTACHMENT, CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	18.5	16.5	15.5	16.0	16.5	17.0	18.5	20.0	22.0	23.0	23.0
2	22.0	18.5	16.5	15.5	16.0	16.5	17.0	18.5	20.0	22.0	23.0	23.0
3	22.0	18.0	16.5	16.0	15.5	16.5	17.0	18.5	20.5	22.0	22.5	23.0
4	22.0	18.0	16.5	16.0	16.0	16.0	18.5	18.5	20.5	23.5	22.5	23.0
5	22.0	17.5	17.0	15.5	16.0	16.0	18.5	18.5	20.5	23.5	22.5	23.0
6	22.0	17.5	17.0	15.0	16.0	16.0	18.0	18.5	21.0	23.5	22.5	23.0
7	22.0	17.5	17.0	14.5	16.0	16.5	18.5	18.5	21.0	23.5	22.5	23.0
8	22.0	17.5	17.0	14.5	15.5	16.5	18.5	19.5	22.0	24.0	22.5	23.0
9	22.0	17.5	17.0	14.0	15.0	16.5	17.0	19.5	22.0	24.0	23.0	23.5
10	21.5	17.5	17.0	14.0	14.5	16.5	16.5	19.0	20.5	24.0	23.0	23.5
11	21.0	17.5	17.0	14.0	15.0	16.5	16.5	19.0	20.5	24.0	23.0	---
12	21.0	17.5	16.5	14.0	15.0	17.0	17.0	19.0	20.5	24.0	23.0	---
13	20.5	17.5	16.5	14.0	15.0	16.5	17.0	19.0	21.0	24.0	23.0	---
14	20.5	17.5	16.0	14.0	15.0	16.5	16.5	19.0	21.0	24.0	23.0	---
15	20.5	17.5	16.0	14.5	15.0	16.5	17.0	19.0	21.0	24.5	23.0	---
16	20.0	17.0	16.0	14.5	16.0	16.5	17.0	19.5	21.0	25.0	23.0	---
17	20.0	16.5	16.0	14.5	16.0	17.0	16.5	19.5	21.0	25.5	23.0	---
18	19.5	16.5	15.5	14.5	16.5	16.0	16.5	20.0	21.0	26.0	23.0	23.5
19	19.5	17.0	15.5	14.5	17.0	16.0	16.5	19.5	21.0	25.5	23.0	23.5
20	19.0	17.0	15.5	14.5	17.0	16.0	17.0	20.0	21.0	25.5	23.0	23.0
21	19.0	17.0	15.5	14.5	17.5	16.0	17.0	20.0	21.0	25.5	23.0	22.0
22	19.0	17.0	15.5	15.0	17.5	16.5	17.0	20.0	21.0	25.0	23.0	22.0
23	19.0	17.0	15.5	15.5	17.0	16.5	18.0	20.0	21.5	25.0	23.0	22.5
24	19.0	16.5	15.5	15.5	16.5	16.5	18.0	20.0	21.5	25.0	23.0	22.5
25	19.5	16.0	15.5	16.0	16.0	16.0	18.0	20.0	21.5	24.5	23.0	22.5
26	19.5	16.0	15.5	16.0	16.5	16.0	18.0	20.0	21.5	24.0	23.0	22.5
27	19.5	16.0	15.0	16.0	16.5	15.5	18.0	20.0	21.5	24.0	23.0	22.5
28	19.5	16.0	15.0	16.0	17.0	16.5	18.0	20.0	21.5	24.0	23.0	23.0
29	19.5	16.0	15.0	16.0	---	17.0	18.0	20.0	21.5	24.0	23.0	23.0
30	19.0	16.5	15.5	16.0	---	17.0	18.5	20.0	22.0	24.0	23.0	23.0
31	19.0	---	15.5	16.0	---	16.5	---	20.0	---	23.5	23.0	---
MONTH	20.5	17.0	16.0	15.0	16.0	16.5	17.5	19.5	21.0	24.0	23.0	---

BRAZOS RIVER BASIN

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08102500 LEON RIVER NEAR BELTON, TEX.--Continued

MINIMUM TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(RECORDER WITH TEMPERATURE ATTACHMENT, CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.5	18.5	16.5	15.5	16.0	16.0	17.0	18.5	20.0	21.5	22.5	23.0
2	21.5	18.0	16.5	15.5	15.5	16.0	17.0	18.5	20.0	22.0	22.5	23.0
3	22.0	18.0	16.5	15.5	15.5	16.0	17.0	18.5	20.0	22.0	22.5	23.0
4	22.0	17.5	16.5	15.5	15.5	16.0	17.0	18.5	20.5	22.0	22.5	23.0
5	22.0	17.0	16.5	15.0	16.0	16.0	18.0	18.0	20.5	23.5	22.5	23.0
6	22.0	17.0	17.0	14.5	16.0	16.0	17.5	18.0	20.5	23.5	22.5	23.0
7	22.0	17.0	17.0	14.5	15.5	16.5	17.5	18.0	21.0	23.5	22.5	23.0
8	22.0	17.0	17.0	14.0	15.0	16.5	17.0	18.5	21.0	23.5	22.5	23.0
9	21.5	17.5	17.0	14.0	14.5	16.5	16.5	19.0	20.5	24.0	22.5	23.0
10	21.0	17.0	17.0	14.0	14.5	16.5	16.5	19.0	20.0	24.0	22.5	23.5
11	21.0	17.0	16.5	14.0	14.5	16.5	16.5	19.0	20.0	24.0	23.0	---
12	20.5	17.5	16.5	14.0	15.0	16.5	16.5	19.0	20.0	24.0	23.0	---
13	20.5	17.5	16.0	14.0	15.0	16.5	16.5	19.0	20.5	24.0	23.0	---
14	20.5	17.5	16.0	14.0	15.0	16.5	16.5	19.0	21.0	24.0	23.0	---
15	20.0	17.0	16.0	14.0	15.0	16.5	16.5	19.0	20.5	24.0	23.0	---
16	20.0	16.5	16.0	14.5	15.0	16.0	16.5	19.0	21.0	24.5	23.0	---
17	19.5	16.5	15.5	14.5	16.0	15.5	16.5	19.5	21.0	25.0	23.0	---
18	19.5	16.5	15.5	14.5	16.0	15.5	16.5	19.5	21.0	25.5	23.0	23.5
19	19.0	16.5	15.5	14.5	16.5	16.0	16.5	19.5	21.0	25.0	23.0	23.0
20	19.0	17.0	15.5	14.5	17.0	16.0	16.5	19.5	21.0	25.0	23.0	22.0
21	19.0	17.0	15.5	14.5	17.0	16.0	17.0	20.0	21.0	25.0	23.0	22.0
22	19.0	17.0	15.5	14.5	17.0	16.0	17.0	20.0	21.0	25.0	23.0	22.0
23	19.0	16.5	15.5	15.0	16.5	16.5	17.0	20.0	21.0	25.0	23.0	22.0
24	19.0	16.0	15.5	15.5	16.0	16.0	18.0	20.0	21.5	24.5	23.0	22.5
25	19.0	16.0	15.5	15.5	16.0	16.0	18.0	20.0	21.5	24.0	23.0	22.5
26	19.5	16.0	15.0	16.0	16.0	15.5	17.5	20.0	21.5	24.0	23.0	22.5
27	19.5	16.0	15.0	16.0	16.5	15.5	18.0	20.0	21.5	24.0	23.0	22.5
28	19.5	16.0	15.0	16.0	16.5	15.5	18.0	20.0	21.5	24.0	23.0	22.5
29	19.0	16.0	15.0	16.0	---	16.5	18.0	20.0	21.5	24.0	23.0	23.0
30	19.0	16.0	15.0	16.0	---	16.5	18.0	20.0	21.5	23.5	23.0	23.0
31	18.5	---	15.0	16.0	---	16.5	---	20.0	---	23.0	23.0	---
MONTH	20.0	17.0	16.0	15.0	15.5	16.0	17.0	19.0	21.0	24.0	23.0	---

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 1971.

Sediment records: February 1968 to September 1971.

REMARKS.--Radiochemical analyses available from U.S. Geological Survey, Denver, Colorado.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	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 27...	1030	11	7.2	30	5.0	1.2	3.8	110	0	6.8	2.6	
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)	SODIUM AD-SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)
JULY 27...		.2	.000	.14	.3	.080	45	112	95	5	.1	199
DATE		PH (UNITS)	TEMP- ERATURE (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)	DIS-SOLVED CHRO- MIUM (CR) (UG/L)	
JULY 27...		7.9	24.0	7.0	82	3.5	510000	40	10	0	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)	
JULY 27...		0	4	40	0	0	2	.6	4	460	0	
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)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)
JULY 27...	1030	11	.00	<.2	.00	<.2	.00	.5	.00	<.2	.00	<.2
DATE		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 BOT- TOM DE- POSITS (UG/KG)	DI- AZINON (UG/L)
JULY 27...		.00	<.2	.00	<.2	.00	<.2	.00	<.2	.0	<1.0	.00
DATE		MALA- THION IN BOTTOM DE- POSITS (UG/L)	MALA- THION IN BOT- TOM 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)	TOX- APHENE (UG/L)	TOX- APHENE IN BOT- TOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
JULY 27...		.00	<.2	.00	<.2	.00	<.2	.0	<10	.00	.00	.00

08103900 SOUTH FORK ROCKY CREEK NEAR BRIGGS, TEX.--Continued

WATER QUALITY DATA

DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
DEC., 1969					
06...	0415	5.3	--	8	0.11
06...	0500	133	--	1300	467
06...	0530	852	--	2010	4620
06...	0600	1080	--	1230	3590
11...	1520	9.6	--	4	.10
JAN., 1970					
16...	1000	7.5	--	4	.08
MAR.					
02...	1830	435	--	1920	2260
03...	0730	65	--	51	9.0
06...	1815	601	--	3000	4870
06...	1840	2600	--	3280	23000
06...	1915	2080	--	2060	11600
06...	2010	1580	--	1240	5290
24...	1030	44	--	1	.12
APR.					
29...	1500	7.8	--	2	.04
MAY					
26...	1545	25	--	37	2.5
26...	1600	102	--	395	109
26...	1700	201	--	603	327
JULY, 1971					
30...	1735	1.4	--	6	.02

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 1971.
Water temperatures: October 1964 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- CHARGE (CFS)	MEAN 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	175	5.5	64	14	32	--	3.4	224	0	30
NOV. 01-30	102	4.3	68	14	--	38	--	232	0	38
DEC. 01-31	65	9.6	65	14	--	44	--	232	0	36
JAN. 01-31	59	8.6	69	15	39	--	4.9	242	0	36
FEB. 01-28	67	7.8	66	15	--	49	--	244	0	37
MAR. 01-31	387	6.9	59	18	--	35	--	222	0	29
APR. 01-30	486	8.3	56	15	32	--	4.9	196	0	33
MAY 01-31	356	8.6	56	13	--	31	--	183	0	32
JUNE 01-30	600	7.8	53	13	--	36	--	179	0	37
JULY 01-24	310	7.5	52	18	33	--	3.8	199	0	38
25...	1050	16	--	6.6	--	8.9	--	--	--	30
26-31	972	8.1	44	5.5	--	12	--	128	0	21
AUG. 01-31	381	9.2	45	8.8	--	26	--	152	0	26
SEP. 01-30	121	9.1	51	8.8	--	29	--	173	0	28
WTD. AVG. TIME WTD. AVG.	-- 273	8.0 7.8	55 59	13 14	-- --	-- --	-- --	190 205	0 0	32 33
TOT. LOAD (TONS)	--	2140	14600	3570	--	--	--	50500	0	8590

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	516	---	608	626	647	583	549	528	---	513	423	376
2	514	608	591	607	647	545	---	541	---	514	401	439
3	528	610	601	609	640	551	542	525	---	---	431	403
4	528	634	605	619	642	---	547	524	---	546	426	436
5	522	641	---	621	630	586	546	530	511	535	383	---
6	515	638	602	606	642	---	549	527	561	532	413	---
7	549	631	619	---	646	632	545	553	582	539	418	410
8	548	649	604	609	642	632	---	529	585	539	---	421
9	579	636	592	617	644	612	---	438	556	535	399	426
10	526	636	610	622	654	619	534	520	527	---	395	434
11	564	660	---	625	640	630	---	523	520	545	401	---
12	569	544	617	---	630	612	534	548	515	535	370	400
13	426	530	622	615	640	---	533	592	515	536	381	436
14	581	---	601	---	647	---	532	524	513	539	360	430
15	530	538	623	616	655	646	529	---	531	539	360	429
16	516	542	636	624	---	646	518	586	510	---	380	404
17	---	561	625	619	637	535	616	---	511	552	---	472
18	537	546	625	---	---	540	500	552	518	548	395	450
19	537	546	---	617	607	533	482	578	511	540	377	463
20	623	554	616	626	616	531	487	529	510	539	396	496
21	581	562	615	604	---	528	---	514	511	548	410	489
22	590	594	---	619	624	528	543	---	514	541	416	478
23	479	614	---	640	647	535	568	---	515	540	383	498
24	563	599	---	616	628	537	537	515	508	535	439	532
25	---	601	---	616	619	528	527	520	509	418	427	556
26	564	612	642	626	---	530	529	523	508	327	468	423
27	568	---	634	613	593	---	532	---	510	246	396	498
28	606	619	628	605	607	541	529	499	507	344	444	511
29	---	596	625	617	---	532	529	---	513	273	426	470
30	---	594	---	631	---	548	426	373	508	352	463	476
31	604	---	625	626	---	556	---	450	---	376	418	---
MONTH	547	596	---	618	634	569	531	522	522	487	407	454

08104500 LITTLE RIVER NEAR LITTLE RIVER, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 371 mg/l Feb. 1-28; minimum, 179 mg/l July 26-31.
 Hardness: Maximum, 240 mg/l July 25; minimum, 130 mg/l July 26-31.
 Specific conductance: Maximum daily, 660 micromhos Nov. 11; minimum daily, 246 micromhos July 27.
 Water temperatures: Maximum, 30.0°C Aug. 23, Sept. 3, 8; minimum, 5.0°C Jan. 5.

EXTREMES, October 1964 to September 1971.--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. 1-22, 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; 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 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED 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. 01-31	42	.4	3.1	315	220	34	.9	548	7.9
NOV. 01-30	48	.4	3.2	339	230	37	1.1	595	7.7
DEC. 01-31	51	.7	4.1	352	220	30	1.3	616	7.8
JAN. 01-31	51	.6	3.8	360	230	35	1.1	618	8.0
FEB. 01-28	53	.6	5.2	371	230	26	1.4	633	7.4
MAR. 01-31	53	.6	2.4	322	220	39	1.0	569	7.6
APR. 01-30	52	.3	2.0	306	200	40	1.0	533	7.3
MAY 01-31	52	.4	.70	286	190	43	1.0	522	7.5
JUNE 01-30	54	.3	.70	292	190	39	1.1	523	7.7
JULY 01-24	54	.3	.70	308	200	40	1.0	538	8.0
25-31	13	--	1.4	--	240	35	.2	418	7.8
26-31	19	--	1.4	179	130	28	.5	320	7.5
AUG. 01-31	35	.3	1.1	230	150	24	.9	406	7.8
SEP. 01-30	36	.4	1.3	253	160	22	1.0	453	7.7
WTD. AVG. TIME WTD. AVG.	47	.4	1.6	289	192	36	.0	511	7.6
TOT. LOAD (TONS)	48	.4	2.4	309	202	34	1.1	542	7.7
	12600	96	439	77000	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	---	20.0	11.0	11.0	18.0	---	22.0	---	---	26.0	29.0
2	25.5	13.0	21.5	6.0	10.5	14.0	---	23.0	---	26.0	26.0	29.0
3	25.5	15.0	21.5	10.0	12.0	13.5	---	23.0	---	---	28.0	30.0
4	25.0	13.0	21.0	10.5	11.0	---	---	23.0	---	26.0	28.0	29.0
5	22.0	15.5	---	5.0	14.5	16.0	14.0	19.0	---	27.5	28.0	---
6	22.0	15.5	18.5	7.0	16.5	14.5	15.0	---	---	28.0	28.0	---
7	25.5	15.5	16.5	---	9.0	13.5	17.0	---	---	28.0	27.0	28.0
8	22.0	18.0	17.0	6.0	5.5	16.5	---	---	---	27.5	---	30.0
9	20.0	18.5	18.5	11.0	8.0	17.0	---	---	---	28.0	28.0	29.0
10	18.5	16.5	18.5	5.5	10.0	16.5	19.0	23.0	---	---	28.0	29.0
11	16.5	15.5	---	11.5	13.0	19.0	---	21.0	---	28.0	28.0	---
12	16.5	16.0	11.5	---	11.0	18.5	19.0	22.0	25.0	28.0	28.0	28.0
13	22.0	14.5	12.0	13.5	10.5	---	18.0	22.0	25.0	29.0	27.0	27.0
14	20.5	---	11.0	---	15.0	---	---	23.0	25.0	28.0	28.0	29.0
15	16.5	12.0	13.5	14.0	15.5	19.5	18.0	---	25.0	27.0	28.0	28.0
16	18.0	11.5	13.0	12.0	---	20.0	16.0	23.0	25.0	---	28.0	27.0
17	---	12.0	20.0	13.5	18.5	19.0	19.0	---	26.0	28.0	---	27.0
18	17.0	14.5	17.0	---	---	18.5	21.0	24.0	25.0	28.5	28.0	27.0
19	18.5	16.0	---	10.5	18.5	19.0	23.0	23.0	25.0	28.0	28.0	22.0
20	19.5	15.5	18.0	10.5	19.0	18.5	20.0	24.0	27.0	27.0	28.0	23.0
21	19.0	16.0	18.0	13.0	---	19.0	---	25.0	26.0	24.0	28.0	22.0
22	20.0	14.5	---	15.5	11.0	19.0	23.0	---	25.0	26.0	28.0	22.0
23	22.0	11.0	---	14.5	14.0	18.0	23.0	---	27.0	24.0	30.0	23.0
24	21.5	10.5	---	14.0	14.5	---	21.0	25.0	25.0	25.0	28.0	22.0
25	---	12.0	---	13.0	15.5	---	23.0	26.0	26.0	26.0	28.0	21.0
26	23.5	16.5	10.5	15.0	---	---	21.0	25.0	25.0	28.0	28.0	22.0
27	21.0	---	11.0	13.0	18.5	---	22.0	---	26.0	26.0	28.0	23.0
28	18.5	15.0	11.5	11.0	18.0	---	23.0	26.0	26.0	29.0	28.0	22.0
29	---	18.5	11.5	12.0	---	---	---	---	26.0	28.0	28.0	23.0
30	---	19.5	---	14.0	---	---	---	25.0	27.0	25.0	28.0	23.0
31	18.0	---	12.0	13.5	---	---	---	26.0	---	26.0	28.0	---
MONTH	21.0	15.0	---	11.5	13.5	---	---	---	---	27.0	28.0	25.5

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 1971.

Chemical and biochemical analyses: January 1968 to September 1971.

Water temperatures: October 1959 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	564	6.0	65	13	33	--	3.1	222	0	43
NOV.										
01-30	182	4.7	40	16	--	86	--	274	0	48
DEC.										
01-31	144	7.8	87	18	--	43	--	304	0	52
JAN.										
01-31	106	8.6	86	17	48	--	3.6	304	0	55
FEB.										
01-28	121	6.8	84	17	--	54	--	292	0	60
MAR.										
01-18	150	8.2	80	15	--	56	--	272	0	61
19-31	836	7.7	59	19	--	27	--	220	0	24
APR.										
01-19	639	8.3	59	15	35	--	4.6	208	0	37
20-22	191	11	53	4.6	--	26	--	153	0	36
23-30	510	8.3	59	15	35	--	4.6	208	0	37
MAY										
01-31	610	9.1	58	12	--	33	--	184	0	39
JUNE										
01-30	613	8.8	56	13	--	36	--	192	0	38
JULY										
01-26	355	6.9	54	17	36	--	3.7	202	0	38
27-31	1070	7.5	47	6.1	--	10	--	140	0	20
AUG.										
01-03	1520	10	43	5.6	--	12	--	136	0	18
04-31	493	9.1	48	9.0	--	25	--	158	0	29
SEP.										
01-30	145	8.8	55	9.4	--	33	--	184	0	38
WTD. AVG.	--	8.0	58	13	--	--	--	205	0	38
TIME WTD.										
AVG.	381	7.8	63	14	--	--	--	229	0	43
TOT. LOAD (TONS)	--	3000	21900	4990	--	--	--	77000	0	14100

BRAZOS RIVER BASIN

529

08106500 LITTLE RIVER AT CAMERON, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 438 mg/l Feb. 1-28; minimum, 176 mg/l Aug. 1-3.
 Hardness: Maximum, 290 mg/l Dec. 1-31; minimum, 130 mg/l Aug. 1-3.
 Specific conductance: Maximum daily, 816 micromhos Feb. 24; minimum daily, 241 micromhos Aug. 1.
 Water temperatures: Maximum, 31.0°C July 7; minimum, 9.0°C on several days during January and February.

EXTREMES, October 1959 to September 1971.--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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	42	.3	1.7	322	220	34	1.0	556	7.8
NOV.									
01-30	49	.3	2.1	388	170	0	2.9	661	7.6
DEC.									
01-31	53	.4	1.7	418	290	42	1.1	730	7.8
JAN.									
01-31	55	.4	2.9	436	280	36	1.2	730	8.0
FEB.									
01-28	60	.5	2.6	438	280	40	1.4	740	8.2
MAR.									
01-18	60	.5	2.6	427	260	38	1.5	711	8.0
19-31	54	--	.80	302	220	44	.8	546	7.7
APR.									
01-19	56	.4	1.2	323	210	38	1.2	564	7.7
20-22	28	--	1.5	240	150	26	.9	407	7.4
23-30	56	.4	1.2	323	210	38	1.2	564	7.7
MAY									
01-31	50	.4	.70	295	190	43	1.0	519	7.6
JUNE									
01-30	50	.3	.60	299	190	36	1.1	526	7.2
JULY									
01-26	55	.3	.40	312	200	39	1.1	548	8.0
27-31	17	--	1.4	183	140	28	.4	332	7.6
AUG.									
01-03	16	.2	1.0	176	130	19	.5	308	8.2
04-31	34	--	.80	236	160	27	.9	423	7.9
SEP.									
01-30	37	.4	.90	276	180	25	1.1	484	7.5
WTD. AVG.	46	.4	1.1	306	200	35	1.1	535	7.7
TIME WTD.									
AVG.	49	.4	1.5	340	216	33	1.2	588	7.8
TOT. LOAD (TONS)	17400	103	427	115000	--	--	--	--	--

BRAZOS RIVER BASIN

08106500 LITTLE RIVER AT CAMERON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 19...	1000	131	10	75	15	42	266	0	45
DEC. 07...	0930	155	7.5	87	17	48	312	0	50
FEB. 22...	1015	165	5.7	40	17	91	274	0	52
APR. 24...	1615	70	10	64	10	43	200	0	49
JUNE 19...	1700	802	7.6	51	12	39	178	0	37
AUG. 20...	1830	510	7.8	46	8.8	28	152	0	32

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. 19...	48	.3	.52	.010	.00	1.8	.44	374	250
DEC. 07...	55	.6	.58	.090	.00	1.1	.56	423	290
FEB. 22...	58	.4	--	.020	.00	2.1	.70	408	170
APR. 24...	52	.4	--	.050	.00	1.2	.43	332	200
JUNE 19...	53	.3	--	.000	.02	.3	.20	289	180
AUG. 20...	37	.2	--	.000	.00	.5	.20	237	150

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 19...	30	1.2	637	7.7	16.0	8.1	81	1.2
DEC. 07...	32	1.2	728	7.6	16.0	8.0	80	2.4
FEB. 22...	0	3.0	699	7.9	15.0	8.4	82	1.7
APR. 24...	36	1.3	574	7.7	24.0	7.1	84	2.5
JUNE 19...	30	1.3	525	7.8	28.0	7.0	89	5.3
AUG. 20...	26	1.0	409	8.1	29.0	7.3	94	1.5

08106500 LITTLE RIVER AT CAMERON, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	513	605	713	729	723	801	582	538	479	513	241	388
2	512	637	714	749	730	755	574	536	477	510	337	434
3	514	635	708	732	758	753	582	546	565	512	344	651
4	523	656	717	730	756	720	573	533	578	514	415	472
5	531	659	719	733	751	695	581	533	540	526	403	504
6	547	685	724	735	725	685	586	544	584	532	438	477
7	559	683	731	735	732	689	587	532	535	554	421	464
8	573	685	724	748	728	675	591	548	534	562	404	480
9	562	683	696	732	745	704	587	523	554	559	424	470
10	608	680	723	712	752	710	572	529	576	551	426	476
11	627	689	716	723	746	695	561	438	530	554	423	478
12	612	689	717	730	739	690	557	373	530	553	406	461
13	567	701	727	719	739	669	545	458	526	553	401	448
14	566	684	727	733	737	667	545	431	529	550	405	454
15	605	728	723	722	746	782	552	466	525	554	392	431
16	624	608	737	706	748	729	540	483	524	554	405	434
17	611	608	723	733	761	691	533	497	550	550	383	441
18	626	618	718	744	756	679	542	538	522	557	372	449
19	656	611	737	753	738	547	545	556	519	559	393	461
20	649	622	740	732	729	551	386	578	525	565	408	461
21	625	621	729	734	662	538	387	599	520	572	407	494
22	619	630	732	742	744	538	431	588	537	563	409	499
23	538	646	730	723	778	537	501	549	519	563	414	516
24	356	662	752	709	816	544	590	535	489	555	429	545
25	321	678	762	739	761	547	635	548	505	572	442	550
26	437	687	759	743	737	540	653	548	509	555	440	635
27	510	689	759	735	692	540	547	564	517	340	447	416
28	540	704	757	752	669	540	547	544	516	372	429	499
29	548	702	752	735	---	572	555	446	511	300	416	554
30	573	706	752	741	---	557	543	516	515	261	569	537
31	603	---	754	723	---	557	---	510	---	387	551	---
MONTH	557	663	731	732	739	642	550	520	528	514	413	486

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	18.0	20.0	12.0	14.0	18.0	19.0	23.0	27.0	29.0	26.0	28.0
2	24.0	17.0	20.0	12.0	13.0	16.0	18.0	21.0	27.0	29.0	25.0	28.0
3	25.0	16.0	20.0	12.0	12.0	15.0	18.0	23.0	27.0	29.0	24.0	29.0
4	24.0	15.0	20.0	13.0	13.0	13.0	16.0	23.0	27.0	28.0	25.0	29.0
5	25.0	14.0	20.0	11.0	14.0	14.0	16.0	23.0	28.0	29.0	25.0	28.0
6	25.0	14.0	18.0	9.0	14.0	14.0	17.0	24.0	27.0	30.0	25.0	29.0
7	26.0	15.0	19.0	9.0	12.0	13.0	18.0	24.0	28.0	31.0	26.0	30.0
8	25.0	14.0	18.0	9.0	10.0	15.0	18.0	24.0	29.0	30.0	25.0	30.0
9	24.0	15.0	18.0	10.0	9.0	16.0	18.0	23.0	29.0	30.0	27.0	30.0
10	22.0	15.0	18.0	9.0	9.0	16.0	19.0	24.0	30.0	30.0	29.0	29.0
11	20.0	16.0	17.0	11.0	11.0	17.0	18.0	21.0	29.0	30.0	29.0	28.0
12	20.0	15.0	16.0	11.0	10.0	19.0	21.0	20.0	28.0	30.0	28.0	28.0
13	20.0	15.0	13.0	13.0	13.0	21.0	21.0	20.0	26.0	30.0	28.0	28.0
14	21.0	13.0	13.0	14.0	12.0	21.0	22.0	21.0	28.0	30.0	28.0	28.0
15	20.0	13.0	13.0	14.0	14.0	21.0	22.0	23.0	28.0	30.0	28.0	29.0
16	19.0	12.0	14.0	14.0	15.0	20.0	20.0	22.0	27.0	30.0	29.0	28.0
17	19.0	12.0	14.0	13.0	16.0	21.0	19.0	24.0	27.0	30.0	29.0	28.0
18	17.0	13.0	15.0	13.0	18.0	20.0	18.0	25.0	28.0	29.0	28.0	28.0
19	19.0	15.0	16.0	11.0	18.0	18.0	21.0	26.0	28.0	30.0	28.0	25.0
20	20.0	14.0	14.0	11.0	19.0	18.0	20.0	25.0	27.0	30.0	28.0	27.0
21	19.0	15.0	15.0	12.0	18.0	15.0	20.0	26.0	26.0	30.0	29.0	28.0
22	19.0	14.0	16.0	14.0	16.0	17.0	22.0	26.0	26.0	29.0	28.0	25.0
23	20.0	14.0	16.0	15.0	15.0	19.0	23.0	25.0	26.0	29.0	29.0	23.0
24	21.0	12.0	15.0	15.0	15.0	18.0	24.0	25.0	27.0	29.0	30.0	24.0
25	20.0	12.0	13.0	16.0	16.0	17.0	23.0	25.0	28.0	28.0	30.0	25.0
26	22.0	12.0	11.0	16.0	15.0	15.0	25.0	26.0	29.0	29.0	30.0	25.0
27	23.0	13.0	11.0	15.0	17.0	16.0	25.0	28.0	28.0	26.0	30.0	26.0
28	21.0	15.0	12.0	15.0	17.0	16.0	24.0	28.0	28.0	26.0	30.0	28.0
29	23.0	16.0	14.0	16.0	---	17.0	24.0	28.0	28.0	27.0	29.0	28.0
30	21.0	18.0	14.0	17.0	---	18.0	23.0	27.0	29.0	27.0	29.0	28.0
31	20.0	---	14.0	15.0	---	19.0	---	28.0	---	27.0	29.0	---
MONTH	21.5	14.5	15.5	13.0	14.0	17.0	20.5	24.0	27.5	29.0	28.0	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 1971.

Water temperatures: August 1961 to September 1971.

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 671 mg/l Sept. 7-15; minimum, 168 mg/l Aug. 1.

Hardness: Maximum, 290 mg/l Dec. 1-31, Feb. 1-18, 20-27; minimum, 120 mg/l Oct. 23-26, May 9-13.

Specific conductance: Maximum daily, 1,270 micromhos Sept. 8; minimum daily, 264 micromhos Aug. 1.

Water temperatures: Maximum, 34.5°C June 16; minimum, 5.5°C Feb. 22.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	3000	9.3	53	9.5	36	--	3.9	166	0	48
03-18	1670	7.9	64	15	--	80	--	180	0	76
19...	652	9.3	53	9.5	36	--	3.9	166	0	48
20-22	523	7.9	64	15	--	80	--	180	0	76
23-26	6600	9.0	43	4.3	--	20	--	127	0	37
27-31	2250	9.3	53	9.5	36	--	3.9	166	0	48
NOV.										
01-03	850	9.6	51	5.4	--	23	--	138	0	48
04-14	431	9.4	68	12	--	48	--	212	0	67
15-30	588	5.3	82	16	--	70	--	262	0	77
DEC.										
01-31	449	3.7	86	18	--	97	--	270	0	92
JAN.										
01-31	776	4.9	81	17	110	--	4.8	220	0	110
FEB.										
01-18	246	4.8	84	20	--	100	--	264	0	110
19...	237	9.5	54	9.0	--	49	--	152	0	68
20-27	603	4.8	84	20	--	100	--	264	0	110
28...	1180	9.5	54	9.0	--	49	--	152	0	68
MAR.										
01-05	657	11	58	10	--	54	--	174	0	64
06-22	392	7.8	76	16	--	83	--	252	0	93
23-31	838	8.6	63	18	--	52	--	234	0	48
APR.										
01-21	1010	8.4	66	18	53	--	4.5	228	0	55
22-23	1500	9.9	52	5.2	--	27	--	122	0	59
24-30	703	8.3	63	10	--	44	--	186	0	61
MAY										
01-08	869	9.0	60	12	--	55	--	180	0	65
09-13	4140	9.5	42	3.2	--	20	--	120	0	32
14-31	763	9.0	60	12	--	55	--	180	0	65
JUNE										
01...	1220	7.3	60	14	--	69	--	174	0	65
02-04	2330	7.0	41	5.8	--	34	--	110	0	47
05-16	922	7.3	60	14	--	69	--	174	0	65
17...	884	7.0	41	5.8	--	34	--	110	0	47
18-30	928	7.3	60	14	--	69	--	174	0	65
JULY										
01-06	870	6.5	59	14	66	--	4.4	176	0	64
07-14	721	5.8	64	16	--	100	--	156	0	97
15-18	665	5.8	64	16	--	100	--	156	0	97
19-24	746	5.8	64	16	--	100	--	156	0	97
25-31	3220	8.6	45	4.9	--	9.6	--	132	0	23
AUG.										
01...	6180	9.9	45	4.6	--	7.9	--	134	0	20
02-31	1710	9.7	46	6.6	--	30	--	144	0	39
SEP.										
01-06	1030	8.5	52	8.4	--	47	--	164	0	50
07-15	1990	7.3	76	17	--	140	--	164	0	120
16-30	865	8.7	64	15	--	98	--	180	0	85
WTD. AVG.										
TIME WTD.	--	8.0	59	11	--	55	--	175	0	62
AVG.										
TOT. LOAD	1080	7.3	67	14	--	69	--	200	0	74
(TONS)	--	8410	62000	11900	--	47500	--	183000	0	65400

BRAZOS RIVER BASIN

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08109500 BRAZOS RIVER NEAR COLLEGE STATION, TEX.--Continued

EXTREMES, August 1961 to September 1971.--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: 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 1970 TO SEPTEMBER 1971

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-CARBONATE HARD- NESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.									
01-02	46	.3	1.0	292	170	35	1.2	507	7.5
03-18	120	--	.8	455	220	74	2.3	812	7.6
19...	46	.3	1.0	292	170	35	1.2	507	7.5
20-22	120	--	.8	455	220	74	2.3	812	7.6
23-26	15	--	1.2	196	120	21	.8	336	7.5
27-31	46	.3	1.0	292	170	35	1.2	507	7.5
NOV.									
01-03	23	.3	1.0	233	150	36	.8	396	7.6
04-14	55	--	.9	367	220	46	1.4	639	7.6
15-30	88	--	1.0	472	270	56	1.9	821	7.8
DEC.									
01-31	120	.3	1.5	561	290	67	2.5	974	7.7
JAN.									
01-31	160	.3	1.0	600	270	92	2.9	1050	8.0
FEB.									
01-18	120	.3	1.2	585	290	76	2.5	1000	7.9
19...	55	--	1.7	327	170	47	1.6	560	7.6
20-27	120	.3	1.2	585	290	76	2.5	1000	7.9
28...	55	--	1.7	327	170	47	1.6	560	7.6
MAR.									
01-05	61	.3	2.2	354	190	43	1.7	591	7.6
06-22	85	--	3.4	500	260	49	2.3	819	7.9
23-31	67	--	2.2	381	230	39	1.5	651	7.9
APR.									
01-21	74	.4	1.2	397	240	52	1.5	686	7.9
22-23	28	--	2.8	253	150	51	1.0	418	7.7
24-30	50	--	1.8	335	200	46	1.4	570	7.7
MAY									
01-08	72	.4	.5	365	200	52	1.7	638	7.4
09-13	18	--	1.2	189	120	20	.8	321	7.4
14-31	72	.4	.5	365	200	52	1.7	638	7.4
JUNE									
01...	100	.3	.4	405	210	64	2.1	728	7.6
02-04	41	--	.6	232	130	36	1.3	407	7.2
05-16	100	.3	.4	405	210	64	2.1	728	7.6
17...	41	--	.6	232	130	36	1.3	407	7.2
18-30	100	.3	.4	405	210	64	2.1	728	7.6
JULY									
01-06	98	.3	.3	400	200	60	2.0	717	7.6
07-14	160	--	.8	523	230	98	3.0	941	7.9
15-18	160	--	.8	523	230	98	3.0	941	7.9
19-24	160	--	.8	523	230	98	3.0	941	7.9
25-31	11	--	1.6	174	130	24	.4	303	7.4
AUG.									
01...	8.8	.3	1.3	168	130	21	.3	264	8.2
02-31	33	--	.5	238	140	24	1.1	415	7.8
SEP.									
01-06	54	.4	.7	304	160	30	1.6	516	8.1
07-15	220	.4	.6	671	260	130	3.9	1180	8.1
16-30	140	.3	.6	501	220	72	2.9	879	8.2
WTD. AVG.	77	--	.0	369	194	52	1.7	643	7.7
TIME WTD. AVG.	94	--	1.1	432	223	59	2.0	752	7.8
TOT. LOAD (TONS)	81000	--	1040	386000	--	--	--	--	--

BRAZOS RIVER BASIN

08109500 BRAZOS RIVER NEAR COLLEGE STATION, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	536	377	983	992	1010	534	639	576	622	659	264	450
2	544	390	970	964	1020	530	649	576	370	659	380	514
3	639	428	970	976	1030	530	669	627	421	685	366	535
4	701	505	954	956	1010	653	675	663	471	827	366	536
5	872	546	947	968	1020	693	661	663	893	824	393	534
6	911	584	951	1000	1010	786	694	657	917	647	379	535
7	953	649	943	992	1000	789	722	651	928	941	413	1030
8	950	679	943	992	1020	786	760	606	925	1000	412	1270
9	926	667	943	1000	1030	874	768	271	918	1010	438	1260
10	883	661	942	1050	1060	870	737	406	904	1010	428	1260
11	869	667	974	1170	1050	874	741	335	925	1010	414	1250
12	846	693	939	1150	1010	824	702	278	673	1010	428	1160
13	896	698	939	1060	1050	798	693	320	727	996	432	1160
14	853	698	939	1130	1000	836	662	551	791	---	456	1160
15	743	768	943	1150	996	816	648	545	719	1020	395	1120
16	816	768	963	1160	987	824	583	550	719	1040	367	956
17	822	766	955	1140	983	824	605	549	366	1040	429	963
18	663	766	975	1130	1010	810	754	564	683	1060	433	960
19	574	794	971	1130	536	824	757	573	682	---	445	717
20	702	822	1260	1140	919	841	579	634	626	---	426	704
21	705	817	954	1120	926	814	720	654	631	---	440	699
22	703	764	966	1080	1050	752	398	663	701	---	434	683
23	345	764	962	1080	1210	637	435	679	626	1000	418	963
24	332	765	943	1070	1030	621	556	636	623	996	437	967
25	317	793	950	1080	823	832	505	694	649	334	419	967
26	352	780	983	996	887	623	542	705	649	300	407	971
27	417	778	975	1050	946	625	658	717	630	299	405	967
28	483	1010	983	996	584	615	606	701	628	297	410	878
29	509	1020	1040	984	---	625	527	701	627	310	400	881
30	485	982	1020	971	---	638	597	782	632	289	435	922
31	527	---	1010	975	---	636	---	694	---	300	435	---
MONTH	673	713	974	1050	972	733	641	588	689	752	410	899

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.0	26.5	21.5	18.0	13.5	15.5	20.0	21.0	27.0	29.0	23.5	29.5
2	26.5	20.0	22.0	18.0	13.5	13.5	19.5	21.0	24.0	28.5	26.5	29.0
3	28.5	25.5	26.0	20.0	14.5	9.5	18.5	22.0	23.5	30.0	25.5	29.0
4	29.0	26.0	25.5	15.0	15.0	10.0	20.0	21.0	28.5	30.0	24.0	29.5
5	28.5	24.5	26.5	13.5	10.0	12.0	20.5	23.0	26.5	33.0	24.0	30.0
6	26.0	21.0	21.5	12.0	14.0	11.5	21.0	25.0	29.0	33.5	25.0	30.5
7	27.0	23.0	26.5	14.5	9.5	10.0	20.0	25.0	26.0	34.0	27.0	29.0
8	27.0	24.0	21.0	16.0	10.0	11.0	20.0	22.0	28.0	32.0	26.0	28.0
9	21.5	21.0	25.0	14.5	10.5	15.0	21.0	25.5	30.0	31.5	26.5	28.5
10	23.5	22.0	25.5	21.5	11.5	16.0	21.0	24.0	31.0	31.0	29.0	29.5
11	21.5	25.0	24.5	14.5	15.5	15.5	20.5	20.0	32.0	30.0	28.0	28.0
12	21.0	24.5	21.5	18.5	9.5	19.0	20.0	20.5	30.0	31.0	31.0	30.0
13	24.0	16.5	24.5	22.0	9.0	14.5	15.0	20.5	32.0	28.0	30.5	29.5
14	23.5	21.0	25.5	25.5	16.0	15.0	15.5	27.0	24.0	---	22.0	30.0
15	21.0	10.0	15.5	18.0	18.0	14.5	16.0	26.5	29.5	26.5	23.0	29.0
16	23.0	13.5	20.0	19.0	18.0	15.0	18.5	28.0	34.5	28.0	21.0	23.5
17	23.5	15.5	16.0	16.5	16.5	15.0	19.5	29.0	31.5	28.5	24.0	23.5
18	21.5	20.0	26.0	16.5	15.0	20.5	23.0	27.0	30.0	26.5	23.5	23.5
19	26.5	21.0	26.5	18.5	19.0	15.5	23.0	28.0	30.5	---	25.5	24.0
20	25.0	19.0	25.0	13.5	25.5	18.0	22.0	26.5	26.0	---	29.0	23.5
21	23.5	18.0	27.0	16.0	24.5	16.0	22.0	28.0	27.0	---	29.5	25.5
22	24.0	19.5	25.5	13.5	5.5	20.0	20.0	26.0	28.0	---	30.5	24.0
23	26.5	15.5	26.0	19.5	8.0	19.0	21.0	23.0	28.0	28.0	30.0	24.5
24	25.5	15.0	19.0	18.0	13.5	18.5	21.5	22.0	27.0	26.5	26.5	24.5
25	26.0	15.5	19.0	20.0	14.5	17.0	21.0	26.0	28.5	28.0	31.0	25.0
26	25.0	24.0	20.0	24.0	15.5	16.5	23.5	23.0	26.5	28.5	30.5	25.0
27	24.5	21.0	20.5	20.0	15.5	13.5	25.5	24.0	28.0	29.0	31.5	25.5
28	21.0	21.5	20.0	24.0	15.0	15.5	28.0	23.5	25.5	26.0	30.0	28.5
29	24.5	20.0	19.5	13.5	---	14.0	22.0	23.5	30.0	24.5	30.0	28.0
30	25.5	21.0	20.5	12.0	---	20.0	28.5	24.0	30.0	25.5	29.5	29.0
31	21.0	---	18.5	15.0	---	13.5	---	25.5	---	26.0	29.5	---
MONTH	24.5	20.5	22.5	17.5	14.0	15.0	21.0	24.0	28.5	29.0	27.0	27.0

BRAZOS RIVER BASIN

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08110000 YEGUA CREEK NEAR SOMERVILLE, TEX.

LOCATION.--Lat 30°19'18", long 96°30'27", 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 1971.
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 1970 TO SEPTEMBER 1971

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. 02...	--	14	13	59	11	61	54	0	130	100
30...	0845	.27	13	76	14	72	70	0	160	130
JAN. 12...	1145	.32	11	98	16	90	72	0	200	170
FEB. 16...	1045	.62	12	96	15	91	75	0	200	160
MAR. 10...	1045	.46	11	89	15	78	82	0	170	140
APR. 19...	0830	.09	19	100	20	92	115	0	190	180
AUG. 03...	1645	19	8.0	48	8.3	39	100	0	70	58
13...	1010	133	22	82	4.3	43	260	0	17	60
Sep. 13...	1645	10900	12	28	2.0	7.9	100	0	4.2	4.4

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
NOV. 02...	.2	.3	404	190	150	--	707	7.7
30...	.2		497	250	190	2.0	881	7.6
JAN. 12...	.2	.2	619	310	250	2.2	1050	7.3
FEB. 16...	.2	.2	612	300	240	2.3	1020	7.6
MAR. 10...	.2	.00	552	280	220	2.0	962	8.0
APR. 19...	.3	.6	660	340	250	2.2	1160	7.6
AUG. 03...	.2	.2	281	150	72	1.4	508	7.1
13...	.2	.2	357	220	9	1.3	622	7.5
Sep. 13...	.2	.6	110	78	0	.4	177	7.3

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 1971.
Water temperatures: November 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.										
01-11	11	6.6	39	4.7	--	50	--	120	0	23
12-13	680	5.6	25	3.3	--	27	--	84	0	16
14-23	45	6.6	39	4.7	--	50	--	120	0	23
24-27	395	5.6	25	3.3	--	27	--	84	0	16
28-31	39	6.6	39	4.7	--	50	--	120	0	23
NOV.										
01-07	6.5	6.5	47	5.4	--	41	--	140	0	28
08-21	2.5	7.7	71	9.6	--	82	--	180	0	52
22-30	1.8	6.1	95	15	--	130	--	234	0	82
DEC.										
01-31	2.1	10	100	16	--	150	--	262	0	87
JAN.										
01-31	1.5	9.6	100	16	--	170	--	270	0	72
FEB.										
01-24	1.7	6.5	120	18	--	230	--	264	0	88
25...	8.0	8.0	74	11	--	200	--	184	0	50
26...	61	6.5	120	18	--	230	--	264	0	88
27-28	8.2	8.0	74	11	--	200	--	184	0	50
MAR.										
01-31	1.2	8.8	90	12	--	120	--	240	0	56
APR.										
01-30	.40	8.3	130	18	--	210	--	312	0	96
MAY										
01-09	.68	10	96	16	--	190	--	232	0	79
10...	65	4.2	16	3.8	--	36	--	52	0	24
11-16	11	8.1	44	8.0	--	100	--	106	0	37
17-31	.16	10	96	16	--	190	--	232	0	79
JUNE										
01-11	.03	11	130	23	290	--	9.8	224	0	85
12-25	.00	--	--	--	--	--	--	--	--	--
26-30	.02	11	130	23	290	--	9.8	224	0	85
JULY										
01-23	.00	--	--	--	--	--	--	--	--	--
24-25	2.8	13	140	28	--	380	--	140	0	130
26-31	10	8.3	46	8.4	--	160	--	140	0	69
AUG.										
01-04	3.2	12	51	8.6	--	150	--	160	0	49
05...	21	8.8	26	5.0	--	77	--	84	0	25
06-31	1.4	12	51	8.6	--	150	--	160	0	49
SEP.										
01-24	.09	8.7	92	15	--	200	--	252	0	78
25-26	200	1.2	14	2.4	--	25	--	43	0	17
27-30	5.4	8.6	27	4.2	--	50	--	76	0	28
WTD. AVG.	--	5.7	33	4.6	--	46	--	100	0	23
TIME WTD.										
AVG.	13	8.9	88	14	--	169	--	217	0	69
TOT. LOAD (TONS)	--	74	421	59	--	589	--	1280	0	299

BRAZOS RIVER BASIN

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08110400 NAVASOTA RIVER NEAR GROESBECK, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 1,510 mg/l July 24-25; minimum, 115 mg/l Sept. 25-26.

Hardness: Maximum, 470 mg/l July 24-25; minimum, 45 mg/l Sept. 25-26.

Specific conductance: Maximum daily, 3,320 micromhos July 25; minimum daily, 206 micromhos Sept. 25.

Water temperatures: Maximum, 32.0°C July 2, 3, 7; minimum, 10.0°C on several days during January, February, and March.

EXTREMES, November 1967 to September 1971.--Dissolved solids: Maximum, 3,490 mg/l Oct. 1-28, 1969; minimum, 96 mg/l May 10-12, 1968.

Hardness: Maximum, 1,040 mg/l Oct. 1-28, 1969; minimum, 45 mg/l Sept. 25-26, 1971.

Specific conductance: Maximum daily, 6,590 micromhos Oct. 8, 9, 1969; minimum daily, 115 micromhos Apr. 2, 1968.

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 1970 TO SEPTEMBER 1971

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	60	.4	1.1	244	120	18	--	451	7.5
12-13	32	--	1.0	154	76	7	1.3	284	7.4
14-23	60	.4	1.1	244	120	18	--	451	7.5
24-27	32	--	1.0	154	76	7	1.3	284	7.4
28-31	60	.4	1.1	244	120	18	--	451	7.5
NOV.									
01-07	59	.2	.5	258	140	25	1.5	468	7.5
08-21	140	--	.5	454	220	69	2.4	805	7.7
22-30	220	--	.6	666	300	11	3.3	1200	7.6
DEC.									
01-31	250	.3	1.1	756	330	110	3.7	1340	7.9
JAN.									
01-31	260	.3	4.6	784	330	100	--	1400	7.5
FEB.									
01-24	400	.3	3.2	1010	380	160	5.2	1810	7.7
25...	310	--	4.1	757	230	78	5.7	1400	7.5
26...	400	.3	3.2	1010	380	160	5.2	1810	7.7
27-28	310	--	4.1	757	230	78	5.7	1400	7.5
MAR.									
01-31	190	.3	2.2	607	270	78	3.2	1070	8.2
APR.									
01-30	330	.4	1.4	945	400	140	--	1660	8.1
MAY									
01-09	320	.4	2.1	838	310	120	4.7	1500	7.4
10...	45	--	1.0	159	56	13	2.1	295	6.9
11-16	160	--	3.3	433	140	56	3.6	802	7.2
17-31	320	.4	2.1	838	310	120	4.7	1500	7.4
JUNE									
01-11	530	.4	3.5	1200	410	230	6.2	2170	7.6
12-25	--	--	--	--	--	--	--	--	--
26-30	530	.4	3.5	1200	410	230	6.2	2170	7.6
JULY									
01-23	--	--	--	--	--	--	--	--	--
24-25	730	.5	3.9	1510	470	360	--	2720	7.1
26-31	210	--	1.7	581	150	35	5.6	1060	7.0
AUG.									
01-04	200	.4	1.7	558	160	32	5.0	996	8.1
05...	110	--	1.6	298	86	16	1.1	565	7.5
06-31	200	.4	1.7	558	160	32	5.0	996	8.1
SEP.									
01-24	300	.5	3.5	841	290	84	5.2	1520	7.3
25-26	30	--	1.0	115	45	10	1.6	219	6.7
27-30	70	--	.9	229	85	22	2.4	421	6.9
WTD. AVG.	62	--	1.2	--	102	19	--	418	7.4
TIME WTD.									
AVG.	263	--	2.2	--	280	99	--	1300	7.7
TOT. LOAD (TONS)	799	--	15	--	--	--	--	--	--

BRAZOS RIVER BASIN

08110400 NAVASOTA RIVER NEAR GROESBECK, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	453	400	1160	---	1600	853	---	1690	1740	2440	---	1330
2	447	429	1180	1250	1600	853	1430	---	1750	2450	713	1330
3	460	416	1260	1500	1620	869	1420	1670	1770	2530	750	1350
4	471	---	---	1490	1630	863	1440	1660	1790	2600	819	1380
5	495	478	1310	1420	1770	883	1460	1700	1840	---	565	---
6	526	506	1330	---	1800	900	1480	1700	---	2630	1050	1390
7	544	564	1330	1420	1940	---	1510	1690	1890	2670	913	1490
8	564	641	1360	1340	2030	846	1540	1710	1930	2730	---	1460
9	594	690	1380	1210	2100	846	1560	1510	---	2910	868	1510
10	---	759	1420	1150	2140	859	1610	295	2000	---	868	1500
11	533	871	1430	1160	2100	900	---	825	2050	---	866	1520
12	221	890	1390	1180	1960	919	1660	779	---	---	861	---
13	292	859	1360	1230	1970	938	1700	700	---	---	910	1530
14	328	846	1360	1280	---	---	1700	796	---	---	939	1530
15	355	833	1330	1360	1920	1030	1730	915	---	---	---	1660
16	368	671	1330	1390	1960	1060	1740	---	---	---	996	1550
17	392	---	---	1400	2030	1080	1770	1100	---	---	1000	1600
18	413	756	1230	---	1910	---	---	1170	---	---	1020	1660
19	438	815	1180	1490	1910	1140	1880	1200	---	---	1050	---
20	---	866	1220	1480	1750	1150	1890	1230	---	---	1060	1670
21	490	939	1310	1550	1760	1160	1920	1300	---	---	1060	---
22	534	1040	1290	1590	1820	1180	1890	1330	---	---	---	1820
23	569	1180	1350	---	1680	1220	1860	1390	---	---	1100	---
24	312	1280	1310	1510	1520	1230	1840	1430	---	2960	1140	1650
25	293	1280	---	1530	1450	1260	---	1460	---	3320	1150	206
26	299	1250	1390	1530	947	1300	1760	1500	2470	1340	---	233
27	---	1240	1440	1520	1350	1300	1770	1530	2390	1090	1200	305
28	325	1240	1440	1510	---	---	1320	1570	2280	974	1240	385
29	342	1160	1470	1500	---	1360	1800	1610	2410	883	---	468
30	363	1110	1430	1500	---	1380	1760	---	---	1160	---	530
31	375	---	1450	---	---	1390	---	1680	---	897	1280	---
MONTH	421	857	1340	1400	1780	1070	1670	1330	---	---	---	1240

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	18.5	21.0	---	15.5	18.5	---	21.0	24.0	29.5	---	26.5
2	24.0	15.5	21.0	18.5	15.5	15.5	21.0	---	26.5	32.0	21.0	29.5
3	21.0	15.5	24.0	18.5	13.0	10.0	18.5	21.0	26.5	32.0	24.0	29.5
4	21.0	---	---	15.5	15.5	13.0	21.0	21.0	26.5	29.5	24.0	29.5
5	24.0	15.5	21.0	10.0	15.5	15.5	18.5	21.0	24.0	---	24.0	---
6	24.0	15.5	21.0	---	15.5	15.5	18.5	24.0	---	29.5	24.0	29.5
7	24.0	15.5	21.0	10.0	15.5	---	21.0	24.0	26.5	32.0	24.0	29.5
8	21.0	21.0	18.5	10.0	10.0	15.5	21.0	21.0	24.0	26.5	---	26.5
9	18.5	18.5	18.5	13.0	10.0	18.5	21.0	21.0	---	26.5	26.5	26.5
10	---	21.0	18.5	21.5	13.0	18.5	21.0	20.0	26.5	---	24.0	29.5
11	18.5	21.0	15.5	15.5	15.5	18.5	---	21.0	26.5	---	26.5	26.5
12	18.5	18.5	15.5	15.5	15.5	21.0	21.0	21.0	---	---	26.5	---
13	18.5	18.5	15.5	18.5	15.5	21.0	21.0	21.0	---	---	26.5	29.5
14	18.5	15.5	15.5	18.5	---	---	21.0	21.0	---	---	26.5	26.5
15	18.5	13.0	15.5	18.5	18.5	21.0	18.5	24.0	---	---	---	29.5
16	18.5	15.5	15.5	15.5	18.5	21.0	18.5	---	---	---	26.5	29.5
17	18.5	---	---	18.5	18.5	21.0	21.0	24.0	---	---	26.5	29.5
18	15.5	15.5	18.5	---	21.0	---	---	24.0	---	---	26.5	21.0
19	15.5	18.5	18.5	13.0	21.0	15.5	21.0	24.0	---	---	26.5	---
20	---	21.0	15.5	10.0	18.5	15.5	18.5	21.0	---	---	26.5	24.0
21	15.5	18.5	18.5	15.5	18.5	18.5	15.5	24.0	---	---	30.0	---
22	21.0	21.0	21.0	18.5	15.5	21.0	21.0	24.0	---	---	---	26.5
23	21.0	13.0	18.5	---	15.5	18.5	21.0	24.0	---	---	26.5	---
24	21.0	13.0	15.5	18.5	15.5	15.5	18.5	24.0	---	26.5	29.5	24.0
25	21.0	15.5	---	15.5	18.5	15.5	---	24.0	---	26.5	29.5	21.0
26	21.0	18.5	15.5	21.0	18.5	18.5	21.0	24.0	26.5	26.5	---	22.0
27	---	21.0	15.5	18.5	15.5	15.5	21.0	26.5	29.5	26.5	29.5	24.0
28	18.5	21.0	18.5	15.5	---	---	21.0	26.5	29.5	---	26.5	26.5
29	15.5	21.0	18.5	18.5	---	21.0	24.0	24.0	29.5	24.0	---	26.5
30	18.5	21.0	15.5	18.5	---	21.0	21.0	---	---	24.0	---	24.0
31	18.9	---	15.5	---	---	21.0	---	24.0	---	24.0	29.5	---
MONTH	19.5	18.0	18.0	16.0	16.0	18.0	20.0	23.0	---	---	---	26.5

BRAZOS RIVER BASIN

539

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 1971.
Sediment records: October 1968 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 27...	--	979	100	20	3.3	19	64	0	17
JAN. 05...	1220	150	16	50	12	74	92	0	77
FEB. 09...	1210	9.6	15	49	12	87	96	0	84
MAR. 06...	1125	27	14	33	8.8	71	58	0	55
APR. 20...	1200	112	17	26	7.6	40	47	0	62
MAY 26...	1120	7.9	1.5	30	8.1	51	68	0	49
JULY 08...	1100	.82	11	34	11	87	102	0	67
AUG. 04...	1930	17	8.8	42	8.5	100	100	0	76
SEP. 08...	0930	.82	11	36	8.8	83	100	0	73
27...	1645	285	5.2	14	2.7	27	50	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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 27...	22	.2	.60	125	63	11	1.0	221	7.4
JAN. 05...	130	.2	.60	403	170	99	2.4	716	7.9
FEB. 09...	140	.2	.00	432	170	94	2.9	767	7.6
MAR. 06...	120	.2	.80	332	120	71	2.8	605	7.4
APR. 20...	54	.2	.80	233	96	58	1.8	426	7.1
MAY 26...	78	.2	.20	252	110	52	2.1	501	7.1
JULY 08...	120	.2	.20	378	130	46	3.3	711	7.4
AUG. 04...	140	.2	.70	435	140	58	3.7	794	7.0
SEP. 08...	100	.3	.40	367	130	44	3.2	649	7.6
27...	33	.3	.90	124	46	5	1.7	219	7.6

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 1971.
Water temperatures: October 1958 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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 (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01-05	92	10	19	4.8	34	--	4.2	48	0	32
06-13	36	11	34	7.1	--	50	--	113	0	28
14...	298	10	19	4.8	34	--	4.2	48	0	32
15-23	395	9.2	14	3.3	--	21	--	42	0	19
24-28	1620	7.1	8.0	1.8	--	12	--	25	0	14
29-31	1140	9.2	14	3.3	--	21	--	42	0	19
NOV.										
01-09	83	11	23	5.3	--	23	--	68	0	26
10-30	26	14	29	7.0	--	34	--	74	0	41
DEC.										
01-31	28	17	33	8.9	--	42	--	72	0	52
JAN.										
01-31	28	18	37	10	50	--	4.9	66	0	58
FEB.										
01-21	39	16	37	10	--	55	--	61	0	68
22-27	395	11	25	7.0	--	36	--	36	0	51
28...	905	9.0	20	5.5	--	31	--	30	0	38
MAR.										
01-05	782	5.7	18	5.0	--	28	--	35	0	34
06-31	42	14	32	9.2	--	53	--	60	0	58
APR.										
01-30	26	13	40	11	59	--	5.4	74	0	74
MAY										
01-08	13	14	28	7.5	--	44	--	62	0	42
09-13	259	6.5	12	3.0	--	16	--	22	0	23
14-31	76	14	28	7.5	--	44	--	62	0	42
JUNE										
01-30	8.3	12	31	9.0	--	49	--	78	0	46
JULY										
01-31	2.5	11	34	9.9	48	--	4.9	100	0	41
AUG.										
01-02	28	12	33	9.5	--	74	--	73	0	51
03...	31	13	22	6.9	--	39	--	71	0	29
04-31	17	12	33	9.5	--	74	--	73	0	51
SEP.										
01-29	4.7	8.2	32	8.8	--	77	--	87	0	40
30...	108	10	29	7.4	--	70	--	69	0	45
WTD. AVG.	--	9.6	19	4.9	--	--	--	43	0	31
TIME WTD.										
AVG.	90	13	31	8.5	--	--	--	71	0	48
TOT. LOAD (TONS)	--	852	1670	434	--	--	--	3790	0	2770

BRAZOS RIVER BASIN

541

08111000 NAVASOTA RIVER NEAR BRYAN, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 338 mg/l Apr. 1-30; minimum, 69 mg/l Oct. 24-28.
 Hardness: Maximum, 140 mg/l Apr. 1-30; minimum, 27 mg/l Oct. 24-28.
 Specific conductance: Maximum daily, 768 micromhos Aug. 7; minimum daily, 94 micromhos Oct. 24.
 Water temperatures: Maximum, 29.0°C on many days during June, July and August; minimum, 5.0°C Jan. 8, 9.

EXTREMES, October 1958 to September 1971.--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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-05	49	.2	1.0	182	67	28	1.8	323	7.1
06-13	70	--	.5	258	110	21	2.0	467	7.5
14...	49	.2	1.0	182	67	28	1.8	323	7.1
15-23	26	--	.8	117	48	14	1.3	212	7.1
24-28	12	--	.5	69	27	7	1.0	119	6.8
29-31	26	--	.8	117	48	14	1.3	212	7.1
NOV.									
01-09	31	.2	.4	154	79	23	1.1	272	7.0
10-30	50	--	.3	212	100	40	1.5	366	7.1
DEC.									
01-31	68	.2	.1	256	120	60	1.7	456	7.1
JAN.									
01-31	41	.2	.9	305	130	79	1.9	547	6.9
FEB.									
01-21	90	.2	1.2	312	130	84	2.1	548	7.0
22-27	57	--	1.6	212	91	62	1.6	373	6.6
28...	46	--	2.8	176	72	48	1.6	298	6.8
MAR.									
01-05	43	.1	.3	152	65	37	1.5	271	6.6
06-31	86	--	.4	284	120	69	2.1	500	6.9
APR.									
01-30	97	.2	.6	338	140	84	2.1	591	7.6
MAY									
01-08	70	.2	.8	240	100	50	1.9	436	6.9
09-13	22	--	1.0	98	42	24	1.1	173	6.6
14-31	70	.2	.8	240	100	50	1.9	436	6.9
JUNE									
01-30	76	.2	.4	263	110	50	2.0	476	7.1
JULY									
01-31	78	.2	.5	278	130	44	1.9	509	7.1
AUG.									
01-02	120	.2	.2	337	120	62	2.9	625	7.5
03...	56	--	.4	203	83	25	1.9	374	7.6
04-31	120	.2	.2	337	120	62	2.9	625	7.5
SEP.									
01-29	120	.3	.3	331	120	44	3.1	623	7.3
30...	110	--	.6	304	100	46	3.0	562	6.8
WTD. AVG.	41	.2	.7	159	66	32	1.5	282	6.9
TIME WTD.									
AVG.	79	.2	.5	268	112	55	2.0	483	7.1
TOT. LOAD (TONS)	3680	5.0	65	14100	--	--	--	--	--

08111000 NAVASOTA RIVER NEAR BRYAN, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	344	233	421	516	556	229	566	463	427	486	540	646
2	275	213	422	516	558	265	569	457	436	478	491	640
3	268	---	421	520	561	281	570	454	443	475	374	635
4	288	268	415	493	570	305	577	457	447	472	454	631
5	359	277	415	475	571	---	578	460	459	474	658	631
6	611	286	413	498	570	350	585	460	458	475	662	631
7	547	295	413	484	562	367	597	465	460	477	768	631
8	473	297	421	479	560	389	605	469	463	481	463	630
9	446	302	428	514	531	415	609	114	469	484	464	623
10	432	311	444	555	532	444	613	220	468	485	545	622
11	426	320	438	569	545	466	619	135	470	492	673	618
12	408	330	457	587	537	475	630	142	468	523	714	617
13	391	336	458	596	515	490	641	243	471	501	687	622
14	355	353	489	611	521	497	637	735	481	504	660	625
15	175	347	465	604	542	501	622	518	475	511	642	631
16	208	354	466	578	554	508	615	428	470	514	618	633
17	225	363	465	554	557	497	607	---	484	519	611	635
18	229	368	462	536	541	499	604	404	488	496	611	640
19	234	369	461	535	539	509	599	407	493	519	625	638
20	240	370	457	530	538	520	580	405	496	532	656	638
21	251	374	---	537	575	527	579	419	499	533	668	635
22	259	377	---	554	358	532	573	420	497	532	660	620
23	185	371	461	550	317	540	726	417	501	533	671	554
24	94	367	486	---	367	548	677	383	503	542	---	569
25	141	374	453	588	392	552	---	332	505	540	---	---
26	112	382	471	573	406	557	614	337	500	537	653	598
27	112	390	494	601	394	557	559	369	500	540	673	620
28	133	394	504	580	298	554	523	356	495	533	673	637
29	168	407	516	565	---	560	496	375	500	524	668	641
30	179	416	512	554	---	560	478	---	495	529	666	562
31	195	---	521	554	---	558	---	---	---	556	658	---
MONTH	284	339	457	547	502	468	595	387	477	510	617	623

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	17.0	18.0	14.0	12.0	16.0	19.0	22.0	27.0	29.0	26.0	26.0
2	21.0	15.0	18.0	13.0	11.0	16.0	17.0	22.0	28.0	29.0	26.0	27.0
3	21.0	---	19.0	15.0	10.0	11.0	16.0	23.0	28.0	29.0	25.0	27.0
4	22.0	12.0	19.0	11.0	14.0	10.0	18.0	23.0	27.0	29.0	25.0	27.0
5	23.0	12.0	19.0	9.0	11.0	---	17.0	23.0	27.0	29.0	25.0	28.0
6	23.0	12.0	18.0	7.0	12.0	15.0	16.0	23.0	27.0	29.0	25.0	28.0
7	24.0	13.0	16.0	6.0	11.0	12.0	15.0	24.0	27.0	29.0	25.0	28.0
8	25.0	15.0	16.0	5.0	7.0	11.0	16.0	25.0	27.0	29.0	26.0	28.0
9	19.0	15.0	17.0	5.0	7.0	13.0	17.0	20.0	27.0	28.0	27.0	27.0
10	18.0	14.0	18.0	8.0	6.0	13.0	18.0	22.0	28.0	29.0	28.0	26.0
11	19.0	14.0	16.0	9.0	9.0	13.0	19.0	20.0	28.0	29.0	29.0	26.0
12	19.0	14.0	13.0	11.0	11.0	16.0	20.0	20.0	29.0	29.0	29.0	27.0
13	19.0	14.0	13.0	12.0	9.0	18.0	21.0	18.0	28.0	28.0	28.0	26.0
14	19.0	12.0	12.0	14.0	11.0	19.0	21.0	20.0	28.0	29.0	28.0	26.0
15	18.0	10.0	12.0	13.0	13.0	18.0	21.0	20.0	29.0	29.0	29.0	26.0
16	17.0	9.0	12.0	12.0	14.0	18.0	21.0	21.0	28.0	29.0	28.0	26.0
17	17.0	9.0	10.0	13.0	15.0	17.0	19.0	---	29.0	29.0	28.0	25.0
18	17.0	11.0	12.0	12.0	16.0	18.0	21.0	23.0	29.0	29.0	27.0	25.0
19	17.0	13.0	15.0	10.0	17.0	15.0	22.0	23.0	28.0	29.0	27.0	22.0
20	16.0	13.0	12.0	9.0	16.0	14.0	21.0	23.0	27.0	29.0	28.0	21.0
21	17.0	12.0	---	10.0	17.0	15.0	19.0	24.0	27.0	28.0	28.0	21.0
22	18.0	15.0	---	13.0	13.0	17.0	22.0	24.0	27.0	28.0	29.0	21.0
23	18.0	12.0	12.0	14.0	13.0	17.0	22.0	24.0	28.0	28.0	29.0	23.0
24	18.0	9.0	12.0	---	13.0	15.0	21.0	24.0	27.0	28.0	---	23.0
25	19.0	9.0	12.0	16.0	14.0	16.0	---	23.0	28.0	28.0	---	---
26	21.0	12.0	10.0	14.0	15.0	14.0	23.0	24.0	28.0	28.0	28.0	26.0
27	22.0	14.0	11.0	13.0	14.0	16.0	23.0	25.0	29.0	28.0	28.0	26.0
28	18.0	15.0	12.0	13.0	15.0	18.0	24.0	27.0	27.0	28.0	28.0	26.0
29	18.0	16.0	14.0	14.0	---	19.0	24.0	27.0	26.0	28.0	28.0	26.0
30	16.0	17.0	14.0	16.0	---	17.0	22.0	---	29.0	27.0	27.0	26.0
31	16.0	---	12.0	15.0	---	18.0	---	---	---	25.0	27.0	---
MONTH	19.0	13.0	14.5	11.5	12.5	15.5	20.0	23.0	27.5	28.5	27.5	25.5

BRAZOS RIVER BASIN

543

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 1971.
Sediment records: October 1966 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.										
29...	1530	253	15	58	1.3	17	178	0	15	17
JAN.										
27...	1000	30	12	88	7.4	31	268	0	11	61
MAR.										
05...	1540	29	17	84	4.5	36	250	0	10	63
APR.										
16...	1440	11	16	74	6.7	32	230	0	8.4	60
MAY										
10...	1015	14	21	72	5.0	33	223	0	7.2	57
JUNE										
04...	1150	4.8	19	70	3.8	33	206	0	8.0	59
JULY										
21...	1410	.18	21	57	4.3	36	162	0	15	62
AUG.										
19...	1500	2.4	23	58	7.6	27	176	0	7.2	58
SEP.										
20...	1210	7.0	30	57	5.8	27	174	0	8.8	50

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
29...	.2	.3	213	150	4	.6	400	7.1
JAN.								
27...	.0	.2	343	250	30	.9	694	7.9
MAR.								
05...	.2	.1	338	230	23	--	613	7.8
APR.								
16...	.2	.00	310	210	24	1.0	575	7.5
MAY								
10...	.2	.00	352	200	18	.7	551	7.5
JUNE								
04...	.1	.3	295	190	21	1.0	538	7.0
JULY								
21...	.2	.00	277	160	27	1.2	480	7.3
AUG.								
19...	.1	.3	269	180	32	.9	488	7.1
SEP.								
20...	.2	.4	267	170	23	.9	481	7.2

DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
MAR., 1970					
17...	1140	633	--	921	1570
APR.					
10...	1255	1790	--	391	1890
MAY					
25...	1530	4200	--	346	3920

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 1971.

Chemical and biochemical analyses: January 1968 to September 1971.

Pesticide analyses: February 1968 to September 1971.

Water temperatures: November 1950 to September 1971.

Sediment records: January 1966 to September 1971.

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 573 mg/l July 17-31; minimum, 158 mg/l Oct. 25-31.

Hardness: Maximum, 280 mg/l Dec. 1-31; minimum, 110 mg/l Oct. 25-30.

Specific conductance: Maximum daily, 1,150 micromhos Sept. 18; minimum daily, 241 micromhos Oct. 25, 26.

Water temperatures: Maximum, 30.0°C on many days during July and August.

Sediment concentrations: Maximum daily, 2,800 mg/l Oct. 24; minimum daily, 11 mg/l Dec. 29.

Sediment loads: Maximum daily, 126,000 tons Oct. 25; minimum daily, 24 tons Dec. 29.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.									
01-24	4680	8.3	54	8.6	40	170	0	39	53
25-31	11100	7.7	39	4.1	13	127	0	19	11
NOV.									
01-12	2780	7.3	41	6.2	23	128	0	31	25
13-30	1010	9.1	74	13	45	254	0	46	54
DEC.									
01-31	886	6.1	84	17	77	287	0	68	98
JAN.									
01-31	1130	3.6	80	18	100	234	0	86	140
FEB.									
01-28	702	6.0	76	19	87	247	0	84	120
MAR.									
01-31	777	7.5	65	9.7	69	211	0	66	76
APR.									
01-30	948	7.5	62	16	55	218	0	52	72
MAY									
01-31	1660	8.6	50	7.4	39	146	0	49	45
JUNE									
01-07	1260	7.3	55	9.5	57	160	0	63	72
08-10	893	6.9	72	15	110	164	0	97	170
11-18	680	7.3	55	9.5	57	160	0	63	72
19-23	820	6.9	72	15	110	164	0	97	170
24-30	783	6.3	58	13	81	178	0	60	120
JULY									
01-16	660	9.0	57	14	59	185	0	57	82
17-31	779	10	67	18	120	184	0	92	180
AUG.									
01-02	3020	11	--	--	90	172	0	88	140
03-31	2520	12	48	6.9	25	147	0	36	30
SEP.									
01-13	2050	11	49	7.0	32	154	0	37	38
14-30	1790	13	66	12	100	159	0	83	150
WTD. AVG.	--	8.5	56	9.9	49	174	0	49	64
TIME WTD.									
AVG.	1680	8.0	63	12	63	197	0	60	84
TOT. LOAD (TONS)	--	14100	92100	16200	80800	288000	0	81200	106000

08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

EXTREMES, October 1945 to September 1971.--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 (1950-71): Maximum, 33.0°C Aug. 5, 1951; minimum, 1.0°C Jan. 8, 1970.
 Sediment concentrations (January 1966 to September 1971): Maximum daily, 8,300 mg/l Apr. 27, 1966; minimum daily, 8 mg/l Nov. 29, 1967.
 Sediment loads (January 1966 to September 1971): 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 1970 TO SEPTEMBER 1971

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	SPECI- FIC CON- DUCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-24	.2	.4	289	170	30	1.3	517	7.7
25-31	.2	.5	158	110	10	.5	287	7.8
NOV.								
01-12	.3	1.0	201	130	23	.9	368	7.8
13-30	--	.8	370	240	29	1.3	677	8.2
DEC.								
01-31	.2	.6	494	280	45	2.0	851	8.2
JAN.								
01-31	.2	1.3	554	270	80	2.6	980	8.0
FEB.								
01-28	.2	.6	512	270	64	2.3	894	7.4
MAR.								
01-31	.2	.8	401	200	29	2.1	719	8.1
APR.								
01-30	.3	1.4	378	222	44	1.6	678	7.5
MAY								
01-31	.3	1.3	277	160	35	1.4	499	7.6
JUNE								
01-07	.3	.5	345	180	45	1.9	613	7.8
08-10	--	.6	560	240	110	3.1	931	7.8
11-18	.3	.5	345	180	45	1.9	613	7.8
19-23	--	.6	560	240	110	3.1	931	7.8
24-30	--	.5	424	200	52	2.5	717	7.8
JULY								
01-16	.4	.3	371	200	48	1.8	689	8.0
17-31	--	.3	573	240	89	3.4	1000	8.0
AUG.								
01-02	.4	.8	--	240	97	2.5	906	8.0
03-31	--	.8	233	150	28	.9	426	7.9
SEPT.								
01-13	.3	.4	252	150	25	1.1	461	7.8
14-30	--	.5	509	210	82	3.0	932	7.9
WTD. AVG.	--	.7	324	181	38	1.5	584	7.8
TIME WTD.								
AVG.	--	.7	392	209	47	1.9	698	7.8
TOT. LOAD (TONS)	--	1190	531000	--	--	--	--	--

BRAZOS RIVER BASIN

08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 18...	1620	765	7.7	86	19	79	302	0	71	100	.2	.20
FEB. 17...	1500	599	3.6	79	16	84	260	0	72	110	.2	.32
APR. 07...	1330	507	5.3	64	20	43	244	0	37	69	.2	.50
JUNE 16...	1315	907	5.0	42	12	44	128	0	55	61	.3	.31
AUG. 18...	1445	1590	3.5	52	3.5	34	150	0	44	35	.3	.21

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- TUNTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	LOSS ON IGNI- TION (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. 18...	.000	.06	.00	.080	513	20	8	290	46	2.0	907	7.9
FEB. 17...	.000	1.1	.00	.15	498	16	0	260	51	--	852	7.9
APR. 07...	.000	.01	.00	.13	359	21	17	240	42	1.2	674	7.8
JUNE 16...	.000	.02	.00	.10	282	42	--	160	51	1.5	526	7.9
AUG. 18...	.020	.24	.00	.16	247	124	40	140	21	1.2	433	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 SUR- STANCE (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
DEC. 18...	18.0	10	10	9.6	101	11	7.2	0	.01	--	--	--
FEB. 17...	20.0	5	10	7.9	86	18	4.6	0	.01	0	0	1
APR. 07...	18.5	5	15	14.8	160	12	4.1	0	.00	--	--	--
JUNE 16...	31.0	50	--	8.0	107	48	2.5	8	.00	20	0	0
AUG. 18...	32.0	25	100	8.0	108	17	4.4	0	.00	20	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)
DEC. 18...	--	--	--	--	--	--	--	--	--	--	--
FEB. 17...	0	0	0	6	0	30	11	.6	0	690	4
APR. 07...	--	--	--	--	--	--	--	--	--	--	--
JUNE 16...	0	2	7	100	9	10	4	<.5	2	470	50
AUG. 18...	0	0	8	10	0	10	1	<.5	2	390	30

BRAZOS RIVER BASIN

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08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DOS- 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. 17...	1430	754	.00	--	.00	--	.00	--	.00	--
JAN. 26...	1510	910	.00	--	.00	--	.00	--	.00	--
FEB. 17...	1500	599	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 07...	1330	507	.00	--	.00	--	.00	--	.00	--
JUNE 15...	1315	625	.00	--	.00	--	.06	--	.39	--
16...	1315	907	.00	<.2	.00	5.1	.00	15	.00	<.2
JULY 21...	1600	575	.00	--	.00	--	.00	--	.00	--
AUG. 18...	1100	1640	.00	--	.00	--	.00	--	.00	--
18...	1445	1590	.00	<.2	.00	1.2	.01	5.2	.01	<.2
SEP. 24...	1355	1310	.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. 17...	.02	--	.00	--	.00	--	.00	--	.00	--
JAN. 26...	.00	--	.00	--	.00	--	.00	--	.00	--
FEB. 17...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 07...	.00	--	.00	--	.00	--	.00	--	.00	--
JUNE 15...	.00	--	.00	--	.00	--	.00	--	.00	--
16...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 21...	.00	--	.00	--	.00	--	.00	--	.00	--
AUG. 18...	.00	--	.00	--	.00	--	.00	--	.00	--
18...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
SEP. 24...	.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)	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 BOTTOM DE- POSITS (UG/KG)
DEC. 17...	.0	--	.00	.00	--	.00	--	.00	--
JAN. 26...	.0	--	.00	.00	--	.00	--	.00	--
FEB. 17...	.0	<1.0	.00	.00	<.2	.00	<.2	.00	<.2
APR. 07...	.0	--	.00	.00	--	.00	--	.00	--
JUNE 15...	.0	--	.00	.00	--	.00	--	.00	--
16...	.0	<1.0	.00	.00	<.2	.00	<.2	.00	<.2
JULY 21...	.0	--	.00	.00	--	.00	--	.00	--
AUG. 18...	.0	--	.00	.00	--	.00	--	.00	--
18...	.0	<1.0	.00	.00	<.2	.00	<.2	.00	<.2
SEP. 24...	.0	--	.00	.00	--	.00	--	.00	--

BRAZOS RIVER BASIN

08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)
DEC. 17...	.0	--	.00	--	.00	--	.00	--	.5
JAN. 26...	.0	--	.00	--	.00	--	.00	--	--
FEB. 17...	.0	<10	--	<1.4	--	<.2	--	<.2	--
APR. 07...	.0	--	.00	--	.01	--	.00	--	--
JUNE 15...	.0	--	.00	--	.00	--	.00	--	--
16...	.0	<10	.00	<.6	.00	<.2	.00	<.2	.2
JULY 21...	.0	--	.00	--	.00	--	.00	--	--
AUG. 18...	.0	--	.00	--	.00	--	.00	--	--
18...	.0	<10	.00	<1.4	.00	<.3	.00	<.4	.4
SEP. 24...	.0	--	.00	--	.00	--	.00	--	--

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .002 MM	SUS. SED. SIEVE DIAM. % FINER THAN .004 MM	SUS. SED. SIEVE DIAM. % FINER THAN .008 MM	SUS. SED. SIEVE DIAM. % FINER THAN .016 MM
NOV. 08...	0600	2650	18.5	664	99	99	100	79	90	94	97
DEC. 10...	0630	14800	10.0	4590	84	98	100	47	59	68	76
JAN. 09...	0730	11000	7.0	1650	71	90	100	35	43	48	54
11...	0740	8250	6.0	1470	85	96	100	53	64	71	75
MAR. 08...	0725	26600	14.0	3200	84	95	100	41	51	55	63
10...	0620	45100	14.5	5920	86	98	100	40	45	54	62
SEPT. 04...	0655	8250	27.0	1880	91	99	100	50	58	64	75

DATE	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
NOV. 08...	98	99	99	99	99	4750
DEC. 10...	82	83	97	99	100	183000
JAN. 09...	62	71	90	100	100	49000
11...	78	85	96	99	100	32700
MAR. 08...	71	84	95	99	99	230000
10...	74	86	97	99	99	721000
SEPT. 04...	84	91	99	--	--	41900

BRAZOS RIVER BASIN

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08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	341	745	890	---	928	761	558	668	691	1120	496
2	633	309	731	903	1040	877	659	---	641	690	711	463
3	547	287	738	890	1040	831	666	540	691	676	487	458
4	467	335	755	855	1010	792	---	535	685	661	403	459
5	547	406	762	855	976	840	666	472	647	683	397	---
6	541	395	781	871	949	751	670	505	877	711	371	454
7	573	378	766	890	912	795	686	539	603	681	371	484
8	552	355	750	---	823	798	688	547	920	666	308	504
9	677	399	822	903	748	633	696	559	1100	653	---	507
10	323	439	888	---	903	591	---	593	866	678	375	---
11	746	476	892	911	879	555	---	608	633	687	429	378
12	444	456	873	924	795	516	---	579	542	713	398	357
13	432	535	881	920	782	507	718	617	518	697	413	500
14	321	537	892	899	879	520	718	672	493	704	402	903
15	311	537	900	903	899	550	727	511	469	716	419	1060
16	342	579	900	975	895	568	732	407	518	752	414	1080
17	436	614	896	---	891	596	---	373	561	805	442	1130
18	510	621	892	1070	887	625	---	377	663	---	460	1150
19	543	623	---	1100	887	651	715	356	892	928	450	907
20	593	652	880	1100	879	679	761	320	---	963	487	704
21	776	677	872	1130	883	715	759	310	1010	986	484	779
22	---	700	849	1100	884	741	729	330	896	1020	467	854
23	664	715	853	1100	903	763	589	359	825	1010	459	936
24	470	722	854	1090	895	780	580	---	805	1030	465	923
25	241	740	---	1070	891	795	740	425	755	---	462	884
26	241	760	858	1050	851	817	---	463	729	1000	406	903
27	---	769	847	1050	880	833	514	485	699	1010	470	919
28	298	787	851	1040	---	---	664	545	659	1010	476	953
29	305	789	858	1030	---	854	673	555	692	1050	---	953
30	343	789	867	1030	---	851	610	558	694	1060	450	813
31	---	---	857	1040	---	830	---	583	---	1130	480	---
MONTH	477	557	838	985	895	719	---	492	716	830	465	747

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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

08114000 BRAZOS RIVER AT RICHMOND, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	4420	510	6090	4490	540	6550	957	71	183
2	4200	1140	12900	4300	422	4900	1360	38	140
3	3300	1330	11900	4320	368	4290	1320	21	75
4	3090	1020	8510	3670	350	3470	1180	31	99
5	3230	570	4970	3090	311	2590	1060	50	143
6	3420	430	3970	2820	240	1830	980	75	198
7	3510	320	3030	2480	206	1380	920	64	159
8	3620	400	3910	2070	180	1010	877	27	64
9	3530	310	2950	1760	171	813	850	38	87
10	3410	240	2210	1530	132	545	825	86	192
11	3970	499	6290	1540	98	407	803	100	217
12	9390	2440	63400	1340	81	293	796	124	267
13	14600	2270	89500	1200	91	295	791	109	233
14	9600	1360	35300	1140	150	462	783	129	273
15	5330	1050	15100	1100	88	261	774	45	94
16	3530	620	5910	1080	30	87	757	44	90
17	2720	320	2350	1020	48	132	755	82	167
18	2320	180	1130	991	55	147	753	80	163
19	2220	169	1010	1010	38	104	765	102	211
20	2080	141	792	1040	27	76	775	124	259
21	2000	103	556	1030	18	50	811	104	228
22	2040	101	556	993	16	43	857	40	93
23	2310	390	2430	974	15	39	871	24	56
24	14400	2800	116000	1010	12	33	914	15	37
25	19100	2450	126000	992	16	43	929	18	45
26	15600	1420	59800	968	36	94	875	21	50
27	11800	1710	54500	954	37	95	847	19	43
28	9670	2330	60800	935	42	106	822	12	27
29	8660	1830	42800	905	63	154	806	11	24
30	7230	1340	26200	886	74	177	830	14	31
31	5590	930	14000	--	--	--	830	18	40
TOTAL	189890	--	784864	51638	--	30476	27473	--	3988
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	893	18	43	783	22	47	1230	35	116
2	1030	29	81	751	20	41	1420	50	192
3	995	26	70	735	20	40	1710	129	596
4	896	31	75	719	22	43	1510	97	395
5	859	25	58	715	19	37	1350	120	437
6	810	28	61	733	19	38	1220	132	435
7	786	24	51	884	48	115	1140	95	292
8	773	24	50	897	92	223	1110	98	294
9	764	24	50	896	116	281	1120	131	396
10	742	27	54	751	35	71	972	140	367
11	729	35	69	676	50	91	878	151	358
12	732	35	69	634	31	53	728	158	311
13	873	36	85	628	23	39	618	132	220
14	1720	62	288	617	20	33	497	128	172
15	2220	105	629	611	26	43	436	98	115
16	2060	108	601	605	21	34	420	80	91
17	1710	90	416	599	19	31	404	72	79
18	1710	61	282	592	20	32	400	88	95
19	1960	78	413	592	18	29	359	44	43
20	1740	69	324	596	22	35	347	34	32
21	1430	54	208	586	31	49	330	34	30
22	1250	43	145	587	40	63	368	40	40
23	1120	41	124	586	35	55	392	34	36
24	1050	30	85	578	25	39	408	37	41
25	981	30	79	600	30	49	604	34	55
26	919	34	84	753	45	91	717	44	85
27	866	27	63	840	33	75	695	37	69
28	860	28	65	1110	34	102	658	32	57
29	909	25	61	--	--	--	684	27	50
30	883	22	52	--	--	--	707	30	57
31	828	20	45	--	--	--	666	51	92
TOTAL	35098	--	4780	19654	--	1879	24098	--	5648

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	687	59	109	634	106	181	769	58	120
2	676	39	71	690	72	134	700	43	81
3	661	40	71	686	86	159	1110	58	174
4	673	41	75	698	62	117	1070	62	179
5	627	34	58	629	40	68	1350	88	321
6	541	33	48	686	33	61	2170	380	2230
7	507	26	36	891	38	91	1670	440	1980
8	494	27	36	889	53	127	1140	248	763
9	426	25	29	848	39	89	840	140	318
10	452	26	32	807	41	89	700	119	225
11	454	27	33	758	41	84	625	134	226
12	449	28	34	1100	82	244	574	123	191
13	446	28	34	3500	479	5520	528	70	100
14	445	28	34	5870	1500	23800	540	80	117
15	482	25	33	5340	2250	32400	638	27	47
16	457	26	32	4950	2440	32600	907	36	88
17	751	49	99	3870	1750	18300	839	30	68
18	844	70	160	2990	1030	8320	785	34	72
19	843	99	225	2400	770	4990	744	38	76
20	928	61	153	1900	570	2920	774	38	79
21	1300	78	274	1620	560	2450	801	38	82
22	1570	104	441	1410	320	1220	901	41	100
23	2500	331	2230	952	324	833	878	123	292
24	3060	452	3730	776	290	608	930	36	90
25	2710	442	3230	1060	422	1210	759	39	80
26	1930	398	2070	992	540	1450	730	31	61
27	1250	342	1150	891	258	621	712	413	794
28	945	205	523	874	132	311	747	75	151
29	693	152	284	976	142	374	800	40	86
30	628	140	237	880	120	285	801	42	91
31	--	--	--	743	67	134	--	--	--
TOTAL	28429	--	15571	51310	--	139790	26532	--	9282

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	746	45	91	3000	330	2670	1270	69	237
2	715	42	81	3030	498	4070	1440	112	435
3	706	34	65	4310	630	7330	1350	69	252
4	689	36	67	6520	1250	22000	1140	61	188
5	614	34	56	6550	1400	24800	1050	70	198
6	623	32	54	5330	1300	18700	993	88	236
7	673	37	67	4010	1110	12000	937	42	106
8	642	38	66	3300	875	7800	972	40	105
9	609	45	74	3060	650	5370	1160	57	179
10	599	71	115	3610	500	4870	2770	346	2590
11	630	105	179	3650	410	4040	5390	860	12500
12	691	78	146	3240	530	4640	4520	448	5470
13	638	50	86	2780	422	3170	3660	307	3030
14	699	45	85	2290	342	2110	3050	221	1820
15	678	41	75	1980	305	1630	2730	195	1440
16	610	35	58	1790	260	1260	2510	179	1210
17	607	34	56	1680	193	875	2060	40	222
18	605	38	62	1590	117	502	1620	103	451
19	523	41	58	1480	93	372	2340	472	3080
20	549	32	47	1520	74	304	2770	391	2920
21	570	30	46	1490	76	306	2350	195	1240
22	560	54	82	1400	56	212	1720	134	622
23	493	45	60	1320	40	143	1450	105	411
24	489	33	44	1270	41	141	1290	110	383
25	519	29	41	1270	54	185	1130	97	296
26	620	25	42	1380	321	1200	980	102	270
27	584	35	55	1360	62	228	1010	78	213
28	669	54	98	1380	58	216	1280	97	335
29	870	34	80	1330	70	251	1140	86	265
30	1270	82	281	1190	81	260	971	54	142
31	2760	210	1560	1140	53	163	--	--	--
TOTAL	22250	--	3977	79250	--	131818	57053	--	40846

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

612675

1172919

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 1971.

Chemical and biochemical analyses: October 1968 to September 1971.

Pesticide analyses: February 1968 to September 1971.

Water temperatures: October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.									
01-24	6580	8.4	50	7.1	54	150	0	44	70
25-31	13200	7.5	34	3.7	15	108	0	19	16
NOV.									
01-13	3280	7.1	41	8.2	21	131	0	30	29
14-30	1160	10	75	14	53	265	1	48	64
DEC.									
01-31	911	7.6	88	18	81	306	0	67	100
JAN.									
01-31	1120	6.6	82	18	99	251	0	84	140
FEB.									
01-28	596	6.6	81	20	90	266	0	74	130
MAR.									
01-31	498	8.0	75	15	78	248	0	76	94
APR.									
01-30	540	8.1	70	23	60	248	0	63	90
MAY									
01-15	876	9.3	59	13	56	182	0	60	76
16-31	1410	9.9	48	6.9	30	196	0	38	36
JUNE									
01-30	367	9.9	65	14	89	200	0	66	130
JULY									
01-31	246	14	64	19	87	218	0	60	130
AUG.									
01-03	2550	11	65	16	100	152	0	89	160
04-07	6500	13	48	6.9	29	145	0	38	36
08... 09-31	4650	17	--	--	796	130	0	200	1300
09-31	2110	13	48	6.9	29	145	0	38	36
SEP.									
01-14	4490	12	40	11	29	146	0	34	36
15-19	3080	12	65	11	110	137	0	84	170
20-23	3860	15	47	8.6	62	122	0	51	94
24-30	1290	13	63	13	91	177	0	73	130
WTD. AVG. TIME WTD. AVG.	--	9.4	53	9.9	54	168	0	47	74
TOT. LOAD (TONS)	1830	9.4	65	14	69	214	0	60	96
	--	17000	95000	17600	97800	303000	53	84600	134000

BRAZOS RIVER BASIN

553

08116650 BRAZOS RIVER NEAR ROSHARON, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 555 mg/l Jan. 1-31; minimum, 151 mg/l Oct. 25-31.
 Hardness: Maximum, 420 mg/l Aug. 8; minimum, 100 mg/l Oct. 25-31.
 Specific conductance: Maximum daily, 4,430 micromhos Aug. 8; minimum daily, 203 micromhos Oct. 26.
 Water temperatures: Maximum, 30.0°C on several days during July, August, and September; minimum, 6.0°C Jan. 8, 9.

EXTREMES, October 1968 to September 1971.--Dissolved solids: Maximum, 732 mg/l Oct. 1-27, 1969; 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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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 COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-24	.2	.70	311	150	31	1.9	560	7.5
25-31	.2	.60	151	100	12	.7	274	7.3
NOV.								
01-13	.2	.70	204	140	29	.8	382	7.8
14-30	--	.40	397	250	28	1.5	715	8.3
DEC.								
01-31	.2	.40	519	290	43	2.1	881	8.1
JAN.								
01-31	.2	.50	555	280	74	2.6	995	7.9
FEB.								
01-28	.2	.50	535	280	65	2.3	971	7.5
MAR.								
01-31	.2	.70	471	250	47	2.2	838	8.2
APR.								
01-30	.3	.80	440	270	65	1.6	801	8.0
MAY								
01-15	.3	.80	366	200	51	1.7	670	7.6
16-31	--	1.0	245	150	28	1.1	443	7.5
JUNE								
01-30	.3	.30	470	220	54	2.6	780	7.9
JULY								
01-31	.5	.10	482	240	60	2.5	853	8.0
AUG.								
01-03	.4	.40	521	230	100	2.9	976	7.9
04-07	--	.70	245	150	29	1.0	449	7.7
08...	--	1.1	--	420	310	17	4430	7.2
09-31	--	.70	245	150	29	1.0	449	7.7
SEP.								
01-14	.2	.20	235	140	25	1.0	435	7.7
15-19	--	.40	519	210	94	3.3	962	7.6
20-23	--	.40	339	150	53	2.2	621	7.3
24-30	--	.20	470	210	65	2.7	849	7.7
WTD. AVG.	.2	.58	317	174	38	1.7	600	7.6
TIME WTD.								
AVG.	.3	.53	415	223	50	2.0	750	7.8
TOT. LOAD (TONS)	295	1050	568000	--	--	--	--	--

BRAZOS RIVER BASIN

08116650 BRAZOS RIVER NEAR ROSHARON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 14...	1245	21800	7.4	31	4.5	39	100	0	17	56	.2	.55
DEC. 03...	1230	1240	8.6	81	19	55	296	0	56	70	.3	.16
18...	1005	880	8.0	90	20	84	312	0	70	110	.2	.23
JAN. 28...	1400	660	2.6	82	19	120	240	0	92	170	.3	.23
FEB. 18...	0945	480	3.1	85	19	91	294	0	68	120	.2	.36
MAR. 19...	1145	90	8.4	92	26	77	328	0	76	110	.0	.22
APR. 06...	1500	117	6.5	82	23	71	265	0	79	110	.2	.53
MAY 20...	1050	1540	--	--	--	--	--	--	--	--	--	--
JUNE 16...	1500	178	12	72	21	75	252	0	65	110	.0	.31
JULY 29...	1400	277	9.2	58	23	110	186	0	76	180	.4	.33
AUG. 19...	0800	1690	10	25	21	33	150	0	44	35	.3	.27
SEP. 30...	1100	1190	15	71	14	110	215	0	81	140	.3	.30

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 (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FIL- TRABLE RESIDUE (MG/L)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)
OCT. 14...	.010	.15	.4	.69	198	210	1090	120	96	14	--	383
DEC. 03...	.000	.08	.00	.030	451	436	32	32	280	38	1.4	761
18...	.000	.03	.00	.070	546	539	28	10	310	52	2.1	965
JAN. 28...	.000	.12	.00	.090	609	601	2	1	280	86	3.1	1060
FEB. 18...	.000	.05	.00	.12	--	535	15	0	290	51	--	934
MAR. 19...	.010	.04	.00	.15	553	550	14	--	340	67	1.8	959
APR. 06...	.030	.05	.5	.090	520	501	36	18	300	83	1.8	920
MAY 20...	--	--	--	--	--	--	--	--	--	--	--	333
JUNE 16...	.000	.02	.00	.080	--	479	52	2	270	60	--	851
JULY 29...	.010	.08	.00	.14	562	548	46	14	240	88	--	1000
AUG. 19...	.020	.02	.2	.15	250	244	216	54	150	27	1.2	438
SEP. 30...	.000	.00	.00	.19	523	537	108	--	240	60	3.1	1020

BRAZOS RIVER BASIN

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08116650 BRAZOS RIVER NEAR ROSHARON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	PH (UNITS)	TEMP- ERATURE (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 SUB- STANCE (MG/L)
OCT. 14...	6.9	21.0	70	310	5.7	59	24	2.8	10000	9100	0	.00
DEC. 03...	7.9	22.0	0	15	8.6	98	4	4.2	>4000	300	--	.00
18...	7.5	17.0	15	10	9.6	99	12	2.6	10000	20	--	.00
JAN. 28...	7.4	16.0	15	15	11.7	117	9	2.1	4100	12	--	.00
FEB. 18...	7.8	19.0	0	5	12.4	132	16	5.5	13000	41	0	.00
MAR. 19...	7.2	16.5	0	15	7.0	71	16	3.8	16400	90	--	.00
APR. 06...	7.2	18.5	15	25	12.1	130	19	2.9	74000	30	0	.00
MAY 20...	--	25.5	--	--	7.4	89	--	--	66	16000	--	--
JUNE 16...	7.9	31.0	60	65	9.0	120	26	2.2	4400	69	7	.00
JULY 29...	7.5	31.0	15	75	9.0	120	20	2.7	94000	170	--	.00
AUG. 19...	8.5	30.0	20	150	9.0	118	20	3.1	7000	210	0	.00
SEP. 30...	7.9	27.5	35	55	--	--	18	--	26000	310	--	.00

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDE (UG/L)	DDE (UG/L)	DDE (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)	LINDANE (UG/L)
JAN. 28...	1400	660	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAY 20...	1050	1540	.00	.00	.02	.02	.01	.00	.00	.00	.00
JUNE 16...	1500	178	.00	.00	.00	.00	.00	.00	.00	.00	.00
JULY 29...	1400	277	.00	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 19...	0800	1690	.00	.00	.00	.02	.00	.00	.00	.00	.00

DATE	CHLOR- DANE (UG/L)	DI- AZINON (UG/L)	MAL A- 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)	PCR (UG/L)
JAN. 28...	.0	.00	.00	.00	.00	.0	.00	.00	.00	--
MAY 20...	.0	.00	.00	.00	.00	.0	.00	.03	.00	--
JUNE 16...	.0	.00	.00	.00	.00	.0	.00	.01	.00	.1
JULY 29...	.0	.00	.00	.00	.00	.0	.00	.00	.00	--
AUG. 19...	.0	.00	.00	.00	.00	.0	.00	.00	.00	--

BRAZOS RIVER BASIN

08116650 BRAZOS RIVER NEAR ROSHARON, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR-OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	604	330	830	906	1060	901	899	852	639	758	1100	496
2	566	311	834	907	1090	908	894	878	670	772	1130	506
3	629	313	782	903	1100	894	873	794	709	784	702	494
4	534	293	756	899	1080	854	841	667	709	787	468	431
5	453	337	785	899	1060	805	808	628	702	784	403	463
6	477	381	792	882	1040	833	792	627	719	803	406	473
7	473	404	814	899	990	772	877	682	754	784	538	490
8	516	399	841	911	975	775	858	610	639	784	4430	506
9	518	398	838	920	921	830	855	601	731	749	377	526
10	641	400	835	938	865	718	873	601	911	765	359	409
11	745	437	901	938	817	630	900	625	953	780	399	276
12	686	455	957	933	970	623	928	638	936	794	394	260
13	949	498	943	966	938	593	904	594	940	769	388	305
14	443	527	922	975	856	607	916	628	872	749	409	435
15	332	544	935	925	848	638	995	621	869	775	388	788
16	293	566	953	887	929	741	958	478	847	752	379	953
17	317	637	962	980	966	871	818	403	704	775	393	986
18	399	678	962	970	966	933	703	372	619	806	447	1030
19	471	714	952	1030	961	950	652	381	647	813	463	1050
20	513	705	948	1000	939	991	703	365	650	850	467	560
21	585	694	939	1100	929	991	750	332	739	877	502	537
22	689	718	930	1120	934	981	767	334	923	900	510	654
23	767	739	939	1110	947	933	745	343	911	966	500	726
24	850	773	888	1090	1010	986	668	390	792	957	487	806
25	239	776	893	1100	1010	925	567	454	806	990	490	816
26	203	776	884	1100	975	950	714	439	788	1040	489	809
27	232	791	881	1090	966	861	721	470	788	1060	463	793
28	402	807	904	1090	832	905	518	521	813	1020	470	860
29	258	817	897	1080	---	925	606	559	823	1030	483	906
30	280	841	909	1060	---	897	744	601	879	1010	498	958
31	292	---	922	1050	---	912	---	611	---	1050	501	---
MONTH	495	569	888	989	963	843	795	552	783	856	627	643

BRAZOS RIVER BASIN

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08116650 BRAZOS RIVER NEAR ROSHARON, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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

LOCATION.--Lat 29°14'35", long 95°33'41", Brazoria County, at Harris Pumping Plant of Dow Chemical Company, 10 miles northwest of Angleton.

PERIOD OF RECORD.--Chemical analyses: January 1962 to September 1971.

Water temperatures: October 1966 to September 1971.

DATE	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)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 26-30	8.7	36	4.9	15	116	0	20	16
NOV. 23-30	9.1	--	--	--	--	--	43	76
DEC. 01-31	7.6	78	18	81	272	0	65	110
JAN. 01-31	6.0	78	20	100	241	0	85	150
FEB. 01-28	7.0	79	20	92	260	0	73	130
MAR. 01-31	8.4	74	18	76	250	0	67	100
APR. 01-30	8.1	65	20	69	234	0	62	95
MAY 17-28	11	42	6.1	29	123	0	36	34
JUNE 01-30	9.1	62	18	91	198	0	65	140
JULY 01-31	14	62	18	97	218	0	55	140
AUG. 09-31	12	46	6.4	28	140	0	36	34
SEP. 01-30	13	52	9.4	63	155	0	53	86

[illegible]

REMARKS.--No discharge records available.

[illegible]

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.

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 26-30	.2	1.0	--	120	12	.5	299	7.6
NOV. 23-30	.2	.1	--	--	--	--	711	--
DEC. 01-31	.2	.2	443	220	39	2.3	790	7.9
JAN. 01-31	.2	.5	542	270	77	2.6	971	8.0
FEB. 01-24	.2	.4	576	280	74	2.9	1040	7.8
25-26	.2	.1	--	615	410	11	3980	7.7
MAR. 24-31	--	.2	10700	2200	2000	31	17500	7.8
APR. 01-19	.4	3.0	10200	1900	1800	32	16400	7.3
MAY 17-31	.3	1.8	214	120	21	1.2	376	7.6
JUNE 18-23	.4	.00	9340	2200	2100	26	16000	7.5
JULY 19-31	.7	.6	16600	3200	3100	39	26500	7.5
AUG. 10-26	.3	.7	232	130	27	1.1	426	7.8
SEP. 01-03	.4	.3	1400	350	210	9.5	2640	8.2
04-30	--	.6	354	160	36	2.4	633	8.4

[illegible]

BRAZOS RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08079530 NORTH FORK DOUBLE MOUNTAIN FORK BRAZOS RIVER ABOVE BUFFALO SPRINGS LAKE, NEAR LUBBOCK, TEX.
(Lat 33°31'33", long 101°43'38")

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)
DEC. 10...	0945	9.5	45	100	130	330	442	24	470
JAN. 13...	0855	9.2	58	110	130	320	498	0	440
FEB. 18...	1410	12	43	57	130	350	368	0	470
MAR. 24...	1500	12	41	68	120	340	420	0	450
JULY 15...	1200	7.4	16	54	120	300	358	0	380

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH
DEC. 10...	400	6.3	11	1770	780	420	5.1	2710	8.4
JAN. 13...	400	4.4	14	1760	790	380	4.9	2620	8.2
FEB. 18...	410	3.6	12	1690	660	360	5.9	2590	8.1
MAR. 24...	400	4.4	11	1690	680	340	5.7	2590	8.0
JULY 15...	400	4.0	6.0	1480	630	340	5.2	2530	7.6

08080910 WHITE RIVER RESERVOIR NEAR SPUR, TEX. (Lat 33°27'28", long 101°05'22")

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 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)
DEC. 09...	1325	1.0	20	10	120	4.3	220	0	39	89
JULY 15...	0920	2.9	19	10	120	6.4	218	0	43	86

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH	TEMP- ERATURE (DEG C)
DEC. 09...	1.6	.00	280	388	91	0	5.5	689	8.1	12.0
JULY 15...	1.8	.00	310	391	88	0	5.5	702	8.0	27.0

MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08080940 SALT FORK BRAZOS RIVER AT STATE HIGHWAY 208, NEAR CLAIREMONT, TEX.
(Lat 33°12'22", long 100°44'50")

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)
MAY 31...	1820	65	24	180	54	1400	346	0	520
AUG. 17...	1150	54	14	95	18	520	174	0	220

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
MAY 31...	2000	.00	4350	670	390	24	7740	7.2
AUG. 17...	760	.80	1710	310	170	13	3110	7.1

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)
MAY 18...	1325	1.1	8.4	690	77	1600	50	0
SEP. 28...	1350	.06	10	1600	280	14000	210	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
MAY 18...	1600	2700	6800	2000	2000	15	10800	6.7
SEP. 28...	3800	22000	41600	5100	4900	85	61600	7.0

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)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
MAY 18...	1300	3.3	7.0	780	130	4600	62	0
SEP. 28...	1315	12	9.6	820	95	1800	216	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
MAY 18...	2100	7200	14800	2500	2400	40	22900	6.9
SEP. 28...	2100	2800	7750	2400	2300	16	11400	7.1

BRAZOS RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08083500 FORT PHANTOM HILL RESERVOIR NEAR NUGENT, TEX. (Lat 32°36'58", long 99°40'05")

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 (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)
JULY 15...	1045	.5	54	22	68	10	175	0	81	110	.4
SEP. 21...	1255	.0	47	16	53	7.5	147	0	69	85	.4

DATE	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
JULY 15...	.10	200	436	220	82	2.0	790	7.5	28.5	--
SEP. 21...	.20	120	351	180	63	1.7	637	8.2	23.0	10

08084500 LAKE STAMFORD NEAR HASKELL, TEX. (Lat 33°04'44", long 99°34'52")

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 (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 27...	1315	7.2	51	37	110	19	212	0	160	140

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
JULY 27...	.6	.50	460	631	280	110	2.9	1080	8.1	30.0

08086015 HUBBARD CREEK NEAR SEDWICK, TEX. (Lat 32°36'06", long 99°14'20")

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)
JUNE 02...	1620	.35	14	42	7.3	23	100	0	30

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
JUNE 02...	48	.2	.80	217	140	53	.9	370	7.2

BRAZOS RIVER BASIN

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MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08086020 HUBBARD CREEK AT U.S. HIGHWAY 380, NEAR MORAN, TEX. (Lat 32°37'24", long 99°13'12")

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)
JUNE 02...	1640	1.1	14	47	9.9	40	106	0	38
AUG. 17...	1715	.30	7.3	130	52	270	104	0	62

DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH
JUNE 02...	82	.2	.70	.70	286	160	71	1.4	556	7.2
AUG. 17...	690	.3	.20	.20	1260	540	450	5.1	2190	7.1

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 (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)
JUNE 02...	1655	.21	13	48	11	49	130	0	31

DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH
JUNE 02...	91	.2	.70	.70	310	170	60	1.7	566	7.4

08086130 COOK CREEK NEAR ALBANY, TEX. (Lat 32°44'53", long 99°20'06")

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)
JUNE 03...	0730	.03	17	260	64	570	113	0	130

DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH
JUNE 03...	1400	2.3	2.3	2480	920	830	8.2	4670	7.3

BRAZOS RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08086200 SALT PRONG HUBBARD CREEK NEAR ALBANY, TEX. (Lat 32°42'02", long 99°12'42")

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)
JUNE 02...	1955	.52	12	68	15	110	108	0	99
DATE	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	DIS-SOLVED FLUO- RIDE (F) (MG/L)	DIS-SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
JUNE 02...	200	.2	.60	566	230	140	3.1	959	7.4

08086220 BIG SANDY CREEK NEAR EOLIAN, TEX. (Lat 32°35'23", long 98°58'44")

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)	
JUNE 02...	1230	.23	12	28	2.7	9.8	78	0	16	
AUG. 17...	1230	.60	7.2	34	3.0	20	84	0	25	
DATE	TIME	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	DIS-SOLVED FLUO- RIDE (F) (MG/L)	DIS-SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
JUNE 02...	13		.2	.80	123	81	17	.5	223	7.6
AUG. 17...	30		.1	1.1	165	97	28	.9	312	7.3

08086235 BATTLE CREEK NEAR MORAN, TEX. (Lat 32°33'10", long 99°06'32")

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)
JUNE 02...	1345	1.2	13	30	3.7	11	80	0	17
AUG. 17...	1500	1.6	7.1	32	4.2	13	105	0	18
DATE	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	DIS-SOLVED FLUO- RIDE (F) (MG/L)	DIS-SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
JUNE 02...	20	.2	.70	137	90	24	.5	257	7.3
AUG. 17...	13	.2	.30	141	97	11	.6	270	7.5

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WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08088400 LAKE GRAHAM NEAR GRAHAM, TEX. (Lat 33°08'04", long 98°36'48")

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 POTASSIUM (K) (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
JULY 20...	1445	7.3	65	11	66	9.2	142	0	22	150

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (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)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
JULY 20...	.3	.60	80	408	210	90	2.0	776	7.9	27.0

08090300 LAKE PALO PINTO NEAR SANTO, TEX. (Lat 32°38'53", long 98°15'56")

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM PLUS POTASSIUM (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)
APR. 20...	1150	5.6	40	20	66	16	65	186	0	74

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED 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)	TEMPERATURE (DEG C)
APR. 20...	99	.3	.30	418	230	80	1.9	731	8.1	18.0

08091900 LAKE PAT CLEBURNE NEAR CLEBURNE, TEX. (Lat 32°17'20", long 97°24'54")

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)
APR. 30...	1010	2.2	100	10	42	5.2	14	152	0	16

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
APR. 30...	10	.3	.40	166	130	1	.5	296	9.9	20.0

BRAZOS RIVER BASIN

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08095550 WACO LAKE NEAR WACO, TEX. (Lat 31°34'46", long 97°11'51")

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 POTASSIUM (K) (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)
MAY 13...	0855	8.0	54	6.4	22	3.3	160	0	37	29	.3

DATE	DIS-SOLVED NITRATE (N) (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)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
MAY 13...	.30	50	240	160	30	.8	410	8.0	21.5	0

08099000 LAKE LEON NEAR RANGER, TEX. (Lat 32°21'46", long 98°40'32")

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 POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 29...	1120	3.5	65	13	67	5.2	136	0	68	130
JULY 07...	1605	2.2	44	10	52	5.3	88	0	55	100

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (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)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 29...	.3	.00	--	419	220	100	2.0	766	7.5	17.0
JULY 07...	.2	.01	60	314	150	79	1.8	591	8.2	31.0

08099400 PROCTOR LAKE NEAR PROCTOR, TEX. (Lat 31°58'07", long 98°29'09")

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 POTASSIUM (K) (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)
OCT. 29...	1425	4.4	54	21	90	6.2	133	0	62	180	.3
JULY 07...	1200	.0	54	23	100	7.0	140	0	69	200	.3

DATE	DIS-SOLVED NITRATE (N) (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)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
OCT. 29...	.00	--	483	220	110	2.6	895	7.4	18.0	--
JULY 07...	.30	80	524	230	110	3.0	983	8.1	30.0	10

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WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08104050 STILLHOUSE HOLLOW LAKE NEAR BELTON, TEX. (Lat 31°01'20", long 97°31'57")

DATE	TIME	DIS-SOLVED SILICA (SI02) (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 (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
DEC. 18...	0925	7.7	48	20	26	2.7	208	0	23	48
JUNE 10...	1030	6.7	40	22	32	3.7	182	0	26	58

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (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)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)
DEC. 18...	.3	.10	240	278	200	32	.8	508	7.5	--
JUNE 10...	.3	.10	80	278	190	42	1.0	512	7.9	0

08109800 EAST YEGUA CREEK NEAR DIME BOX, TEX. (lat 30°24'26", long 96°49'02")

DATE	TIME	DIS-CHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DIS-CHARGE (T/DAY)
NOV., 1969				
10...	1145	2.9	25	.20
MAR., 1970				
03...	1840	852	92	212
05...	1500	185	76	38
MAY				
08...	1400	8.8	45	1.1
NOV.				
02...	--	2.7	51	.37
JAN., 1971				
14...	1405	4.4	24	.29
MAR.				
04...	1545	3.3	19	.17
AUG.				
05...	1439	.16	147	.06

08109900 SOMERVILLE LAKE NEAR SOMERVILLE, TEX. (Lat 30°19'06", long 96°31'24")

DATE	TIME	DIS-SOLVED SILICA (SI02) (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 (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)
FEB. 16...	1155	8.8	34	7.5	24	5.9	75	0	55	39	.2
JUNE 01...	1545	3.0	38	8.1	27	6.5	85	0	61	45	.2

DATE	DIS-SOLVED NITRATE (N) (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)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
FEB. 16...	.40	110	213	120	54	1.0	372	7.2	15.0	5
JUNE 01...	.10	70	231	130	58	1.0	409	7.5	25.5	0

BRAZOS RIVER BASIN
MISCELLANEOUS ANALYSES OF STREAMS IN THE BRAZOS RIVER BASIN IN TEXAS
WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08110100 DAVIDSON CREEK NEAR LYONS, TEX., (lat 30°25'10", long 96°32'24")

DATE	TIME	DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
FEB., 1970				
26...	1305	116	285	89
MAR.				
05...	0940	56	383	58
08...	1300	1330	178	639
NOV.				
02...	--	.08	53	.01
APR., 1971				
19...	1130	12	255	8.3

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 (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)
FEB. 02...	1515	4.9	43	3.8	11	4.2	135	0	23	9.2	.2
JULY 28...	1250	2.6	49	4.4	16	6.4	152	0	34	16	.3

DATE	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
FEB. 02...	.20	100	166	120	12	.4	293	7.3	10.5	0
JULY 28...	.40	--	206	140	16	.6	352	7.4	--	--

SAN BERNARD RIVER BASIN

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08117700 SAN BERNARD RIVER ON FARM ROAD 1304, 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.

RECORDS AVAILABLE.--Chemical analyses: October 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.										
01...	1150	34	16	81	18	89	276	0	33	150
28...	1530	31	14	99	23	130	330	0	40	220
JAN.										
29...	1250	29	14	88	25	150	312	0	36	250
MAR.										
10...	1115	13	13	90	21	120	298	0	44	200
APR.										
13...	--	--	13	79	26	150	292	0	34	250
JUNE										
02...	1300	--	12	44	12	46	154	0	26	72
JULY										
20...	1240	--	17	52	19	52	212	0	24	86
AUG.										
17...	1125	--	10	32	8.5	26	127	0	9.6	39
SEP.										
22...	0930	3980	27	18	4.2	6.2	68	0	5.2	10

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
DEC.								
01...	.1	.1	522	280	52	--	948	7.5
28...	.0	.2	685	340	150	--	1260	7.1
JAN.								
29...	.1	.00	718	320	68	--	1320	7.6
MAR.								
10...	.2	.5	630	310	66	--	1150	7.5
APR.								
13...	.3	.3	709	300	64	3.7	1270	7.8
JUNE								
02...	.0	1.1	293	160	34	1.6	539	7.5
JULY								
20...	.3	.2	355	210	32	1.6	671	7.7
AUG.								
17...	.2	.6	190	120	11	1.1	356	7.0
SEP.								
22...	.0	.1	104	62	6	.3	172	6.9

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 1971.

Pesticide analyses: October 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
NOV. 03...	0830	.47	9.9	20	6.1	16	4.5	88	0	6.4	26	.1
MAR. 24...	1515	5.8	3.6	54	19	56	5.4	186	0	59	92	.3
APR. 27...	1615	1.7	5.4	57	23	80	7.2	230	0	40	130	.5
JUNE 02...	1600	5.5	12	58	22	46	6.6	212	0	45	79	.4
JULY 07...	1410	21	20	57	22	49	4.0	226	2	32	87	.4
AUG. 11...	1730	1.7	39	34	12	24	11	149	0	15	39	.3
SEP. 12...	1050	266	14	11	2.8	8.6	4.0	47	0	4.0	13	.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 CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
NOV. 03...	.100	.020	.84	.000	.07	.2	.15	70	133	164	75	3
MAR. 24...	.960	.040	.72	.010	.00	.1	.20	140	381	42	210	60
APR. 27...	--	--	.58	.000	.00	.2	.16	--	456	--	240	48
JUNE 02...	--	--	.89	.020	.56	.1	.20	--	374	--	240	62
JULY 07...	.100	.034	.34	.000	.00	.00	.10	110	385	60	230	44
AUG. 11...	.300	.051	1.8	.000	.28	.1	.26	80	248	176	130	12
SEP. 12...	--	--	.32	.000	.34	.00	.11	50	81	18	39	0

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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)
NOV. 03...	.8	227	7.4	11.5	110	9.4	85	55	1.7	100	0	0
MAR. 24...	1.7	691	8.7	18.5	15	18.6	198	40	14	0	0	0
APR. 27...	2.3	843	8.2	30.0	45	13.2	174	43	7.8	--	--	--
JUNE 02...	1.3	673	8.2	32.0	70	9.6	130	37	6.1	--	--	--
JULY 07...	1.4	683	7.5	31.0	25	6.2	83	18	2.0	10	0	0
AUG. 11...	.9	391	8.5	34.5	80	10.6	147	58	8.4	30	0	0
SEP. 12...	.6	135	6.4	26.0	6	2.5	30	37	3.4	60	0	0

08117900 BIG BOGGY CREEK NEAR WADSWORTH, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 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. 03...	0	0	1	25	80	1	0	1	.7	5	100	0
MAR. 24...	0	--	0	4	9	0	20	5	.8	0	390	2
APR. 27...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE 02...	--	--	--	--	--	--	--	--	--	--	--	--
JULY 07...	0	--	0	3	100	0	10	33	5.1	0	580	0
AUG. 11...	0	--	0	3	760	0	0	50	<.5	2	260	0
SEP. 12...	0	--	0	4	220	2	0	0	4.1	0	100	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)
NOV. 03...	0830	.47	.00	<.2	.00	.7	.00	<.2	.00	.6
MAR. 24...	1515	5.8	.00	.2	.00	<.2	.00	<.2	.00	<.2
JULY 07...	1410	21	.00	<.2	.00	.4	.00	.7	.00	<.2
AUG. 11...	1730	1.7	.00	<.2	.00	<.2	.00	<.2	.00	<.2
SEP. 12...	1050	266	.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 BOTTOM DE-POSITS (UG/KG)	LINDANE (UG/L)
NOV. 03...	.01	.6	.00	<.2	.00	<.2	.00	<.2	.00
MAR. 24...	.02	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JULY 07...	.01	.7	.00	<.2	.00	<.2	.00	<.2	.00
AUG. 11...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00
SEP. 12...	.00	--	.00	--	.00	--	.00	--	.00

DATE	LINDANE IN BOTTOM DE-POSITS (UG/KG)	CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	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 BOTTOM DE-POSITS (UG/KG)	PARA-THION (UG/L)
NOV. 03...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
MAR. 24...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JULY 07...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
AUG. 11...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
SEP. 12...	--	.0	--	.00	.00	--	.00	--	.00

DATE	PARA-THION IN BOTTOM DE-POSITS (UG/KG)	TOX-APHENE (UG/L)	TOX-APHENE IN BOTTOM DE-POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE-POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE-POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE-POSITS (UG/KG)
NOV. 03...	<.2	.0	<10	.00	<11	.00	<2.2	.00	<1.5
MAR. 24...	<.2	.0	<10	.26	<1.1	.00	<.2	.00	<.2
JULY 07...	<.2	.0	<10	.00	<.6	.00	<.2	.00	<.2
AUG. 11...	<.2	.0	<10	.00	<.7	.00	<.2	.00	<.2
SEP. 12...	--	.0	--	.10	--	.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 1971.

Water temperatures: March 1965 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTERRER 1971

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- RONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
04...	.05	1.0	1500	460	--	15000	--	60	0	2500
08...	1.1	1.8	560	190	5900	--	26	44	0	1100
16...	.12	.8	970	380	--	11000	--	82	0	2200
NOV.										
01...	.02	.6	830	300	--	8600	--	86	0	1800
21...	.11	.6	1000	370	--	11000	--	84	0	2200
DEC.										
14...	.45	1.0	720	280	--	7600	--	139	0	1800
JAN.										
01...	1.2	.8	780	300	7500	--	24	187	0	1900
16...	.57	.3	910	350	--	9800	--	150	0	2400
FEB.										
04...	.60	.5	810	320	--	9200	--	152	0	2300
MAR.										
02...	.53	.0	820	360	--	9300	--	150	0	2400
17...	.11	.0	980	410	--	11000	--	122	0	2800
APR.										
07...	.13	.0	1100	480	14000	--	55	80	0	3200
18...	1.1	.3	700	330	--	7900	--	120	0	2300
29...	.16	.2	840	380	--	9900	--	61	0	2400
MAY										
08...	15	5.4	490	160	--	4600	--	165	0	920
09...	133	5.6	260	69	--	2100	--	510	0	560
15...	.76	1.7	610	210	--	6400	--	56	0	1600
29...	1050	26	100	30	--	170	--	584	0	13
JUNE										
06...	2.1	4.3	310	120	--	2700	--	124	0	640
11...	1.1	.8	450	170	--	5000	--	76	0	970
25...	11	7.5	110	26	--	680	--	130	0	150
JULY										
24...	110	19	92	22	--	370	--	176	0	55
27...	4.3	7.5	100	26	--	680	--	142	0	140
28...	2.1	6.8	120	35	--	1100	--	116	0	290
30...	35	19	87	20	--	320	--	182	0	20
31...	156	--	--	--	--	--	--	--	--	5.2
AUG.										
01...	510	7.1	64	7.2	--	110	--	154	0	35
03...	52	7.7	68	15	--	340	--	124	0	100
05...	8.7	7.8	120	36	--	880	--	136	0	250
17...	178	10	70	14	--	250	--	140	0	87
25...	5930	7.3	31	2.4	--	5.7	--	97	0	6.0
26...	3880	6.8	34	3.0	--	19	--	100	0	12
29...	123	14	170	49	--	860	--	258	0	350
SEPT.										
17...	52	20	120	25	--	160	--	288	0	210
18...	81	21	210	70	--	1200	--	204	0	450
29...	21	7.3	140	42	--	670	--	174	0	290

COLORADO RIVER BASIN

575

08120700 COLORADO RIVER NEAR CUTHBERT, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 68,700 micromhos Apr. 12; minimum daily, 300 micromhos Aug. 26.

Water temperatures: Maximum, 32.0°C Aug. 18, Sept. 2, 5, 6; minimum, freezing point Feb. 7.

EXTREMES, March 1965 to September 1971.--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, 300 micromhos Aug. 26, 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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
04...	25000	--	--	44500	5600	5600	87	65600	7.0
08...	9800	--	--	17600	2200	2100	55	27000	6.9
16...	18000	--	--	32600	4000	3900	76	49900	7.2
NOV.									
01...	14000	--	--	25600	3300	3200	65	40200	7.2
21...	18000	--	--	32600	4000	4000	76	50800	7.1
DEC.									
14...	12000	--	--	22900	2900	2800	61	35700	7.2
JAN.									
01...	12000	--	--	22600	3200	3000	58	36300	7.4
16...	16000	--	--	29500	3700	3600	70	45200	7.6
FEB.									
04...	15000	--	--	27500	3300	3200	69	43100	7.5
MAR.									
02...	15000	--	--	28000	3500	3400	68	42900	7.4
17...	18000	--	--	34000	4200	4000	74	51100	7.0
APR.									
07...	22000	--	--	40400	4800	4700	89	59500	6.5
18...	13000	--	--	23900	3100	3000	62	37300	7.3
29...	16000	--	--	29500	3700	3600	71	45100	6.4
MAY									
08...	7700	--	--	14000	1900	1700	46	21700	7.4
09...	3200	--	--	6490	930	510	30	10600	7.9
15...	10000	--	--	19300	2400	2400	57	29100	6.9
29...	180	.3	2.0	817	370	0	3.8	1420	7.5
JUNE									
06...	4500	--	--	8330	1200	1100	33	13700	7.6
11...	8200	--	--	14800	1800	1800	51	22400	7.1
25...	1100	--	1.3	2160	370	260	15	4000	7.6
JULY									
24...	660	.3	.3	1300	320	180	9.0	2560	7.3
27...	1100	--	.3	2150	360	240	16	3930	7.1
28...	1700	--	.7	3230	430	340	23	5580	7.4
30...	580	--	.5	1140	300	150	8.0	2350	7.6
31...	190	--	--	--	--	--	--	1100	--
AUG.									
01...	190	.2	.5	492	190	63	3.5	936	7.4
03...	540	--	.6	1130	230	130	9.7	2130	7.6
05...	1400	--	.6	2780	450	340	18	5000	7.8
17...	400	.3	.9	895	230	120	7.1	1650	7.5
25...	6.8	--	1.2	112	87	8	.3	201	7.5
26...	29	--	.8	156	97	15	.8	289	7.4
29...	1400	--	1.4	2940	630	420	15	5200	8.2
SEP.									
17...	210	.4	.6	888	410	170	3.4	1430	8.1
18...	2000	--	--	4140	800	640	19	7200	7.7
29...	1100	--	1.0	2320	520	370	13	4020	8.0

COLORADO RIVER BASIN

08120700 COLORADO RIVER NEAR CUTHBERT, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs-days)	Specific conductance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	9.10	36900	24200	19	595	13400	11	330	1560	1.2	38
November.....	2.77	48500	31600	7.9	237	17500	4.4	131	2150	.5	16
December.....	16.58	34700	21800	32	978	11900	17	531	1690	2.4	76
January 1971..	21.00	42800	27700	51	1570	15100	28	856	2080	3.8	118
February.....	22.85	41400	26200	58	1620	14100	31	869	2180	4.8	134
March.....	6.11	50000	33200	18	548	17900	9.5	296	2770	1.5	46
April.....	11.75	44300	29000	31	921	15600	16	494	2510	2.7	80
May.....	1897.98	2000	1160	192	5950	470	77	2390	110	18	553
June.....	718.74	4320	2430	157	4720	1230	80	2390	220	14	434
July.....	432.97	3180	1790	67	2090	910	34	1070	110	4.0	125
August.....	23909.1	590	314	653	20200	95	199	6160	45	93	2880
September.....	1690.1	3290	2000	304	9120	880	134	4020	290	44	1320
Total	28739.05	--	--	--	48500	--	--	19500	--	--	5820
Weighted average	78.7	1100	630	133	--	250	54	--	75	16	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61400	40200	43800	36300	43900	43000	59600	50400	6470	13000	850	7410
2	62500	43600	40900	37500	41300	42900	59200	50000	8090	14700	700	6610
3	64800	41800	39900	42300	41600	43100	58400	32000	9250	16200	2000	8800
4	65600	44400	38200	40500	42700	43300	59700	52900	10200	17400	3500	9200
5	65300	44100	38100	42500	39900	47100	60700	56000	12900	18100	4500	8800
6	68400	47000	36800	40100	38600	47100	60100	---	13700	---	6800	8950
7	67600	52700	38200	39000	36500	46600	60000	---	14600	---	6900	9000
8	40000	51700	39100	43900	41300	46500	60200	15000	17400	---	2000	9300
9	36500	54000	38200	43800	41800	50700	62700	7090	19500	---	550	9350
10	41400	52700	36600	42400	41700	48900	66200	10900	21100	---	400	9600
11	42000	51800	38700	44200	43400	50900	62600	10600	22400	---	1200	9600
12	43200	49400	36500	44600	42200	48900	68700	16600	13600	---	500	9800
13	45000	49700	35800	45000	42000	49300	67300	20700	14300	---	400	10200
14	47000	48900	35700	45200	43300	53300	67800	26100	16500	---	550	10100
15	49000	48200	34800	45200	42400	51900	66200	29100	17800	---	400	9950
16	49400	48100	32800	45200	42400	55600	54500	37700	20600	---	350	9950
17	47400	48500	33000	45700	42100	51100	45000	37600	22300	---	1700	2760
18	43600	48200	32500	45700	43300	53500	37300	24900	23300	---	3000	3500
19	31200	49200	32300	44800	42900	55700	37500	37300	25300	---	4500	7500
20	26500	49200	31200	45800	42100	57000	37700	37600	26000	---	5500	9000
21	26200	50800	30700	45200	40700	58400	35500	41800	4700	---	6500	8870
22	26700	49200	30600	44700	41300	55200	37000	42000	2000	---	7500	7440
23	26900	49700	30700	44200	40000	54900	37000	47900	4000	20000	7980	2500
24	28700	49300	30000	43700	40000	54900	38900	---	4500	5180	500	2000
25	29100	48300	31300	44100	40500	54200	39600	---	5000	3000	350	1500
26	35300	48900	31800	43300	40800	56700	43700	---	5600	3500	300	990
27	33500	48900	32400	43900	40900	54000	43700	---	6950	3930	2000	2300
28	36300	49000	34500	43100	42100	57900	45900	40000	8370	5580	3500	3000
29	37200	47100	34500	43100	---	54900	45100	1200	9360	4300	5000	3900
30	38000	46200	36300	42800	---	55300	49900	1100	12100	2400	5500	4500
31	39800	---	35100	42900	---	55200	---	5000	---	1500	6500	---
MONTH	43730	48360	35190	43250	41490	51550	52260	29260	13260	---	2970	6880

COLORADO RIVER BASIN

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08120700 COLORADO RIVER NEAR CUTHBERT, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	10.0	16.0	10.0	14.0	14.0	19.0	29.0	29.0	29.0	20.0	30.0
2	16.0	14.0	18.0	9.0	14.0	3.0	21.0	30.0	29.0	28.0	21.0	32.0
3	---	11.0	16.0	5.0	12.0	9.0	20.0	28.0	28.0	30.0	27.0	---
4	22.0	14.0	12.0	6.0	9.0	13.0	14.0	25.0	26.0	29.0	29.0	30.0
5	29.0	12.0	17.0	2.0	10.0	11.0	16.0	---	28.0	28.0	28.0	32.0
6	22.0	6.0	12.0	2.0	5.0	14.0	19.0	24.0	31.0	---	29.0	32.0
7	24.0	14.0	16.0	6.0	0.0	14.0	17.0	25.0	24.0	---	27.0	29.0
8	15.0	15.0	14.0	8.0	8.0	18.0	18.0	15.0	30.0	---	22.0	31.0
9	19.0	18.0	10.0	10.0	9.0	17.0	20.0	14.0	28.0	---	21.0	30.0
10	18.0	18.0	9.0	6.0	12.0	19.0	23.0	16.0	25.0	---	23.0	24.0
11	19.0	13.0	13.0	9.0	10.0	17.0	26.0	19.0	26.0	---	22.0	23.0
12	22.0	16.0	10.0	8.0	13.0	17.0	23.0	20.0	26.0	---	---	25.0
13	---	8.0	9.0	14.0	14.0	18.0	18.0	23.0	24.0	---	23.0	24.0
14	22.0	8.0	9.0	9.0	14.0	17.0	18.0	24.0	25.0	---	22.0	27.0
15	11.0	11.0	9.0	8.0	16.0	19.0	19.0	27.0	24.0	---	23.0	25.0
16	18.0	10.0	8.0	9.0	18.0	18.0	19.0	29.0	30.0	---	24.0	25.0
17	20.0	13.0	14.0	14.0	19.0	17.0	21.0	28.0	31.0	---	25.0	24.0
18	21.0	13.0	14.0	12.0	15.0	15.0	20.0	26.0	25.0	---	32.0	14.0
19	13.0	14.0	6.0	11.0	16.0	16.0	16.0	27.0	30.0	---	22.0	21.0
20	29.0	12.0	10.0	12.0	15.0	14.0	21.0	28.0	26.0	---	---	22.0
21	29.5	8.0	12.0	14.0	6.0	13.0	25.0	28.0	25.0	---	25.0	23.0
22	19.0	7.0	15.0	11.0	9.0	11.0	25.0	28.0	22.0	---	29.0	22.0
23	26.0	6.0	9.0	11.0	14.0	17.0	24.0	28.0	31.0	---	28.0	15.0
24	27.5	8.0	11.0	14.0	15.0	13.0	26.0	27.0	23.0	21.0	20.0	20.0
25	23.0	10.0	5.0	13.0	16.0	14.0	28.0	26.0	31.0	31.0	24.0	20.0
26	27.0	12.0	12.0	14.0	15.0	16.0	20.0	21.0	28.0	25.0	23.0	22.0
27	26.0	13.0	13.0	15.0	16.0	24.0	24.0	---	29.0	28.0	22.0	27.0
28	16.0	13.0	13.0	14.0	16.0	---	26.0	---	31.0	29.0	22.0	26.0
29	18.0	14.0	10.0	16.0	---	20.0	28.0	18.0	29.0	31.0	25.0	26.0
30	19.0	18.0	9.0	17.0	---	24.0	27.0	21.0	29.0	25.0	26.0	22.0
31	14.0	---	8.0	13.0	---	23.0	---	24.0	---	22.0	28.0	---
MONTH	20.5	12.0	11.5	10.5	12.5	16.0	21.5	24.0	27.5	---	24.5	25.0

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 U.S. Highway 80, 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 1971.
Water temperatures: November 1952 to September 1954, November 1956 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	5.9	160	61	1700	--	14	84	0	640
20...	.06	7.0	330	150	--	3500	--	155	0	1400
23...	3.9	3.0	130	39	--	1300	--	44	0	460
NOV.										
01...	.01	6.2	220	85	--	2700	--	104	0	890
18...	.03	8.9	200	110	--	3000	--	209	0	980
30...	.06	9.2	240	150	--	3700	--	197	0	1300
DEC.										
04...	.09	8.1	350	180	--	4600	--	184	0	1800
13...	.09	6.8	540	280	--	7000	--	192	0	2700
25...	.06	3.8	680	320	--	9200	--	208	0	3400
JAN.										
26...	.04	2.0	570	260	7900	--	20	224	0	2900
FEB.										
01...	.06	2.1	600	280	--	8000	--	224	0	3000
28...	.04	1.8	660	300	--	9100	--	182	0	3400
MAR.										
01...	.03	1.0	640	330	--	8900	--	184	0	3400
APR.										
17...	.17	4.8	560	380	--	8800	--	218	0	3500
19...	.06	4.1	800	470	--	12000	--	146	0	4800
MAY										
30...	872	8.1	60	6.6	--	120	--	144	0	55
31...	16	7.3	75	16	--	370	--	102	0	160
JUNE										
01...	.03	8.3	140	47	--	1100	--	122	0	440
20...	2.4	13	140	28	--	740	--	147	0	280
22...	115	5.1	250	74	--	1800	--	124	0	570
23...	33	7.8	87	18	--	600	--	95	0	160
JULY										
30...	38	3.0	74	19	650	--	7.0	42	0	200
31...	1.8	4.4	160	48	--	1500	--	92	0	420
AUG.										
02...	604	6.7	45	4.8	--	71	--	144	0	33
17...	443	8.8	54	90	--	150	--	128	0	59
21...	.67	9.9	170	64	--	1200	--	156	0	500
SEP.										
08...	.45	4.7	310	140	--	3300	--	159	0	1300
23...	161	7.5	220	77	--	1400	--	188	0	530
28...	42	6.6	99	29	--	460	--	143	0	230

COLORADO RIVER BASIN

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08121000 COLORADO RIVER AT COLORADO CITY, TEX.--Continued

EXTREMES, May 1946 to September 1954, November 1956 to September 1969.--Dissolved solids (1946-54, 1956-68): 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): 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 1970 TO SEPTEMBER 1971

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 COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01...	2600	--	.4	5220	650	580	29	8850	7.5
20...	5400	--	.1	10900	1500	1300	40	17100	7.8
23...	2000	--	.4	3960	480	440	26	6860	7.2
NOV.									
01...	4100	--	--	8050	890	800	39	13100	7.6
18...	4500	--	--	8900	940	770	42	14500	8.1
30...	5400	--	--	10900	1200	1040	46	17300	7.9
DEC.									
04...	6800	--	--	13800	1600	1500	50	21000	7.8
13...	10000	--	--	20600	2500	2300	61	32100	7.8
25...	14000	--	--	27700	3000	2900	73	41100	7.6
JAN.									
26...	12000	--	--	23700	2500	2300	69	35700	7.3
FEB.									
01...	12000	--	--	23900	2600	2400	68	36600	7.8
28...	13000	--	--	27000	2900	2700	74	40500	7.6
MAR.									
01...	13000	--	--	26600	3000	2800	71	40700	7.4
APR.									
17...	13000	--	--	26300	2900	2800	70	39800	7.5
19...	18000	--	--	35800	4000	3800	83	51100	7.5
MAY									
30...	180	.3	1.1	508	180	58	3.9	932	7.4
31...	560	--	.7	1250	250	170	10	2260	7.2
JUNE									
01...	1700	--	1.3	3590	550	450	21	6250	7.5
20...	1200	--	.7	2440	450	330	15	4240	7.5
22...	3000	--	--	5720	920	820	26	9850	7.6
23...	950	--	1.8	1870	290	210	15	3360	7.5
JULY									
30...	1000	--	.5	1990	260	230	17	3620	7.3
31...	2400	--	--	4530	600	520	27	7720	6.9
AUG.									
02...	90	.4	1.5	328	130	14	2.7	594	7.7
17...	230	--	.6	580	170	66	2.9	1080	7.6
21...	2000	--	1.4	4020	680	550	20	7070	7.8
SEP.									
08...	5100	--	--	10200	1400	1200	39	16500	7.9
23...	2200	--	--	4560	880	720	20	7780	8.2
28...	720	.2	.5	1620	370	250	10	2850	8.1

COLORADO RIVER BASIN

08121000 COLORADO RIVER AT COLORADO CITY, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (second ft days)	Specific conduct- ance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	5.16	7910	4650	2.1	65	2350	1.1	33	550	0.2	7.6
November.....	.87	15200	9400	.7	22	4750	.4	11	1040	.08	2.5
December.....	2.96	33000	21800	5.6	174	10900	2.8	87	2730	.7	22
January 1971..	1.57	36500	24000	3.3	102	12000	1.6	51	2970	.4	13
February.....	1.71	37700	24600	4.1	114	12300	2.0	57	3050	.5	14
March.....	.25	43300	28400	.6	19	14100	.3	9.5	3610	.08	2.4
April.....	.40	46200	31700	1.1	34	15600	.6	17	4250	.2	4.6
May.....	1134	1400	770	76	2360	310	31	946	90	8.9	276
June.....	150.97	3900	2240	30	914	1040	14	424	290	3.9	117
July.....	39.8	3810	2100	7.3	226	1070	3.7	115	210	.7	23
August.....	21188.74	580	320	584	18100	94	173	5360	47	87	2700
September.....	1738.47	3210	1970	309	9260	900	141	4220	300	47	1420
Total	24264.90	--	--	--	31400	--	--	11300	--	--	4600
Weighted average	66.5	840	480	86	--	170	31	--	70	13	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8850	13100	18200	38700	36600	40700	---	---	6250	---	850	8350
2	8740	13300	19200	37900	36700	41300	---	---	8150	---	760	10500
3	8810	13500	20000	37800	36500	41700	---	---	9850	---	650	12200
4	9000	13500	21000	37600	36600	41100	---	---	10700	---	2250	14200
5	8740	13800	22000	38500	36000	41600	---	---	---	---	2890	14800
6	9080	14000	23000	38600	36700	---	---	---	---	---	3350	15600
7	9500	14100	23300	38200	36600	43800	---	---	---	---	3500	15700
8	9080	14100	23900	35500	37200	43800	---	---	---	---	3000	16500
9	9040	14100	24600	36400	34900	44100	---	---	---	---	2030	16000
10	9370	14000	26300	36100	36700	44500	---	---	---	---	580	7720
11	9670	14100	27900	35700	37400	44700	---	---	10000	---	1000	7950
12	10000	14000	29600	35500	37400	45700	---	---	11500	---	1540	8810
13	10400	14300	32100	35400	38300	46300	---	---	12000	---	320	10900
14	10900	14200	32900	35200	38600	47200	---	---	---	---	1270	11500
15	---	13900	34700	35300	39000	---	---	---	---	---	560	12200
16	13400	14100	36300	35200	38700	---	---	---	---	---	350	13100
17	10200	14200	38600	35300	39200	47200	39800	---	---	---	920	14000
18	13400	14500	39400	35200	38500	---	48700	---	---	---	2300	14800
19	16500	14800	39700	35300	39100	---	51100	---	---	---	3750	13000
20	17100	15000	39600	35500	39600	---	52500	---	5000	---	5380	13400
21	17600	15000	38900	35600	37400	---	54000	---	4250	---	7070	13700
22	17900	15300	37000	35500	39000	---	56000	---	4000	---	8910	12000
23	6860	15600	39300	35500	39000	---	---	---	3360	---	10200	5000
24	11100	15700	41200	35600	38800	---	---	---	5100	---	1500	2140
25	11400	15900	41100	35700	38600	---	---	---	---	---	450	1860
26	11500	16300	39900	35700	39000	---	---	---	---	---	310	2850
27	11800	16400	40400	36000	38900	---	---	---	---	---	239	3540
28	12000	16300	39900	35800	40500	---	---	---	---	---	3880	2850
29	12300	16400	39800	36000	---	---	---	3000	---	---	5560	3560
30	12500	17300	38500	35900	---	---	---	930	---	3620	6100	4250
31	12800	---	38800	36300	---	---	---	2260	---	7720	6720	---
MONTH	11320	14690	32490	36210	37910	---	---	---	---	---	2840	10100

COLORADO RIVER BASIN

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08121000 COLORADO RIVER AT COLORADO CITY, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	3.0	9.0	5.0	4.0	6.0	---	---	32.0	---	20.0	23.0
2	6.0	2.0	7.0	11.0	4.0	4.0	---	---	30.0	---	21.0	23.0
3	8.0	2.0	10.0	11.0	7.0	0.0	---	---	29.0	---	20.0	23.0
4	14.0	2.0	15.0	0.0	6.0	3.0	---	---	21.0	---	22.0	23.0
5	9.0	4.0	14.0	0.0	7.0	5.0	---	---	---	---	22.0	31.0
6	15.0	8.0	14.0	0.0	3.0	---	---	---	---	---	---	31.0
7	16.0	8.0	6.0	1.0	1.0	16.0	---	---	---	---	---	34.0
8	6.0	7.0	10.0	6.0	10.0	16.0	---	---	---	---	---	33.0
9	8.0	0.0	10.0	1.0	12.0	17.0	---	---	---	---	24.0	33.0
10	10.0	0.0	12.0	13.0	13.0	19.0	---	---	---	---	23.0	31.0
11	10.0	0.0	5.0	14.0	15.0	19.0	---	---	---	---	22.0	30.0
12	5.0	0.0	4.0	8.0	6.0	18.0	---	---	22.0	---	22.0	30.0
13	5.0	0.0	12.0	14.0	16.0	22.0	---	---	---	---	23.0	22.0
14	6.0	0.0	10.0	15.0	15.0	13.0	---	---	---	---	23.0	20.0
15	---	2.0	9.0	9.0	6.0	---	---	---	---	---	24.0	20.0
16	8.0	4.0	11.0	12.0	8.0	---	---	---	---	---	22.0	20.0
17	0.0	2.0	13.0	14.0	9.0	---	16.0	---	---	---	23.0	22.0
18	4.0	4.0	15.0	6.0	15.0	---	26.0	---	---	---	24.0	16.0
19	10.0	0.0	8.0	5.0	6.0	---	17.0	---	---	---	22.0	16.0
20	12.0	4.0	10.0	13.0	7.0	---	22.0	---	28.0	---	23.0	23.0
21	12.0	7.0	8.0	6.0	7.0	---	26.0	---	22.0	---	23.0	26.0
22	15.0	1.0	9.0	7.0	12.0	---	---	---	25.0	---	32.0	21.0
23	10.0	0.0	5.0	6.0	15.0	---	---	---	23.0	---	28.0	18.0
24	12.0	0.0	2.0	15.0	14.0	---	---	---	23.0	---	26.0	17.0
25	13.0	2.0	4.0	13.0	17.0	---	---	---	---	---	22.0	20.0
26	5.0	5.0	2.0	15.0	15.0	---	---	---	---	---	23.0	25.0
27	7.0	0.0	14.0	14.0	13.0	---	---	---	---	---	23.0	21.0
28	1.0	0.0	15.0	15.0	16.0	---	---	---	---	---	24.0	21.0
29	0.0	8.0	12.0	16.0	---	---	---	---	---	---	30.0	22.0
30	2.0	9.0	13.0	16.0	---	---	---	---	---	24.0	24.0	20.0
31	0.0	---	11.0	12.0	---	---	---	21.0	---	28.0	23.0	---
MONTH	8.0	3.0	9.5	9.5	10.0	---	---	---	---	---	23.5	24.0

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 1971.
Water temperatures: November 1958 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	4.6	4.7	140	110	--	600	--	138	0	660
07-31	1.9	1.0	210	230	--	1100	--	186	0	1200
NOV.										
01-30	1.0	.5	210	220	--	1200	--	192	0	1200
DEC.										
01-31	1.6	2.0	260	230	--	1100	--	290	0	1000
JAN.										
01-31	2.0	4.4	280	260	--	1240	--	296	0	1400
FEB.										
01-28	1.6	1.0	240	260	--	1300	--	152	0	1400
MAR.										
01-31	.89	4.0	270	290	--	1600	--	138	0	1600
APR.										
01-16	3.5	3.8	340	380	--	2050	--	148	0	2000
17-18	62	7.2	62	20	--	150	--	130	0	130
19...	31	3.8	340	380	--	2050	--	148	0	2000
20-30	1.2	3.7	220	200	--	1000	--	172	0	1100
MAY										
01-22	.03	9.2	330	220	--	960	--	308	0	960
23-28	.00	--	--	--	--	--	--	--	--	--
29...	356	20	--	--	--	26	--	212	0	34
30-31	594	15	--	--	--	95	--	135	0	120
JUNE										
01...	37	12	86	42	--	230	--	116	0	250
02-03	11	13	140	79	--	420	--	132	0	480
04-20	1.8	7.7	200	160	--	780	--	198	0	810
21...	46	5.5	330	310	--	1400	--	282	0	1400
22-24	25	12	86	42	--	230	--	116	0	250
25-30	1.5	7.7	200	160	--	780	--	198	0	810
JULY										
01-13	.08	4.0	250	260	--	1150	--	261	0	1100
14...	.00	--	--	--	--	--	--	--	--	--
15-23	.20	4.0	250	260	--	1150	--	261	0	1100
24-28	54	11	40	8.0	--	36	--	130	0	30
29...	.00	--	--	--	--	--	--	--	--	--
30...	406	11	40	8.0	--	36	--	130	0	30
31...	106	9.1	50	10	--	89	--	140	0	42
AUG.										
01-03	251	10	64	30	--	170	--	124	0	160
04-06	3.4	9.9	160	160	--	740	--	188	0	710
07-12	538	10	64	30	--	170	--	124	0	160
13...	1660	10	46	12	--	68	--	130	0	57
14-17	101	10	64	30	--	170	--	124	0	160
18-23	3.5	9.9	160	160	--	740	--	188	0	710
24-28	119	10	64	30	--	170	--	124	0	160
29-31	2.6	9.9	97	67	--	340	--	128	0	330
SEP.										
01-19	.91	3.6	200	190	--	910	--	188	0	800
20-22	1.1	2.5	280	360	--	1400	--	160	0	1400
23...	332	7.7	80	46	--	210	--	148	0	220
24...	1580	--	35	8.0	--	--	--	130	0	--
25-27	189	8.2	71	47	--	200	--	120	0	210
28-30	5.4	8.2	130	120	--	490	--	170	0	510
WTD. AVG.	--	10	66	35	--	191	--	134	0	188
TIME WTD.										
AVG.	34	4.6	224	213	--	1050	--	201	0	1070
TOT. LOAD (TONS)	--	302	1910	1020	--	5500	--	4420	0	5430

COLORADO RIVER BASIN

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08123800 BEALS CREEK NEAR WESTBROOK, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 8,090 mg/l Apr. 1-16, 19; minimum, 244 mg/l July 24-30.

Hardness: Maximum, 2,400 mg/l Apr. 1-16, 19; minimum, 120 mg/l Sept. 24.

Specific conductance: Maximum daily, 14,100 micromhos Apr. 19; minimum daily, 298 micromhos Sept. 24.

Water temperatures: Maximum, 32.0°C July 12; minimum, freezing point Jan. 7.

EXTREMES, November 1958 to September 1971.--Dissolved solids (1958-68, 1969-71): Maximum, 15,100 mg/l May 5-21, 1960; minimum, 141 mg/l Sept. 12-13, 1964.

Hardness (1958-68, 1969-71): 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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-06	910	--	2.0	2500	810	690	--	3990	7.6
07-31	1800	--	1.0	4640	1400	1300	13	7210	7.7
NOV.									
01-30	1900	--	1.4	4830	1400	1300	14	7630	7.9
DEC.									
01-31	1900	--	4.1	4630	1600	1400	12	7780	7.5
JAN.									
01-31	2000	--	--	5400	1800	1500	--	8330	7.4
FEB.									
01-28	2100	--	--	5420	1700	1500	14	8510	7.5
MAR.									
01-31	2500	--	1.7	6380	1900	1800	16	9810	6.7
APR.									
01-16	3200	--	--	8090	2400	2300	--	12000	7.4
17-18	220	.4	4.7	678	240	130	4.2	1130	7.9
19...	3200	--	--	8090	2400	2300	--	12000	7.4
20-30	1600	--	3.0	4210	1400	1200	12	6520	7.7
MAY									
01-22	1880	--	.8	4450	1700	1500	10	7080	7.8
23-28	--	--	--	--	--	--	--	--	--
29...	50	--	1.4	--	230	56	.7	570	7.5
30-31	160	--	1.6	--	260	150	2.6	1010	7.6
JUNE									
01...	370	.6	1.8	1060	890	290	5.1	1830	7.1
02-03	700	--	1.8	1900	680	570	7.0	3110	7.2
04-20	1300	--	1.1	3350	1200	990	9.9	5430	7.5
21...	2500	--	--	6120	2100	1900	14	9350	7.5
22-24	370	.6	1.8	1060	890	290	5.1	1830	7.1
25-30	1300	--	1.1	3350	1200	990	9.9	5430	7.5
JULY									
01-13	2000	--	--	4890	1700	1500	12	7650	--
14...	--	--	--	--	--	--	--	--	--
15-23	2000	--	--	4890	1700	1500	12	7650	--
24-28	47	.4	1.7	244	130	26	1.3	421	7.7
29...	--	--	--	--	--	--	--	--	--
30...	47	.4	1.7	244	130	26	1.4	421	7.7
31...	140	--	2.0	416	170	52	3.0	722	7.9
AUG.									
01-03	260	.4	1.4	758	280	180	4.3	1330	7.7
04-06	1200	--	.9	3110	1000	880	10	5130	8.0
07-12	260	.4	1.4	758	280	180	4.3	1330	7.7
13...	100	--	1.5	364	160	58	2.3	647	7.8
14-17	260	.4	1.4	758	280	180	4.3	1330	7.7
18-23	1200	--	.9	3110	1000	880	10	5130	8.0
24-28	260	.4	1.4	758	280	180	4.3	1330	7.7
29-31	580	--	.8	1490	520	410	6.5	2560	7.9
SEPT.									
01-19	1600	--	2.9	3810	1300	1100	11	6280	8.0
20-22	2600	--	--	6100	2200	2000	13	9670	7.8
23...	360	.5	.2	995	390	270	4.7	1730	7.8
24...	30	--	--	--	120	12	--	298	7.9
25-27	340	.4	.9	939	370	270	4.5	1630	7.8
28-30	870	--	.9	2220	840	700	7.3	3560	7.9
WTD. AVG.	267	--	--	829	305	192	3.8	1330	7.7
TIME WTD.									
AVG.	1730	--	--	4170	1440	1270	11	6930	7.6
TOT. LOAD (TONS)	8840	--	--	20100	--	--	--	--	--

COLORADO RIVER BASIN

08123800 BEALS CREEK NEAR WESTBROOK, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4240	6470	7270	8130	8230	9000	11600	6460	1790	6550	1360	5560
2	4190	6910	---	8050	9860	8930	11600	6670	2460	6780	522	6560
3	4070	6910	7410	7940	8410	8810	11500	6600	3740	6890	2600	6110
4	3900	6910	7500	8040	8440	8780	11500	6790	4450	7100	4400	5970
5	3420	6890	7550	7950	8410	8700	11200	7000	4820	7250	4430	6740
6	3750	6470	7640	8230	8370	8670	11900	7000	4850	7330	5000	6790
7	6510	6690	7560	7830	8340	8890	11800	7000	4850	7440	1190	6480
8	6480	6800	7560	7970	8370	8970	12200	---	4900	7520	1130	6740
9	7150	6940	7560	7910	8480	9120	11700	6710	5260	7600	1160	6760
10	7570	7830	7660	7940	8310	9290	11700	6870	5310	7630	752	6680
11	7970	8330	7770	7870	8330	9290	12100	---	5360	7660	1190	6750
12	8060	8390	7720	8460	8370	9290	12200	---	5500	7800	1610	6240
13	7990	8200	7610	8610	8440	9290	12200	6870	5540	---	583	6130
14	7820	7890	7590	8430	---	9370	12100	6950	5610	8210	1680	5980
15	7730	7350	7560	8310	---	9370	12500	6900	5760	---	1180	5860
16	7660	7040	7630	8400	8440	9410	11800	---	5820	---	1290	5730
17	7600	7550	7600	8370	8410	9410	1000	7170	5900	---	2170	5660
18	7650	7980	7520	8500	8380	9630	1660	7270	6120	---	6010	5770
19	7750	8400	7520	8680	8410	9670	14100	---	6140	9200	4210	6500
20	5270	8320	7580	9410	8400	9670	7710	7170	5360	---	4220	7960
21	5980	8220	7570	9410	8510	9810	7200	7160	9350	---	4830	9360
22	6820	8240	7710	9150	8690	10000	6360	7190	1460	---	5820	11300
23	7290	8300	8200	9080	8690	10100	6190	---	2250	9670	6860	1730
24	7270	8200	8270	8890	8610	10500	6230	7570	---	383	1540	298
25	7040	8080	---	8420	8610	10900	6220	7770	4430	361	1000	1140
26	6940	7870	8140	8060	8720	11200	6110	---	4880	396	1450	1960
27	6910	7700	8110	7940	8840	11500	6170	7830	5330	446	735	1800
28	6860	7560	8050	7830	8910	11700	6260	---	5640	536	1410	2830
29	6890	7440	7920	7850	---	11600	6330	570	5920	---	2660	3780
30	6910	7320	7810	8120	---	11700	6440	802	6190	408	2750	4110
31	6900	---	7940	8130	---	11700	---	1210	---	722	4070	---
MONTH	6560	7610	7710	8320	8540	9820	9250	---	5000	---	2590	5520

COLORADO RIVER BASIN

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08123800 BEALS CREEK NEAR WESTBROOK, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.5	14.5	11.5	13.0	6.5	16.0	11.0	18.0	29.0	31.0	20.0	29.0
2	18.5	10.0	---	8.0	10.5	5.5	19.0	26.0	29.0	30.0	24.0	25.0
3	26.0	11.5	16.5	11.0	13.5	13.0	10.0	15.0	27.0	23.0	27.0	29.0
4	22.0	13.5	12.0	5.5	7.0	3.5	12.0	19.0	24.0	23.0	27.0	26.0
5	21.0	10.0	14.0	0.5	7.0	7.0	9.0	15.0	24.0	22.0	27.0	24.0
6	21.0	8.5	13.0	0.5	10.0	9.5	10.0	24.0	23.0	24.0	28.0	25.0
7	26.5	13.0	9.5	0.0	3.0	20.0	9.0	18.0	31.0	23.0	22.0	25.0
8	16.0	18.5	11.0	6.0	8.5	7.0	11.0	---	24.0	31.0	24.0	30.0
9	10.5	10.0	14.0	1.0	3.0	18.5	15.0	23.0	23.0	23.0	23.0	24.0
10	20.0	15.5	14.5	9.5	10.5	10.0	19.0	25.0	28.0	24.0	23.0	22.0
11	20.0	11.0	9.5	6.0	5.5	19.0	18.0	---	25.0	29.0	24.0	25.0
12	20.0	16.5	9.0	8.0	8.0	18.5	17.0	---	27.0	32.0	22.0	24.0
13	15.0	10.0	7.0	8.5	13.0	15.5	16.0	24.0	24.0	---	21.0	21.0
14	16.5	7.0	8.0	13.5	---	14.5	12.0	25.0	23.0	24.0	22.0	25.0
15	13.0	15.0	11.5	7.0	---	---	20.0	24.0	30.0	---	22.0	30.0
16	11.0	5.5	7.0	5.0	10.0	---	16.0	---	31.0	---	22.0	29.0
17	11.0	14.0	13.0	7.0	17.0	---	19.0	17.0	23.0	---	29.0	24.0
18	13.5	6.5	14.5	7.0	15.0	---	18.0	24.0	29.0	---	28.0	16.0
19	13.0	10.0	8.0	8.0	18.0	---	18.0	---	24.0	23.0	24.0	15.0
20	12.0	19.0	7.0	6.0	8.5	---	14.0	25.0	28.0	---	29.0	16.0
21	16.0	9.0	11.5	14.5	6.5	12.0	15.0	20.0	28.0	---	25.0	17.0
22	18.0	15.0	10.0	8.5	3.0	10.0	17.0	27.0	25.0	---	31.0	20.0
23	23.0	8.5	10.0	8.0	4.0	9.0	15.0	---	30.0	24.0	28.0	16.0
24	15.0	5.5	4.5	11.0	9.0	12.0	24.0	17.0	---	22.0	23.0	15.0
25	22.0	4.5	---	7.0	7.0	20.0	23.0	25.0	30.0	28.0	24.0	17.0
26	21.5	10.0	4.5	13.0	11.0	13.0	21.0	---	23.0	25.0	27.0	23.0
27	15.0	11.0	11.0	11.5	7.0	20.0	19.0	27.0	25.0	25.0	25.0	22.0
28	19.5	11.0	13.0	15.0	17.0	18.0	18.0	---	23.0	23.0	24.0	24.0
29	8.5	18.0	11.0	13.0	---	20.0	17.0	12.0	24.0	---	28.0	25.0
30	10.0	16.5	13.5	16.5	---	14.0	17.0	23.0	24.0	21.0	24.0	22.0
31	11.5	---	10.5	7.0	---	23.0	---	26.0	---	25.0	30.0	---
MONTH	17.0	11.5	10.5	8.5	9.0	14.0	16.0	---	26.0	---	25.0	23.0

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 1971.

Pesticide analyses: October 1970 to September 1971.

Water temperatures: December 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	5.2	3.2	91	34	260	--	7.6	116	0	270
02...	4.5	3.5	86	28	--	230	--	112	0	250
03...	7.1	3.2	91	34	260	--	7.6	116	0	270
04...	4.0	3.5	86	28	--	230	--	112	0	250
10...	1.9	2.9	200	80	--	590	--	120	0	680
DEC.										
23...	.85	1.8	450	170	--	1000	--	118	0	1500
24...	.47	5.5	460	110	--	660	--	144	0	1300
31...	1.7	3.1	500	140	--	880	--	116	0	1500
JAN.										
14...	.98	1.6	420	200	1300	--	24	153	0	1600
FEB.										
04...	.06	.6	420	200	--	1300	--	132	0	1600
MAR.										
03...	.51	.8	520	220	--	1400	--	124	0	1900
25...	.03	1.3	710	300	--	2000	--	119	0	2600
APR.										
27...	.34	2.6	180	73	520	--	14	116	0	610
MAY										
30...	2940	11	68	12	--	37	--	164	0	66
31...	1200	8.3	91	18	--	340	--	148	0	150
JUNE										
03...	42	11	100	28	--	240	--	119	0	250
08...	18	9.3	170	51	--	410	--	156	0	470
13...	36	--	--	--	--	--	--	--	--	86
14...	7.6	--	--	--	--	--	--	--	--	120
22...	527	--	--	--	--	--	--	--	--	11
JULY										
02...	.90	3.5	140	51	610	--	13	130	0	420
27...	80	8.7	64	15	--	98	--	116	0	130
AUG.										
02...	1440	8.1	47	7.0	--	45	--	135	0	42
07...	14	8.3	68	14	--	140	--	124	0	130
25...	1420	9.7	110	42	--	360	--	176	0	300
SEP.										
04...	20	9.9	160	48	--	620	--	188	0	460
18...	4.2	3.4	260	110	--	1300	--	172	0	1000
23...	872	5.0	54	11	--	120	--	102	0	85

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.										
03...	1130	.50	.00	.00	.00	.00	.00	.00	.00	.00
JUNE										
03...	1650	32	.00	.00	.00	.00	.00	.00	.00	.00
AUG.										
03...	1830	707	.00	.00	.02	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAR.										
03...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.02
JUNE										
03...	.00	.0	.00	.00	.00	.00	--	.00	.29	.00
AUG.										
03...	.00	.0	.00	.00	.00	.00	.0	.00	.02	.00

COLORADO RIVER BASIN

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08123850 COLORADO RIVER ABOVE SILVER, TEX.--Continued

EXTREMES, December 1967 to September 1969.--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 July 28, July 1, 10, 17, 30, 1968; minimum, freezing point Dec. 15, 1969, Jan. 7, 9, 1968, Jan. 11, 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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01...	410	.4	2.3	1140	370	270	5.9	1920	7.3
02...	330	--	1.3	988	330	240	5.5	1640	7.4
03...	410	.4	2.3	1140	370	270	5.9	1920	7.3
04...	330	--	1.3	988	330	240	5.5	1640	7.4
10...	930	--	1.0	2550	840	740	8.9	4020	7.8
DEC.									
23...	1700	--	.00	4880	1800	1700	10	7290	7.0
24...	1100	--	.2	3710	1600	1500	7.2	5410	7.8
31...	1500	--	.4	4580	1900	1800	9.0	6720	7.2
JAN.									
14...	2100	--	.2	5720	1900	1800	13	8570	7.3
FEB.									
04...	2000	--	--	5590	1900	1800	13	8350	7.3
MAR.									
03...	2200	--	--	6300	2200	2100	13	9410	7.8
25...	3200	--	--	8840	3000	2900	16	12600	7.4
APR.									
27...	850	--	.8	2300	740	650	8.3	3740	7.8
MAY									
30...	66	.3	.5	344	220	84	1.1	632	7.4
31...	540	--	1.5	1230	300	180	8.5	2200	7.1
JUNE									
03...	370	.3	1.2	1070	360	270	5.5	1830	7.7
08...	650	--	.7	1850	640	510	7.1	3020	7.8
13...	63	--	--	--	--	--	--	516	--
14...	99	--	--	--	--	--	--	717	--
22...	8.6	--	--	--	--	--	--	277	--
JULY									
02...	960	--	.8	2270	560	450	11	3850	7.6
27...	140	.3	1.4	520	220	130	2.9	900	7.7
AUG.									
02...	60	.4	.9	280	150	35	1.6	494	7.5
07...	200	--	1.1	625	230	130	4.0	1100	8.0
25...	550	--	1.1	1460	440	300	7.4	2500	7.4
SEP.									
04...	940	.3	.5	2330	600	440	11	3850	8.2
18...	2000	--	.4	4750	1100	950	17	7100	7.9
23...	190	--	.5	521	180	96	4.0	947	8.0

COLORADO RIVER BASIN

08123850 COLORADO RIVER ABOVE SILVER, TEX.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR 1971

Month	Discharge (cfs-days)	Specific conductance (micro- mhos)	Dissolved solids			Chloride			Sulfate		
			mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons	mg/l	Tons per day	Total tons
October 1970..	47.83	2690	1650	6.9	213	600	2.5	77	400	1.7	52
November.....	.01	5000	3000	.00	.08	1100	.00	.03	790	.00	.02
December.....	9.34	6300	4260	3.5	107	1470	1.2	37	1330	1.1	33
January 1971..	36.41	8350	5580	18	549	2030	6.4	200	1560	4.9	153
February.....	28.55	8710	5820	16	449	2130	5.9	164	1680	4.6	130
March.....	11.29	10600	7290	7.2	222	2590	2.6	79	2180	2.1	66
April.....	255.06	1830	1110	26	765	370	8.5	256	330	7.7	230
May.....	7960	820	450	313	9710	130	89	2740	72	50	1540
June.....	2906.64	1800	1180	308	9250	400	105	3160	290	75	2240
July.....	4989.96	420	250	108	3350	34	15	455	69	30	930
August.....	34788	660	370	1130	35000	98	296	9160	65	198	6150
September.....	7285.1	1450	840	550	16500	330	214	6430	150	97	2920
Total	58318.19	--	--	--	76100	--	--	22800	--	--	14400
Weighted average	160	840	480	209	--	150	62	--	92	40	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1930	---	---	7150	8300	9320	---	---	1390	3860	990	3400
2	1630	---	---	7300	8600	9360	---	---	1400	3850	560	3610
3	1900	5000	---	7790	8400	9450	---	---	1830	4000	570	3850
4	1660	---	---	8000	8350	9540	---	---	2100	---	650	3850
5	2160	---	---	8930	---	9550	---	---	2340	---	880	3200
6	2200	---	---	8890	---	9500	---	---	2600	---	870	2000
7	2820	---	---	8860	---	9550	---	---	2800	---	1110	2200
8	2460	---	---	8930	---	9600	---	---	3020	---	1260	1780
9	2890	---	---	8710	---	9700	---	---	3380	---	2000	2030
10	4020	---	---	8350	8500	---	---	---	3560	---	850	2380
11	4590	---	---	8410	8300	---	---	---	820	---	650	2650
12	4790	---	---	8500	8500	---	---	---	360	---	650	3000
13	4800	---	---	8500	8600	---	---	---	520	---	600	3790
14	4820	---	---	8500	8710	---	---	---	720	---	500	4000
15	4850	---	---	8500	8780	---	---	---	920	---	610	4300
16	4900	---	---	8580	8800	---	---	---	1070	---	1180	5500
17	4600	---	---	8510	8860	---	1500	---	1200	---	450	7120
18	4200	---	---	8480	8740	---	1000	---	1310	---	500	7100
19	4400	---	---	8440	8750	---	2000	---	1460	---	1040	7200
20	4500	---	---	8450	8570	---	2550	---	---	---	1650	7300
21	4730	---	---	8510	8600	11600	2560	---	1400	---	2040	5020
22	4800	---	---	8480	8620	12000	2800	---	300	---	2230	7070
23	4750	---	7290	8300	8550	12300	3040	---	2000	500	2440	1000
24	4400	---	5720	8250	8600	12500	3240	---	5950	400	1500	800
25	4600	---	6700	8380	8700	12600	3430	---	5560	770	1200	1300
26	4650	---	6600	8310	8820	---	3580	---	7160	720	390	2100
27	4700	---	6400	8320	8940	---	3740	---	5700	910	380	1740
28	4770	---	5530	8290	8980	---	3900	---	4610	900	570	2300
29	4800	---	5500	8230	---	---	4200	600	4210	680	1040	2800
30	---	---	6120	8300	---	---	---	700	4000	250	1720	3000
31	---	---	6700	8290	---	---	---	1800	---	500	2360	---
MONTH	3870	---	---	8370	8630	---	---	---	2540	---	1080	3580

COLORADO RIVER BASIN

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08123850 COLORADO RIVER ABOVE SILVER, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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

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 1971.

Water temperatures: October 1961 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.										
01-31	4.6	9.2	260	98	--	270	--	172	0	760
NOV.										
01-30	3.8	9.1	310	120	--	280	--	144	0	980
DEC.										
01-31	5.4	11	360	140	--	310	--	168	0	1100
JAN.										
01-31	4.4	11	350	130	280	--	5.6	218	0	1100
FEB.										
01-28	3.0	10	140	140	--	560	--	168	0	1100
MAR.										
01-19	2.1	9.6	360	150	--	330	--	166	0	1200
20-31	.00	--	--	--	--	--	--	--	--	--
APR.										
01...	.00	--	--	--	--	--	--	--	--	--
02-16	21	4.6	350	160	--	380	--	160	0	1200
17-30	22	7.9	130	41	--	110	--	168	0	330
MAY										
01-12	1.8	12	160	66	--	170	--	208	0	450
13-22	1.1	11	280	120	--	250	--	210	0	790
23-31	.00	--	--	--	--	--	--	--	--	--
JUNE										
01-03	.00	--	--	--	--	--	--	--	--	--
04-12	20	9.8	110	35	--	170	--	122	0	280
13-14	378	8.9	48	10	--	28	--	110	0	62
15-22	70	9.8	110	35	--	170	--	122	0	280
23-25	187	8.9	48	10	--	28	--	110	0	62
26-30	6.9	7.6	66	17	--	41	--	114	0	130
JULY										
01-07	.80	8.0	92	27	--	63	--	154	0	190
08-27	.00	--	--	--	--	--	--	--	--	--
28-29	123	9.4	170	66	--	190	--	128	0	530
30-31	33	6.2	60	13	--	26	--	92	0	110
AUG.										
01-14	621	10	42	12	--	35	--	104	0	61
15-18	165	11	54	23	--	81	--	136	0	90
19-31	25	11	88	38	--	120	--	144	0	210
SEPT.										
01-21	8.2	12	160	72	--	170	--	166	8	430
22...	162	9.4	76	34	--	91	--	148	4	150
23...	829	7.5	53	17	--	59	--	110	0	94
24...	2660	6.5	42	6.6	--	28	--	122	0	42
25-26	633	7.5	53	17	--	59	--	110	0	94
27-30	132	9.4	76	34	--	91	--	148	4	150
WTD. AVG.	--	9.1	68	23	--	68	--	117	0	148
TIME WTD.										
AVG.	52	9.8	223	95	--	246	--	163	1	730
TOT. LOAD (TONS)	--	466	3480	1160	--	3150	--	6030	11	7170

COLORADO RIVER BASIN

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08126500 COLORADO RIVER AT BALLINGER, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 2,730 mg/l Mar. 1-19; minimum, 262 mg/l June 13-14, 23-25.
 Hardness: Maximum, 1,500 mg/l Dec. 1-31, Mar. 1-19, Apr. 2-16; minimum, 130 mg/l Sept. 24.
 Specific conductance: Maximum daily, 4,000 micromhos Apr. 14; minimum daily, 321 micromhos June 13.
 Water temperatures: Maximum, 32.0°C Aug. 25; minimum, 4.0°C Jan. 6, 7.

EXTREMES, October 1961 to September 1971.--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, 33.0°C on several days during summer months, 1967, 1969, 1970; 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 1970 TO SEPTEMBER 1971

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.									
01-31	480	.4	6.1	1990	1000	910	--	2890	7.7
NOV.									
01-30	500	.4	6.8	2300	1200	1100	3.4	3210	7.7
DEC.									
01-31	570	--	9.6	2660	1500	1300	3.5	3610	7.6
JAN.									
01-31	510	--	8.4	2520	1400	1200	3.2	3410	7.7
FEB.									
01-28	570	--	9.9	2660	910	770	8.0	3560	7.7
MAR.									
01-19	600	--	8.7	2730	1500	1400	3.7	3770	7.2
20-31	--	--	--	--	--	--	--	--	--
APR.									
01...	--	--	--	--	--	--	--	--	--
02-16	670	--	6.1	2920	1500	1400	--	3940	7.8
17-30	180	.4	2.8	894	490	360	2.2	1400	7.7
MAY									
01-12	280	.6	1.2	1250	660	490	2.9	1920	7.8
13-22	490	--	4.4	2050	1200	1000	3.1	3060	7.4
23-31	--	--	--	--	--	--	--	--	--
JUNE									
01-03	--	--	--	--	--	--	--	--	--
04-12	280	.3	1.2	959	430	330	3.6	1590	7.0
13-14	44	--	1.5	262	160	71	1.0	455	7.3
15-22	280	.3	1.2	959	430	330	3.6	1590	7.0
23-25	44	--	1.5	262	160	71	1.0	455	7.3
26-30	68	--	1.0	386	230	140	1.2	655	7.2
JULY									
01-07	110	.2	.2	566	340	210	1.5	958	7.7
08-27	--	--	--	--	--	--	--	--	--
28-29	320	--	1.0	1350	690	590	3.2	2070	8.0
30-31	47	--	1.0	312	200	130	.8	531	7.7
AUG.									
01-14	55	.3	.8	270	150	69	1.2	477	7.6
15-18	140	--	1.0	470	230	120	2.3	853	7.7
19-31	220	--	.9	754	380	260	2.7	1280	7.7
SEPT.									
01-21	330	.5	2.7	1280	700	550	2.8	2050	8.3
22...	170	.4	1.8	614	330	200	2.2	1050	8.3
23...	98	.3	1.1	388	200	110	1.8	669	7.8
24...	35	.2	--	220	130	32	--	376	7.6
25-26	98	.3	1.1	388	200	110	1.8	669	7.8
27-30	170	.4	1.8	614	330	200	2.2	1050	8.3
WTD. AVG.	111	--	--	489	258	165	--	787	7.6
TIME WTD.									
AVG.	408	--	--	--	933	800	--	2590	7.7
TOT. LOAD (TONS)	5680	--	--	--	--	--	--	--	--

COLORADO RIVER BASIN

08126500 COLORADO RIVER AT BALLINGER, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2960	3200	3660	3260	3430	3680	---	1610	---	841	---	1550
2	2890	3110	3470	2960	3420	3710	3950	1620	---	882	341	1610
3	2760	3030	3480	3140	3450	3680	3980	1740	---	913	445	1700
4	2660	3030	3540	3680	3530	3730	3980	1780	---	---	432	1790
5	2570	2880	3520	3350	3470	3720	3980	1810	---	963	496	1830
6	2440	2820	3470	3350	3500	3700	3980	1920	---	987	541	1880
7	2390	2760	3490	3780	3530	3730	3990	1950	1920	996	603	1920
8	2390	2750	3470	3800	3500	3750	3960	2070	526	---	390	1940
9	---	2790	3460	3670	3510	3720	3990	2100	1450	---	467	2030
10	2380	2830	3520	3560	3530	3690	3990	---	1480	---	510	2050
11	---	2920	3550	3550	3500	3760	3980	2230	1530	---	554	2120
12	2420	3130	3570	---	3520	---	3970	2380	1340	---	496	2160
13	2500	---	3560	3410	3530	3760	3980	2470	321	---	364	2190
14	2620	3210	3500	3380	---	3810	4000	2610	571	---	570	2260
15	2720	3250	3530	3370	3530	3780	---	2810	1260	---	777	2280
16	2830	3130	---	3360	3580	3830	3470	2850	1640	---	823	---
17	2920	3290	3580	3300	3610	3830	1520	2990	1800	---	856	2400
18	2990	3320	3650	3310	3670	3830	1400	3100	1810	---	960	2100
19	3020	---	3640	3350	3620	3860	1320	3230	---	---	---	---
20	3100	3440	3630	3390	---	---	1250	3300	1820	---	1120	2320
21	3140	3450	3640	3410	3520	---	1260	3390	1840	---	1170	2560
22	3160	3470	3640	3360	3590	---	1290	3420	1150	---	1250	1480
23	3110	3470	3670	3400	3630	---	1320	3470	408	---	1340	695
24	---	3470	3700	3340	3620	---	1360	---	437	---	1400	376
25	3230	3510	---	3400	3620	---	---	---	469	---	1380	642
26	3280	3510	3800	3410	3650	---	1430	---	534	---	1460	---
27	3290	3530	3760	3430	3650	---	1470	---	588	---	1400	856
28	3330	3530	3720	3410	3710	---	1490	---	645	2260	952	900
29	3300	3510	3690	3460	---	---	1530	---	723	1870	1240	974
30	3280	3490	3700	---	---	---	1580	---	779	573	1320	1020
31	3300	---	3770	3530	---	---	---	---	---	493	1380	---
MONTH	2890	3210	3600	3420	3550	---	2720	---	---	---	863	1690

COLORADO RIVER BASIN

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08126500 COLORADO RIVER AT BALLINGER, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	13.0	15.5	11.0	7.0	15.0	---	20.5	---	30.5	---	29.0
2	23.0	13.0	15.5	11.5	9.0	8.5	16.0	23.0	---	29.5	21.0	30.5
3	23.5	12.0	15.5	11.0	11.0	10.5	18.0	24.5	---	30.5	23.0	30.0
4	23.5	12.0	15.0	7.0	10.0	11.0	17.0	24.0	---	---	25.0	30.0
5	24.5	13.0	13.5	4.5	11.5	13.0	17.0	24.5	---	29.5	24.0	30.5
6	22.0	14.5	13.0	4.0	9.0	13.0	16.5	25.5	---	28.5	28.0	30.0
7	26.0	15.5	13.5	4.0	6.0	13.5	18.5	24.0	28.5	30.0	25.0	31.0
8	19.0	14.5	14.5	5.0	8.0	14.0	19.0	24.0	12.0	---	24.5	29.5
9	---	14.5	15.5	6.0	6.5	14.5	19.0	25.0	24.0	---	28.0	29.0
10	18.0	14.0	15.5	7.0	9.0	14.5	20.0	---	25.0	---	28.5	28.5
11	---	14.0	11.5	8.0	10.0	15.5	22.0	23.0	25.0	---	23.5	28.0
12	19.5	14.5	11.0	---	11.0	---	23.0	22.0	24.5	---	23.0	26.5
13	19.5	---	10.0	12.0	12.0	15.5	20.0	22.0	21.5	---	22.0	29.5
14	20.5	10.0	10.0	13.0	---	16.0	19.5	20.0	25.0	---	21.5	28.5
15	16.5	8.0	11.0	9.5	13.0	15.5	---	21.0	28.0	---	24.5	27.0
16	15.0	11.0	---	10.5	15.0	17.0	16.5	24.0	29.0	---	26.5	---
17	14.0	12.0	11.0	12.0	14.5	17.0	15.0	24.0	29.0	---	26.0	25.5
18	14.0	12.0	13.0	10.0	14.5	15.5	19.5	25.0	29.0	---	28.0	21.5
19	14.5	---	10.5	9.0	15.5	16.0	19.0	23.5	---	---	---	---
20	19.0	13.0	10.0	10.0	---	---	20.5	23.5	26.5	---	29.0	21.0
21	19.5	13.0	13.0	10.0	9.5	---	21.0	24.0	26.5	---	30.0	21.0
22	20.5	11.5	14.0	13.0	10.0	---	21.5	26.0	26.0	---	29.5	19.5
23	18.5	9.5	10.0	10.5	12.0	---	24.5	26.0	26.0	---	28.5	18.5
24	---	8.5	9.5	13.0	10.5	---	22.0	---	26.0	---	31.0	19.0
25	21.0	8.5	---	12.0	13.0	---	---	---	29.0	---	32.0	21.0
26	21.0	11.5	9.5	11.5	13.5	---	27.0	---	29.0	---	30.5	---
27	18.5	11.5	9.5	11.0	13.0	---	26.5	---	28.5	---	28.0	24.5
28	16.5	13.0	10.5	13.0	14.5	---	24.0	---	28.0	25.5	30.0	24.5
29	15.5	14.5	10.0	13.0	---	---	24.5	---	27.0	26.5	31.0	24.5
30	18.0	15.5	9.0	---	---	---	25.0	---	27.0	25.5	29.0	24.5
31	16.5	---	7.0	11.0	---	---	---	---	---	26.0	29.5	---
MONTH	19.5	12.5	12.0	10.0	11.0	---	20.5	---	---	---	27.0	26.0

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 1971.
Water temperatures: October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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. 01-31	3.1	12	180	150	370	184	0	610
NOV. 01-30	3.4	13	180	150	420	200	0	620
DEC. 01-31	4.6	8.6	190	170	380	220	0	600
JAN. 01-31	4.6	5.8	200	160	360	250	0	580
FEB. 01-28	4.2	6.0	190	160	390	204	0	600
MAR. 01-31	2.1	2.9	200	170	400	202	0	620
APR. 01-30	13	2.9	200	160	400	200	0	600
MAY 01-08	1.9	7.2	170	140	350	192	0	490
09-31	59	11	69	24	77	168	0	90
JUNE 01-20	294	11	56	13	50	140	0	48
21-30	60	12	86	34	130	174	0	110
JULY 01-31	4.1	12	110	50	170	188	0	170
AUG. 01-07	198	11	120	74	270	216	0	240
08-13	217	11	56	25	84	144	0	85
14-15	1980	11	40	11	42	122	0	34
16-19	195	11	56	25	84	144	0	85
20-23	37	14	100	44	150	198	0	140
24-31	22	11	120	74	270	216	0	240
SEP. 01-22	12	11	140	100	320	194	8	310
23...	1450	11	66	24	77	160	0	76
24-26	1960	11	54	20	50	150	0	50
27...	406	11	66	24	77	160	0	76
28...	280	11	54	20	50	150	0	50
29-30	200	14	98	40	120	220	8	120
WTD. AVG. TIME WTD. AVG.	-- 70	11 8.9	67 152	29 114	90 295	154 196	0 1	95 422
TOT. LOAD (TONS)	--	749	4600	1980	6170	10600	14	6540

08127000 ELM CREEK AT BALLINGER, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 2,380 mg/l Mar. 1-31; minimum, 277 mg/l Aug. 14-15.
 Hardness: Maximum, 1,200 mg/l Dec. 1-31, Jan. 1-31, Mar. 1-31; minimum, 150 mg/l Aug. 14-15.
 Specific conductance: Maximum daily, 4,010 micromhos Apr. 14; minimum daily, 361 micromhos Aug. 14.
 Water temperatures: Maximum, 33.0°C Aug. 25; minimum, 3.5°C Jan. 7.

EXTREMES, October 1967 to September 1971.--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 1970 TO SEPTEMBER 1971

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	750	--	3.5	2170	1100	920	--	3420	8.0
NOV. 01-30	820	.7	6.2	2330	1100	910	5.6	3640	8.0
DEC. 01-31	820	--	10	2330	1200	990	4.8	3710	7.8
JAN. 01-31	780	--	11	2260	1200	950	--	3570	7.7
FEB. 01-28	800	--	12	2290	1100	950	5.0	3630	7.6
MAR. 01-31	850	--	11	2380	1200	1000	5.0	3790	7.4
APR. 01-30	850	--	8.1	2340	1100	970	--	3710	7.8
MAY 01-08	760	--	3.3	2030	990	840	4.8	3340	7.8
09-31	140	.3	1.7	504	270	130	2.0	894	7.5
JUNE 01-20	93	.2	1.8	348	190	78	1.6	620	7.6
21-30	260	--	2.6	722	350	210	2.9	1290	7.6
JULY 01-31	370	.4	1.3	974	470	320	--	1750	7.5
AUG. 01-07	520	.6	4.8	1360	610	430	4.7	2360	8.1
08-13	150	--	2.1	491	240	120	2.3	869	7.9
14-15	60	--	4.4	277	150	45	1.5	454	8.0
16-19	150	--	2.1	491	240	120	2.3	869	7.9
20-23	300	--	4.0	866	430	270	3.1	1510	8.1
24-31	520	.6	4.8	1360	610	430	4.7	2360	8.1
SEP. 01-22	660	.6	7.2	1670	760	590	5.0	2860	8.3
23...	150	.3	2.5	494	260	130	2.1	881	8.0
24-26	100	.2	1.8	369	220	92	1.5	655	8.1
27...	150	.3	2.5	494	260	130	2.1	881	8.0
28...	100	.2	1.8	369	220	92	1.5	655	8.1
29-30	230	.3	3.5	754	410	210	2.5	1300	8.4
WTD. AVG. TIME WTD. AVG.	172	--	2.9	554	286	158	--	951	7.9
TOT. LOAD (TONS)	612	--	6.4	--	852	682	--	2790	7.8
	11800	--	197	--	--	--	--	--	--

COLORADO RIVER BASIN

08127000 ELM CREEK AT BALLINGER, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3330	3570	3680	3590	3700	3700	3900	3300	---	1270	---	2520
2	3350	3530	3680	2630	3610	3640	3900	3290	540	1290	2700	2500
3	3370	3590	3680	2610	3610	3690	3890	3350	588	1320	2750	2650
4	3370	3560	3740	2870	3540	3720	3890	3330	585	---	2530	2630
5	3370	3590	3760	3660	3630	3720	3940	3300	582	1400	2210	2770
6	3370	3560	3730	3660	3640	3690	3960	3380	---	1420	2250	2760
7	3410	3570	3720	3560	3570	3640	3970	3350	626	1450	1870	2820
8	3410	3630	3730	3610	3570	3730	3950	3390	517	1500	1050	2810
9	---	3650	3660	3650	3650	3780	3980	1230	414	1500	740	2890
10	3430	3600	3780	3720	3570	3730	3980	---	492	1540	896	2910
11	---	3610	3680	3680	3590	3730	3960	842	680	1600	979	2920
12	3430	3610	3770	---	3650	3710	4000	722	592	1600	746	2910
13	3430	---	3700	3660	3650	3740	3990	842	870	1650	894	2900
14	3430	3590	3690	3670	---	3760	4010	795	565	1650	361	2980
15	3450	3650	3670	3640	3660	3780	---	795	636	1680	547	2980
16	3440	3690	---	3650	3620	3860	3800	858	663	1730	693	---
17	3440	3640	3720	3670	3610	3830	3890	833	661	1760	841	3030
18	3440	3650	3710	3700	3670	3810	3720	839	709	1740	991	3010
19	3450	---	3650	3670	3660	3820	3540	891	---	1790	---	---
20	3450	3680	3760	3660	---	3840	3400	871	793	1770	1310	3060
21	3480	3670	3690	3670	3690	3860	3360	979	1230	1780	1410	3100
22	3500	3720	3680	3670	3640	3850	3320	895	1400	1820	1600	2840
23	3430	3640	3620	3660	3670	3890	3360	909	1210	1820	1710	866
24	---	3680	3660	3700	3720	3860	3330	939	1360	1820	1880	454
25	3470	3710	---	3690	3740	3900	---	---	1350	1860	1790	456
26	3500	3720	3680	3680	3720	3920	3300	946	1310	1880	2090	---
27	3500	3750	3760	3680	3730	3890	3290	1020	1290	2060	2210	894
28	3530	3690	3600	3680	3710	3900	3290	1010	1270	2120	2320	1030
29	3530	3730	3700	3680	---	3930	3290	983	1240	2190	2540	1230
30	3550	3680	3640	---	---	3910	3330	996	1240	2470	2650	1360
31	3550	---	3650	3680	---	3930	---	615	---	2640	2600	---
MONTH	3440	3640	3700	3560	3650	3800	3700	1570	867	1740	1630	2340

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	14.0	16.5	10.0	8.0	15.0	17.0	21.5	---	28.5	---	29.0
2	24.0	14.0	15.5	11.5	9.5	8.5	16.5	20.5	25.5	28.0	23.5	29.5
3	23.5	13.0	16.5	11.0	11.0	10.0	17.0	25.0	25.5	29.5	24.5	30.0
4	23.5	11.5	15.5	6.5	9.5	11.0	16.0	24.0	26.5	---	26.0	29.5
5	24.0	14.0	14.0	4.5	12.0	11.0	18.0	24.5	26.5	28.5	25.0	29.5
6	25.0	15.0	13.5	4.5	8.5	13.0	16.0	25.0	---	28.0	26.5	29.5
7	25.0	16.0	14.0	3.5	6.5	12.0	16.5	24.5	26.5	30.5	25.0	31.5
8	19.0	10.5	14.5	4.5	8.5	13.0	18.0	24.0	14.0	29.0	25.5	30.0
9	---	15.0	14.5	6.0	8.0	13.0	19.0	18.5	23.5	30.0	26.0	30.5
10	18.5	14.0	16.5	6.5	8.5	13.5	20.0	---	24.5	29.0	26.5	29.0
11	---	14.0	11.5	8.5	9.5	15.5	20.5	20.5	25.0	29.0	25.5	28.5
12	19.5	14.5	12.0	---	9.5	15.5	20.5	19.5	24.5	30.5	24.5	28.0
13	20.0	---	10.5	10.5	10.0	15.5	19.5	21.5	23.0	29.5	23.0	30.5
14	23.0	9.5	10.5	13.0	---	15.5	20.5	19.0	24.0	30.0	22.0	28.5
15	16.5	9.5	12.0	8.5	12.0	14.5	---	23.0	25.5	32.0	24.0	27.0
16	15.5	13.0	---	10.0	15.5	16.5	18.5	23.5	26.5	29.5	27.0	---
17	14.5	13.5	10.0	12.0	15.0	16.5	16.5	23.5	28.5	31.0	29.0	25.0
18	15.0	13.5	11.5	10.5	15.0	15.0	20.5	23.5	29.5	30.0	29.5	22.0
19	19.0	---	10.0	9.5	15.5	15.0	18.5	23.5	---	31.0	---	---
20	18.5	13.0	10.5	10.0	---	14.0	21.0	24.0	28.5	29.0	28.5	21.5
21	19.0	13.0	13.5	10.5	9.5	15.5	20.0	24.0	24.0	30.0	28.5	23.5
22	22.0	13.0	14.0	13.0	9.5	16.0	21.0	22.0	25.5	29.0	28.5	19.5
23	18.5	8.5	10.0	10.5	11.5	18.5	20.0	25.5	29.0	29.0	30.0	18.5
24	---	8.0	11.0	13.0	11.0	15.5	20.5	24.5	28.0	26.0	31.0	19.5
25	21.0	8.5	---	12.0	12.0	15.5	---	---	28.0	28.0	33.0	21.0
26	21.5	13.0	11.0	12.0	12.0	18.5	27.0	26.0	28.0	28.5	30.5	---
27	17.0	13.5	10.0	11.5	13.0	20.0	24.5	25.0	28.0	26.5	29.0	24.0
28	19.0	11.5	11.0	12.0	15.0	20.5	25.0	25.5	27.0	26.5	31.5	24.5
29	17.0	13.5	10.0	13.0	---	19.0	24.5	23.5	26.5	29.0	31.5	24.0
30	18.5	14.5	9.5	---	---	18.5	25.0	19.5	27.0	25.5	29.0	25.0
31	18.0	---	8.0	10.5	---	19.5	---	20.0	---	26.5	30.5	---
MONTH	20.0	12.5	12.5	9.5	11.0	15.0	20.0	23.0	26.0	29.0	27.5	26.0

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)
JAN. 05...	1550	--	17	180	110	290	--	5.1	332
FEB. 16...	1500	--	19	170	120	--	290	--	310
22...	0920	3.4	7.5	130	110	--	320	--	168
MAR. 29...	1450	--	16	170	120	--	320	--	258
MAY 17...	1445	--	28	140	95	--	310	--	310
JULY 21...	1210	--	11	220	130	--	220	--	176
SEP. 15...	1430	9.8	28	140	93	--	390	--	256

DATE	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)	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)
JAN. 05...	0	360	640	.6	.080	.00	6.0	.060	1800
FEB. 16...	0	320	660	.6	.070	.05	6.3	.060	1760
22...	0	330	670	.5	--	--	8.4	--	1680
MAR. 29...	0	360	710	.7	.070	.00	3.7	.080	1840
MAY 17...	0	270	620	.5	.000	.54	.00	1.5	1630
JULY 21...	0	550	610	.6	.020	.31	.2	.050	1840
SEP. 15...	0	270	770	.5	.060	.00	1.4	.13	1820

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
JAN. 05...	910	640	4.2	2990	8.2	7.0	11.8	98	2.9
FEB. 16...	910	650	4.2	2970	7.8	16.0	13.1	132	4.6
22...	750	620	5.0	2840	7.8	9.0	--	--	--
MAR. 29...	910	700	4.6	3070	8.1	20.0	15.8	174	4.5
MAY 17...	750	500	5.0	2850	8.6	28.0	16.4	212	>47
JULY 21...	1100	960	2.9	2960	7.1	26.0	3.1	38	2.1
SEP. 15...	740	530	6.3	2600	7.9	27.5	14.0	175	7.6

COLORADO RIVER BASIN

08136500 CONCHO RIVER NEAR PAINT ROCK, TEX.

LOCATION.--Lat 31°30'57", long 99°55'08", 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 1971.

Chemical and biochemical analyses: October 1967 to September 1971.

Pesticide analyses: October 1967 to September 1971.

Water temperatures: October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (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 (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	25	20	140	79	190	--	1.2	170	0	300
NOV.										
01-30	19	23	170	99	--	230	--	208	0	370
DEC.										
01-31	17	17	170	100	--	220	--	160	0	400
JAN.										
01-31	14	17	170	98	200	--	4.2	164	0	380
FEB.										
01-28	12	13	200	100	--	220	--	184	0	450
MAR.										
01-31	6.3	9.4	190	100	--	200	--	144	0	410
APR.										
01-18	28	8.1	190	110	230	--	7.8	146	0	480
19-30	19	10	99	47	--	130	--	150	0	180
MAY										
01-22	49	21	140	72	--	140	--	192	0	160
23-29	.00	--	--	--	--	--	--	--	--	--
30-31	206	13	50	8.0	--	32	--	108	0	43
JUNE										
01-09	7.1	14	48	9.8	--	27	--	121	0	26
10-13	5.3	19	62	17	--	45	--	152	0	41
14-30	3.8	22	120	61	--	150	--	138	0	200
JULY										
01-17	1.5	23	180	100	230	--	8.3	124	0	380
18-23	.00	--	--	--	--	--	--	--	--	--
24-28	6.8	23	180	100	230	--	8.3	124	0	380
29-31	71	18	130	69	--	140	--	124	0	280
AUG.										
01-12	246	16	92	48	--	130	--	140	0	160
13-15	1700	10	50	11	--	40	--	128	0	36
16-21	89	12	68	22	--	75	--	152	0	72
22-31	32	16	92	48	--	130	--	140	0	160
SEP.										
01-22	53	17	130	62	--	160	--	152	0	230
23-24	666	8.6	68	19	--	54	--	100	0	82
25-30	126	17	130	62	--	160	--	152	0	230
WTD. AVG.	--	14	100	47	--	--	--	144	0	168
TIME WTD.										
AVG.	48	17	150	80	--	--	--	159	0	307
TOT. LOAD (TONS)	--	653	4660	2170	--	--	--	6700	0	7830

COLORADO RIVER BASIN

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08136500 CONCHO RIVER NEAR PAINT ROCK, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 1,710 mg/l Apr. 1-18; minimum, 254 mg/l June 1-9.
 Hardness: Maximum, 940 mg/l Apr. 1-18; minimum, 160 mg/l May 30-31, June 1-9.
 Specific conductance: Maximum daily, 2,890 micromhos July 28; minimum daily, 375 micromhos June 1.
 Water temperatures: Maximum, 31.0°C July 7; minimum, freezing point Jan. 7, 8, 9.

EXTREMES, October 1967 to September 1971.--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, 2,890 micromhos July 28, 1971; minimum daily, 375 micromhos June 1, 1971.
 Water temperatures: Maximum, 35.0°C Aug. 11, 1969; minimum, freezing point Jan. 7, 8, 9, 1971.

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

WATER QUALITY DATA. WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	450	.5	5.5	1290	680	540	3.2	2160	7.7
NOV.									
01-30	520	.4	9.6	1560	830	660	3.5	2520	7.7
DEC.									
01-31	510	.5	12	1550	840	710	3.3	2490	7.6
JAN.									
01-31	500	.5	12	1500	830	700	3.0	2470	7.6
FEB.									
01-28	520	.6	12	1660	910	760	3.2	2640	7.7
MAR.									
01-31	540	.5	10	1570	900	780	2.9	2550	7.3
APR.									
01-18	580	.5	5.9	1710	940	820	3.3	2740	7.8
19-30	240	--	2.5	826	440	320	2.7	1430	7.5
MAY									
01-22	430	.6	1.1	1060	640	480	2.4	2040	7.5
23-29	--	--	--	--	--	--	--	--	--
30-31	61	--	2.1	269	160	69	1.1	435	7.9
JUNE									
01-09	62	.1	1.5	254	160	61	.9	447	7.2
10-13	110	--	.9	371	220	100	1.3	657	7.4
14-30	370	--	4.0	1010	540	420	2.8	1710	7.3
JULY									
01-17	640	.4	.7	1630	870	770	3.4	2740	7.0
18-23	--	--	--	--	--	--	--	--	--
24-28	640	.4	.7	1630	870	770	3.4	2740	7.0
29-31	370	--	2.6	1090	620	520	2.5	1810	7.2
AUG.									
01-12	290	.3	3.4	820	420	310	2.7	1440	7.8
13-15	74	.2	2.6	296	170	63	1.3	503	7.9
16-21	150	.2	4.6	490	260	140	2.0	846	7.8
22-31	290	.3	3.4	820	420	310	2.7	1440	7.8
SEP.									
01-22	380	.4	2.4	1060	570	440	2.9	1830	7.9
23-24	140	--	1.8	424	250	170	1.5	772	7.4
25-30	380	.4	2.4	1060	570	440	2.9	1830	7.9
WTD. AVG.	273	.3	3.9	806	441	322	2.3	1420	7.7
TIME WTD.									
AVG.	446	.5	6.6	1290	706	576	2.9	--	7.6
TOT. LOAD									
(TONS)	12700	14	180	37500	--	--	--	--	--

COLORADO RIVER BASIN

08136500 CONCHO RIVER NEAR PAINT ROCK, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 05...	1400	17	17	200	96	230	242	0	380	520	.6	.40
FEB. 16...	1350	12	13	200	100	250	210	0	460	540	.6	.18
MAR. 29...	1240	3.6	8.3	200	110	220	166	0	460	570	.6	.10
MAY 17...	1240	3.6	20	140	80	180	190	0	270	440	.5	.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)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
JAN. 05...	.040	.05	12	.030	1610	38	11	890	690	--	2540	8.1
FEB. 16...	.080	.02	12	.010	1710	20	4	910	740	3.6	2690	8.1
MAR. 29...	.080	.04	7.0	.040	1680	32	13	950	820	--	2730	8.0
MAY 17...	.020	.18	.2	.060	1220	29	12	670	520	3.0	2120	8.0

DATE	TEMP- ERATURE (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)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
JAN. 05...	6.5	0	10	10.5	85	12	1.4	1	.00	100	0	0
FEB. 16...	20.5	0	15	10.9	120	11	2.2	2	.04	--	--	--
MAR. 29...	21.0	0	20	9.2	102	17	2.4	3	.04	0	0	0
MAY 17...	25.5	6	--	10.3	124	24	3.5	0	.12	0	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)
JAN. 05...	--	0	0	2	10	0	70	1	<.5	4	3800	0
FEB. 16...	--	--	--	--	--	--	--	--	--	--	--	--
MAR. 29...	--	--	0	4	4	0	80	4	<.5	0	3900	18
MAY 17...	0	--	1	4	10	0	60	3	<.5	0	3100	0

COLORADO RIVER BASIN

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08136500 CONCHO RIVER NEAR PAINT ROCK, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
JAN. 05...	1400	17	.00	<.2	.00	1.5	.00	3.3	.00	<.2
MAR. 29...	1240	3.6	.00	<.2	.00	2.5	.00	27	.00	<.2
MAY 17...	1240	3.6	.00	<.2	.00	1.3	.00	3.9	.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)
JAN. 05...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
MAR. 29...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
MAY 17...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
JAN. 05...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
MAR. 29...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
MAY 17...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOT- TOM DE- POSITS (UG/KG)
JAN. 05...	<.2	.0	<10	.00	<5.4	.00	<.6	.00	<.5
MAR. 29...	<.2	.0	<10	.00	<1.9	.00	<.6	.00	<.6
MAY 17...	<.2	.0	<10	.00	<.7	.00	<.2	.00	<.2

COLORADO RIVER BASIN

08136500 CONCHO RIVER NEAR PAINT ROCK, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1800	2510	2470	2450	2550	2460	2720	1690	375	2380	1240	1630
2	1670	2500	2500	1970	2590	2540	2750	1740	377	2400	1220	1640
3	1640	2510	2490	2400	2660	2440	2740	1770	431	2410	1790	1650
4	1640	2520	2490	2130	2650	2440	2770	1810	450	2460	1470	1620
5	1710	2480	2500	2440	2640	2460	2750	1840	449	2460	1630	1640
6	1680	2500	2500	2470	2610	2450	2770	1880	465	2500	1790	1670
7	1780	2490	2450	2430	2660	2470	2750	1910	478	2580	1710	1710
8	1860	2510	2450	2430	2610	2460	2770	1910	490	2630	1470	1760
9	1920	2490	2470	2440	2700	2490	2780	1920	503	2660	1580	1810
10	1950	2480	2550	2450	2610	2480	2780	1920	541	2690	1670	1830
11	1980	2490	---	2470	2620	2480	2790	1980	597	2740	1710	1890
12	2010	2510	2570	2450	2620	2470	2810	1980	657	2760	1220	1920
13	2140	2520	2560	2450	2630	2490	2810	2020	823	2800	461	1960
14	2130	2520	2490	2500	2720	2530	2810	2020	1310	2820	485	1970
15	2210	2480	2480	2480	2660	2550	2810	2040	1490	2840	563	2030
16	2270	2520	2430	2520	2650	2530	2780	2090	1470	2860	665	2010
17	2320	2490	2460	2510	2690	2560	2450	2110	1440	2870	731	2050
18	2320	2530	2470	2490	2640	2540	2350	2120	1440	---	809	2070
19	2360	2500	2490	2510	2660	2560	1880	2140	1460	---	901	2090
20	2380	2490	2480	2480	2660	2560	1400	2160	1530	---	946	2130
21	2380	2520	2450	2500	2690	2590	1180	2190	1560	---	991	2150
22	2370	2540	2450	2530	2650	2620	1200	2190	1630	---	1050	2140
23	2390	2520	2470	2500	2640	2590	1250	---	1630	---	1080	821
24	2400	2530	2510	2540	2660	2630	1330	---	1720	2830	1100	726
25	2420	2580	2510	2600	2630	2610	1350	---	1800	2870	1140	1580
26	2420	2570	2510	2550	2620	2630	1420	---	1970	2840	1210	2060
27	2440	2570	2490	2540	2590	2660	1470	---	2060	2870	1260	1580
28	2440	2620	2580	2530	2590	2640	1540	---	2120	2890	1410	1510
29	2460	2630	2500	2540	---	2680	1570	---	2180	2080	1520	1480
30	2470	2570	2520	2560	---	2690	1620	2250	2300	1810	1590	1550
31	2490	---	2480	2560	---	2660	---	435	---	1590	1630	---
MONTH	2140	2520	2490	2470	2640	2550	2210	---	1190	2590	1230	1760

COLORADO RIVER BASIN

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08136500 CONCHO RIVER NEAR PAINT ROCK, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	18.0	12.0	10.5	10.5	13.0	16.0	19.0	18.0	29.0	26.5	28.0
2	21.5	15.5	16.5	---	10.5	8.5	16.5	20.0	20.0	29.0	22.0	---
3	---	15.5	15.5	---	11.5	10.0	17.0	21.0	22.0	28.5	23.5	28.5
4	23.0	16.0	16.0	---	11.0	10.0	16.5	21.0	23.5	29.5	25.5	---
5	23.5	11.0	15.5	1.0	---	11.0	15.5	22.0	24.5	30.0	24.5	---
6	23.5	11.5	14.5	0.5	10.0	9.0	16.5	23.5	24.0	30.0	25.5	28.5
7	24.5	12.0	15.0	0.0	9.0	10.0	16.5	22.0	26.5	31.0	25.5	29.0
8	22.0	15.0	15.5	0.0	4.5	14.0	18.0	21.5	24.5	30.0	28.0	---
9	19.0	14.0	15.5	0.0	8.0	11.5	18.0	22.0	26.5	---	26.5	29.0
10	21.0	13.5	16.0	1.5	5.5	13.0	18.5	23.5	26.0	30.0	28.0	26.5
11	21.5	13.5	13.5	5.0	7.0	13.0	---	24.0	25.5	30.5	26.0	---
12	18.0	13.5	12.0	4.5	8.0	15.5	18.5	23.0	26.0	26.5	26.5	28.0
13	22.0	11.5	13.5	10.0	10.0	16.5	18.5	16.5	23.5	29.0	25.5	25.5
14	21.0	10.5	13.0	10.5	13.0	14.5	16.5	20.5	25.5	29.0	24.5	25.5
15	21.0	10.5	14.5	12.0	14.5	16.5	17.0	21.0	27.0	29.0	25.5	---
16	21.0	10.5	7.0	12.0	14.5	17.0	15.5	23.0	28.0	29.0	22.0	---
17	15.5	---	8.5	13.0	14.5	17.0	16.0	23.0	28.0	28.5	21.0	25.0
18	21.0	10.0	8.0	11.0	14.5	17.0	18.0	24.5	28.5	---	26.5	24.5
19	21.5	10.5	13.5	12.0	14.5	15.5	15.5	21.0	28.5	---	27.0	20.0
20	15.5	11.0	10.0	9.0	15.0	16.5	16.5	21.5	29.5	---	28.0	20.5
21	16.0	11.0	11.0	11.0	9.5	18.0	17.0	22.0	29.0	---	26.5	18.0
22	16.0	12.0	11.5	12.0	4.5	15.5	18.5	21.5	27.0	---	27.0	17.0
23	19.5	10.0	10.0	11.0	5.5	16.5	18.0	---	29.0	---	29.0	16.5
24	18.5	9.5	11.0	12.0	5.5	16.0	18.5	---	29.5	26.5	27.0	16.5
25	---	10.0	10.5	12.0	7.0	15.5	19.0	---	26.5	26.5	28.0	17.0
26	21.0	11.0	11.5	13.0	8.0	16.5	22.0	---	28.5	25.5	26.5	19.0
27	---	11.5	12.0	10.0	6.0	18.0	19.5	---	29.0	25.5	27.0	21.0
28	20.0	11.5	13.0	11.0	10.5	18.5	22.0	---	25.5	27.0	27.0	22.0
29	18.0	14.5	13.0	12.0	---	19.0	19.5	---	27.0	26.5	28.0	22.0
30	18.5	11.5	12.0	12.0	---	18.5	---	23.0	28.0	26.0	28.0	22.0
31	19.0	---	11.5	11.0	---	16.5	---	---	---	28.0	28.0	---
MONTH	20.0	12.5	12.5	8.5	9.5	15.0	17.5	---	26.0	---	26.0	---

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 1971.

Water temperatures: April 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	48	16	150	65	150	--	4.6	144	0	340
NOV.										
01-30	40	13	150	71	--	170	--	154	0	370
DEC.										
01-31	40	6.8	180	88	--	210	--	164	0	470
JAN.										
01-31	44	6.6	180	94	200	--	4.5	128	0	520
FEB.										
01-28	32	3.6	190	92	--	220	--	130	0	550
MAR.										
01-31	16	3.5	210	98	--	230	--	138	0	610
APR.										
01-30	60	2.4	220	100	230	--	8.9	136	0	640
MAY										
01-31	31	13	180	86	--	150	--	144	0	340
JUNE										
01...	287	10	50	11	--	44	--	112	0	59
02-08	117	16	140	66	--	180	--	178	0	310
09-14	884	10	50	11	--	44	--	112	0	59
15-30	161	10	65	19	--	84	--	123	0	110
JULY										
01-25	9.6	9.9	58	18	69	--	5.7	124	0	100
26-30	1540	8.2	36	2.4	--	4.9	--	96	0	16
31...	200	9.9	58	18	69	--	5.7	124	0	100
AUG.										
01-03	193	12	70	23	--	81	--	142	0	110
04-06	200	13	150	50	--	170	--	144	0	310
07-11	232	10	100	39	--	110	--	138	0	200
12-13	3750	12	70	23	--	81	--	142	0	110
14-19	3550	11	52	13	--	56	--	136	0	49
20-31	123	12	70	23	--	81	--	142	0	110
SEP.										
01-23	150	12	94	38	--	140	--	132	0	200
24-25	5360	8.8	54	13	--	54	--	134	0	63
26-30	1300	11	62	19	--	59	--	150	0	67
WTD. AVG.	--	10	73	25	--	--	--	133	0	124
TIME WTD.										
AVG.	219	9.1	146	66	--	--	--	139	0	363
TOT. LOAD										
(TONS)	--	2200	15800	5320	--	--	--	28600	0	26600

COLORADO RIVER BASIN

605

08136700 COLORADO RIVER NEAR STACY, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 1,800 mg/l Apr. 1-30; minimum, 127 mg/l July 26-30.

Hardness: Maximum, 970 mg/l Apr. 1-30; minimum, 100 mg/l July 26-30.

Specific conductance: Maximum daily, 3,230 micromhos Apr. 19; minimum daily, 188 micromhos July 29.

Water temperatures: Maximum, 33.5°C July 18; minimum, 3.5°C Jan. 7.

EXTREMES, April 1968 to September 1971.--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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	DIS- SOLVED FLUOR- IDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CALMG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	350	.4	.80	1150	630	510	2.6	1840	7.6
NOV.									
01-30	380	.3	.00	1240	680	550	2.9	2010	7.7
DEC.									
01-31	440	.4	4.5	1490	800	670	3.2	2360	7.7
JAN.									
01-31	440	.4	5.3	1540	830	730	3.0	2420	7.5
FEB.									
01-28	450	.4	5.4	1600	860	750	3.3	2480	7.7
MAR.									
01-31	480	.4	2.2	1710	920	810	3.3	2600	7.6
APR.									
01-30	500	.4	3.7	1800	970	860	3.2	2720	7.6
MAY									
01-31	450	.6	.40	1280	790	670	2.3	2420	7.5
JUNE									
01...	75	.2	1.8	312	170	78	1.5	536	7.6
02-08	380	--	1.1	1180	620	480	3.1	1950	7.7
09-14	75	.2	1.8	312	170	78	1.5	536	7.6
15-30	140	--	1.4	497	240	140	2.4	862	7.4
JULY									
01-25	120	.3	.90	443	220	120	2.0	781	7.5
26-30	8.1	--	1.0	127	100	21	.2	217	7.3
31...	120	.3	.90	443	220	120	2.0	781	7.5
AUG.									
01-03	150	.2	.70	518	270	150	2.1	897	7.3
04-06	350	.3	.90	1120	580	460	3.0	1820	7.9
07-11	240	.3	.90	766	410	300	2.4	1290	7.4
12-13	150	.2	.70	518	270	150	2.1	897	7.3
14-19	95	.2	2.0	352	180	74	1.8	590	7.5
20-31	150	.2	.70	518	270	150	2.1	897	7.3
SEP.									
01-23	260	.3	.40	806	390	280	3.0	1360	8.1
24-25	89	--	1.0	352	190	78	1.7	611	7.7
26-30	120	--	1.2	413	230	110	1.7	753	7.9
WTD. AVG.	149	.2	1.5	530	284	176	1.9	887	7.6
TIME WTD.									
AVG.	.347	.4	2.2	1170	636	523	2.7	1900	7.6
TOT. LOAD (TONS)	32100	35	325	114000	--	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1840	1720	2300	2320	2460	2480	2700	2250	525	742	975	1040
2	1860	1740	2250	2370	2520	---	2720	---	1520	737	951	1000
3	1960	1710	2280	2370	2470	2520	2740	2200	1870	718	1040	1030
4	1960	1770	2300	2230	---	2510	---	2200	2030	---	2000	1080
5	1930	1800	2320	2360	2450	2490	2760	2180	2050	727	1680	1140
6	1910	1810	---	2380	---	2480	2750	2180	2100	752	1780	1160
7	1870	1830	2340	2380	2430	2490	2750	2180	2120	737	1270	1240
8	1850	1830	2310	2380	2430	2470	2770	2170	2060	737	1170	1280
9	1850	1890	2300	2400	2430	2490	2780	---	528	742	1520	1330
10	1850	1930	2300	2380	---	2490	2840	2050	567	754	1080	1380
11	---	1930	2330	2380	2440	2530	2790	1940	542	---	1430	1420
12	1850	1960	2370	2390	2460	2530	2800	2100	544	762	943	1450
13	1840	1990	2380	2400	2450	2570	2820	2360	---	770	785	1480
14	1870	---	2360	2400	---	---	2830	2430	515	778	594	1500
15	1900	2080	---	2440	2540	2600	2830	2460	992	786	---	1510
16	1950	---	2390	2460	2490	2620	2790	2490	633	786	468	1520
17	2000	2100	2360	2440	2470	2650	2800	2530	728	792	564	1520
18	1970	2140	2340	---	---	2670	---	2550	715	783	640	1550
19	2010	---	2360	2460	2480	2690	3230	2580	715	786	689	---
20	1930	2170	---	2480	2520	2670	2980	2590	719	792	738	1590
21	1820	2120	2400	2460	---	---	3020	2610	716	806	767	1600
22	1820	2210	2430	2460	2490	---	2970	2620	728	803	---	1580
23	1770	---	2440	2540	2470	2710	2790	2650	732	800	788	1550
24	1730	2160	2410	---	2490	2700	2690	2650	1180	797	806	734
25	---	2230	---	2480	2490	2710	2550	2690	1510	800	835	496
26	1660	2180	2390	2490	2560	2710	2400	2660	1150	193	856	624
27	1650	2180	---	2540	2490	2700	2360	2680	---	225	869	638
28	1650	2250	2380	2480	---	---	2340	2700	839	244	906	767
29	1670	2270	2360	2500	---	2680	2300	2710	783	188	991	---
30	---	2230	2410	2540	---	2680	2290	---	768	236	1030	966
31	1700	---	2340	---	---	2680	---	2630	---	991	1010	---
MONTH	1850	2010	2350	2430	---	2600	2730	2430	1070	682	1010	1220

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	14.5	15.5	10.0	9.0	15.5	18.5	24.0	25.5	29.0	25.5	24.5
2	20.0	13.0	18.5	11.5	8.0	---	15.5	---	25.5	26.5	22.0	26.5
3	23.5	12.0	16.5	13.0	12.0	10.0	18.0	25.5	25.5	29.0	24.0	25.5
4	26.5	11.5	15.5	9.0	---	11.0	---	24.0	25.5	---	26.5	26.5
5	24.0	11.0	18.0	7.0	10.0	13.5	16.5	26.5	26.5	29.0	25.5	28.0
6	24.0	12.0	---	4.5	---	11.0	18.5	24.0	28.0	30.0	25.5	26.5
7	23.5	14.5	14.5	3.5	8.0	15.5	16.5	---	26.5	29.5	26.5	26.5
8	21.0	15.5	14.5	4.5	7.0	13.5	18.5	23.5	25.5	32.0	26.5	28.0
9	18.5	14.5	15.5	6.5	7.0	14.5	19.5	---	20.0	29.5	26.5	29.5
10	16.5	14.5	15.5	10.0	---	13.5	21.0	24.5	22.0	29.5	26.5	28.0
11	---	10.5	14.5	10.0	10.0	15.5	24.0	23.5	24.0	---	25.5	25.5
12	18.5	13.0	13.0	---	10.0	15.5	20.0	21.0	24.5	29.5	24.0	25.5
13	20.0	14.5	11.0	10.0	11.0	16.5	21.0	18.5	---	30.0	23.5	25.5
14	19.0	---	9.5	10.5	---	---	18.5	23.5	24.0	29.5	24.0	26.5
15	18.5	10.0	---	10.0	15.0	20.0	20.0	23.5	26.5	29.5	---	28.0
16	16.0	---	11.0	11.0	14.5	16.5	16.5	23.5	15.5	30.0	25.5	26.5
17	15.5	10.0	11.0	13.0	12.0	16.5	18.5	22.0	28.0	29.0	26.5	25.5
18	16.5	13.5	13.0	---	---	16.5	---	24.0	26.5	33.5	26.5	24.0
19	14.5	---	11.0	10.0	15.5	15.5	21.0	22.0	26.5	32.0	26.5	---
20	15.5	13.0	---	11.0	14.5	15.5	18.5	21.0	29.0	28.0	28.5	18.5
21	20.0	13.0	13.0	11.0	---	---	22.0	23.5	26.5	28.0	28.0	20.5
22	20.0	14.5	14.5	13.0	10.0	---	23.0	24.0	26.5	28.0	---	20.0
23	21.0	---	11.0	11.0	11.0	16.5	22.0	26.5	26.5	28.0	29.5	21.0
24	---	10.0	12.0	---	11.0	14.5	21.0	24.0	26.5	25.5	29.5	21.0
25	---	10.0	---	19.0	11.0	15.5	21.0	28.5	28.0	25.5	30.0	20.0
26	21.0	13.0	10.0	13.0	13.0	15.5	25.5	25.5	28.5	23.5	29.5	21.0
27	18.5	16.5	---	12.0	12.0	20.0	25.5	24.0	---	26.5	29.0	24.0
28	16.5	15.5	13.0	13.0	---	---	24.5	26.5	26.5	26.5	30.0	24.0
29	16.5	16.5	11.0	14.5	---	18.5	24.0	25.5	25.5	28.0	29.5	---
30	---	16.5	11.0	13.5	---	21.0	24.5	---	26.5	25.5	31.0	24.5
31	15.5	---	12.0	---	---	18.5	---	26.5	---	25.5	25.5	---
MONTH	19.5	13.0	13.5	10.5	---	15.5	20.5	24.0	25.5	28.5	27.0	24.5

COLORADO RIVER BASIN

607

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 11,900 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 20...	0850	40	12	110	41	110	126	0	270	210
DEC. 01...	0915	27	10	130	62	160	124	0	330	340
JAN. 07...	1100	35	4.0	160	86	220	130	0	470	460
FEB. 09...	0945	19	2.1	170	88	250	100	0	550	480
MAR. 16...	0830	12	.4	190	100	230	102	0	570	500
APR. 21...	1000	183	5.2	220	110	220	127	0	660	490
MAY 24...	1550	2.8	5.0	190	96	210	136	0	540	460
JULY 07...	0800	6.7	10	75	28	97	124	0	140	190
AUG. 10...	0845	426	9.9	56	11	43	100	0	70	85
SEP. 13...	1600	378	10	67	23	83	136	0	100	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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 20...	.3	.1	813	440	330	--	1330	7.8
DEC. 01...	.3	.4	1100	580	480	--	1830	7.8
JAN. 07...	.4	1.6	1470	760	650	3.5	2360	7.7
FEB. 09...	.4	1.3	1590	790	710	3.9	2470	7.4
MAR. 16...	.4	2.0	1650	880	800	3.4	2590	7.8
APR. 21...	.4	.3	1780	1000	900	3.0	2700	7.7
MAY 24...	.5	.00	1560	860	750	3.1	2520	7.2
JULY 07...	.2	.20	600	300	200	2.4	1070	7.4
AUG. 10...	.2	.50	326	180	100	1.4	587	7.1
SEP. 13...	.3	.50	512	260	150	2.2	907	7.8

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 1971.
Water temperatures: October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.										
01-17	20	4.8	61	15	61	--	5.7	176	0	54
18-31	19	3.5	92	23	--	130	--	226	0	85
NOV.										
01-23	13	5.8	75	18	--	120	--	194	0	88
24-31	13	4.4	100	27	--	190	--	264	0	130
DEC.										
01-31	15	6.4	110	30	--	220	--	276	0	150
JAN.										
01-31	14	7.5	110	27	180	--	9.8	258	0	140
FEB.										
01-28	14	5.0	110	29	--	200	--	274	0	140
MAR.										
01-31	10	3.5	110	27	--	210	--	268	0	150
APR.										
01-30	13	3.9	120	28	230	--	13	298	0	150
MAY										
01-07	6.7	9.1	88	22	--	150	--	244	0	93
08-11	166	6.0	38	7.4	--	18	--	124	0	18
12-14	14	7.4	60	15	--	71	--	164	0	58
15-31	22	9.1	88	22	--	150	--	244	0	93
JUNE										
01...	24	12	100	22	--	170	--	276	0	93
02-23	8.3	11	59	12	--	63	--	176	0	47
24-30	9.1	12	100	22	--	170	--	276	0	93
JULY										
01-23	1.6	12	110	28	220	--	13	300	0	130
24-25	92	9.8	64	14	--	96	--	172	0	48
26-29	44	8.3	37	7.0	--	41	--	114	0	21
30-31	13	9.8	64	14	--	96	--	172	0	48
AUG.										
01-08	451	8.6	41	6.2	--	19	--	140	0	16
09-31	106	11	53	12	--	46	--	172	0	44
SEPT.										
01...	86	9.4	50	10	--	51	--	143	0	38
02-05	25	8.8	40	7.1	--	23	--	130	0	25
06-09	14	9.4	50	10	--	51	--	143	0	38
10-13	12	8.8	40	7.1	--	23	--	130	0	25
14-18	17	9.4	50	10	--	51	--	143	0	38
19-22	20	7.4	78	19	--	150	--	220	0	97
23-26	933	8.8	40	7.1	--	23	--	130	0	25
27-30	1740	9.4	50	10	--	51	--	143	0	38
WTD. AVG.	--	8.7	55	11	--	--	--	161	0	46
TIME WTD.										
AVG.	60	7.2	88	21	--	--	--	231	0	101
TOT. LOAD (TONS)	--	515	3260	682	--	--	--	9560	0	2710

COLORADO RIVER BASIN

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08143600 PECAN BAYOU NEAR MULLIN, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 1,080 mg/l Apr. 1-30; minimum, 182 mg/l May 8-11.
Hardness: Maximum, 410 mg/l Apr. 1-30; minimum, 120 mg/l July 26-29.

EXTREMES, October 1967 to September 1971.--Dissolved solids: Maximum, 1,080 mg/l Apr. 1-30, 1971; minimum, 182 mg/l May 8-11, 1971.

Hardness: Maximum, 445 mg/l Aug. 1-20, 1970; minimum, 117 mg/l Aug. 26-28, 1969.

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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-17	110	.3	1.1	404	210	70	1.8	723	7.6
18-31	230	--	1.1	679	320	140	3.1	1320	7.7
NOV.									
01-23	180	.2	.6	585	260	100	3.2	1040	7.6
24-31	300	--	.5	884	370	150	4.4	1560	7.7
DEC.									
01-31	340	.3	2.0	1000	400	170	4.8	1750	7.8
JAN.									
01-31	300	.3	2.2	907	380	170	4.0	1550	8.0
FEB.									
01-28	320	.4	2.4	962	400	170	4.4	1680	7.8
MAR.									
01-31	340	.4	1.9	976	390	170	4.7	1670	7.6
APR.									
01-30	380	.4	.8	1080	410	170	4.9	1850	7.8
MAY									
01-07	240	.4	.9	728	310	110	3.7	1300	7.9
08-11	26	--	1.8	182	130	24	.7	331	7.8
12-14	120	--	.8	414	210	76	2.1	753	7.6
15-31	240	.4	.9	728	310	110	3.7	1300	7.9
JUNE									
01...	280	.3	1.0	816	340	110	4.1	1430	7.6
02-23	97	--	1.0	380	200	52	2.0	673	7.6
24-30	280	.3	1.0	816	340	110	4.1	1430	7.6
JULY									
01-23	370	.4	.7	1040	400	150	4.8	1820	7.9
24-25	160	--	.7	484	220	76	2.8	891	7.6
26-29	64	--	1.1	239	120	28	1.6	440	7.4
30-31	160	--	.7	484	220	76	2.8	891	7.6
AUG.									
01-08	24	.2	.9	188	130	13	.7	332	7.9
09-31	64	.2	.8	319	180	39	1.5	537	8.1
SEP.									
01...	82	.3	.8	314	170	49	1.7	573	7.3
02-05	30	--	1.0	202	130	22	.9	358	7.4
06-09	82	.3	.8	314	170	49	1.7	573	7.3
10-13	30	--	1.0	202	130	22	.9	358	7.4
14-18	82	.3	.8	314	170	49	1.7	573	7.3
19-22	220	--	.4	679	270	92	3.9	1220	7.6
23-26	30	--	1.0	202	130	22	.9	358	7.4
27-30	82	.3	.8	314	170	49	1.7	573	7.3
WTD. AVG.	93	.3	.9	357	186	52	1.7	633	7.6
TIME WTD.									
AVG.	236	.3	1.3	724	309	119	3.5	1270	7.7
TOT. LOAD (TONS)	5510	12	59	21200	--	--	--	--	--

[illegible]

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TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

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 1971.

Chemical and biochemical analyses: October 1969 to September 1971.

Pesticide analyses: January 1968 to September 1971.

Water temperatures: September 1947 to September 1971.

Sediment records: December 1950 to September 1962.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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 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	177	7.3	78	33	70	--	3.7	240	0	100
NOV.										
01-30	119	6.0	88	44	--	92	--	272	0	140
DEC.										
01-31	118	9.1	78	40	--	66	--	280	0	90
JAN.										
01-31	125	9.2	76	41	79	--	4.5	256	0	110
FEB.										
01-28	118	7.6	66	39	64	--	3.8	234	10	91
MAR.										
01-31	98	7.9	70	39	--	64	--	268	0	84
APR.										
01-30	100	9.1	71	39	68	--	4.5	282	0	87
MAY										
01-08	107	13	80	51	--	61	--	258	0	120
09...	2520	15	--	--	--	110	--	148	0	370
10...	1550	15	--	--	--	18	--	177	0	23
11-13	395	11	60	16	--	41	--	138	0	78
14-31	123	15	70	18	--	59	--	249	0	57
JUNE										
01-05	161	11	59	20	--	40	--	190	0	48
06-13	468	11	100	41	--	120	--	220	0	160
14-15	232	9.9	75	22	--	65	--	156	0	100
16-30	321	11	59	20	--	40	--	190	0	48
JULY										
01-23	34	13	48	28	40	--	4.0	246	0	31
24...	325	8.0	34	8.9	--	6.0	--	120	6	10
25-27	4640	8.8	45	12	--	23	--	160	0	23
28-31	7850	9.6	41	5.7	--	9.4	--	125	0	15
AUG.										
01-03	11450	8.8	40	3.9	--	15	--	136	0	11
04-12	2470	11	51	9.9	--	22	--	180	0	22
13-14	10800	11	45	6.7	--	22	--	144	0	24
15-31	2540	12	61	18	--	32	--	224	8	31
SEP.										
01-24	974	13	65	23	--	34	--	260	0	35
25...	21600	9.4	44	4.6	--	11	--	132	0	15
26-28	11500	5.7	53	9.6	--	33	--	144	0	34
29-30	3880	13	65	23	--	34	--	260	0	35
WTD. AVG.	--	9.9	53	14	--	--	--	180	1	36
TIME WTD.										
AVG.	861	9.7	69	32	--	--	--	244	1	79
TOT. LOAD (TONS)	--	8390	44700	11800	--	--	--	152000	1030	30500

COLORADO RIVER BASIN

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08147000 COLORADO RIVER NEAR SAN SABA, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 773 mg/l June 6-13; minimum, 141 mg/l July 24.
 Hardness: Maximum, 750 mg/l Mar. 9; minimum, 120 mg/l July 24, Aug. 1-3.
 Specific conductance: Maximum daily, 1,970 micromhos May 9; minimum daily, 258 micromhos July 28.
 Water temperatures: Maximum, 31.5°C July 5, 17; minimum, 6.5°C Jan. 7.

EXTREMES, September 1947 to September 1971.--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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	130	.3	1.0	545	330	130	1.7	962	7.8
NOV.									
01-30	160	.2	1.0	669	400	180	2.0	1160	8.0
DEC.									
01-31	120	.2	.80	549	360	130	1.5	975	8.0
JAN.									
01-31	150	.2	.80	594	360	150	1.8	1040	7.9
FEB.									
01-28	120	.2	.80	521	320	120	1.5	923	--
MAR.									
01-31	120	.2	.90	517	340	120	1.5	910	7.7
APR.									
01-30	120	.2	.80	544	340	110	1.6	948	7.9
MAY									
01-08	140	.3	.40	599	400	200	1.3	1070	7.5
09...	340	--	2.2	--	750	630	1.7	1970	7.5
10...	19	--	1.1	--	160	15	.6	385	7.4
11-13	61	--	1.1	340	210	81	1.2	592	7.1
14-31	77	--	1.2	423	280	72	1.6	754	7.6
JUNE									
01-05	76	.2	.90	351	230	74	1.1	625	7.7
06-13	230	--	.70	773	420	240	2.4	1340	7.6
14-15	130	--	1.7	484	280	150	1.7	846	8.2
16-30	76	.2	.90	351	230	74	1.1	625	7.7
JULY									
01-23	66	.2	.40	353	240	34	1.1	632	7.9
24...	11	--	.04	141	120	13	.2	288	8.6
25-27	37	--	1.0	232	160	31	.8	421	8.1
28-31	18	--	.80	163	130	23	.4	297	7.5
AUG.									
01-03	16	.2	.80	165	120	5	.6	281	8.1
04-12	29	.2	.90	238	170	20	.7	406	8.0
13-14	29	.2	1.0	213	140	22	.8	359	7.9
15-31	46	.2	.40	320	230	44	.9	549	8.3
SEP.									
01-24	54	.2	1.0	357	260	44	.9	626	8.1
25...	18	--	1.0	171	130	21	.4	286	7.3
26-28	62	.2	.90	272	170	54	1.1	494	7.5
29-30	54	.2	1.0	357	260	44	.9	626	8.1
WTD. AVG.	50	.2	.85	282	197	49	.9	504	7.9
TIME WTD.									
AVG.	107	.2	.84	483	309	108	1.4	851	7.9
TOT. LOAD (TONS)	42500	121	722	236000	--	--	--	--	--

COLORADO RIVER BASIN

08147000 COLORADO RIVER NEAR SAN SABA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
JAN. 05...	0950	131	10	88	42	85	278	0
FEB. 16...	1125	103	7.0	73	39	62	288	0
MAR. 29...	0900	79	7.8	60	38	58	276	0
MAY 17...	0900	191	9.6	64	29	53	170	0
JULY 21...	1810	9.6	15	46	34	48	274	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)
JAN. 05...	120	160	.2	.000	.00	.6	.050	641	390
FEB. 16...	80	110	.2	.000	.00	.6	.030	516	340
MAR. 29...	63	98	.2	.000	.00	.4	.060	463	310
MAY 17...	110	100	.2	.010	.00	.7	.10	448	280
JULY 21...	23	79	.2	.000	.00	.00	.060	380	260

DATE	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
JAN. 05...	160	--	1110	8.1	7.0	10.6	87	1.1
FEB. 16...	110	1.5	926	7.9	16.0	10.0	100	1.4
MAR. 29...	80	1.4	836	8.0	18.0	7.8	82	1.5
MAY 17...	140	--	811	7.9	23.0	7.0	80	2.7
JULY 21...	30	1.3	709	8.0	31.5	6.8	92	3.2

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. 05...	0950	131	.00	.00	.00	.00	.00	.00	.00	.00
MAR. 29...	0900	79	.00	.00	.00	.00	.00	.00	.00	.00
MAY 17...	0900	191	.00	.00	.00	.00	.00	.00	.00	.00
JULY 21...	1810	9.6	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
JAN. 05...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
MAR. 29...	.00	.0	.00	.00	.00	.00	.0	.00	.04	.00
MAY 17...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
JULY 21...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00

COLORADO RIVER BASIN

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08147000 COLORADO RIVER NEAR SAN SABA, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1020	996	991	996	978	1090	801	1440	701	609	350	458
2	817	1060	970	1010	923	1050	790	1020	649	578	365	506
3	820	1060	970	1000	987	974	621	1140	643	559	297	580
4	851	1140	908	1100	987	965	661	1020	590	---	335	678
5	867	1160	983	1050	888	974	736	1040	703	570	336	674
6	887	1140	938	1090	1020	953	663	1030	1490	573	360	651
7	902	1180	877	1050	845	1030	616	991	1210	580	349	651
8	942	1220	857	1090	920	921	667	920	1190	587	432	658
9	1020	1230	931	991	887	987	659	1970	1220	596	401	616
10	1020	1200	874	1020	908	941	698	385	---	599	457	668
11	1050	1260	970	1040	938	1040	722	507	1760	608	490	652
12	1140	1140	938	1080	885	933	711	585	1450	619	492	621
13	942	1240	894	1110	924	978	715	684	1080	622	366	634
14	1040	1060	881	1080	970	982	698	710	883	634	355	624
15	1000	1160	931	1100	962	933	687	1100	819	667	456	616
16	974	1190	974	1050	913	929	734	961	682	688	456	631
17	888	1320	987	1000	891	851	693	821	617	691	491	658
18	891	1270	1010	987	874	957	659	790	555	691	499	672
19	854	1320	983	958	809	953	704	769	590	673	514	656
20	871	1060	991	1020	822	914	713	741	621	689	534	690
21	817	1300	1040	1040	853	881	644	733	634	700	538	688
22	874	1200	966	1030	811	953	1560	724	636	707	561	678
23	905	1030	966	1060	800	801	1610	712	684	705	576	692
24	1010	1180	1040	1020	979	727	1500	714	573	288	593	590
25	1000	1220	1060	979	950	910	1420	711	524	444	604	286
26	1020	1080	987	1040	1010	871	1400	668	634	485	606	489
27	1190	1100	1020	1090	1100	760	1590	678	668	340	624	512
28	1060	1070	1070	1080	1150	825	1640	680	614	258	639	485
29	1150	1020	1050	1020	---	868	1550	672	594	297	527	524
30	1070	1000	1110	1070	---	736	1510	675	605	324	557	530
31	1000	---	1050	931	---	712	---	---	---	311	559	---
MONTH	964	1150	975	1040	928	916	946	853	814	556	475	602

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	15.5	20.0	13.0	10.0	16.0	20.0	23.0	27.0	27.0	24.0	26.0
2	22.0	15.5	20.0	15.0	11.0	11.0	18.0	26.5	28.0	31.0	22.0	29.0
3	25.0	13.0	19.5	16.5	14.5	15.5	20.0	28.0	28.5	31.0	23.5	28.5
4	25.0	15.0	19.0	10.0	15.5	11.5	17.0	26.5	30.0	---	24.5	29.5
5	---	15.5	20.0	8.0	12.0	11.5	16.5	24.0	26.0	31.5	24.0	29.5
6	23.0	18.5	18.5	8.5	12.0	15.0	18.0	24.0	29.5	31.0	23.0	30.0
7	24.5	21.0	15.5	6.5	8.5	15.5	18.5	28.0	31.0	30.5	25.0	30.5
8	24.0	18.5	18.0	8.0	12.0	16.5	18.5	27.0	29.5	29.5	26.5	30.0
9	17.0	20.0	18.5	11.5	11.5	18.0	19.5	24.0	29.5	30.5	28.0	30.0
10	20.5	18.5	18.5	13.0	10.0	14.5	19.5	18.5	---	27.0	26.5	27.0
11	21.0	18.5	14.0	14.5	10.0	19.5	23.5	20.0	30.0	30.5	26.0	27.0
12	20.5	19.5	14.5	11.5	13.0	19.0	23.0	19.5	29.5	29.0	24.5	27.0
13	23.0	14.5	13.5	15.0	11.0	21.0	21.0	23.0	29.5	28.0	25.5	28.0
14	18.5	9.5	13.0	16.0	16.0	21.0	21.0	24.0	26.5	30.5	24.0	27.0
15	18.5	13.0	15.5	13.0	16.0	20.0	22.0	25.5	26.5	---	26.0	26.5
16	16.5	15.5	14.5	13.0	15.5	20.5	18.5	26.5	29.0	29.5	26.0	26.5
17	18.0	15.0	15.0	13.0	16.5	17.0	16.5	26.5	29.5	31.5	26.5	25.5
18	15.5	15.0	16.0	15.0	19.5	25.5	23.5	28.5	30.0	29.5	26.5	23.5
19	19.5	17.0	14.5	13.0	19.0	16.0	23.0	26.0	29.5	30.5	26.5	19.5
20	21.5	15.5	13.0	12.0	18.0	15.5	22.0	22.0	28.5	29.0	26.5	20.0
21	16.5	20.0	16.0	13.0	15.0	19.0	24.5	26.5	29.0	29.5	26.0	24.0
22	21.0	15.5	18.5	10.0	13.5	19.0	25.0	25.5	28.5	30.5	28.0	21.0
23	18.5	11.0	16.0	14.5	16.0	15.5	23.0	29.5	30.0	29.0	28.0	23.0
24	17.0	13.5	15.0	15.5	13.0	14.5	24.0	23.5	31.0	26.5	29.5	23.0
25	23.0	12.0	11.5	16.0	14.5	17.0	24.5	24.5	30.5	24.5	28.5	21.0
26	20.5	---	13.0	15.5	15.5	15.5	23.5	28.0	29.5	24.0	29.0	24.0
27	20.0	16.0	10.0	15.0	15.5	22.0	25.5	29.0	28.5	24.0	29.5	24.0
28	19.5	16.5	16.5	15.5	18.5	21.0	25.5	28.0	26.5	23.0	28.5	24.5
29	15.5	17.0	14.0	18.5	---	17.0	24.0	28.0	28.0	28.0	27.0	26.0
30	14.0	20.0	15.0	18.5	---	20.0	26.0	25.5	29.0	26.5	27.0	25.0
31	21.0	---	14.5	14.5	---	20.0	---	---	---	25.5	27.0	---
MONTH	20.0	16.0	16.0	13.5	14.0	17.5	21.5	25.5	29.0	28.5	26.0	26.0

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 1971.

Water temperatures: October 1964 to September 1971.

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 316 mg/l Sept. 1-30; minimum, 272 mg/l Jan. 1-31.

Hardness: Maximum, 200 mg/l Nov. 1-30, Feb. 1-28, Mar. 1-31, Apr. 1-30, May 1-31, June 1-30, July 1-31, Aug. 1-31, and Sept. 1-30; minimum, 180 mg/l Oct. 1-31, Jan. 1-31.

Specific conductance: Maximum daily, 589 micromhos Sept. 26; minimum daily, 474 micromhos Nov. 1.

Water temperatures: Maximum, 26.0°C July 23, Aug. 16, Sept. 8, 14.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	SODIUM (NA) (MG/L)	SODIUM PLUS PO- TAS- SIUM (NA+K) (MG/L)	PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)
OCT.									
01-31	9.2	44	18	30	--	3.0	172	0	34
NOV.									
01-30	5.3	49	18	--	32	--	188	0	34
DEC.									
01-31	10	43	20	--	29	--	172	0	32
JAN.									
01-31	11	39	19	30	--	4.3	162	0	33
FEB.									
01-28	7.8	47	20	--	39	--	188	0	37
MAR.									
01-31	6.8	45	21	--	36	--	178	0	38
APR.									
01-30	8.1	47	20	36	--	5.0	180	0	40
MAY									
01-31	8.7	47	20	--	37	--	182	0	38
JUNE									
01-30	8.3	45	21	--	38	--	180	0	39
JULY									
01-31	8.4	45	21	36	--	3.8	178	0	38
AUG.									
01-31	8.4	42	22	--	41	--	184	0	37
SEP.									
01-30	9.4	45	22	--	40	--	181	0	40

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	477	474	---	511	549	535	530	559	525	525	520	553
2	498	518	488	499	546	554	525	562	548	541	549	540
3	501	489	481	487	546	541	527	544	559	534	533	---
4	484	515	508	500	---	553	530	556	561	525	530	557
5	488	518	501	488	542	---	551	550	550	532	517	542
6	507	495	490	501	548	---	549	561	561	544	549	576
7	503	---	487	---	543	560	562	565	550	549	531	---
8	496	525	483	---	556	556	566	549	---	543	549	571
9	482	521	---	---	558	546	566	558	556	553	526	569
10	493	518	493	---	539	557	564	566	538	549	519	578
11	517	521	498	---	550	538	565	564	---	541	549	575
12	502	528	498	---	553	556	565	564	554	538	514	---
13	492	526	504	---	---	556	565	542	547	---	560	576
14	497	524	498	---	549	553	551	549	552	---	---	552
15	495	524	528	---	549	553	568	551	570	562	540	---
16	---	523	534	---	554	557	562	551	564	562	538	553
17	485	526	512	---	562	544	---	559	561	556	560	588
18	511	521	495	---	560	556	558	550	561	565	557	585
19	499	530	498	---	---	557	549	556	---	553	541	585
20	507	---	528	---	546	553	560	560	---	565	566	580
21	494	---	503	---	567	---	556	564	---	566	540	571
22	482	---	497	---	553	559	554	565	557	566	---	583
23	493	533	507	---	556	556	555	564	560	569	531	580
24	---	529	509	---	565	559	561	559	569	569	544	---
25	485	529	517	---	559	559	561	565	560	570	563	586
26	508	529	519	---	---	573	565	---	562	565	561	589
27	511	510	524	---	559	558	556	---	564	565	567	581
28	502	518	523	---	558	---	---	557	561	562	569	580
29	487	525	524	---	---	556	560	566	561	565	560	583
30	510	533	525	---	---	562	---	559	562	560	569	582
31	514	---	521	---	---	563	---	---	---	566	573	---
MONTH	497	519	507	---	553	554	555	558	557	554	546	573

08154900 LAKE AUSTIN AT AUSTIN, TEX.--Continued

EXTREMES, October 1964 to September 1971.--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, 1970-71): Maximum daily, 645 micromhos Oct. 23, 1964; minimum daily, 311 micromhos June 19, 1968.

Water temperatures (1964-69, 1970-71): 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 1970 TO SEPTEMBER 1971

DATE	CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (N) (MG/L)	DISSOLVED 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. 01-31	56	.2	.2	280	180	43	1.0	496	7.8
NOV. 01-30	53	.2	.2	284	200	42	1.0	519	7.7
DEC. 01-31	55	.3	.1	275	190	49	.9	507	7.9
JAN. 01-31	55	.3	.1	272	180	43	1.0	497	7.6
FEB. 01-28	64	.3	.4	309	200	46	1.2	552	7.4
MAR. 01-31	64	.3	.3	300	200	53	1.1	553	7.5
APR. 01-30	66	.3	.4	313	200	52	1.1	558	7.8
MAY 01-31	65	.3	.2	307	200	51	1.1	557	7.6
JUNE 01-30	65	.3	.5	308	200	52	1.2	554	7.6
JULY 01-31	66	.2	.3	308	200	53	1.1	554	7.5
AUG. 01-31	67	.2	.1	308	200	45	1.3	546	8.0
SEP. 01-30	70	.3	.08	316	200	54	1.2	573	7.6

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	19.0	---	13.5	15.0	15.5	16.5	18.5	21.0	21.0	23.5	24.0
2	21.5	18.0	15.5	13.5	14.5	15.5	16.5	18.0	21.5	21.0	22.0	24.0
3	22.0	17.0	16.0	14.5	12.0	13.0	15.5	17.0	21.0	21.5	22.0	---
4	22.0	16.5	16.0	13.5	---	13.0	15.5	17.0	21.0	21.5	22.0	24.0
5	24.5	16.0	16.0	12.0	12.0	---	16.0	19.0	21.0	23.0	22.0	24.0
6	22.0	16.5	16.0	11.0	12.0	---	15.0	19.0	20.5	23.0	21.0	25.5
7	23.5	---	16.0	---	13.5	13.5	14.0	18.5	23.5	21.5	22.0	---
8	23.5	16.5	16.0	---	10.5	13.5	15.0	18.5	---	22.0	22.0	26.0
9	21.5	17.0	---	---	10.5	13.5	15.0	18.0	22.0	23.0	25.0	25.5
10	20.5	16.0	16.0	---	11.0	14.0	15.0	13.5	22.0	22.0	25.0	25.5
11	21.0	16.5	15.5	---	11.0	14.0	15.0	19.0	---	21.5	24.5	24.5
12	21.0	16.5	14.5	---	11.0	15.5	16.5	20.0	22.0	23.5	25.5	---
13	21.0	16.5	20.5	---	---	16.0	16.5	18.5	22.0	---	25.0	25.5
14	21.0	16.0	15.5	---	11.0	16.5	16.5	18.0	21.0	---	---	26.0
15	20.5	16.0	14.5	---	13.5	16.5	16.5	18.0	21.0	21.5	24.5	---
16	---	15.0	14.5	---	14.5	16.0	16.5	18.5	22.0	24.5	26.0	25.5
17	19.5	14.5	14.5	---	13.0	16.5	---	19.5	19.5	23.5	24.5	25.5
18	19.0	15.0	15.0	---	14.5	17.0	16.5	20.0	21.0	23.5	24.0	25.5
19	20.0	14.5	15.0	---	---	16.0	17.0	20.5	---	25.5	24.5	24.0
20	20.0	---	15.0	---	15.5	15.5	17.0	20.0	---	23.5	24.5	23.5
21	19.5	---	15.0	---	15.5	---	18.5	19.0	---	24.5	24.5	24.0
22	20.0	---	15.5	---	13.5	15.5	17.0	20.0	20.0	24.5	---	23.5
23	20.0	14.5	15.5	---	13.5	16.0	19.0	20.0	20.5	26.0	25.0	23.5
24	---	15.0	15.0	---	---	16.0	19.0	20.0	20.5	25.5	24.5	---
25	20.0	14.0	14.0	---	15.0	16.0	19.0	20.5	20.5	25.5	25.0	23.5
26	20.5	13.5	13.5	---	---	15.0	18.5	---	24.5	23.5	24.5	24.0
27	21.0	14.5	13.5	---	14.0	16.0	18.5	---	24.0	24.0	24.5	25.5
28	19.5	15.0	15.0	---	14.0	---	---	20.0	20.5	23.5	24.5	25.5
29	19.0	15.0	14.5	---	---	16.0	19.5	20.5	20.0	23.5	24.5	---
30	19.0	14.5	14.0	---	---	16.5	---	20.5	21.0	24.5	22.0	22.0
31	19.0	---	14.0	---	---	16.0	---	---	---	23.5	22.0	---
MONTH	21.0	15.5	15.0	---	13.0	15.5	16.5	19.0	21.5	23.5	24.0	24.5

COLORADO RIVER BASIN

08157500 WALLER CREEK AT 23rd STREET, AT AUSTIN, TEX.

LOCATION.--Lat 30°17'08", long 97°44'01", Travis County, on San Jacinto Boulevard, 50 feet upstream from bridge on East 23rd Street at Austin, and 2.1 miles upstream from Colorado River.

DRAINAGE AREA.--4.13 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1971.
Pesticide analyses: October 1970 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 23...	1205	31	6.8	44	2.0	5.3	132	0	9.6	7.2
MAY 24...	0920	10	4.6	40	3.2	9.4	114	0	16	16
JUNE 21...	1725	363	8.8	46	2.1	3.4	140	0	5.4	6.2
AUG. 02...	1303	31	4.2	38	2.0	4.6	109	0	10	8.6
04...	1200	20	6.8	40	3.0	13	105	0	21	21

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 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)
OCT. 23...	.1	1.0	.000	.00	.3	1.6	--	141	--	120
MAY 24...	.2	--	.000	.52	.6	.38	95	149	--	110
JUNE 21...	.1	--	.000	.00	.4	1.9	44	143	1720	120
AUG. 02...	.1	--	.020	.26	.5	.37	55	124	--	100
04...	.1	--	.010	.09	.9	.33	65	161	186	110

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	TUR- BID- ITY (JTU)	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. 23...	10	--	253	7.1	20.0	240	6.7	73	>8.4	.00
MAY 24...	20	--	285	7.7	21.0	--	8.0	89	15	.00
JUNE 21...	9	.1	252	8.9	22.0	--	7.1	81	23	.00
AUG. 02...	14	.2	229	7.9	23.0	--	8.0	92	6.7	.06
04...	26	.5	282	7.8	24.0	--	7.8	92	2.7	.00

COLORADO RIVER BASIN

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08157500 WALLER CREEK AT 23rd STREET, AT AUSTIN, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT. 23...	1205	31	.00	.25	.23	1.7	.15	.00	.00	.00
MAY 24...	0920	10	.00	.23	.09	.86	.05	.00	.00	.00
JUNE 21...	1725	363	.00	.96	.30	.67	.24	.00	.00	.00
AUG. 02...	1303	31	.00	.09	.05	.33	.00	.00	.00	.00
04...	1200	20	.00	.04	.05	.30	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT. 23...	.00	.3	.20	.00	.00	.00	.0	.00	.02	.00
MAY 24...	.03	.4	.28	.59	.00	.00	.0	.00	.05	.00
JUNE 21...	.00	.7	.02	.00	.00	.00	.0	.00	.06	.00
AUG. 02...	.00	.0	.00	.00	.00	.00	.0	.00	.14	.00
04...	.00	.0	.00	.00	.00	.00	.0	.00	.10	.00

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 11,900 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1971.
Water temperatures: October 1947 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	299	8.8	54	19	24	--	2.4	206	0	32
NOV. 01-30	145	5.3	58	20	--	26	--	228	0	33
DEC. 01-31	113	9.4	49	21	--	26	--	204	0	32
JAN. 01-31	323	10	45	20	28	--	3.3	190	0	34
FEB. 01-24	82	8.3	41	21	--	36	--	186	0	36
MAR. 01-31	451	9.3	45	21	--	39	--	178	0	41
APR. 01-30	1560	7.9	48	20	35	--	5.0	186	0	40
MAY 01-31	1810	8.8	48	20	--	37	--	186	0	38
JUNE 01-30	2170	8.3	47	21	--	38	--	187	0	38
JULY 01-31	1640	8.3	48	21	36	--	3.9	186	0	37
AUG. 01-31	1430	8.0	44	22	--	40	--	190	0	39
SEP. 01-30	879	8.6	48	22	--	38	--	192	0	38
WTD. AVG. TIME WTD.	--	8.4	47	21	--	--	--	188	0	38
AVG.	955	8.4	48	21	--	--	--	193	0	36
TOT. LOAD (TONS)	--	7930	44400	19600	--	--	--	177000	0	35800

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	468	530	587	436	505	---	558	557	569	566	530	552
2	474	579	478	445	615	---	567	556	558	566	546	570
3	476	579	467	---	512	---	567	570	539	539	524	585
4	521	584	466	471	499	---	560	574	570	556	545	580
5	508	497	476	431	496	---	---	566	555	568	503	576
6	531	450	484	504	518	---	530	560	558	569	506	576
7	529	464	499	521	512	---	564	556	563	569	527	585
8	528	517	476	517	484	---	---	556	565	554	554	586
9	527	471	485	510	466	---	576	563	566	566	568	579
10	537	534	509	547	518	---	567	562	559	569	---	590
11	491	---	504	591	548	---	568	552	563	568	554	583
12	477	---	445	553	582	---	568	554	562	576	571	577
13	538	505	509	503	485	---	567	563	570	573	546	580
14	531	---	530	605	498	---	---	559	573	562	561	548
15	504	---	601	546	486	---	---	---	581	567	568	582
16	493	591	481	521	500	---	552	559	584	575	570	579
17	462	509	496	564	506	---	562	569	570	563	564	580
18	489	541	508	477	558	---	576	572	565	565	551	589
19	580	509	521	---	485	---	571	565	570	577	546	586
20	578	568	507	509	521	559	561	569	566	570	568	606
21	495	---	555	546	481	557	548	567	572	571	561	599
22	543	543	555	538	489	551	545	560	569	566	546	562
23	456	---	533	513	456	560	573	560	568	567	530	570
24	438	---	507	525	467	560	---	554	569	567	536	575
25	475	545	569	541	485	564	---	560	565	---	574	579
26	553	566	464	515	576	561	562	562	562	570	569	586
27	497	554	480	---	514	549	561	560	567	555	571	590
28	---	546	617	---	494	570	560	560	569	569	567	586
29	---	568	579	572	---	565	558	559	569	571	440	603
30	---	567	523	558	---	566	558	564	570	570	563	589
31	582	---	538	628	---	570	---	571	---	566	580	---
MONTH	510	---	514	525	509	---	562	562	566	566	548	581

08158000 COLORADO RIVER AT AUSTIN, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 317 mg/l Sept. 1-30; minimum, 285 mg/l Dec. 1-31.
 Hardness: Maximum, 230 mg/l Nov. 1-30; minimum, 190 mg/l Feb. 1-28.
 Specific conductance: Maximum daily, 617 micromhos Dec. 28; minimum daily, 431 micromhos Jan. 5.
 Water temperatures: Maximum, 27.0°C Sept. 8; minimum, 11.5°C Jan. 9.

EXTREMES, October 1947 to September 1971.--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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED CHLORIDE (CL) (MG/L)	DIS- SOLVED FLUORIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	45	.2	.80	290	210	44	.7	510	7.8
NOV.									
01-30	41	.2	1.0	300	230	40	.8	535	7.6
DEC.									
01-31	43	.2	1.0	285	210	42	.8	514	7.6
JAN.									
01-31	48	.3	1.2	287	200	40	.9	526	7.7
FEB.									
01-28	52	.3	1.0	290	190	36	1.1	520	7.7
MAR.									
01-31	64	.3	.80	311	200	53	1.2	548	7.9
APR.									
01-30	63	.3	.20	311	200	47	1.1	561	7.9
MAY									
01-31	64	.3	.20	308	200	50	1.1	563	7.5
JUNE									
01-30	66	.3	.30	312	200	51	1.2	566	7.6
JULY									
01-31	66	.2	.30	313	210	54	1.1	564	7.1
AUG.									
01-31	63	.3	.20	310	200	44	1.2	546	7.9
SEP.									
01-30	67	.3	.20	317	210	53	1.1	580	8.1
WTD. AVG.	63	.3	.35	310	203	49	1.1	558	7.7
TIME WTD. AVG.	57	.3	.60	303	205	46	1.0	544	7.7
TOT. LOAD (TONS)	59400	264	331	291000	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.5	21.0	18.0	16.5	---	---	18.5	20.5	21.5	23.0	25.0	25.5
2	---	20.5	19.5	16.5	16.5	---	18.0	20.5	22.0	23.0	24.5	26.0
3	23.5	20.5	20.5	---	15.5	---	18.0	21.0	22.0	23.0	24.5	24.5
4	23.5	20.0	23.0	16.0	16.5	---	16.5	20.5	21.5	23.5	24.5	25.0
5	24.0	19.5	21.0	15.5	16.0	---	---	20.0	22.0	23.0	19.5	25.0
6	24.0	20.0	20.0	13.5	15.5	---	16.5	20.5	22.0	23.0	24.5	26.0
7	24.0	20.0	19.5	13.5	15.5	---	16.5	20.0	21.5	24.5	25.5	24.5
8	24.0	20.0	---	12.0	14.5	---	---	21.0	21.5	24.5	25.5	27.0
9	19.5	---	19.5	11.5	14.0	---	16.0	21.0	22.0	24.0	25.5	25.5
10	20.5	---	20.0	13.0	12.0	---	17.0	20.5	22.0	24.5	---	26.5
11	21.0	---	19.5	14.0	13.5	---	17.0	20.5	23.0	24.5	25.0	25.5
12	20.0	---	19.0	14.5	13.5	---	18.0	20.0	21.0	24.0	25.5	26.0
13	23.0	20.0	18.0	15.5	13.5	---	18.0	20.0	22.0	24.5	25.0	26.5
14	22.0	---	17.0	15.5	15.5	---	---	20.0	24.5	23.5	26.0	26.5
15	22.0	---	17.0	15.5	16.0	---	---	---	24.5	23.5	25.5	26.5
16	21.5	18.0	16.5	14.0	16.5	---	19.0	20.0	23.0	25.0	25.5	26.0
17	21.0	16.5	16.5	15.5	16.5	---	18.5	20.5	22.0	23.5	25.0	---
18	21.0	18.0	17.0	---	17.0	---	19.0	20.5	21.0	24.0	25.5	26.0
19	21.0	18.5	17.0	---	17.0	---	18.0	21.0	21.0	25.0	25.0	---
20	21.0	18.5	17.0	---	17.0	18.0	19.0	21.0	21.5	25.5	25.0	24.5
21	21.5	---	---	15.5	17.0	17.0	19.0	21.0	---	26.5	24.5	24.5
22	22.0	19.0	18.0	15.5	15.5	18.0	20.0	21.0	21.0	26.5	24.5	23.5
23	22.0	---	19.5	16.0	---	18.0	---	21.0	22.0	26.5	25.0	24.5
24	22.0	---	18.0	16.5	16.0	18.0	---	---	22.0	25.5	24.5	24.5
25	22.0	18.0	17.0	19.0	16.5	18.5	---	21.5	22.0	---	24.5	24.5
26	22.0	18.5	17.0	19.0	16.5	16.5	20.0	21.0	21.5	25.5	25.5	24.5
27	21.0	18.5	17.0	---	18.0	17.0	20.0	22.0	21.5	26.0	25.5	25.5
28	---	18.5	16.0	---	18.5	18.0	20.5	22.0	23.0	25.5	25.5	25.5
29	---	20.0	16.0	16.5	---	19.0	21.0	22.0	22.0	25.5	24.0	---
30	---	18.0	17.0	18.0	---	18.0	20.5	22.0	22.0	25.0	25.0	---
31	20.5	---	16.0	18.0	---	---	---	21.5	---	24.5	25.0	---
MONTH	22.0	---	18.0	15.5	16.0	---	---	21.0	22.0	24.5	25.0	25.5

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.

PERIOD OF RECORD.--Chemical and biochemical analyses: February 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT. 09...	1545	87	9.8	56	18	--	26	--	212	0
DEC. 03...	1750	107	11	63	19	38	--	4.8	258	0
FEB. 03...	1740	43	13	62	19	42	--	4.9	245	0
APR. 07...	1355	164	7.3	49	20	--	41	--	190	0
JUNE 03...	1720	78	8.3	49	18	--	42	--	190	0
AUG. 18...	1810	58	9.4	50	20	--	35	--	188	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. 09...	26	50	.2	.21	.070	.28	.00	.32	291
DEC. 03...	41	59	.4	.66	.32	5.3	1.0	2.0	376
FEB. 03...	44	65	.3	--	.16	3.5	1.0	2.2	380
APR. 07...	41	68	.3	--	.000	.32	.2	.25	321
JUNE 03...	39	65	.2	--	.010	.03	.1	.24	315
AUG. 18...	39	63	.3	--	.040	.42	.2	.32	310

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 09...	210	40	.8	554	7.2	23.5	5.5	64	1.9
DEC. 03...	240	24	1.1	630	7.1	21.0	4.8	53	>8.1
FEB. 03...	230	54	1.2	656	7.2	16.0	8.3	83	7.1
APR. 07...	200	50	1.2	581	8.0	19.0	8.6	91	1.9
JUNE 03...	200	41	1.3	573	7.9	25.0	8.1	96	1.9
AUG. 18...	210	54	1.1	577	7.6	30.0	7.0	92	1.9

COLORADO RIVER BASIN

623

08159150 WILBARGER CREEK NEAR PFLUGERVILLE, TEX.

LOCATION.--Lat 30°27'16", long 97°36'02", Travis County, on county road (Pfluger Lane), 800 feet downstream from Farm Road 685, 1.6 miles northeast of Pflugerville, and 1.9 miles downstream from Missouri-Kansas-Texas Railroad.

DRAINAGE AREA.--4.61 sq mi.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1971.
Pesticide analyses: October 1970 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 23...	1310	586	9.0	30	1.0	4.6	105	0	.0	
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. 23...	1.2	.1	.93	.000	.00	.3	.92	99	79	
DATE		NON-CAR- BONATE HARD- NESS (MG/L)	SPECI-FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	TUR- BID- ITY (JTU)	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. 23...	0	161	7.2	18.0	220	7.5	79	4.6	.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)
OCT. 23...	1310	586	.00	.00	.07	.05	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT. 23...	.00	.0	.00	.00	.00	.00	.2	.00	.00	.00

COLORADO RIVER BASIN

08159200 COLORADO RIVER AT BASTROP, TEX.

LOCATION.--Lat 30°06'20", long 97°19'08", Bastrop County, at gaging station 400 feet 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 11,900 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: January 1968 to September 1970.

Chemical and biochemical analyses: February 1968 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.									
09...	1430	606	10	60	18	33	221	0	37
26...	--	380	11	44	10	9.6	128	0	32
DEC.									
03...	1640	192	9.5	77	20	38	294	0	41
JAN.									
13...	1045	234	11	61	20	40	214	12	40
FEB.									
03...	1630	155	8.3	70	21	48	264	0	49
MAR.									
11...	1000	647	4.4	62	22	37	203	13	44
APR.									
07...	1255	1940	7.8	50	20	41	192	0	40
MAY									
25...	0830	2380	17	50	18	37	181	0	35
JUNE									
03...	1555	2770	8.0	50	19	40	190	0	39
AUG.									
18...	1615	702	9.1	51	20	37	194	0	39

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.									
09...	50	.3	.32	.050	.00	1.1	.39	322	220
26...	21	.3	--	--	--	.9	--	195	150
DEC.									
03...	50	.3	.11	.000	.00	.8	.83	384	270
JAN.									
13...	58	.2	--	--	--	.8	--	351	230
FEB.									
03...	65	.3	--	.030	.00	1.4	1.1	398	260
MAR.									
11...	61	.3	--	--	--	1.6	--	351	240
APR.									
07...	68	.3	--	.000	.00	.3	.28	322	210
MAY									
25...	66	.2	--	--	--	.4	--	314	200
JUNE									
03...	65	.3	--	.000	.00	.2	.26	315	200
AUG.									
18...	62	.3	--	.010	.00	.4	.19	315	210

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT.								
09...	42	1.0	572	7.5	23.0	6.8	78	.6
26...	46	.3	338	7.9	19.0	--	--	--
DEC.								
03...	34	1.0	656	8.3	22.0	14.8	168	5.7
JAN.								
13...	39	1.1	598	8.4	17.0	--	--	--
FEB.								
03...	44	1.3	705	8.6	14.0	16.2	156	7.7
MAR.								
11...	57	1.0	624	8.5	17.5	--	--	--
APR.								
07...	50	1.2	585	8.1	20.5	8.4	92	1.5
MAY								
25...	52	1.1	577	7.9	25.0	--	--	--
JUNE								
03...	48	1.2	574	8.1	27.0	7.0	86	1.3
AUG.								
18...	50	1.1	577	7.8	30.5	7.8	103	1.3

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 1971.

Specific conductance: October 1966 to September 1971.

Water temperatures: March 1957 to June 1959, October 1960 to September 1968.

Sediment records: March 1957 to September 1971.

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 703 micromhos Jan. 9; minimum daily, 156 micromhos Oct. 25.

Sediment concentrations: Maximum daily, 2970 mg/l Oct. 23; minimum daily, 7 mg/l Sept. 30.

Sediment loads: Maximum daily, 140,000 tons Oct. 23; minimum daily, 9.3 tons Mar. 1.

EXTREMES, March 1957 to September 1970.--Specific conductance (October 1966 to September 1971): 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, 2 mg/l Mar. 1-5, 1962.

Sediment loads: Maximum daily, 497,000 tons Feb. 23, 1958; minimum daily, 3 tons Jan. 1, 10, 11, 1964.

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 1970 TO SEPTEMBER 1971

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. 27...	1055	2010	9.2	25	24	29	142	0	62
DEC. 17...	1000	400	3.7	70	21	36	284	0	45
FEB. 17...	0930	266	.0	60	21	50	234	0	57
APR. 07...	1000	1610	7.3	53	22	35	198	0	40
JUNE 16...	0910	2110	9.5	50	21	38	190	0	40
AUG. 18...	1030	1000	7.8	57	16	33	194	0	37

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (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. 27...	27	.4	.030	.14	1.2	.86	250	160	44
DEC. 17...	43	.2	.000	.15	.00	.11	359	260	30
FEB. 17...	66	.3	.000	.08	.00	.27	369	230	42
APR. 07...	65	.2	.020	.01	.8	.29	323	220	60
JUNE 16...	68	.2	.010	.03	.2	.21	321	210	54
AUG. 18...	58	.2	.010	.26	.2	.20	305	210	47

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	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. 27...	1.0	443	7.5	24.5	10	--	--	2.1	--
DEC. 17...	1.0	653	7.7	14.0	--	11.0	106	7.5	.01
FEB. 17...	1.4	652	7.6	18.0	--	7.6	80	8.2	.00
APR. 07...	1.0	608	7.3	19.0	--	9.8	100	2.5	--
JUNE 16...	1.1	593	8.3	29.5	--	9.0	117	4.2	--
AUG. 18...	1.0	554	8.5	30.0	--	9.0	118	2.3	--

COLORADO RIVER BASIN

08161000 COLORADO RIVER AT COLUMBUS, TEX.--Continued

WATER QUALITY DATA

DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	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
DEC., 1969								
09...	0739	4960	20.0	1130	83	86	92	94
10...	0736	2080	20.0	746	87	89	93	98
MAR., 1970								
09...	0620	18700	16.0	1510	66	75	81	84
09...	1226	17700	16.0	1180	70	80	86	88
MAY								
16...	0738	21000	18.0	2300	52	61	71	76
17...	1846	28600	17.5	2160	68	78	85	87

DATE	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
DEC., 1969						
09...	96	98	99	99	99	15100
10...	98	98	98	99	99	4190
MAR., 1970						
09...	87	89	93	98	100	76200
09...	91	92	95	98	100	56400
MAY						
16...	81	83	89	95	99	130000
17...	90	91	93	97	100	167000

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	552	431	621	607	646	645	594	580	623	576	586	578
2	561	453	614	580	641	658	594	578	578	576	563	576
3	570	472	622	594	636	677	598	578	584	575	537	568
4	516	497	608	585	641	688	599	580	579	578	521	574
5	463	535	590	585	651	681	596	578	579	580	523	579
6	485	552	592	601	647	702	586	575	579	583	540	574
7	444	535	594	627	633	686	584	575	577	583	532	584
8	579	537	594	637	614	646	589	575	572	583	471	587
9	518	558	595	703	631	638	586	571	574	583	396	590
10	516	565	587	569	649	596	584	571	572	580	374	579
11	512	570	598	581	659	601	589	522	574	572	415	512
12	200	572	608	575	668	603	589	549	572	577	445	501
13	444	571	619	583	657	596	587	571	577	577	481	542
14	479	574	622	589	660	629	592	589	579	577	498	392
15	515	584	624	599	636	640	589	581	377	582	538	526
16	556	576	627	603	624	636	592	583	577	578	524	562
17	577	584	640	582	622	620	575	584	575	582	535	572
18	571	594	640	569	634	640	575	586	574	585	546	509
19	584	594	622	567	604	607	522	588	563	585	561	573
20	561	588	620	542	664	607	570	515	569	588	546	609
21	566	608	602	605	680	602	582	571	574	598	568	599
22	563	609	582	580	692	598	577	581	575	598	578	590
23	194	596	582	573	680	598	577	579	582	601	579	595
24	175	603	579	623	685	593	581	579	567	598	566	391
25	156	605	570	624	664	592	585	563	577	599	578	597
26	259	606	580	626	643	592	587	569	575	601	571	590
27	438	615	599	630	643	589	592	569	560	598	568	593
28	376	610	594	639	637	591	585	571	559	590	562	593
29	407	623	595	637	---	589	584	573	565	592	576	535
30	419	631	594	646	---	594	582	573	570	589	571	526
31	424	---	606	648	---	589	---	571	---	576	574	---
MONTH	457	568	604	604	648	623	584	572	569	585	530	557

08161000 COLORADO RIVER AT COLUMBUS, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	755	34	69	750	90	182	440	22	26
2	728	21	41	660	75	134	400	35	38
3	708	24	46	588	52	83	370	14	14
4	684	34	63	534	41	59	364	19	19
5	699	80	151	489	29	38	352	20	19
6	1170	220	695	464	24	30	330	24	21
7	860	210	488	440	25	30	325	28	25
8	859	72	167	432	24	28	320	36	31
9	744	67	135	408	29	32	325	31	27
10	646	54	94	400	22	24	340	31	28
11	1200	315	2710	394	21	22	325	31	27
12	4790	948	16500	376	29	29	305	39	32
13	905	164	401	376	19	19	295	45	36
14	531	53	76	370	21	21	315	44	37
15	415	28	31	352	36	34	352	22	21
16	373	32	32	358	48	46	456	41	50
17	362	24	23	346	13	12	400	37	40
18	325	19	17	400	13	14	382	42	43
19	322	12	10	456	12	15	376	41	42
20	360	13	13	408	16	18	376	41	42
21	368	13	13	408	16	18	346	37	35
22	381	10	10	416	13	15	340	44	40
23	16900	2930	140000	370	23	23	358	45	43
24	20400	1340	77300	352	32	30	335	48	43
25	7880	710	15800	352	18	17	310	54	45
26	4600	650	6520	358	33	32	305	48	40
27	2010	1390	7540	358	32	31	305	41	34
28	1860	575	3040	525	13	18	315	48	41
29	1040	220	618	597	18	29	305	47	39
30	930	170	427	498	21	28	305	46	38
31	840	232	526	--	--	--	315	41	35
TOTAL	74645	--	273556	13235	--	1111	10687	--	1051
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	310	57	48	254	81	56	382	9	9.3
2	300	45	36	250	54	36	348	41	39
3	305	46	38	255	42	29	320	54	47
4	290	50	39	265	55	39	276	38	28
5	286	51	39	262	52	37	267	43	31
6	278	36	27	262	89	63	266	38	27
7	282	34	26	264	66	47	390	57	60
8	744	162	514	256	106	73	396	49	52
9	2460	581	3860	254	47	32	452	47	57
10	2260	440	2680	258	42	29	477	55	71
11	1310	166	587	264	34	24	422	52	59
12	790	95	203	260	53	37	616	473	787
13	615	56	93	323	101	88	732	74	146
14	534	53	76	344	28	26	772	80	167
15	448	54	65	287	43	33	1060	95	272
16	388	47	49	267	44	32	1060	109	312
17	358	51	49	266	41	29	995	97	261
18	335	65	59	266	36	26	953	99	255
19	310	79	66	266	103	74	968	90	235
20	290	90	70	262	33	23	1250	111	375
21	290	66	52	262	19	13	1330	102	366
22	286	69	53	255	65	45	1340	98	355
23	274	48	36	252	33	22	1370	80	296
24	274	37	27	250	34	23	1400	96	363
25	270	36	26	251	66	45	1190	70	225
26	266	47	34	261	44	31	1180	72	229
27	258	34	24	281	45	34	1260	81	276
28	258	35	24	293	45	36	1260	85	289
29	262	51	36	--	--	--	1260	97	330
30	266	20	14	--	--	--	1250	88	297
31	258	59	41	--	--	--	1290	84	293
TOTAL	15855	--	8991	7490	--	1082	26532	--	6609.3

COLORADO RIVER BASIN

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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 11,900 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: April 1944 to September 1971.

Chemical and biochemical analyses: January 1968 to September 1971.

Pesticide analyses: February 1968 to September 1971.

Water temperatures: October 1945 to September 1948, March 1950 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.									
01-10	1030	9.8	53	15	28	200	0	29	42
11-15	3880	7.4	34	4.9	12	110	0	18	15
16-23	928	9.8	53	15	28	200	0	29	42
24-31	6620	7.4	34	4.9	12	110	0	18	15
NOV.									
01-30	636	10	62	17	24	232	0	29	38
DEC.									
01-31	453	6.7	66	18	41	259	0	40	50
JAN.									
01-31	547	11	65	21	35	251	0	40	53
FEB.									
01-28	315	7.4	66	21	37	253	0	42	55
MAR.									
01-31	642	5.1	61	18	44	225	0	47	60
APR.									
01-30	987	8.7	54	21	36	198	0	42	64
MAY									
01-31	1130	8.6	53	19	38	188	0	40	67
JUNE									
01-30	1020	7.7	49	22	37	188	0	40	68
JULY									
01-31	871	8.6	53	20	37	195	0	41	64
AUG.									
01-31	1190	14	47	19	30	176	0	37	54
SEP.									
01-30	1950	14	43	16	29	167	0	29	48
WTD. AVG.	--	9.6	49	16	30	182	0	34	48
TIME WTD.									
AVG.	1060	9.2	55	19	34	208	0	38	54
TOT. LOAD (TONS)	--	10000	51400	16800	31100	190000	0	35000	50500

COLORADO RIVER BASIN

08162000 COLORADO RIVER AT WHARTON, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 355 mg/l Feb. 1-28; minimum, 147 mg/l Oct. 11-15, 24-31.

Hardness: Maximum, 250 mg/l Jan. 1-31, Feb. 1-28; minimum, 100 mg/l Oct. 11-15, 24-31.

Specific conductance: Maximum daily, 710 micromhos Jan. 11, Mar. 11; minimum daily, 179 micromhos Oct. 14.

Water temperatures: Maximum, 31.0°C July 4, Aug. 29, 30, Sept. 5, 6; minimum, 4.0°C Jan. 8.

EXTREMES, April 1944 to September 1971.--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, 1950-71): 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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-10	.0	.30	276	190	30	.9	504	7.9
11-15	.2	.40	147	100	15	.5	278	6.8
16-23	.0	.30	276	190	30	.9	504	7.9
24-31	.2	.40	147	100	15	.5	278	6.8
NOV.								
01-30	.3	.70	297	230	36	.7	540	8.1
DEC.								
01-31	.2	.50	351	240	28	1.2	624	8.1
JAN.								
01-31	.2	.70	351	250	42	1.0	622	8.2
FEB.								
01-28	.2	.60	355	250	42	1.0	654	7.6
MAR.								
01-31	.2	.70	349	230	44	1.3	642	8.1
APR.								
01-30	.2	.60	326	220	60	1.1	605	7.6
MAY								
01-31	.2	.50	320	210	58	1.1	596	7.6
JUNE								
01-30	.2	.20	317	210	58	1.1	591	8.0
JULY								
01-31	.4	.00	320	210	54	1.1	601	8.0
AUG.								
01-31	.3	.60	291	190	50	.9	543	8.0
SEP.								
01-30	.2	.50	263	170	35	1.0	486	8.0
WTD. AVG.	.2	.46	278	187	40	.9	514	7.7
TIME WTD.								
AVG.	.2	.49	313	213	44	1.0	576	7.9
TOT. LOAD (TONS)	229	482	290000	--	--	--	--	--

08162000 COLORADO RIVER AT WHARTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	HICAR- 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...	1400	3760	6.8	27	3.8	8.4	94	0	11	7.7	.2	.41
DEC. 18...	1450	484	2.1	68	20	35	274	0	40	44	.2	.35
FEB. 17...	1200	308	.0	65	7.8	66	254	0	45	59	.2	.42
APR. 07...	1215	874	6.4	56	22	37	212	0	42	66	.2	.54
JUNE 16...	1100	920	6.0	47	21	39	184	0	40	68	.2	.33
AUG. 18...	1300	685	8.6	58	13	37	194	0	40	55	.2	.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 CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 27...	.010	.14	.5	.35	110	368	48	83	6	--	203	6.8
DEC. 18...	.000	.08	.00	.10	344	34	34	250	28	1.0	626	8.1
FEB. 17...	.000	.08	.00	.15	368	41	7	240	36	--	643	7.8
APR. 07...	.020	.00	.2	.30	335	113	39	230	56	--	616	8.1
JUNE 16...	.000	.00	.00	.12	311	162	18	200	53	1.2	585	8.5
AUG. 18...	.020	.32	.3	.22	309	74	8	200	41	1.1	546	8.7

DATE	TEMP- ERATURE (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. 27...	24.5	140	170	6.6	79	31	.8	0	.00	100	0	0
DEC. 18...	18.0	10	25	11.4	120	13	3.3	0	.00	--	--	--
FEB. 17...	22.0	0	8	9.8	111	20	6.1	0	.01	150	0	2
APR. 07...	18.0	0	70	11.2	120	9	4.6	0	.00	--	--	--
JUNE 16...	30.0	60	70	9.0	118	29	1.4	4	.00	10	0	1
AUG. 18...	31.0	20	110	9.0	120	18	4.6	0	.00	10	10	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. 27...	0	0	0	4	13	0	0	1	<.5	7	120	0
DEC. 18...	--	--	--	--	--	--	--	--	--	--	--	--
FEB. 17...	0	--	2	0	60	6	20	20	.6	0	490	8
APR. 07...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE 16...	0	--	0	7	100	12	10	1	<.5	0	500	50
AUG. 18...	0	--	0	5	0	0	10	1	<.5	2	510	0

COLORADO RIVER BASIN

08162000 COLORADO RIVER AT WHARTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1400	3760	.00	<.2	.00	<.2	.00	<.2	.00	<.2
DEC. 17...	1225	445	.00	--	.00	--	.00	--	.00	--
JAN. 28...	1235	358	.00	--	.00	--	.00	--	.00	--
FEB. 17...	1200	308	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 07...	1215	874	.00	--	.00	--	.00	--	.00	--
JUNE 03...	0955	595	.00	--	.00	--	.00	--	.00	--
15...	1205	885	.00	--	.00	--	.00	--	.00	--
16...	1100	920	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 21...	1235	691	--	--	--	--	--	--	--	--
AUG. 18...	1300	685	.00	--	.00	--	.00	--	.00	--
SEP. 21...	1730	1770	.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)
OCT. 27...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
DEC. 17...	.00	--	.00	--	.00	--	.00	--	.00
JAN. 28...	.00	--	.00	--	.00	--	.00	--	.00
FEB. 17...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
APR. 07...	.00	--	.00	--	.00	--	.00	--	.00
JUNE 03...	.00	--	.00	--	.00	--	.00	--	.00
15...	.00	--	.00	--	.00	--	.00	--	.00
16...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JULY 21...	--	--	--	--	--	--	--	--	--
AUG. 18...	.00	--	.00	--	.00	--	.00	--	.00
SEP. 21...	.00	--	.00	--	.00	--	.00	--	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
OCT. 27...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
DEC. 17...	--	.0	--	.00	.00	--	.00	--	.00
JAN. 28...	--	.0	--	.00	.00	--	.00	--	.00
FEB. 17...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
APR. 07...	--	.0	--	.00	.00	--	.00	--	.00
JUNE 03...	--	.0	--	.00	.00	--	.00	--	.00
15...	--	.0	--	--	--	--	--	--	--
16...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JULY 21...	--	--	--	--	--	--	--	--	--
AUG. 18...	--	.0	--	.00	.00	--	.00	--	.00
SEP. 21...	--	.0	--	.00	.00	--	.00	--	.00

COLORADO RIVER BASIN

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08162000 COLORADO RIVER AT WHARTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE IN BOTTOM DE- POSITS (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D IN BOTTOM DE- POSITS (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T IN BOTTOM DE- POSITS (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX IN BOTTOM DE- POSITS (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
OCT. 27...	<.2	.0	<10	.00	<3.4	.01	<.4	.00	<.4
DEC. 17...	--	.0	--	.00	--	.00	--	.00	--
JAN. 28...	--	--	--	.00	--	.00	--	.00	--
FEB. 17...	<.2	.0	<10	.00	<.9	.04	<.1	.00	<.1
APR. 07...	--	.0	--	.00	--	.00	--	.00	--
JUNE 03...	--	--	--	.00	--	.00	--	.00	--
15...	--	.0	--	--	--	--	--	--	--
16...	<.2	.0	--	.00	<6.0	.00	<1.5	.00	<1.5
JULY 21...	--	--	--	.00	--	.00	--	.00	--
AUG. 18...	--	.0	--	.00	--	.00	--	.00	--
SEP. 21...	--	.0	--	.00	--	.00	--	.00	--

COLORADO RIVER BASIN

08162000 COLORADO RIVER AT WHARTON, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	563	394	634	603	616	675	622	616	585	569	604	595
2	529	417	627	602	690	672	634	---	588	577	613	592
3	527	423	625	589	685	666	611	611	593	585	586	570
4	527	435	638	597	670	657	613	609	598	589	586	580
5	535	458	610	602	583	659	620	615	609	590	499	583
6	535	476	579	621	689	677	629	604	603	599	457	593
7	538	496	648	596	599	684	621	604	597	604	480	591
8	523	509	627	607	629	678	621	597	590	599	504	593
9	538	522	588	602	602	695	608	595	591	597	515	600
10	468	520	633	597	651	705	616	594	594	608	482	393
11	333	526	623	710	668	710	619	595	597	597	455	474
12	274	542	629	636	666	683	619	572	597	601	432	278
13	193	565	631	613	650	674	614	595	---	601	---	263
14	179	571	635	596	642	626	612	592	593	599	453	360
15	266	588	635	596	621	620	612	592	593	594	480	454
16	346	595	635	602	631	616	610	613	593	602	507	381
17	395	578	644	609	646	594	568	611	591	601	528	386
18	429	612	640	589	663	601	601	597	590	602	547	447
19	485	619	633	575	658	592	598	597	590	609	557	406
20	---	538	618	598	660	591	599	606	595	606	570	476
21	544	581	620	610	664	618	487	597	584	606	562	369
22	562	601	609	605	671	605	586	---	571	616	575	486
23	567	---	614	611	684	611	599	601	585	623	576	504
24	256	627	638	629	689	616	603	601	585	625	593	480
25	185	627	630	629	686	622	601	434	592	623	596	523
26	191	629	626	632	661	620	603	577	587	623	591	476
27	190	580	630	641	673	616	599	578	590	623	588	476
28	281	563	646	657	---	616	605	594	587	614	595	527
29	408	619	632	661	---	619	610	590	580	606	585	556
30	400	625	620	659	---	619	608	587	---	608	581	556
31	387	---	602	662	---	619	---	583	---	610	598	---
MONTH	405	546	626	617	654	641	605	592	591	603	543	486

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	18.0	16.0	13.0	15.0	18.0	20.0	26.0	28.0	29.0	29.0	28.0
2	22.0	17.0	17.0	16.0	12.0	19.0	16.0	---	29.0	29.0	27.0	27.0
3	23.0	15.0	15.0	21.0	13.0	10.0	20.0	23.0	27.0	29.0	27.0	28.0
4	23.0	14.0	17.0	13.0	18.0	9.0	18.0	23.0	27.0	31.0	26.0	28.0
5	22.0	13.0	---	9.0	10.0	13.0	16.0	23.0	27.0	29.0	25.0	31.0
6	22.0	14.0	15.0	5.0	---	8.0	15.0	23.0	28.0	29.0	25.0	31.0
7	26.0	16.0	15.0	7.0	13.0	17.0	15.0	24.0	27.0	30.0	26.0	28.0
8	25.0	19.0	16.0	4.0	9.0	12.0	16.0	27.0	27.0	28.0	27.0	28.0
9	20.0	20.0	18.0	6.0	8.0	15.0	20.0	25.0	27.0	29.0	26.0	28.0
10	22.0	17.0	19.0	10.0	8.0	15.0	20.0	26.0	28.0	29.0	26.0	28.0
11	22.0	17.0	16.0	11.0	12.0	16.0	20.0	25.0	28.0	30.0	28.0	28.0
12	22.0	---	13.0	13.0	13.0	20.0	20.0	22.0	27.0	29.0	28.0	26.0
13	19.0	17.0	13.0	16.0	11.0	20.0	20.0	21.0	---	30.0	---	28.0
14	20.0	15.0	12.0	18.0	12.0	25.0	21.0	21.0	28.0	30.0	29.0	28.0
15	20.0	14.0	13.0	19.0	15.0	20.0	22.0	25.0	28.0	30.0	29.0	28.0
16	19.0	13.0	14.0	14.0	16.0	18.0	23.0	24.0	28.0	30.0	28.0	26.0
17	20.0	12.0	13.0	15.0	18.0	18.0	20.0	24.0	28.0	29.0	28.0	27.0
18	18.0	13.0	15.0	15.0	19.0	20.0	22.0	24.0	28.0	30.0	30.0	27.0
19	20.0	16.0	19.0	11.0	20.0	17.0	23.0	25.0	26.0	28.0	29.0	22.0
20	---	15.0	17.0	13.0	20.0	20.0	23.0	25.0	27.0	29.0	29.0	21.0
21	22.0	15.0	19.0	13.0	21.0	19.0	20.0	25.0	27.0	29.0	30.0	21.0
22	19.0	13.0	20.0	15.0	13.0	18.0	23.0	---	27.0	29.0	30.0	22.0
23	19.0	---	20.0	13.0	12.0	18.0	23.0	26.0	27.0	29.0	29.0	24.0
24	22.0	---	---	22.0	15.0	17.0	22.0	25.0	28.0	29.0	29.0	24.0
25	22.0	11.0	16.0	28.0	16.0	19.0	22.0	23.0	29.0	29.0	29.0	26.0
26	21.0	12.0	13.0	18.0	18.0	17.0	24.0	26.0	28.0	29.0	28.0	26.0
27	23.0	---	17.0	15.0	16.0	18.0	25.0	27.0	28.0	29.0	29.0	27.0
28	20.0	16.0	17.0	18.0	---	20.0	25.0	27.0	28.0	29.0	30.0	27.0
29	17.0	16.0	21.0	17.0	---	20.0	25.0	28.0	28.0	28.0	31.0	27.0
30	17.0	16.0	19.0	---	---	18.0	26.0	27.0	---	28.0	31.0	27.0
31	18.0	---	13.0	20.0	---	18.0	---	27.0	---	27.0	28.0	---
MONTH	21.0	15.0	16.0	14.5	14.5	17.0	21.0	24.5	27.5	29.0	28.0	26.5

MISCELLANEOUS ANALYSES OF STREAMS IN THE COLORADO RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08118000 LAKE J. B. THOMAS NEAR VINCENT, TEX. (Lat 32°35'09", long 101°12'18")

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/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)
MAR. 09...	1430	7.8	0	0	37	10	110	246	0	84

DATE	TIME	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED 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)	COLOR (PLATINUM-COBALT UNITS)
MAR. 09...	53		1.2	1.0	425	130	0	4.1	717	8.1	20

08123000 LAKE COLORADO CITY NEAR COLORADO CITY, TEX. (Lat 32°20'41", long 100°55'10")

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 POTASSIUM (K) (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)
OCT. 20...	1520	8.4	70	37	140	17	166	0	290	150	1.1
JUNE 14...	1530	5.9	93	54	200	12	160	0	460	200	1.2
JULY 28...	1440	5.1	86	57	200	21	148	0	480	200	1.2

DATE	TIME	DIS-SOLVED NITRATE (N) (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)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
OCT. 20...		.10	--	796	330	190	3.4	1300	7.9	22.0	0
JUNE 14...		.10	370	1100	450	320	4.1	1720	7.5	31.0	--
JULY 28...		.40	430	1130	450	330	4.1	1720	7.9	34.0	5

08123600 CHAMPION CREEK RESERVOIR NEAR COLORADO CITY, TEX. (Lat 32°16'53", long 100°51'30")

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 POTASSIUM (K) (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)
OCT. 20...	1635	5.2	76	33	61	11	162	0	220	76	.5
JUNE 14...	1630	3.6	54	17	28	8.8	96	0	140	41	.4

DATE	TIME	DIS-SOLVED NITRATE (N) (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)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
OCT. 20...		.10	--	563	320	190	1.5	920	7.6	18.5	0
JUNE 14...		.50	90	338	200	130	.9	567	7.4	28.5	5

COLORADO RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE COLORADO RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08123950 E. V. SPENCE RESERVOIR NEAR ROBERT LEE, TEX. (Lat 31°52'46", long 100°31'01")

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/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. 21...	1010	3.9	--	--	110	50	420	--	12	138	0	340
MAR. 09...	1035	3.0	0	0	140	59	--	480	--	182	0	390
JUNE 17...	1045	5.2	--	--	76	21	180	--	7.1	96	0	200
JULY 28...	1845	3.5	--	--	63	14	110	--	7.7	104	0	120

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED BORON (R) (UG/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	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
OCT. 21...	660	.4	.00	--	1660	480	370	8.3	2840	7.2	18.0	0
MAR. 09...	760	4.0	.40	--	1920	600	450	8.6	3200	7.6	9.5	0
JUNE 17...	290	.3	.70	100	831	280	200	4.7	1450	7.7	26.5	10
JULY 28...	180	.3	.00	80	553	210	130	3.3	1000	7.8	28.0	--

08125500 OAK CREEK RESERVOIR NEAR BLACKWELL, TEX. (Lat 32°03'25", long 100°17'37")

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 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)
NOV. 03...	1015	1.5	48	22	43	7.6	104	0	110	74

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED BORON (R) (UG/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	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)
NOV. 03...	.3	.00	90	357	210	130	1.3	638	7.5	16.0

MISCELLANEOUS ANALYSES OF STREAMS IN THE COLORADO RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08127200 ANSON SPRINGS NEAR CHRISTOVAL, TEX. (Lat 31°10'00", long 100°30'00")

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 24...	1500	5.5	16	--	17	37	--	--	12	
JULY 01...	1015	6.9	13	55	17	37	216	0	12	
DATE	TIME	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED 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	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH
MAY 24...	66	.3	1.3	--	--	--	--	--	--	--
JULY 01...	64	.3	1.6	311	210	30	1.1	562	7.8	

08128000 SOUTH CONCHO RIVER AT CHRISTOVAL, TEX. (Lat 31°11'21", long 100°30'08")

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)
MAY 24...	1315	7.7	17	--	18	37	--	--	14
JULY 01...	1355	11	15	67	18	38	256	0	14
30...	1500	11	15	66	17	35	248	0	15

DATE	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	DIS-SOLVED FLUO- RIDE (F) (MG/L)	DIS-SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH
MAY 24...	69	.3	.50	--	--	--	--	--	--
JULY 01...	67	.3	.90	349	240	31	1.1	627	7.7
30...	61	.3	1.2	337	230	32	1.0	607	7.7

08131200 TWIN BUTTES RESERVOIR NEAR SAN ANGELO, TEX. (Lat 31°22'59", long 100°32'11")

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 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. 10...	1500	11	54	40	140	6.0	174	0	110	250	.5
JUNE 09...	1000	2.7	39	9.0	25	5.5	121	0	26	48	.2
AUG. 23...	1430	6.2	31	4.0	9.4	4.0	102	0	10	16	.1
DATE	TIME	DIS- SOLVED NITRATE (N) (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)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
OCT. 10...		.70	--	701	300	160	3.5	1280	7.0	18.0	0
JUNE 09...		.70	70	219	130	35	.9	399	7.8	26.0	5
AUG. 23...		.80	35	134	94	10	.4	238	7.7	31.0	20

COLORADO RIVER BASIN

MISCELLANEOUS ANALYSES OF STREAMS IN THE COLORADO RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08132000 LAKE NASWORTHY NEAR SAN ANGELO, TEX. (Lat 31°23'17", long 100°28'39")

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 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)
JUNE 09...	0900	12	77	44	220	7.8	198	0	130	400	.4
AUG. 23...	1545	9.1	53	27	120	7.2	163	0	72	220	.4

DATE	DIS-SOLVED NITRATE (N) (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)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
JUNE 09...	.40	350	991	370	210	5.0	1790	7.5	26.0	5
AUG. 23...	.40	220	598	240	110	3.5	1100	7.8	31.0	5

08134500 SAN ANGELO LAKE AT SAN ANGELO, TEX. (Lat 31°29'04", long 100°28'53")

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 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)
JUNE 09...	1130	3.8	47	10	24	12	105	0	52	50	.2

DATE	DIS-SOLVED NITRATE (N) (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)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
JUNE 09...	5.0	50	273	160	72	.8	463	7.6	25.0	30

08141000 HORDS CREEK LAKE NEAR VALERA, TEX. (Lat 31°49'58", long 99°33'38")

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 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 08...	1450	6.1	60	21	70	7.3	141	0	49	170

DATE	DIS-SOLVED FLUO- RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (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)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
JULY 08...	.2	.00	80	449	240	120	2.0	833	7.7	30.0

MISCELLANEOUS ANALYSES OF STREAMS IN THE COLORADO RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08143000 LAKE BROWNWOOD NEAR BROWNWOOD, TEX. (Lat 31°50'18", long 99°00'10")

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)
OCT. 26...	1615	7.5	60	14	59	--	140	0	50	120
JULY 08...	0935	7.5	66	15	66	7.1	144	0	70	140

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (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)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 26...	.3	.00	--	385	210	92	1.8	702	7.9	25.0
JULY 08...	.3	.30	100	440	230	110	1.9	790	7.8	28.0

08144900 BRADY CREEK RESERVOIR NEAR BRADY, TEX. (Lat 31°08'17", long 99°23'07")

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)
JULY 06...	0945	8.4	52	13	58	15	160	0	45	100
AUG. 18...	1050	6.7	38	5.0	16	5.5	113	5	14	32

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (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)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
JULY 06...	.2	.10	160	374	180	52	1.9	678	7.8	27.0
AUG. 18...	.0	.01	60	178	120	14	.6	321	8.4	22.5

08152000 SANDY CREEK NEAR KINGSLAND, TEX., (lat 30°33'30", long 98°28'19")

DATE	TIME	DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
DEC., 1969				
11...	1230	128	7	2.4
JUNE, 1970				
03...	1900	123	8	2.7
FEB., 1971				
04...	1730	5.8	49	.77
MAR.				
12...	1400	5.5	11	.16
APR.				
19...	1043	21	2	.11
MAY				
21...	1132	.35	15	.01

TRES PALACIOS CREEK BASIN

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.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 03...	1130	19	22	66	18	76	--	4.0	246	0
DEC. 09...	1730	6.8	17	110	30	160	--	3.7	406	0
JAN. 13...	1040	6.1	14	99	28	150	--	4.2	384	0
FEB. 18...	1345	5.8	11	94	26	150	--	4.4	352	8
25...	1330	4.5	15	96	28	--	170	--	410	0
MAR. 04...	1155	6.1	18	92	27	--	150	--	360	0
25...	1440	29	8.8	62	20	67	--	5.1	238	0
APR. 27...	1345	20	12	63	21	66	--	6.6	224	0
JUNE 03...	1515	24	17	63	21	75	--	6.4	273	0
JULY 08...	1815	72	23	57	20	60	--	3.2	259	1
AUG. 12...	1255	49	40	45	14	37	--	11	196	0
SEP. 13...	1500	1280	8.3	20	5.0	12	--	6.0	83	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	BROMIDE (BR) (MG/L)	IODINE (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)
NOV. 03...	20	130	.4	.000	.090	.52	.030	.00	.5	.35
DEC. 09...	38	260	.5	--	--	.38	.000	.00	.00	.61
JAN. 13...	35	240	.5	--	--	.25	.040	.00	.8	1.0
FEB. 18...	41	240	.5	--	--	.59	.010	.00	.00	.60
25...	38	240	.4	--	--	--	.020	.00	.1	.65
MAR. 04...	34	230	.3	--	--	--	.040	.30	.7	.60
25...	46	100	.4	.960	.040	.52	.010	.00	.2	.28
APR. 27...	53	110	.4	--	--	.73	.000	.00	.4	.26
JUNE 03...	42	100	.5	--	--	.58	.000	.00	.1	.24
JULY 08...	19	86	.4	.200	.044	.20	.000	.00	.00	.090
AUG. 12...	11	59	.3	.400	.053	.56	.040	.20	.2	.32
SEP. 13...	6.8	18	.2	--	--	.33	.000	.34	.1	.28

08162600 TRES PALACIOS CREEK NEAR MIDFIELD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	TUR- BID- ITY (JTU)
NOV.										
03...	100	460	70	240	37	2.1	814	7.6	15.0	50
DEC.										
09...	--	819	--	400	66	3.5	1440	7.7	21.0	9
JAN.										
13...	--	769	--	360	48	3.4	1450	7.8	20.5	15
FEB.										
18...	--	742	--	340	40	3.5	1330	7.9	21.5	25
25...	--	798	--	350	18	3.9	1420	8.0	19.0	--
MAR.										
04...	--	731	--	340	45	3.5	1300	7.9	12.0	--
25...	120	431	85	240	42	1.9	766	8.0	23.5	45
APR.										
27...	--	443	--	240	60	1.8	797	7.8	25.5	50
JUNE										
03...	--	462	--	240	20	2.1	812	7.9	28.0	40
JULY										
08...	140	397	134	220	10	1.7	711	7.7	27.5	55
AUG.										
12...	80	315	96	170	10	1.2	521	7.5	29.5	55
SEP.										
13...	60	118	42	70	2	.6	210	6.8	28.0	25

DATE	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)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)
NOV.										
03...	8.3	81	46	1.0	0	0	0	--	0	0
DEC.										
09...	9.4	104	49	3.4	--	--	--	--	--	--
JAN.										
13...	9.4	103	6	2.4	--	--	--	--	--	--
FEB.										
18...	9.5	107	16	4.0	--	--	--	--	--	--
25...	--	--	--	5.7	--	0	--	--	--	--
MAR.										
04...	--	--	12	6.2	--	--	--	--	--	--
25...	14.0	163	24	11	0	0	0	1	0	0
APR.										
27...	8.9	107	32	5.0	--	--	--	--	--	--
JUNE										
03...	8.1	103	25	2.9	--	--	--	--	--	--
JULY										
08...	6.9	86	15	1.6	20	10	0	0	--	0
AUG.										
12...	5.5	71	30	3.7	30	10	1	0	--	0
SEP.										
13...	3.2	41	17	3.1	60	0	0	0	--	0

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.									
03...	7	40	0	0	19	2.2	6	330	0
DEC.									
09...	--	--	--	--	--	--	--	--	--
JAN.									
13...	--	--	--	--	--	--	--	--	--
FEB.									
18...	--	--	--	--	--	--	--	--	--
25...	--	20	0	--	150	<.5	--	--	--
MAR.									
04...	--	--	--	--	--	--	--	--	--
25...	3	5	0	20	16	<.5	0	460	12
APR.									
27...	--	--	--	--	--	--	--	--	--
JUNE									
03...	--	--	--	--	--	--	--	--	--
JULY									
08...	3	50	0	20	3	8.7	0	520	0
AUG.									
12...	2	190	0	10	36	<.5	2	310	0
SEP.									
13...	4	150	0	0	1	1.2	0	120	40

TRES PALACIOS CREEK BASIN

08162600 TRES PALACIOS CREEK NEAR MIDFIELD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
NOV. 03...	1130	19	.00	<.2	.00	<.2	.00	1.3	.00	<.2
FEB. 25...	1330	4.5	.00	<.2	.00	1.5	.00	4.4	.00	<.2
MAR. 04...	1155	6.1	.00	<.2	.00	1.2	.00	3.9	.00	.4
25...	1440	29	.00	<.2	.00	15	.00	26	.00	3.6
JULY 08...	1815	72	.00	<.2	.00	3.1	.00	14	.00	<.2
AUG. 12...	1255	49	.00	<.2	.00	2.9	.00	6.1	.00	2.6
SEP. 13...	1500	1280	.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)
NOV. 03...	.01	.8	.00	<.2	.00	<.2	.00	<.2	.00
FEB. 25...	.00	1.6	.00	<.2	.00	<.2	.00	<.2	.00
MAR. 04...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
25...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JULY 08...	.02	<.2	.00	<.2	.00	<.2	.00	<.2	.00
AUG. 12...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00
SEP. 13...	.01	--	.00	--	.00	--	.00	--	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
NOV. 03...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
FEB. 25...	<.2	.0	<1.0	.04	.00	<.2	.00	<.2	.00
MAR. 04...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
25...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JULY 08...	<.2	.0	<1.0	.00	.00	--	.00	--	.00
AUG. 12...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
SEP. 13...	--	.0	--	.00	.00	--	.00	--	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
NOV. 03...	<.2	.0	<10	.00	<2.3	.00	<.7	.00	<.7
FEB. 25...	<.2	.0	<10	.00	--	.00	--	.00	--
MAR. 04...	<.2	.0	<10	.12	--	.95	--	.00	--
25...	<.2	.0	<10	.00	<2.4	.05	3.8	.00	<.2
JULY 08...	--	.0	<10	.00	<1.0	.01	<.3	.00	<.3
AUG. 12...	<.2	.0	<10	.00	<1.8	.00	<.6	.11	<.6
SEP. 13...	--	.0	--	.04	--	.01	--	.00	--

CASHS CREEK BASIN

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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.

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

Pesticide analyses: October 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV.												
03...	1600	1.2	15	49	18	71	--	3.7	227	0	16	100
DEC.												
09...	1445	.43	14	72	29	120	--	4.8	352	0	27	170
JAN.												
13...	1345	.44	12	71	29	140	--	4.2	362	0	37	200
FEB.												
18...	1730	.12	14	88	37	160	--	3.4	412	0	47	230
25...	1023	.13	16	94	39	--	170	--	460	0	47	240
MAR.												
03...	1605	.23	11	89	33	--	160	--	370	0	56	240
24...	1340	.61	17	42	16	170	--	5.4	340	0	33	170
APR.												
28...	1425	.43	14	69	29	140	--	6.4	360	0	33	190
JUNE												
02...	1730	5.4	16	57	22	110	--	7.4	276	0	66	130
JULY												
08...	1515	5.6	26	48	22	90	--	2.8	282	1	15	110
AUG.												
12...	1000	2.7	62	57	24	80	--	14	310	0	14	100
SEP.												
13...	1410	90	27	23	7.0	20	--	5.8	111	0	6.8	26
DATE	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) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)
NOV.												
03...	.4	.000	.070	.74	.000	.05	.2	.13	110	386	77	200
DEC.												
09...	.5	--	--	.24	.000	.00	.00	.050	--	610	--	300
JAN.												
13...	.5	--	--	.90	.000	.00	.00	.070	--	670	--	300
FEB.												
18...	.7	--	--	.29	.000	.00	.00	.060	--	780	--	370
25...	.6	--	--	--	.020	.00	.1	.030	--	842	--	390
MAR.												
03...	.5	--	--	--	.010	.09	.00	.080	--	762	--	360
24...	.8	1.2	.070	.65	.030	.00	.4	.20	190	621	78	170
APR.												
28...	.7	--	--	.58	.000	.00	.1	.36	--	662	--	290
JUNE												
02...	.6	--	--	1.2	.060	.51	.3	.26	--	548	--	230
JULY												
08...	.6	.500	.099	.40	.000	.00	.00	.11	180	459	42	210
AUG.												
12...	.6	.500	.190	.99	.000	1.2	.00	.39	160	510	24	240
SEP.												
13...	.2	--	--	.27	.000	.47	.1	.21	80	172	36	86

CASHS CREEK BASIN

08162650 CASHS CREEK NEAR BLESSING, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)
NOV. 03...	10	2.2	704	7.3	16.5	45	7.0	71	49	1.8	--	--
DEC. 09...	10	3.0	1090	7.3	20.0	10	6.0	65	94	1.0	--	--
JAN. 13...	3	3.5	1200	7.6	21.0	30	8.4	93	12	2.5	--	--
FEB. 18...	34	3.6	1380	7.5	20.5	15	7.5	82	12	2.9	--	--
25...	17	3.7	1470	7.9	8.5	--	--	--	--	--	--	--
MAR. 03...	53	3.7	1380	8.1	14.5	--	--	--	--	--	--	--
24...	0	5.7	1090	7.8	19.5	50	8.6	92	30	12	10	0
APR. 28...	0	3.6	1200	7.4	25.0	15	4.8	57	33	2.9	--	--
JUNE 02...	6	3.1	961	7.7	28.5	50	6.0	77	52	7.1	--	--
JULY 08...	0	2.7	828	7.7	27.5	20	6.6	82	25	1.3	0	0
AUG. 12...	0	2.2	839	7.5	28.5	5	2.0	26	46	5.1	20	10
SEP. 13...	0	.9	278	6.9	28.0	15	3.9	49	38	5.5	50	0

DATE	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED STRONTIUM (SR) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
NOV. 03...	--	0	--	--	--	--	--	--	--	--	--	--
DEC. 09...	--	--	--	--	--	--	--	--	--	--	--	--
JAN. 13...	--	--	--	--	--	--	--	--	--	--	--	--
FEB. 18...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
MAR. 03...	--	--	--	--	--	--	--	--	--	--	--	--
24...	0	0	0	7	16	0	30	30	.7	0	270	13
APR. 28...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE 02...	--	--	--	--	--	--	--	--	--	--	--	--
JULY 08...	0	0	0	3	100	0	10	11	1.0	0	450	20
AUG. 12...	0	0	2	2	570	0	10	2700	<.5	3	500	0
SEP. 13...	0	0	0	3	190	0	0	320	1.7	0	170	30

CASHS CREEK BASIN

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08162650 CASHS CREEK NEAR BLESSING, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1600	1.2	.00	<.2	.00	.3	.00	.9	.00	<.2
MAR. 24...	1340	.61	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 08...	1515	5.6	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 12...	1000	2.7	.00	<.2	.00	<.2	.00	.4	.00	<.2
SEP. 13...	1410	90	.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)
NOV. 03...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00
MAR. 24...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JULY 08...	.02	<.2	.00	<.2	.00	<.2	.00	<.2	.00
AUG. 12...	.02	.6	.00	<.2	.00	<.2	.00	<.2	.00
SEP. 13...	.01	--	.00	--	.00	--	.00	--	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
NOV. 03...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
MAR. 24...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JULY 08...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
AUG. 12...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
SEP. 13...	--	.0	--	.00	.00	--	.00	--	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
NOV. 03...	<.2	.0	<10	.00	<2.2	.00	<.7	.00	<.7
MAR. 24...	<.2	.0	<10	.00	<.7	.00	<.2	.00	<.2
JULY 08...	<.2	.0	<10	.00	<1.6	.01	<.6	.00	<.4
AUG. 12...	<.2	.0	<10	.00	<.8	.00	<.2	.00	<.2
SEP. 13...	--	.0	--	.00	--	.02	--	.00	--

EAST CARANCAHUA CREEK BASIN

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.

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

Pesticide analyses: October 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 02...	1500	13	19	38	13	42	--	4.5	162	0
DEC. 10...	1600	.97	10	90	54	210	--	3.3	384	0
JAN. 12...	1600	.87	11	86	52	190	--	3.3	386	0
FEB. 18...	1830	1.5	10	74	41	160	--	3.4	320	0
25...	1010	1.0	11	73	45	--	160	--	344	0
MAR. 04...	1015	1.1	14	73	48	--	160	--	336	0
25...	1245	10	15	52	24	100	--	5.6	276	0
APR. 28...	1630	5.7	18	60	26	83	--	6.3	292	0
JUNE 02...	1325	7.7	17	60	27	97	--	6.3	304	0
JULY 09...	1310	7.5	24	51	28	100	--	4.0	280	0
AUG. 12...	1510	15	45	46	16	68	--	14	228	0
SEP. 13...	1230	500	23	23	5.8	16	--	6.0	98	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	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)
NOV. 02...	15	66	.3	.000	.060	.42	.000	.01	.1	.10
DEC. 10...	77	350	.7	--	--	.27	.000	.00	.00	.030
JAN. 12...	75	320	.7	--	--	1.1	.000	.00	.00	.020
FEB. 18...	57	270	.7	--	--	.15	.000	.00	.00	.040
25...	54	270	.5	--	--	--	.010	.00	.1	.040
MAR. 04...	61	270	.5	--	--	--	.000	.08	.00	.020
25...	34	140	.5	.880	.060	.73	.000	.00	.1	.070
APR. 28...	30	120	.5	--	--	.57	.000	.00	.1	.080
JUNE 02...	33	140	.6	--	--	.51	.000	.00	.00	.10
JULY 09...	21	150	.6	.500	.076	.24	.000	.00	.00	.050
AUG. 12...	10	100	.4	.200	.070	.41	.000	.16	.00	.14
SEP. 13...	8.0	23	.2	--	--	.37	.000	.44	.1	.22

08162700 EAST CARANCAHUA CREEK NEAR BLESSING, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	TUR- BID- ITY (JTU)
NOV. 02...	80	278	76	150	16	1.5	498	7.6	19.5	45
DEC. 10...	--	984	--	450	130	4.3	1750	7.5	22.0	10
JAN. 12...	--	931	--	430	110	4.0	1670	7.8	20.0	8
FEB. 18...	--	766	--	350	91	3.7	1400	7.8	22.5	15
25...	--	789	--	370	86	3.6	1420	7.8	18.0	--
MAR. 04...	--	789	--	380	100	3.6	1420	8.0	11.0	--
25...	120	505	53	230	2	2.9	901	8.3	23.0	30
APR. 28...	--	486	--	260	17	2.3	864	7.9	28.5	40
JUNE 02...	--	527	--	260	12	2.6	940	8.2	29.5	40
JULY 09...	120	522	73	240	12	2.8	940	8.0	29.5	40
AUG. 12...	80	413	76	180	0	2.2	694	8.0	32.5	35
SEP. 13...	70	154	98	81	1	.8	242	7.1	27.0	55

DATE	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)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)
NOV. 02...	9.0	97	44	1.7	100	0	0	0	0	0
DEC. 10...	8.4	95	44	2.8	--	--	--	--	--	--
JAN. 12...	9.4	102	3	1.1	--	--	--	--	--	--
FEB. 18...	8.8	100	16	2.8	--	--	--	--	--	--
25...	--	--	--	2.9	--	0	--	--	--	--
MAR. 04...	--	--	26	3.4	--	--	--	--	--	--
25...	14.0	161	29	5.5	50	0	0	0	--	0
APR. 28...	8.3	106	23	3.0	--	--	--	--	--	--
JUNE 02...	8.2	106	29	3.6	--	--	--	--	--	--
JULY 09...	7.6	97	20	2.4	10	10	0	0	--	0
AUG. 12...	7.4	100	34	3.3	10	10	0	0	--	0
SEP. 13...	4.3	53	21	3.8	60	0	0	0	--	0

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...	8	24	0	0	4	.7	4	280	0
DEC. 10...	--	--	--	--	--	--	--	--	--
JAN. 12...	--	--	--	--	--	--	--	--	--
FEB. 18...	--	--	--	--	--	--	--	--	--
25...	--	16	0	--	40	<.5	--	--	--
MAR. 04...	--	--	--	--	--	--	--	--	--
25...	5	35	0	30	17	.6	0	540	4
APR. 28...	--	--	--	--	--	--	--	--	--
JUNE 02...	--	--	--	--	--	--	--	--	--
JULY 09...	3	10	0	30	4	9.0	0	660	0
AUG. 12...	4	130	0	10	7	<.5	3	460	0
SEP. 13...	4	130	0	0	3	2.0	0	160	40

EAST CARANCAHUA CREEK BASIN

08162700 EAST CARANCAHUA CREEK NEAR BLESSING, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1500	13	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 25...	1010	1.0	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAR. 04...	1015	1.1	.00	<.2	.00	.5	.00	<.2	.00	<.2
25...	1245	10	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 09...	1310	7.5	.00	<.2	.00	<.2	.00	1.2	.00	<.2
AUG. 12...	1510	15	.00	<.2	.00	<.2	.00	<.2	.00	<.2
SEP. 13...	1230	500	.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)
NOV. 02...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
FEB. 25...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
MAR. 04...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
25...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JULY 09...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
AUG. 12...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
SEP. 13...	.01	--	.00	--	.00	--	.00	--	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
NOV. 02...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
FEB. 25...	<.2	.0	<1.0	--	.00	<.2	.00	<.2	.00
MAR. 04...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
25...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JULY 09...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
AUG. 12...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
SEP. 13...	--	.0	--	.00	.00	--	.00	--	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
NOV. 02...	<.2	.0	<10	.00	<.8	.00	<.3	.00	<.3
FEB. 25...	<.2	.0	<10	.00	--	.00	--	.00	--
MAR. 04...	<.2	.0	<10	.09	--	.00	--	.00	--
25...	<.2	.0	<10	.00	<1.8	.00	<.2	.00	<.2
JULY 09...	<.2	.0	<10	.00	<.8	.00	<.2	.00	<.2
AUG. 12...	<.2	.0	<10	.00	<.8	.00	<.2	.00	<.2
SEP. 13...	--	.0	--	.03	--	.00	--	.00	--

EAST CARANCAHUA CREEK BASIN

649

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.

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

WATER QUALITY DATA. WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
NOV. 02...	1305	3.3	35	40	9.8	44	7.3	182	0	8.2	60	.3
DEC. 10...	1440	.32	5.2	7.8	22	120	11	200	0	57	230	.6
MAR. 24...	1145	4.0	23	97	24	96	10	324	0	40	180	.5
APR. 28...	1210	.11	12	79	24	100	6.4	224	0	25	220	.4
JUNE 02...	1205	1.9	14	70	24	92	7.1	184	0	37	200	.4
JULY 09...	1105	4.1	32	66	20	82	6.2	252	0	21	150	.4
AUG. 12...	1715	4.5	52	54	13	41	15	225	0	9.2	71	.3
SEP. 13...	1100	225	27	24	5.7	17	6.3	97	0	7.6	31	.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)
NOV. 02...	.100	.020	.53	.000	.00	.1	.12	120	294	68	140	0
DEC. 10...	--	--	.87	.000	.00	.00	.15	--	622	--	280	120
MAR. 24...	1.2	.050	.91	.090	.00	.6	.13	150	629	40	340	75
APR. 28...	--	--	.58	.000	.00	.1	.10	--	581	--	300	110
JUNE 02...	--	--	.41	.000	.00	.00	.040	--	540	--	270	120
JULY 09...	.500	.035	.26	.000	.00	.00	.060	160	498	90	250	40
AUG. 12...	.400	.057	.55	.000	.18	.00	.17	90	367	101	190	4
SEP. 13...	--	--	.36	.000	.38	.1	.21	80	170	66	83	3

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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)
NOV. 02...	1.6	494	8.0	16.5	50	9.3	95	32	1.6	100	0	0
DEC. 10...	5.0	1140	8.2	23.5	15	10.1	117	93	3.5	--	--	--
MAR. 24...	2.3	1100	8.2	19.5	20	13.8	148	24	9.6	0	0	0
APR. 28...	2.5	1080	8.1	27.5	15	8.0	100	26	3.0	--	--	--
JUNE 02...	2.4	1000	8.0	29.0	25	8.6	110	20	2.5	--	--	--
JULY 09...	2.3	874	8.0	25.5	45	7.3	88	20	2.2	0	10	0
AUG. 12...	1.3	602	8.0	35.0	60	9.8	138	32	5.3	10	10	0
SEP. 13...	.8	275	6.8	27.5	30	4.2	52	33	4.2	60	0	0

EAST CARANCAHUA CREEK BASIN

08162800 WEST CARANCAHUA CREEK NEAR LAWARD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 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	7	22	1	0	9	.8	6	210	0
DEC. 10...	--	--	--	--	--	--	--	--	--	--	--	--
MAR. 24...	0	--	0	6	3	0	30	6	.8	0	580	6
APR. 28...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE 02...	--	--	--	--	--	--	--	--	--	--	--	--
JULY 09...	0	--	0	5	10	0	20	5	12	0	580	0
AUG. 12...	--	--	0	4	90	0	10	5	<.5	3	420	0
SEP. 13...	0	--	0	4	150	0	0	10	2.3	0	160	30

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSIT (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE- POSIT (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE- POSIT (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE- POSIT (UG/KG)
NOV. 02...	1305	3.3	--	<.2	--	<.2	--	<.2	--	<.2
MAR. 24...	1145	4.0	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 09...	1105	4.1	.00	<.2	.00	1.0	.00	3.1	.00	<.2
AUG. 12...	1715	4.5	.00	<.2	.00	<.2	.00	<.2	.00	<.2
SEP. 13...	1100	225	.00	--	.00	--	.00	--	.00	--

DATE	DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM DE- POSIT (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE- POSIT (UG/KG)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM DE- POSIT (UG/KG)	HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSIT (UG/KG)	LINDANE (UG/L)
NOV. 02...	--	<.2	--	<.2	--	<.2	--	<.2	--
MAR. 24...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JULY 09...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
AUG. 12...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
SEP. 13...	.00	--	.00	--	.00	--	.00	--	.00

EAST CARANCAHUA CREEK BASIN

651

08162800 WEST CARANCAHUA CREEK NEAR LAWARD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
NOV. 02...	<.2	--	<1.0	--	--	<.2	--	<.2	--
MAR. 24...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JULY 09...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.05
AUG. 12...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
SEP. 13...	--	.0	--	.00	.00	--	.00	--	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
NOV. 02...	<.2	.0	<10	.00	<8.2	.06	<1.6	.00	<1.1
MAR. 24...	<.2	.0	<10	2.3	<1.7	.00	<.2	.00	<.2
JULY 09...	<.2	.0	<10	.00	<.6	.00	<.2	.00	<.2
AUG. 12...	<.2	.0	<10	.00	<1.8	.00	<.5	.00	<.5
SEP. 13...	--	.0	--	.00	--	.00	--	.00	--

LAVACA RIVER BASIN

653

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 1971.

Pesticide analyses: January 1968 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.										
12...	1612	2100	--	34	1.9	--	109	0	--	11
13...	1308	2240	12	34	1.8	9.8	109	0	4.8	11
14...	1142	1280	--	32	1.7	--	106	0	--	14
29...	1310	644	17	61	3.5	41	192	0	19	52
FEB.										
25...	1815	31	16	100	9.8	65	362	0	27	82
MAR.										
03...	1300	33	13	99	7.5	71	350	0	27	82
17...	0840	49	15	73	4.6	72	224	0	40	89
30...	1430	33	17	91	6.7	68	312	0	26	84
APR.										
21...	1245	259	16	66	4.7	77	264	0	24	77
29...	1400	29	30	60	5.5	98	304	0	23	78
JUNE										
03...	0957	15	28	74	1.8	72	265	0	20	78
JULY										
07...	1730	19	33	63	4.4	54	233	0	14	60
AUG.										
13...	1010	133	22	82	4.3	43	260	0	17	60
SEP.										
13...	1645	10900	12	28	2.0	7.9	100	0	4.2	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 SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)
OCT.										
12...	--	--	--	--	--	--	93	3	--	222
13...	.2	--	--	.9	--	132	92	3	.4	225
14...	--	--	--	--	--	--	87	0	--	229
29...	.3	--	--	.9	--	292	170	9	1.4	508
FEB.										
25...	.3	.010	.10	.1	.090	483	300	4	1.7	814
MAR.										
03...	.3	.010	.10	.1	.12	473	280	0	1.9	831
17...	.5	--	--	1.7	--	412	200	18	2.2	683
30...	.4	--	--	.2	--	447	250	0	1.9	772
APR.										
21...	.3	--	--	.00	--	395	180	0	2.5	680
29...	.3	--	--	.1	--	444	170	0	3.2	795
JUNE										
03...	.4	--	--	.00	--	404	190	0	2.3	709
JULY										
07...	.3	--	--	.1	--	344	180	0	1.8	611
AUG.										
13...	.2	--	--	.2	--	357	220	9	1.3	622
SEP.										
13...	.2	--	--	.6	--	110	78	0	.4	177

LAVACA RIVER BASIN

08164000 LAVACA RIVER NEAR EDNA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	PH (UNITS)	TEMP- ERATURE (DEG C)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED ARSENIC (AS) (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)
OCT.									
12...	7.2	21.0	--	--	--	--	--	--	--
13...	7.3	20.0	--	--	--	--	--	--	--
14...	7.1	20.5	--	--	--	--	--	--	--
29...	7.1	18.5	--	--	--	--	--	--	--
FEB.									
25...	8.0	19.5	--	1.5	0	10	0	50	<.5
MAR.									
03...	8.1	14.0	21	2.6	--	--	--	--	--
17...	7.8	17.0	--	--	--	--	--	--	--
30...	8.1	22.5	--	--	--	--	--	--	--
APR.									
21...	7.7	22.5	--	--	--	--	--	--	--
29...	7.9	25.5	--	--	--	--	--	--	--
JUNE									
03...	8.0	25.5	--	--	--	--	--	--	--
JULY									
07...	8.0	29.5	--	--	--	--	--	--	--
AUG.									
13...	7.5	27.5	--	--	--	--	--	--	--
SEP.									
13...	7.3	26.5	--	--	--	--	--	--	--

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.										
29...	1310	644	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB.										
25...	1815	31	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAR.										
03...	1300	33	.00	<.2	.00	<.2	.00	.3	.00	<.2
30...	1430	33	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY										
07...	1730	19	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG.										
13...	1010	133	.00	<.2	.00	<.2	.00	<.2	.00	<.2
SEP.										
13...	1645	10900	.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)
OCT.									
29...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
FEB.									
25...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
MAR.									
03...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
30...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JULY									
07...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
AUG.									
13...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
SEP.									
13...	.00	--	.00	--	.00	--	.00	--	.01

LAVACA RIVER BASIN

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08164000 LAVACA RIVER NEAR EDNA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
OCT. 29...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
FEB. 25...	<.2	.0	<1.0	--	.00	<.2	.00	<.2	.00
MAR. 03...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
30...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JULY 07...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
AUG. 13...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
SEP. 13...	--	.0	--	.01	.00	--	.00	--	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
OCT. 29...	<.2	.0	<10	.00	<1.7	.02	<.2	.00	<.2
FEB. 25...	<.2	.0	<10	.00	--	.00	--	.00	--
MAR. 03...	<.2	.0	<10	.00	--	.00	--	.00	--
30...	<.2	.0	<10	.00	<.6	.00	<.2	.00	<.2
JULY 07...	<.2	.0	--	.00	<.2	.00	<.6	.00	<.6
AUG. 13...	<.2	.0	--	.00	<.9	.00	<.2	.00	<.2
SEP. 13...	--	.0	--	.02	--	.06	--	.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 1971.

Chemical and biochemical analyses: January 1968 to September 1971.

Pesticide analyses: January 1968 to September 1971.

Water temperatures: October 1959 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.										
01-10	192	28	44	9.4	42	--	4.3	168	0	15
11-18	3600	11	12	2.6	--	11	--	48	0	4.0
19-31	642	16	25	4.0	--	16	--	90	0	7.4
NOV.										
01-04	182	18	38	4.5	--	22	--	128	0	8.8
05-09	95	23	64	5.5	--	32	--	201	0	11
10-30	36	24	96	6.1	--	45	--	300	0	15
DEC.										
01-31	29	22	85	6.0	--	55	--	272	0	15
JAN.										
01-07	29	21	63	5.7	55	--	3.2	206	0	16
08-11	27	8.3	39	5.6	--	58	--	133	0	16
12-31	28	19	80	5.6	--	58	--	260	0	1.6
FEB.										
01-05	26	15	56	5.3	--	58	--	188	0	17
06-10	116	8.8	28	3.9	--	24	--	74	0	25
11-28	29	15	56	5.3	--	58	--	188	0	17
MAR.										
01-16	24	14	39	5.4	--	60	--	134	0	16
17-31	24	13	60	6.5	--	68	--	204	0	19
APR.										
01-17	43	18	66	9.1	76	--	5.4	244	0	27
18-21	217	14	46	10	--	58	--	160	0	35
22-30	37	18	66	9.1	76	--	5.4	244	0	27
MAY										
01-24	44	17	62	9.6	--	82	--	232	0	32
25-31	150	12	39	9.0	--	48	--	142	0	29
JUNE										
01-30	54	22	54	10	--	62	--	218	0	23
JULY										
01-19	115	20	44	12	58	--	2.9	194	0	19
20-31	81	24	56	16	--	76	--	228	0	26
AUG.										
01-03	93	27	50	16	--	84	--	232	0	33
04...	327	29	61	8.8	--	54	--	234	0	19
05-07	3730	18	27	5.3	--	27	--	110	0	12
08...	3910	29	61	8.8	--	54	--	234	0	19
09-11	1140	18	27	5.3	--	27	--	110	0	12
12-31	103	29	61	8.8	--	54	--	234	0	19
SEP.										
01-09	118	38	52	11	--	56	--	202	0	21
10-11	2070	23	25	4.2	--	20	--	97	0	6.0
12-15	7810	17	16	3.0	--	13	--	64	0	5.2
16-20	2010	23	25	4.2	--	20	--	97	0	6.0
21-23	1790	17	16	3.0	--	13	--	64	0	5.2
24-30	821	23	25	4.2	--	20	--	97	0	6.0
WTD. AVG.	--	18	26	4.5	--	--	--	98	0	8.7
TIME WTD.										
AVG.	363	20	56	7.6	--	--	--	201	0	18
TOT. LOAD (TONS)	--	6330	9140	1610	--	--	--	35200	0	3110

LAVACA RIVER BASIN

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08164500 NAVIDAD RIVER NEAR GANADO, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 431 mg/l Aug. 1-3; minimum, 80 mg/l Oct. 11-18.
 Hardness: Maximum, 260 mg/l Nov. 10-30; minimum, 41 mg/l Oct. 11-18.
 Specific conductance: Maximum daily, 954 micromhos May 19; minimum daily, 104 micromhos Oct. 13.
 Water temperatures: Maximum, 28.5°C June 29, July 16, Aug. 11, 13; minimum, 0.5°C Jan. 5.

EXTREMES, October 1959 to September 1971.--Dissolved solids: Maximum, 614 mg/l Oct. 1-31, 1963; minimum, 44 mg/l Feb. 5-8, 1961.
 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 1970 TO SEPTEMBER 1971

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.									
01-10	62	.3	.2	289	150	11	1.5	488	7.0
11-18	14	--	.2	80	41	1	.8	136	6.8
19-31	22	--	.2	135	79	5	.8	245	7.2
NOV.									
01-04	32	.2	.5	189	110	8	.9	322	7.5
05-09	50	--	1.3	290	180	18	1.0	496	7.7
10-30	70	--	.4	406	260	18	1.2	717	7.8
DEC.									
01-31	82	.3	.2	400	240	14	1.6	713	7.7
JAN.									
01-07	84	.3	.6	352	180	12	1.8	640	7.8
08-11	85	--	.4	279	120	11	2.3	516	7.9
12-31	84	--	.2	392	220	10	1.7	689	7.7
FEB.									
01-05	80	.3	.8	327	160	8	2.0	573	7.4
06-10	32	--	2.0	167	86	25	1.1	282	7.2
11-28	80	.3	.8	327	160	8	2.0	573	7.4
MAR.									
01-16	87	.4	.2	289	120	10	2.4	531	7.4
17-31	96	--	.2	363	180	9	2.2	655	7.8
APR.									
01-17	100	.5	.9	427	200	2	2.3	741	7.6
18-21	78	--	1.4	326	160	25	2.0	574	7.3
22-30	100	.5	.9	427	200	2	2.3	741	7.6
MAY									
01-24	100	.5	.9	423	190	4	2.6	748	7.7
25-31	62	--	1.6	276	130	18	1.8	492	7.1
JUNE									
01-30	74	.3	.7	355	180	0	2.0	611	7.7
JULY									
01-19	80	.3	.4	333	160	0	2.0	590	7.4
20-31	110	--	.3	421	210	18	2.3	752	7.7
AUG.									
01-03	100	--	.7	431	190	0	2.6	725	8.1
04...	64	--	.7	354	190	0	1.7	567	8.0
05-07	30	--	1.0	178	89	0	1.2	301	7.5
08...	64	--	.7	354	190	0	1.7	567	8.0
09-11	30	--	1.0	178	89	0	1.2	301	7.5
12-31	64	--	.7	354	190	0	1.7	567	8.0
SEP.									
01-09	75	.4	.6	355	170	9	1.8	591	8.2
10-11	24	--	.9	154	80	0	1.0	248	7.3
12-15	15	--	.6	103	52	0	.8	167	6.9
16-20	24	--	.9	154	80	0	1.0	248	7.3
21-23	15	--	.6	103	52	0	.8	167	6.9
24-30	24	--	.9	154	80	0	1.0	248	7.3
WTD. AVG.	29	--	.5	160	82	2	1.1	269	7.2
TIME WTD. AVG.	73	--	.5	332	171	7	1.8	579	7.6
TOT. LOAD (TONS)	10300	--	211	57100	--	--	--	--	--

LAVACA RIVER BASIN

08164500 NAVIDAD RIVER NEAR GANADO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.												
07...	1030	203	29	36	9.5	45	147	0	14	64	.2	.62
DEC.												
03...	1230	48	23	110	5.9	57	356	0	15	82	.3	.82
FEB.												
03...	1300	41	19	97	5.7	56	302	0	15	88	.3	.12
25...	1615	42	16	94	7.7	63	312	0	20	89	.2	--
MAR.												
03...	1100	44	16	98	17	46	334	0	16	88	.2	--
APR.												
07...	0830	49	16	61	13	120	238	0	50	150	.5	1.2
JUNE												
03...	1145	9.2	23	66	8.8	66	254	0	24	77	.3	.37
AUG.												
18...	1145	60	27	83	6.1	39	268	0	13	58	.3	.26

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)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.												
07...	.000	.00	.1	.090	270	30	26	130	8	--	465	7.2
DEC.												
03...	.000	.00	.00	.090	468	28	8	300	8	1.4	789	8.0
FEB.												
03...	.000	.00	.00	.060	430	17	5	270	18	--	756	8.1
25...	.010	.00	.00	.080	443	--	--	270	10	1.7	758	7.9
MAR.												
03...	.000	.06	.00	.060	445	--	--	320	42	1.1	784	8.1
APR.												
07...	.46	.00	.6	.10	537	38	13	210	10	--	945	7.8
JUNE												
03...	.050	.16	.3	.13	392	20	13	200	0	2.0	685	8.1
AUG.												
18...	.000	.00	.00	.14	358	43	10	230	12	1.1	612	8.0

DATE	TEMP- ERATURE (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.												
07...	25.0	40	40	5.2	62	33	1.8	2	.01	0	5	0
DEC.												
03...	21.5	15	4	8.4	94	43	.2	5	.01	--	--	--
FEB.												
03...	16.0	3	6	10.1	101	6	.9	2	.00	0	0	0
25...	19.5	--	--	--	--	--	2.4	--	--	--	0	--
MAR.												
03...	12.0	--	--	--	--	18	1.9	--	--	--	--	--
APR.												
07...	12.5	24	20	9.0	84	28	4.3	0	.03	0	0	0
JUNE												
03...	27.5	10	10	8.2	102	18	2.9	0	.11	--	--	--
AUG.												
18...	28.0	30	6	8.2	104	23	3.0	0	.04	20	10	2

LAVACA RIVER BASIN

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08164500 NAVIDAD RIVER NEAR GANADO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HFXA- 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. 07...	0	0	0	2	47	1	0	2	<.5	5	200	0
DEC. 03...	--	--	--	--	--	--	--	--	--	--	--	--
FEB. 03...	0	--	0	0	4	0	10	20	<.5	0	340	3
25...	0	--	--	--	17	0	--	20	<.5	--	--	--
MAR. 03...	--	--	--	--	--	--	--	--	--	--	--	--
APR. 07...	0	--	0	4	30	0	20	14	<.5	0	440	0
JUNE 03...	--	--	--	--	--	--	--	--	--	--	--	--
AUG. 18...	--	--	0	4	50	0	10	10	<.5	2	340	10

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. 07...	1030	203	.00	<.2	.00	<.2	.00	.6	.02	<.2
FEB. 03...	1300	41	.00	<.2	.00	<.2	.00	<.2	.00	<.2
25...	1615	42	.00	<.2	.00	<.2	.00	1.2	.00	<.2
MAR. 03...	1100	44	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 07...	0830	49	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 18...	1145	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)
OCT. 07...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
FEB. 03...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
25...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
MAR. 03...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
APR. 07...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
AUG. 18...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00

LAVACA RIVER BASIN

08164500 NAVIDAD RIVER NEAR GANADO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
OCT. 07...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
FEB. 03...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
25...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
MAR. 03...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
APR. 07...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
AUG. 18...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
OCT. 07...	<.2	.0	<10	.00	<5.5	.00	<.8	.00	<.6
FEB. 03...	<.2	.0	<10	.00	<4.9	.00	<.6	.00	<.5
25...	<.2	.0	<10	.00	--	.00	--	.00	--
MAR. 03...	<.2	.0	<10	.00	--	.00	--	.00	--
APR. 07...	<.2	.0	<10	.00	<.5	.00	<.2	.00	<.2
AUG. 18...	<.2	.0	<10	.00	<1.3	.00	<.3	.00	<.3

LAVACA RIVER BASIN

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08164500 NAVIDAD RIVER NEAR GANADO, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	466	---	632	568	---	508	621	816	668	412	819	667
2	486	291	721	617	547	508	946	---	688	518	728	646
3	501	354	788	658	723	523	649	854	682	580	639	657
4	---	---	591	643	522	638	678	768	689	---	572	572
5	---	415	752	673	532	517	791	766	686	---	343	599
6	477	466	---	717	---	521	---	927	644	651	274	598
7	---	---	728	687	---	510	739	795	681	670	297	512
8	582	539	809	517	---	509	855	827	642	597	548	512
9	452	564	666	497	257	525	765	---	610	577	340	546
10	462	665	619	500	304	519	833	692	---	574	259	---
11	---	647	709	550	429	534	---	---	659	---	310	254
12	119	663	650	650	512	523	772	750	691	653	447	116
13	104	640	755	632	542	531	714	675	745	576	434	150
14	124	---	717	632	556	---	760	660	768	576	465	164
15	136	---	685	679	543	535	784	---	758	587	---	197
16	158	---	745	681	548	529	763	593	500	590	519	255
17	181	725	639	663	532	649	618	635	503	644	569	212
18	---	708	768	642	592	586	---	668	504	---	615	264
19	228	706	695	708	568	555	538	954	510	647	639	---
20	264	735	721	682	568	597	---	640	---	719	617	211
21	264	672	762	---	---	---	583	696	514	713	604	174
22	286	779	706	691	663	718	675	---	510	710	587	175
23	341	---	693	650	---	744	689	---	566	724	594	188
24	235	771	---	699	743	622	599	760	563	744	567	209
25	---	---	---	731	593	622	---	336	577	---	---	218
26	206	819	726	781	552	662	743	484	579	747	617	---
27	266	---	717	790	611	754	752	489	---	769	653	---
28	215	799	792	---	---	632	760	572	576	730	613	263
29	245	823	691	732	---	649	771	577	579	823	579	295
30	192	823	757	758	---	654	794	---	410	820	595	294
31	197	---	730	652	---	720	---	---	---	---	601	---
MONTH	287	---	713	658	---	589	728	---	611	654	533	344

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	---	19.0	13.0	---	18.5	19.5	19.0	25.5	26.5	25.0	26.0
2	21.5	15.5	19.5	14.5	14.5	18.5	14.5	20.0	25.5	26.0	27.0	26.5
3	23.0	13.0	21.0	19.0	16.5	19.5	14.5	21.0	24.5	26.5	25.0	26.5
4	---	---	---	8.0	17.0	19.5	14.5	21.0	24.5	---	24.5	26.5
5	---	10.0	20.0	0.5	14.5	18.5	15.0	24.0	24.5	---	25.5	26.5
6	24.0	16.0	---	1.0	---	16.5	---	21.0	24.5	26.5	24.0	26.5
7	---	---	13.0	2.0	---	13.0	12.0	20.0	24.0	26.0	23.0	26.5
8	25.5	15.5	19.0	9.0	---	10.0	13.0	26.0	25.5	26.0	25.5	26.5
9	20.0	15.5	20.0	15.5	6.0	15.0	16.5	---	24.5	26.5	28.0	26.0
10	18.0	16.5	19.0	15.5	5.5	14.5	17.0	24.0	---	27.0	28.0	---
11	---	14.5	18.0	15.5	10.0	15.5	---	---	26.5	---	28.5	24.5
12	20.5	14.5	9.0	17.0	13.0	19.0	18.0	20.5	25.5	26.5	28.0	25.5
13	20.0	15.5	11.0	18.5	9.0	20.0	18.5	20.0	26.0	26.5	28.5	25.5
14	20.0	---	13.5	19.5	17.0	---	20.5	18.5	25.5	17.0	27.0	26.5
15	21.0	---	13.5	19.5	14.0	18.0	20.5	---	25.5	26.5	---	28.0
16	20.0	---	11.5	13.0	15.5	15.5	20.5	20.5	26.0	28.5	28.0	26.5
17	18.5	10.0	18.5	14.5	18.0	22.0	18.5	21.0	25.5	26.5	26.5	26.5
18	---	11.5	15.5	14.0	18.5	19.5	---	24.0	25.5	---	27.0	26.5
19	18.0	13.5	18.5	6.5	19.0	14.5	---	24.0	24.5	26.5	26.0	---
20	20.0	13.0	---	8.0	19.5	13.0	---	24.0	---	27.0	26.5	20.0
21	20.0	19.0	19.5	---	---	---	20.0	24.0	26.5	27.0	26.5	27.0
22	20.0	15.5	20.0	10.0	10.0	18.5	22.0	---	26.0	28.0	27.0	26.0
23	21.5	---	20.0	18.0	---	18.5	20.5	---	26.5	27.0	27.0	24.0
24	20.0	8.0	---	21.0	13.5	18.5	19.5	23.0	24.0	26.5	26.5	26.0
25	---	---	---	19.0	16.5	15.5	---	24.0	28.0	---	---	26.5
26	23.0	16.0	9.5	15.5	17.0	15.0	19.0	25.5	26.0	28.0	27.0	---
27	---	---	15.5	15.5	15.5	17.0	18.5	26.5	---	27.0	26.0	---
28	18.5	18.0	18.5	---	---	21.5	19.0	25.5	26.5	28.0	26.5	26.5
29	18.0	18.5	18.5	15.5	---	21.0	20.5	24.5	28.5	26.5	26.5	27.0
30	14.5	19.0	11.5	18.5	---	16.0	20.5	---	27.0	28.0	27.0	26.5
31	15.5	---	11.5	20.0	---	16.0	---	---	---	---	26.0	---
MONTH	---	---	16.5	13.5	---	17.0	18.0	---	25.5	26.5	26.5	26.0

GARCITAS CREEK BASIN

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 1971.
Pesticide analyses: October 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 03...	1500	.60	21	41	5.1	25	--	2.5	146	0
DEC. 10...	1130	.60	24	68	8.3	35	--	2.3	220	0
JAN. 12...	1030	.74	9.4	73	10	45	--	4.0	246	0
FEB. 16...	1800	.27	13	56	9.6	55	--	2.0	184	4
26...	1235	.54	10	50	13	--	56	--	189	0
MAR. 03...	1445	.54	10	52	12	--	57	--	196	0
24...	0915	1.0	9.6	48	11	63	--	2.1	188	0
APR. 29...	1230	.27	18	44	12	110	--	6.2	248	0
JULY 07...	2015	.02	25	54	7.0	39	--	4.0	199	0
AUG. 13...	1510	1.9	25	28	4.4	28	--	5.4	126	0
SFP. 12...	1350	1830	8.4	5.6	1.1	2.3	--	2.8	24	0

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	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)
NOV. 03...	13	30	.2	.000	.060	.48	.000	.08	.1	.060
DEC. 10...	32	46	.3	--	--	.65	.000	.00	.00	.030
JAN. 12...	40	60	.3	--	--	.95	.000	.00	.00	.010
FEB. 16...	40	69	.3	--	--	.39	.000	.00	.00	.020
26...	42	71	.3	--	--	--	.010	.10	.1	.000
MAR. 03...	39	73	.2	--	--	--	.020	.10	.00	.010
24...	40	79	.3	.880	.100	.37	.000	.00	.1	.030
APR. 29...	21	120	.6	--	--	.42	.000	.00	.1	.030
JULY 07...	18	50	.3	.100	.078	.16	.000	.00	.00	.000
AUG. 13...	4.4	33	.2	.300	.051	.52	.000	.21	.00	.040
SFP. 12...	.4	3.2	.0	--	--	.34	.000	.40	.1	.060

GARCITAS CREEK BASIN

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08164600 GARCITAS CREEK NEAR INEZ, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	TUR- BID- ITY (JTU)
NOV.										
03...	90	210	143	120	4	1.0	353	7.8	18.0	80
DEC.										
10...	--	324	--	200	23	1.1	530	7.8	22.0	--
JAN.										
12...	--	363	--	220	22	1.3	624	8.1	18.0	10
FEB.										
16...	--	339	--	180	22	1.8	585	8.0	20.5	10
26...	--	336	--	180	22	1.8	606	7.8	24.0	--
MAR.										
03...	--	339	--	180	18	1.9	622	7.7	17.5	--
24...	220	346	31	160	11	2.1	612	8.2	19.0	10
APR.										
29...	--	450	--	160	0	3.8	797	8.0	26.0	30
JULY										
07...	180	295	14	160	0	1.3	495	7.7	30.0	6
AUG.										
13...	60	191	131	88	0	1.3	310	7.0	33.0	55
SEP.										
12...	70	37	103	18	0	.2	56	6.2	25.0	25

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)	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)	DIS- SOLVED COBALT (CO) (UG/L)
NOV.										
03...	8.2	86	38	1.4	100	0	0	0	0	0
DEC.										
10...	8.8	100	81	1.9	--	--	--	--	--	--
JAN.										
12...	10.7	113	10	2.9	--	--	--	--	--	--
FEB.										
16...	4.5	49	14	2.2	--	--	--	--	--	--
26...	--	--	--	1.3	--	0	--	--	--	--
MAR.										
03...	--	--	30	3.8	--	--	--	--	--	--
24...	11.8	126	19	3.4	0	0	0	0	--	0
APR.										
29...	8.4	102	25	1.0	--	--	--	--	--	--
JULY										
07...	5.5	72	16	1.2	--	--	--	--	--	--
AUG.										
13...	7.4	101	31	2.5	120	0	0	0	--	0
SEP.										
12...	5.6	67	37	3.0	120	0	0	0	--	0

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.									
03...	5	21	0	0	17	1.4	5	110	0
DEC.									
10...	--	--	--	--	--	--	--	--	--
JAN.									
12...	--	--	--	--	--	--	--	--	--
FEB.									
16...	--	--	--	--	--	--	--	--	--
26...	--	12	0	--	30	<.5	--	--	--
MAR.									
03...	--	--	--	--	--	--	--	--	--
24...	2	12	0	20	14	.8	0	190	7
APR.									
29...	--	--	--	--	--	--	--	--	--
JULY									
07...	--	--	--	--	--	--	--	--	--
AUG.									
13...	4	150	0	0	4	<.5	2	220	0
SEP.									
12...	4	230	0	0	1	3.0	0	40	20

GARCITAS CREEK BASIN

08164600 GARCITAS CREEK NEAR INEZ, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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...	1500	.60	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 26...	1235	.54	.00	<.2	.00	<.2	.00	<.2	.00	<.2
MAR. 03...	1445	.54	.00	<.2	.00	<.2	.00	<.2	.00	<.2
24...	0915	1.0	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 07...	2015	.02	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 13...	1510	1.9	.00	<.2	.00	<.2	.00	<.2	.00	<.2
SEP. 12...	1350	1830	.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)
NOV. 03...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
FEB. 26...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
MAR. 03...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
24...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JULY 07...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
AUG. 13...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
SEP. 12...	.00	--	.00	--	.00	--	.00	--	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
NOV. 03...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
FEB. 26...	<.2	.0	<1.0	--	.00	<.2	.00	<.2	.00
MAR. 03...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
24...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JULY 07...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
AUG. 13...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
SEP. 12...	--	.0	--	.00	.00	--	.00	--	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
NOV. 03...	<.2	.0	<10	.00	<1.1	.00	<.3	.00	<.3
FEB. 26...	<.2	.0	<10	.00	--	.00	--	.00	--
MAR. 03...	<.2	.0	<10	.00	--	.00	--	.00	--
24...	<.2	.0	<10	.00	<1.4	.00	<.1	.00	<.1
JULY 07...	<.2	.0	<10	.00	<.5	.00	<.3	.00	<.3
AUG. 13...	<.2	.0	<10	.00	<.9	.00	<.3	.00	<.3
SEP. 12...	--	.0	--	.00	--	.00	--	.00	--

PLACEDO CREEK BASIN

665

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.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (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 (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
NOV. 04...	0815	1.3	39	160	28	310	--	5.7	300	0
DEC. 10...	1800	.60	37	430	67	800	--	4.0	416	0
JAN. 13...	1700	.38	32	440	66	850	--	3.3	410	0
FEB. 19...	1045	.48	28	420	64	870	--	4.0	392	0
26...	1110	.96	30	470	81	--	920	--	375	0
MAR. 03...	1710	.30	28	510	88	--	1000	--	348	0
25...	0945	.19	30	450	72	890	--	4.3	360	0
APR. 29...	1900	.24	30	290	23	530	--	5.7	306	0
JUNE 02...	1025	.30	21	130	19	260	--	8.0	258	0
JULY 05...	2010	.60	24	84	14	220	--	5.4	288	0
AUG. 11...	1440	8.7	41	34	7.4	75	--	12	187	0
SEPT. 11...	1455	5810	9.9	5.7	1.5	2.8	--	4.0	24	0

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	BROMIDE (BR) (MG/L)	IODINE (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)
NOV. 04...	33	650	.5	1.9	.370	.55	.000	.00	.00	.26
DEC. 10...	57	1900	.5	--	--	.33	.000	.00	.00	.090
JAN. 13...	66	2000	.5	--	--	.45	.000	.00	.00	.040
FEB. 19...	63	2000	.6	--	--	.30	.000	.00	.00	.050
26...	63	2200	.5	--	--	--	.020	.00	.1	.030
MAR. 03...	84	2400	.4	--	--	--	.010	.05	.00	.030
25...	60	2100	.5	6.7	.440	.23	.000	.00	.4	.090
APR. 29...	29	1200	.5	--	--	.50	.000	.00	.1	.19
JUNE 02...	22	530	.4	--	--	.52	.010	.07	.1	.26
JULY 05...	20	340	.5	.800	.180	.54	.010	.07	.1	.40
AUG. 11...	8.0	89	.3	.300	.074	.66	.010	.28	.1	.62
SEPT. 11...	2.0	4.0	.1	--	--	.55	.000	.40	.3	.19

PLACEDO CREEK BASIN

08164800 PLACEDO CREEK NEAR PLACEDO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	TUR- BID- ITY (JTU)
NOV. 04...	500	1380	37	510	270	5.9	2490	7.2	13.5	20
DEC. 10...	--	3500	--	1300	1000	9.5	6280	6.9	21.0	--
JAN. 13...	--	3660	--	1400	1000	10	6600	7.4	19.5	20
FEB. 19...	--	3610	--	1300	980	11	6540	7.1	20.0	10
26...	--	3950	--	1500	1200	10	7120	7.2	19.5	--
MAR. 03...	--	4310	--	1600	1300	11	7690	7.6	17.0	--
25...	1500	3810	40	1400	1100	10	6870	7.2	20.5	15
APR. 29...	--	2300	--	830	570	8.1	4150	7.0	26.0	10
JUNE 02...	--	1120	--	400	190	5.6	2080	7.3	26.0	35
JULY 05...	340	852	81	270	31	5.9	1570	7.3	29.0	40
AUG. 11...	260	360	132	120	0	3.0	605	7.6	29.5	55
SEP. 11...	40	44	292	20	1	.3	64	6.1	24.0	110

DATE	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)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)
NOV. 04...	4.7	45	31	1.8	100	6	0	0	0	1
DEC. 10...	4.2	48	100	4.2	--	--	--	--	--	--
JAN. 13...	10.2	112	17	1.2	--	--	--	--	--	--
FEB. 19...	4.6	51	17	2.2	--	--	--	--	--	--
26...	--	--	--	1.9	--	0	--	--	--	--
MAR. 03...	--	--	46	3.5	--	--	--	--	--	--
25...	7.0	79	29	3.6	0	0	0	0	--	0
APR. 29...	5.4	67	20	1.6	--	--	--	--	--	--
JUNE 02...	4.4	54	25	2.9	--	--	--	--	--	--
JULY 05...	4.6	59	27	1.6	10	10	0	0	--	0
AUG. 11...	5.1	66	44	4.1	150	10	0	0	--	1
SEP. 11...	5.8	68	27	2.9	190	0	0	--	--	0

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. 04...	3	73	0	40	22	1.2	4	1600	0
DEC. 10...	--	--	--	--	--	--	--	--	--
JAN. 13...	--	--	--	--	--	--	--	--	--
FEB. 19...	--	--	--	--	--	--	--	--	--
26...	--	16	0	--	430	<.5	--	--	--
MAR. 03...	--	--	--	--	--	--	--	--	--
25...	0	5	0	80	500	.8	0	4700	12
APR. 29...	--	--	--	--	--	--	--	--	--
JUNE 02...	--	--	--	--	--	--	--	--	--
JULY 05...	4	30	0	30	53	2.4	2	920	20
AUG. 11...	4	310	0	10	5	.6	2	380	0
SEP. 11...	4	70	4	0	0	2.3	0	80	20

PLACEDO CREEK BASIN

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08164800 PLACEDO CREEK NEAR PLACEDO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
NOV. 04...	0815	1.3	.00	<.2	.00	.4	.00	.3	.00	<.2
FEB. 26...	1110	.96	.00	<.2	.00	1.1	.00	1.3	.00	<.2
MAR. 03...	1710	.30	.00	<.2	.00	.8	.00	.7	.00	<.2
MAR. 25...	0945	.19	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 05...	2010	.60	.00	<.2	.00	.4	.00	.5	.00	<.2
AUG. 11...	1440	8.7	.00	<.2	.00	<.2	.00	<.2	.00	<.2
SEP. 11...	1455	5810	.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)
NOV. 04...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
FEB. 26...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
MAR. 03...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
MAR. 25...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JULY 05...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
AUG. 11...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
SEP. 11...	.00	--	.00	--	.00	--	.00	--	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
NOV. 04...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
FEB. 26...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
MAR. 03...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
MAR. 25...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
JULY 05...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
AUG. 11...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
SEP. 11...	--	.0	--	.00	.00	--	.00	--	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
NOV. 04...	<.2	.0	<10	.00	<1.0	.00	<.3	.00	<.3
FEB. 26...	<.2	.0	<10	.00	--	.00	--	.00	--
MAR. 03...	<.2	.0	<10	.00	--	.00	--	.00	--
MAR. 25...	<.2	.0	<10	.00	<1.0	.00	<.1	.00	<.1
JULY 05...	<.2	--	<10	.00	<.4	.04	<.1	.00	<.1
AUG. 11...	<.2	.0	<10	.00	<.6	.04	<.2	.00	<.2
SEP. 11...	--	.0	--	.00	--	.00	--	.00	--

CHOCOLATE BAYOU BASIN

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.

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

Pesticide analyses: October 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.											
04...	1030	.04	45	130	27	300	--	7.3	388	0	
DEC.											
09...	0940	.10	43	210	43	430	--	9.4	496	0	
JAN.											
13...	1645	.04	31	230	47	480	--	10	540	0	
FEB.											
17...	1830	.04	19	270	58	580	--	10	480	0	
26...	0900	.11	20	250	66	--	530	--	442	0	
MAR.											
03...	1820	.03	25	270	67	--	560	--	464	0	
25...	0840	.08	21	140	28	340	--	9.7	364	0	
APR.											
28...	1815	.01	15	69	16	330	--	10	254	0	
JUNE											
01...	1540	.82	17	68	14	300	--	8.6	280	0	
JULY											
09...	1530	1.1	26	45	9.8	200	--	5.4	280	0	
AUG.											
11...	1215	8.6	47	32	6.4	80	--	12	160	0	
SEP.											
15...	0935	953	21	13	2.0	6.6	--	5.2	57	0	
DATE		DIS-SOLVED SULFATE (S04) (MG/L)	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)
NOV.											
04...	44	510	.7	.700	.420	.60	.000	2.0	.00	1.6	
DEC.											
09...	65	830	.4	--	--	.98	.000	7.3	.00	3.6	
JAN.											
13...	87	940	.5	--	--	1.8	.020	8.3	.00	5.7	
FEB.											
17...	120	1200	.5	--	--	1.3	.44	2.6	.00	4.1	
26...	120	1100	.4	--	--	--	.13	1.3	.6	3.7	
MAR.											
03...	130	1200	.3	--	--	--	.26	.79	.3	3.1	
25...	54	610	.4	2.4	.230	.06	.000	1.2	.1	1.6	
APR.											
28...	25	520	.7	--	--	1.1	.10	1.9	.	1.3	
JUNE											
01...	61	430	.6	--	--	.74	.070	.70	.1	.45	
JULY											
09...	8.0	260	.5	1.2	.150	.49	.020	.52	.1	.40	
AUG.											
11...	14	100	.4	.500	.110	.89	.080	.54	.4	.26	
SEP.											
15...	.8	8.6	.1	--	--	.23	.000	.27	.1	.17	

CHOCOLATE BAYOU BASIN

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08164850 CHOCOLATE BAYOU NEAR PORT LAVACA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	TUR- BID- ITY (JTU)
NOV.										
04...	420	1260	11	440	120	6.3	2240	7.1	12.0	4
DEC.										
09...	--	1880	--	700	290	7.1	3270	7.2	19.0	30
JAN.										
13...	--	2080	--	760	320	7.5	3670	7.2	20.5	9
FEB.										
17...	--	2460	--	910	520	8.4	4300	7.4	20.5	8
26...	--	2310	--	890	530	7.7	4020	7.1	17.0	--
MAR.										
03...	--	2460	--	950	570	7.9	4230	7.6	14.0	--
25...	380	1390	24	470	170	6.9	2500	7.3	19.0	3
APR.										
28...	--	1110	--	240	30	9.3	2040	7.2	25.5	50
JUNE										
01...	--	1040	--	230	0	8.7	1880	7.4	27.5	2
JULY										
09...	380	692	54	150	0	7.0	1250	7.3	26.0	20
AUG.										
11...	240	374	108	110	0	3.4	622	7.2	29.0	50
SEP.										
15...	40	86	25	41	0	.5	128	6.7	26.5	20

DATE	DIS- SOLVED OXYGEN (MG/L)	PEP- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	RIO- 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)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)
NOV.										
04...	1.3	12	44	5.1	100	9	0	--	0	1
DEC.										
09...	2.1	23	250	6.6	--	--	--	--	--	--
JAN.										
13...	1.2	13	63	7.9	--	--	--	--	--	--
FEB.										
17...	6.3	70	43	9.0	--	--	--	--	--	--
26...	--	--	--	8.4	--	0	--	--	--	--
MAR.										
03...	--	--	57	7.4	--	--	--	--	--	--
25...	1.8	19	44	6.3	10	0	0	0	--	0
APR.										
28...	1.4	17	49	7.5	--	--	--	--	--	--
JUNE										
01...	2.3	29	31	3.8	--	--	--	--	--	--
JULY										
09...	3.2	39	23	2.7	20	10	0	0	--	0
AUG.										
11...	1.8	23	50	7.3	30	10	0	0	--	0
SEP.										
15...	1.7	21	24	2.4	80	10	0	0	--	0

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.									
04...	2	67	0	0	1200	7.3	4	690	0
DEC.									
09...	--	--	--	--	--	--	--	--	--
JAN.									
13...	--	--	--	--	--	--	--	--	--
FEB.									
17...	--	--	--	--	--	--	--	--	--
26...	--	51	0	--	1000	<.5	--	--	--
MAR.									
03...	--	--	--	--	--	--	--	--	--
25...	0	80	0	20	1200	.6	0	660	9
APR.									
28...	--	--	--	--	--	--	--	--	--
JUNE									
01...	--	--	--	--	--	--	--	--	--
JULY									
09...	2	70	0	10	48	2.5	0	240	0
AUG.									
11...	5	100	0	0	33	.6	4	280	0
SEP.									
15...	3	70	0	0	5	1.3	0	80	30

CHOCOLATE BAYOU BASIN

08164850 CHOCOLATE BAYOU NEAR PORT LAVACA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 04...	1030	.04	.00	<.2	.01	47	.00	230	.00	100
FEB. 26...	0900	.11	.00	<.2	.00	10	.00	34	.00	7.9
MAR. 03...	1820	.03	.00	<.2	.00	5.0	.00	12	.00	<.2
25...	0840	.08	.00	<.2	.00	370	.00	190	.00	44
JULY 09...	1530	1.1	.00	<.2	.00	23	.00	37	.00	<.2
AUG. 11...	1215	8.6	.00	<.2	.00	62	.00	210	.00	7.7
SEP. 15...	0935	953	.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)
NOV. 04...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 26...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.01	<.2
MAR. 03...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.01	<.2
25...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 09...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 11...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.04	<.2
SEP. 15...	.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)	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 BOTTOM DE- POSITS (UG/KG)
NOV. 04...	.0	<1.0	.08	.00	<.2	.00	<.2	.00	<.2
FEB. 26...	.0	<1.0	--	.00	<.2	.00	<.2	.00	<.2
MAR. 03...	.0	<1.0	.10	.00	<.2	.00	<.2	.00	<.2
25...	.0	<1.0	.00	.00	<.2	.00	<.2	.00	<.2
JULY 09...	.0	<1.0	.00	.00	<.2	.00	<.2	.00	<.2
AUG. 11...	.0	<1.0	.00	.00	<.2	.00	<.2	.00	<.2
SEP. 15...	.0	--	.00	.00	--	.00	--	.00	--

DATE	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)	PCB (UG/L)
NOV. 04...	.0	<10	.00	<13	.00	<2.5	.00	<1.7	--
FEB. 26...	.0	<10	.00	--	.01	--	.00	--	.0
MAR. 03...	.0	<10	.00	--	.00	--	.00	--	.0
25...	.0	<10	.00	<2.0	.00	<.3	.00	<.2	.0
JULY 09...	.0	<10	.00	<1.7	.02	<.5	.00	<.4	--
AUG. 11...	.0	<10	.00	<1.4	.00	<.4	.00	<.4	--
SEP. 15...	.0	--	.00	--	.00	--	.00	--	--

GUADALUPE RIVER BASIN

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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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	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)
OCT. 09...	1315	12	71	16	17	270	0	22
DEC. 01...	1030	12	73	17	13	264	0	24
FEB. 01...	0730	12	71	17	18	268	0	25
APR. 05...	0905	12	73	17	22	272	0	27
JUNE 01...	0900	13	66	16	22	250	0	25
AUG. 16...	0910	12	67	15	14	248	0	22

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)	HARDNESS (CA+MG) (MG/L)
OCT. 09...	23	.2	.13	.000	.00	1.0	.11	299	240
DEC. 01...	23	.3	.37	.010	.00	1.2	.13	298	250
FEB. 01...	26	.2	--	.010	.00	1.0	.12	306	250
APR. 05...	32	.2	--	.000	.00	1.1	.24	322	250
JUNE 01...	31	.2	--	.020	.00	.7	.21	299	230
AUG. 16...	21	.2	--	.010	.00	.8	.090	277	230

DATE	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)
OCT. 09...	22	.5	515	7.5	24.5	6.1	73	.6
DEC. 01...	36	.4	524	7.5	23.0	6.9	79	.4
FEB. 01...	28	.5	539	7.2	16.5	7.1	72	1.4
APR. 05...	29	.6	567	7.8	16.5	8.5	90	1.7
JUNE 01...	26	.6	521	7.9	26.5	7.8	95	2.9
AUG. 16...	26	.4	483	7.4	27.5	6.8	85	1.8

GUADALUPE RIVER BASIN

08171800 COTTONWOOD LAKE AT DAM 13, NEAR SAN MARCOS, TEX.

LOCATION.--Lat 29°49'12", long 97°55'27", Hays County, at State Highway 123 and 3.5 miles south of San Marcos.

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1970 to September 1971.

Pesticide analyses: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT. 29...	1030	9.2	40	3.3	--	24	--	90	0	42	32
APR. 08...	0945	8.8	58	7.3	42	--	8.5	172	0	46	55
JUNE 03...	1700	8.6	52	7.7	--	49	--	158	0	50	61

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)	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)
OCT. 29...	.6	.030	.00	.6	.19	--	198	110	40	--	343
APR. 08...	.3	.000	.00	.1	.16	180	311	170	34	1.4	542
JUNE 03...	.4	.000	.03	.00	.14	180	307	160	32	--	562

DATE	PH (UNITS)	TEMP-ERATURE (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)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)	STREP-TOCOCCI (COL-ONIES PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
OCT. 29...	6.9	20.0	--	35	7.9	86	2.3	--	--	--	--
APR. 08...	7.1	15.5	20	45	8.8	87	9.3	3200	24	28	.02
JUNE 03...	8.5	29.0	0	40	9.5	122	6.2	7200	0	0	.00

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)	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)
OCT. 29...	1030	.00	--	.00	--	.00	--	.00	--	.00	--
JUNE 03...	1700	.00	<.2	.00	1.1	.00	3.7	.00	<.2	.00	<.2

DATE	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)	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	DI-AZINON (UG/L)
OCT. 29...	.00	--	.00	--	.00	--	.00	--	.0	--	.00
JUNE 03...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.0	<1.0	.00

DATE	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)	TOX-APHENE (UG/L)	TOX-APHENE IN BOT-TOM DE-POSITS (UG/KG)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT. 29...	.00	--	.00	--	.00	--	.0	--	.10	.00	.00
JUNE 03...	.00	<.2	.00	<.2	.00	<.2	.0	<10	.00	.00	.00

GUADALUPE RIVER BASIN

673

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 1971.
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 1970 TO SEPTEMBER 1971

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. 15...	1230	207	13	84	18	17	290	0	29	33
NOV. 13...	1440	199	9.2	86	18	21	300	0	30	37
DEC. 11...	1715	204	10	38	18	20	152	0	28	38
MAR. 04...	1530	155	9.6	32	19	20	134	0	30	39
APR. 04...	1200	128	.7	46	23	13	178	0	30	41
30...	1145	122	17	80	17	20	269	0	30	40
JUNE 07...	1825	100	7.0	37	16	25	151	0	30	40
JULY 08...	1105	88	9.9	56	18	23	210	0	28	42
AUG. 13...	1910	122	24	74	16	17	248	0	31	33
SEP. 15...	1950	121	11	58	18	29	228	0	28	44

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 15...	.2	1.8	345	280	46	.4	595	7.7
NOV. 13...	.2	1.3	355	290	42	--	643	7.9
DEC. 11...	.2	1.2	232	170	44	.7	417	8.1
MAR. 04...	.2	1.5	222	160	48	.7	407	8.2
APR. 04...	.2	.8	245	210	64	.4	426	7.5
30...	.2	1.4	342	270	48	.5	627	7.7
JUNE 07...	.2	.3	230	160	36	.9	433	7.1
JULY 08...	.2	.5	282	210	40	.7	510	7.5
AUG. 13...	.2	1.5	324	250	47	.5	558	7.8
SEP. 15...	.3	.8	304	220	33	.9	514	7.9

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 1971.

Water temperatures: October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.										
01-22	7.9	19	130	11	140	--	4.2	292	0	80
23-24	1630	12	26	2.0	--	12	--	79	0	7.6
25-31	66	9.1	42	4.2	--	35	--	102	0	26
NOV.										
01-04	42	5.8	46	4.9	--	44	--	120	0	34
05-12	22	7.2	83	7.8	--	76	--	196	0	52
13-30	9.1	8.8	140	12	--	130	--	328	0	90
DEC.										
01-31	9.2	16	160	14	--	150	--	366	0	100
JAN.										
01-31	10	10	130	13	150	--	4.2	296	0	110
FEB.										
01-28	11	12	140	14	--	160	--	332	0	110
MAR.										
01-02	12	16	190	21	--	270	--	334	0	360
03-13	20	18	140	13	--	150	--	316	0	120
14-15	73	11	52	4.6	--	39	--	115	0	54
16-18	13	14	82	7.6	--	83	--	184	0	86
19-31	7.1	18	140	13	--	150	--	316	0	120
APR.										
01-30	5.6	18	140	12	160	--	5.6	352	0	110
MAY										
01-31	4.2	24	140	12	--	170	--	352	0	100
JUNE										
01-30	2.9	23	130	13	--	220	--	376	0	110
JULY										
01-31	1.9	19	110	11	210	--	5.5	392	0	88
AUG.										
01-03	45	16	65	6.1	--	74	--	168	0	57
04-08	385	14	44	3.4	--	22	--	120	0	23
09-14	6.9	16	65	6.1	--	74	--	168	0	57
15-31	3.8	19	120	11	--	140	--	304	0	83
SEP.										
01-09	2.9	18	110	9.8	--	140	--	268	0	70
10-12	66	11	36	3.6	--	41	--	92	0	23
13-30	6.2	18	110	9.8	--	140	--	268	0	70
WTD. AVG.	--	13	62	5.5	--	--	--	158	0	40
TIME WTD.										
AVG.	24	17	125	11	--	--	--	309	0	92
TOT. LOAD (TONS)	--	310	1470	130	--	--	--	3750	0	957

GUADALUPE RIVER BASIN

675

08173000 PLUM CREEK NEAR LULING, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 1,380 mg/l Mar. 1-2; minimum, 118 mg/l Oct. 23-24.

Hardness: Maximum, 560 mg/l Mar. 1-2; minimum, 73 mg/l Oct. 23-24.

Specific conductance: Maximum daily, 2,160 micromhos Mar. 2; minimum daily, 168 micromhos Oct. 24.

Water temperatures: Maximum, 30.0°C on several days during July and September; minimum, 6.0°C Jan. 7, 8.

EXTREMES, October 1967 to September 1971.--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 1970 TO SEPTEMBER 1971

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.									
01-22	240	.3	2.9	782	360	120	3.2	1350	7.9
23-24	17	--	.6	118	73	8	.6	204	7.3
25-31	60	--	.9	230	120	38	1.4	417	7.4
NOV.									
01-04	65	.2	1.0	263	130	37	1.6	458	7.3
05-12	130	--	1.9	460	240	78	2.1	825	7.7
13-30	230	--	1.6	779	400	130	2.8	1360	7.9
DEC.									
01-31	260	.4	1.0	878	450	150	3.1	1510	8.0
JAN.									
01-31	240	.4	2.7	817	380	140	3.4	1400	7.8
FEB.									
01-28	250	.5	3.2	866	420	140	3.5	1470	7.8
MAR.									
01-02	340	.5	3.1	1380	560	290	5.0	2150	8.2
03-13	230	--	3.5	836	390	130	3.3	1380	8.0
14-15	51	--	2.9	282	150	54	1.4	464	7.6
16-18	110	--	4.5	496	240	85	2.4	810	7.6
19-31	230	--	3.5	836	390	130	3.3	1380	8.0
APR.									
01-30	260	.5	3.2	901	410	120	3.5	1490	8.2
MAY									
01-31	260	.6	2.1	891	390	100	3.7	1490	8.1
JUNE									
01-30	300	.6	1.6	976	370	65	4.9	1620	7.9
JULY									
01-31	280	.6	1.0	928	330	8	5.1	1570	8.1
AUG.									
01-03	100	.3	.8	410	190	50	2.4	733	7.6
04-08	33	--	.9	202	120	25	.9	351	7.6
09-14	100	.3	.8	410	190	50	2.4	733	7.6
15-31	220	--	1.3	743	330	86	3.4	1290	7.9
SEP.									
01-09	230	.4	1.7	717	310	88	3.6	1250	8.1
10-12	64	--	1.1	228	100	29	1.7	412	7.2
13-30	230	.4	1.7	717	310	88	3.6	1250	8.1
WTD. AVG.	88	.4	1.2	349	176	47	1.6	599	7.6
TIME WTD.									
AVG.	234	.4	2.2	792	356	102	3.4	1350	7.9
TOT. LOAD (TONS)	2090	2.3	30	8270	--	--	--	--	--

GUADALUPE RIVER BASIN

08173000 PLUM CREEK NEAR LULING, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1380	428	1510	1220	1440	2140	1480	1540	1510	1000	673	1350
2	1390	449	1500	1260	1480	2160	1500	1560	1500	1150	750	1400
3	1260	475	1510	1260	1480	1290	1510	1590	1510	1180	748	1400
4	1230	474	1540	1230	1470	1290	1510	1750	1510	1170	383	1390
5	1130	444	1540	1240	1480	1430	1510	1750	1430	1180	381	1380
6	939	940	1520	1280	1490	1430	1510	1580	1420	1380	257	1460
7	1910	733	1490	1290	1500	1480	1500	1590	1490	1420	362	1480
8	1580	626	1510	1330	1500	1480	1510	1530	1500	1450	375	1510
9	1430	741	1540	1340	1490	1470	1500	1550	1560	1500	570	1520
10	1410	---	1500	1420	1410	---	1480	1450	1610	1550	575	415
11	1450	---	1520	1310	1380	1490	1480	1420	1640	1570	745	412
12	1470	971	1560	1250	1470	1500	1500	1390	1640	1580	748	410
13	1390	975	1540	1460	1420	1460	1490	1370	1550	1580	892	907
14	1310	1060	1550	1450	1470	450	1500	1380	1760	1580	892	914
15	1310	1130	1550	1450	1570	481	1520	1390	1780	1590	1050	979
16	1330	1170	1560	1440	1470	682	1510	1410	1780	1640	1040	975
17	1330	1250	1380	1450	1470	791	1570	1450	1780	1650	1180	1020
18	1330	1260	1650	1450	---	966	1560	1440	1960	1700	1180	1020
19	---	1300	1630	1470	1480	1480	1490	1450	1950	1770	1300	1100
20	1300	1430	1510	1470	1510	1110	1420	1450	2060	1790	1320	1100
21	1190	1430	1510	1490	1540	1140	1480	1440	2060	1820	1340	1310
22	1140	1490	1510	1490	1470	1210	1420	1490	1850	1850	1360	1290
23	238	1450	1470	1490	1540	1260	1470	1490	1630	1880	1400	1520
24	164	1500	1470	1490	---	1290	1440	1510	1640	1880	1400	1530
25	389	1540	1490	1470	1490	1340	1450	1480	1630	1930	1430	979
26	427	1520	1470	1460	1480	1360	1400	1470	1550	1910	1420	979
27	430	1500	1450	1450	1380	1380	1470	1460	1550	1930	1330	1210
28	415	1480	1490	1460	1370	1420	1490	1410	1930	1930	1330	1210
29	416	1500	1500	1450	---	1440	1500	1420	1410	479	1290	1340
30	---	1520	1450	1490	---	1460	1510	1440	1010	517	1270	1350
31	---	---	1460	1470	---	1470	---	1430	---	521	1370	---
MONTH	1100	1120	1510	1400	1470	1310	1490	1490	1620	1490	979	1160

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	20.5	18.5	11.5	10.0	---	---	20.0	25.0	25.0	28.0	26.0
2	19.5	21.5	21.0	13.5	10.5	---	15.0	22.5	26.5	25.0	25.0	28.0
3	21.0	15.0	22.0	17.0	19.0	---	15.0	21.0	25.0	26.0	28.0	28.0
4	21.0	14.5	21.5	11.5	18.5	---	15.0	26.0	25.0	24.0	---	26.0
5	24.0	17.0	22.0	9.0	19.5	---	15.0	25.0	24.5	25.0	26.0	28.0
6	23.0	18.5	16.0	7.0	19.5	---	16.0	23.0	24.0	25.0	24.0	30.0
7	23.5	21.0	14.5	6.0	9.5	---	16.0	25.0	26.5	30.0	27.0	29.0
8	24.0	17.0	15.0	6.0	9.0	---	14.0	25.0	26.0	25.0	26.0	29.0
9	17.0	16.0	20.0	7.0	10.0	---	16.0	25.0	25.5	30.0	26.0	28.0
10	16.5	---	---	15.5	18.5	---	16.5	26.5	26.5	30.0	25.0	28.0
11	19.5	---	19.0	---	20.0	17.5	19.0	22.0	25.5	25.0	29.0	25.0
12	18.5	15.5	13.5	15.0	18.0	20.5	22.5	20.0	26.0	30.0	28.5	29.0
13	19.5	16.5	11.5	15.0	17.0	20.5	18.5	25.0	26.0	30.0	26.0	28.0
14	17.0	12.0	11.5	14.5	18.5	25.0	19.0	20.0	26.0	30.0	27.0	27.0
15	19.5	13.0	11.5	16.0	18.5	15.0	19.5	22.0	26.5	30.0	26.0	25.0
16	19.5	10.0	12.0	15.5	17.0	15.0	20.5	22.0	25.0	30.0	25.0	28.0
17	20.5	18.5	10.0	24.0	18.0	15.0	18.5	21.0	26.0	30.0	28.0	---
18	19.5	16.5	16.5	11.5	---	15.0	19.0	21.0	26.0	26.0	27.0	28.0
19	---	13.0	16.0	16.5	18.0	15.0	21.0	22.0	26.0	30.0	26.5	22.0
20	18.5	17.0	13.5	15.5	17.0	12.0	21.5	22.0	25.0	30.0	26.0	24.0
21	22.0	18.5	15.0	16.5	18.0	12.0	22.0	22.0	25.0	30.0	25.0	20.0
22	22.0	15.5	19.5	24.0	18.0	12.0	22.0	25.0	25.0	28.0	26.0	21.0
23	23.5	13.0	20.0	18.5	18.5	12.0	20.5	24.0	26.0	30.0	25.0	25.0
24	18.5	8.5	13.0	20.5	---	14.0	21.0	24.0	25.5	26.5	25.0	25.0
25	18.5	14.0	13.0	20.5	18.5	15.0	20.0	25.0	24.5	28.0	28.0	26.0
26	18.0	18.5	11.5	15.5	20.0	15.0	25.0	25.0	26.5	27.0	28.0	27.0
27	18.0	19.5	15.5	18.5	21.0	20.0	25.0	25.0	25.5	30.0	26.0	26.0
28	18.5	17.0	13.0	22.0	17.0	---	22.5	24.0	24.5	28.0	25.0	27.0
29	20.0	21.0	13.5	22.0	---	---	25.5	24.0	25.5	26.0	28.0	26.0
30	---	18.5	12.0	21.5	---	---	24.0	25.0	25.5	27.0	28.5	25.0
31	---	---	11.5	16.5	---	---	---	25.0	---	26.0	25.0	---
MONTH	20.0	16.5	15.5	15.5	17.0	---	19.5	23.5	25.5	28.0	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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.									
08...	1515	61	16	18	3.6	15	48	0	33
28...	1041	34	18	38	8.4	26	62	0	83
NOV.									
12...	1145	6.8	21	99	26	81	132	0	260
DEC.									
10...	1345	4.1	23	110	28	110	184	0	280
JAN.									
18...	1610	4.2	15	91	25	110	186	6	220
FEB.									
24...	1610	3.2	13	81	21	120	222	0	220
APR.									
01...	1150	1.4	21	94	21	80	174	0	200
28...	1330	1.1	16	82	20	99	194	0	190
JULY									
06...	1530	1.0	11	26	8.1	32	117	0	40
AUG.									
11...	1445	5.0	14	22	3.4	22	72	0	36
SEP.									
15...	1900	30	19	20	2.9	16	72	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 CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
08...	11	.2	.80	124	60	20	.8	194	7.5
28...	33	.2	.20	238	130	79	1.0	378	6.7
NOV.									
12...	110	.2	.00	659	350	250	1.9	1010	7.4
DEC.									
10...	130	.2	.20	765	380	230	2.4	1180	7.9
JAN.									
18...	120	.2	.00	679	330	180	2.6	1130	8.3
FEB.									
24...	100	.3	.00	668	290	110	3.1	1080	7.5
APR.									
01...	100	.2	.00	604	320	180	1.9	1020	8.0
28...	100	.2	.20	606	290	130	2.5	1020	8.1
JULY									
06...	19	.2	.60	197	98	2	1.4	346	7.3
AUG.									
11...	13	.0	.70	148	69	10	1.2	251	6.9
SEP.									
15...	7.8	.1	.80	127	62	3	.9	193	7.2

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 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.										
30...	1440	3.7	17	46	8.4	200	360	0	54	170
DEC.										
04...	1445	4.0	17	50	9.0	170	364	0	55	120
JAN.										
07...	1345	5.0	17	46	8.4	230	440	0	53	160
FEB.										
08...	1535	4.9	12	48	8.5	240	416	16	70	160
MAR.										
18...	1525	4.2	14	52	10	230	406	0	88	170
APR.										
19...	1420	3.3	21	54	10	280	481	0	60	230
MAY										
27...	1135	.76	11	42	13	210	381	10	48	170
JUNE										
30...	1231	546	17	9.5	2.0	31	49	0	14	28
JULY										
02...	1535	31	16	19	2.6	66	88	0	33	64
AUG.										
04...	1745	251	12	23	3.5	77	116	0	37	70
05...	0950	425	8.0	7.5	1.3	35	43	0	13	34
09...	1010	76	22	16	4.4	37	65	0	30	35
SEP.										
07...	1055	4.0	18	34	6.6	120	224	0	44	99
20...	1140	1220	11	7.0	1.1	14	33	0	6.4	11

DATE	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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
30...	.4	.1	673	150	0	7.1	1150	7.7
DEC.								
04...	.3	.2	594	160	0	--	1010	7.8
JAN.								
07...	.5	.8	735	150	0	8.2	1250	8.0
FEB.								
08...	.5	.7	763	160	0	8.4	1290	8.3
MAR.								
18...	.6	.9	756	170	0	7.7	1270	8.1
APR.								
19...	.7	.7	891	180	0	9.2	1580	7.8
MAY								
27...	.5	.2	691	160	0	7.3	1280	8.5
JUNE								
30...	.2	1.2	131	32	0	2.4	225	6.8
JULY								
02...	.2	1.4	250	58	0	3.8	436	6.9
AUG.								
04...	.2	1.8	288	72	0	4.0	514	7.4
05...	.1	.8	123	24	0	3.1	228	6.9
09...	.1	1.2	182	58	5	2.1	306	6.6
SEP.								
07...	.3	.8	435	110	0	4.9	733	7.9
20...	.2	.6	70	22	0	1.3	110	6.8

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.									
30...	1024	968	15	57	9.9	24	186	0	32
DEC.									
03...	1712	627	10	61	17	23	214	0	31
JAN.									
07...	0922	636	12	79	17	30	292	0	32
FEB.									
08...	1045	599	8.6	60	16	39	234	0	33
MAR.									
18...	1251	623	10	68	16	36	254	0	36
22...	1645	477	10	78	17	59	280	0	47
APR.									
06...	0840	384	12	52	16	33	198	0	33
19...	1055	420	14	66	18	32	249	0	32
MAY									
06...	1745	326	16	62	17	36	232	0	33
26...	1345	337	17	52	16	35	204	0	27
JUNE									
11...	1335	236	20	62	15	39	232	0	32
30...	1615	2190	6.2	44	8.3	25	152	0	20
JULY									
29...	1630	168	13	54	16	38	212	0	32
AUG.									
06...	--	4030	8.0	43	13	23	166	0	24
SEP.									
07...	1520	1160	11	53	18	17	228	0	21

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
30...	32	.3	.80	265	180	30	.8	455	7.6
DEC.									
03...	43	.2	.90	294	220	46	.7	547	7.8
JAN.									
07...	39	.2	1.3	359	270	28	.8	631	8.0
FEB.									
08...	49	.3	.90	325	220	24	1.2	561	8.0
MAR.									
18...	42	.3	2.2	343	240	28	1.0	637	7.4
22...	75	.3	1.8	432	260	35	1.6	733	7.7
APR.									
06...	49	.2	.20	293	190	32	1.0	557	7.7
19...	48	.2	.80	336	240	33	.9	623	7.5
MAY									
06...	54	.2	.60	335	220	34	1.0	612	8.0
26...	54	.2	.20	302	200	29	1.1	553	7.8
JUNE									
11...	54	.2	.00	336	220	26	1.2	638	7.8
30...	36	.2	.40	216	140	19	.9	401	7.1
JULY									
29...	54	.2	.00	312	200	28	1.2	578	7.7
AUG.									
06...	34	.2	.40	229	160	24	.8	435	7.2
SEP.									
07...	23	.2	.20	256	210	21	.5	442	8.1

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 1971.
Water temperatures: November 1950 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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.										
01-26	973	12	60	15	26	--	2.5	219	0	32
27-31	1460	10	37	6.0	--	16	--	123	0	20
NOV.										
01-30	731	6.0	61	15	--	29	--	220	0	32
DEC.										
01-31	695	11	62	18	--	32	--	234	0	32
JAN.										
01-31	671	13	61	17	32	--	2.6	233	0	26
FEB.										
01-28	613	9.1	56	18	--	35	--	220	0	32
MAR.										
01-31	583	11	50	17	--	42	--	192	0	36
APR.										
01-30	430	12	59	17	37	--	6.1	232	0	34
MAY										
01-31	367	15	66	17	--	41	--	252	0	33
JUNE										
01-29	304	15	58	16	--	43	--	228	0	33
30...	2520	10	42	5.8	--	22	--	152	0	20
JULY										
01-31	323	14	54	12	34	--	3.8	196	0	26
AUG.										
01-31	1570	13	52	12	--	24	--	188	0	25
SEP.										
01-10	1220	12	54	16	--	15	--	212	0	21
11-22	5010	12	37	5.6	--	11	--	128	0	12
23-30	1880	12	49	11	--	18	--	182	0	18
WTD. AVG.	--	12	52	13	--	--	--	194	0	25
TIME WTD.										
AVG.	860	12	57	15	--	--	--	214	0	30
TOT. LOAD (TONS)	--	9920	44300	11000	--	--	--	164000	0	21500

GUADALUPE RIVER BASIN

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08176500 GUADALUPE RIVER AT VICTORIA, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 356 mg/l May 1-31; minimum, 158 mg/l Sept. 11-22.
 Hardness: Maximum, 230 mg/l Dec. 1-31, May 1-31; minimum, 120 mg/l Oct. 27-31, Sept. 11-22.
 Specific conductance: Maximum daily, 760 micromhos Apr. 10; minimum daily, 216 micromhos Sept. 20.
 Water temperatures: Maximum, 30.0°C on several days during June and July; minimum, 9.0°C Jan. 8.

EXTREMES, October 1945 to September 1946, October 1948 to September 1971.--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 (1950-71): 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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-26	39	.2	1.6	302	210	32	.8	506	7.9
27-31	19	--	.80	172	120	16	.6	297	7.6
NOV.									
01-30	41	.2	1.3	298	210	33	.9	525	7.9
DEC.									
01-31	47	.2	1.4	323	230	36	.9	557	7.8
JAN.									
01-31	46	.2	2.0	322	220	31	.9	566	7.9
FEB.									
01-28	50	.2	1.2	314	210	33	1.0	544	7.7
MAR.									
01-31	53	.2	4.2	322	200	38	1.3	528	8.1
APR.									
01-30	54	.2	2.0	342	220	27	1.1	585	7.9
MAY									
01-31	57	.3	.50	356	230	28	1.2	615	8.0
JUNE									
01-29	56	.3	.50	336	210	24	1.3	575	7.6
30...	20	--	1.1	200	130	4	.8	319	7.4
JULY									
01-31	47	.3	1.3	293	180	24	1.1	500	7.6
AUG.									
01-31	33	.2	.90	255	180	25	.8	447	7.9
SEP.									
01-10	25	.2	.70	250	200	27	.5	433	7.8
11-22	14	--	.70	158	120	10	.4	275	7.4
23-30	25	--	.70	225	170	18	.6	393	7.7
WTD. AVG.	36	.2	1.3	266	185	25	.8	459	7.8
TIME WTD.									
AVG.	45	.2	1.5	304	204	29	.0	522	7.8
TOT. LOAD (TONS)	30500	132	1080	225000	--	--	--	--	--

08176500 GUADALUPE RIVER AT VICTORIA, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	483	432	553	516	500	472	537	549	589	488	549	391
2	485	481	456	540	488	468	550	523	609	353	579	452
3	516	518	514	566	506	616	534	563	581	383	579	393
4	495	493	473	585	581	513	572	579	604	407	594	404
5	510	521	583	592	578	466	536	640	594	435	470	432
6	534	522	600	646	504	584	536	655	608	430	524	447
7	577	510	606	642	---	473	538	651	573	417	447	453
8	554	542	562	549	---	513	543	638	572	425	439	440
9	506	548	---	533	531	498	569	645	588	430	417	461
10	438	548	545	603	482	503	760	645	583	436	459	454
11	394	533	570	543	507	509	577	645	592	452	430	272
12	406	489	610	570	539	570	562	638	574	467	439	235
13	345	509	515	511	534	---	574	649	597	515	451	282
14	421	522	523	549	578	533	583	596	597	531	441	361
15	497	591	548	502	554	544	554	632	600	493	387	323
16	551	562	497	534	535	509	590	634	595	481	381	272
17	557	524	619	552	515	509	567	645	615	498	361	273
18	546	551	577	580	572	496	563	603	619	520	368	299
19	496	499	543	545	615	505	575	599	612	521	382	---
20	465	503	535	552	546	506	552	607	623	539	353	216
21	---	543	544	548	518	547	598	608	598	544	360	219
22	557	497	632	525	539	566	590	616	621	537	438	272
23	568	588	525	593	590	567	623	---	611	551	465	358
24	570	602	539	528	556	551	620	---	581	574	461	387
25	547	525	---	539	599	546	624	582	489	---	453	417
26	582	521	573	627	567	588	623	618	429	574	440	418
27	374	529	543	620	537	536	621	609	419	578	428	466
28	253	531	623	622	581	---	622	623	413	582	423	374
29	269	519	585	535	---	566	625	609	628	594	427	363
30	274	477	---	535	---	547	631	596	319	598	428	361
31	322	---	599	630	---	533	---	613	---	602	443	---
MONTH	470	524	557	565	544	529	585	614	568	499	446	362

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	20.0	19.0	15.0	17.0	18.0	21.0	22.0	27.0	28.0	29.0	27.0
2	23.0	18.0	20.0	16.0	15.0	19.0	19.0	24.0	28.0	28.0	28.0	27.0
3	24.0	16.0	20.0	18.0	15.0	13.0	20.0	24.0	28.0	29.0	27.0	27.0
4	24.0	16.0	20.0	16.0	17.0	13.0	19.0	24.0	27.0	29.0	27.0	27.0
5	25.0	15.0	20.0	12.0	15.0	15.0	18.0	25.0	28.0	29.0	26.0	28.0
6	25.0	16.0	19.0	11.0	16.0	17.0	17.0	25.0	27.0	29.0	26.0	28.0
7	26.0	16.0	18.0	10.0	---	15.0	16.0	25.0	28.0	29.0	25.0	28.0
8	25.0	18.0	18.0	9.0	---	14.0	18.0	26.0	28.0	30.0	26.0	28.0
9	22.0	18.0	---	10.0	12.0	16.0	19.0	26.0	28.0	30.0	27.0	28.0
10	20.0	17.0	19.0	12.0	10.0	16.0	19.0	26.0	29.0	30.0	27.0	27.0
11	22.0	17.0	19.0	13.0	13.0	17.0	20.0	25.0	29.0	28.0	28.0	25.0
12	22.0	16.0	15.0	15.0	14.0	19.0	20.0	24.0	29.0	29.0	28.0	25.0
13	21.0	19.0	15.0	17.0	13.0	---	21.0	23.0	29.0	29.0	29.0	25.0
14	22.0	16.0	15.0	17.0	14.0	21.0	22.0	22.0	29.0	30.0	29.0	25.0
15	21.0	15.0	16.0	17.0	15.0	20.0	22.0	23.0	30.0	30.0	29.0	26.0
16	20.0	14.0	14.0	14.0	16.0	20.0	23.0	24.0	29.0	30.0	29.0	26.0
17	20.0	14.0	15.0	15.0	18.0	19.0	21.0	24.0	29.0	30.0	28.0	26.0
18	20.0	15.0	16.0	16.0	18.0	20.0	23.0	25.0	29.0	30.0	29.0	26.0
19	20.0	16.0	18.0	14.0	19.0	19.0	23.0	26.0	28.0	28.0	28.0	---
20	20.0	15.0	17.0	13.0	20.0	17.0	22.0	26.0	28.0	29.0	28.0	21.0
21	---	16.0	18.0	14.0	20.0	18.0	22.0	26.0	27.0	30.0	28.0	21.0
22	22.0	17.0	20.0	16.0	16.0	19.0	24.0	26.0	28.0	30.0	28.0	22.0
23	22.0	14.0	20.0	18.0	15.0	19.0	24.0	---	28.0	29.0	28.0	24.0
24	21.0	13.0	16.0	18.0	17.0	21.0	24.0	---	29.0	29.0	29.0	25.0
25	23.0	13.0	---	18.0	18.0	20.0	24.0	25.0	30.0	---	28.0	25.0
26	24.0	15.0	15.0	18.0	18.0	20.0	24.0	26.0	29.0	30.0	27.0	25.0
27	23.0	16.0	15.0	17.0	17.0	21.0	24.0	26.0	29.0	29.0	26.0	26.0
28	19.0	17.0	17.0	17.0	18.0	---	25.0	27.0	28.0	29.0	26.0	25.0
29	17.0	18.0	18.0	18.0	---	22.0	25.0	27.0	29.0	30.0	26.0	25.0
30	17.0	18.0	---	19.0	---	21.0	25.0	27.0	27.0	30.0	25.0	25.0
31	18.0	---	15.0	19.0	---	20.0	---	27.0	---	29.0	26.0	---
MONTH	21.5	16.0	17.5	15.0	16.0	18.0	21.5	25.0	28.5	29.5	27.5	25.5

08176520 GUADALUPE RIVER BELOW VICTORIA, TEX.

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 1971.
Pesticide analyses: January 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 07...	1245	855	13	72	17	35	266	0	34	49	.2	.17
DEC. 02...	1700	684	9.5	80	17	33	288	0	34	47	.2	.12
FEB. 03...	1010	630	11	79	18	31	282	0	34	48	.3	.24
APR. 06...	1930	412	12	74	17	48	280	0	37	62	.3	.04
JUNE 02...	1740	323	16	68	16	54	260	0	41	67	.3	.25
AUG. 18...	0900	654	13	45	8.4	25	154	0	26	32	.2	.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 CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RAHLE RESIDUE (MG/L)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 07...	.000	.00	1.0	.22	356	41	35	250	32	--	621	7.7
DEC. 02...	.010	.00	.9	.15	367	44	10	270	34	.9	632	7.8
FEB. 03...	.000	.00	1.3	.21	366	33	7	270	40	--	643	8.0
APR. 06...	.000	--	.8	.24	392	50	12	260	25	--	682	7.9
JUNE 02...	.010	.00	.4	.29	392	24	16	240	22	1.5	685	8.0
AUG. 18...	.020	.00	.9	.24	230	117	13	150	21	.9	399	7.6

DATE	TEMP- ERATURE (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. 07...	27.0	6	15	5.7	70	3	.7	0	.04	100	0	0
DEC. 02...	21.0	6	8	8.9	99	27	.7	3	.00	--	--	--
FEB. 03...	15.5	2	20	9.4	93	6	1.3	0	.00	40	0	0
APR. 06...	21.5	2	25	8.6	97	8	2.3	0	.04	0	0	0
JUNE 02...	30.0	0	15	7.8	103	6	1.8	0	.03	--	--	--
AUG. 18...	29.0	20	55	6.5	83	15	2.1	0	.00	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. 07...	--	0	0	2	7	0	20	2	<.5	4	460	0
DEC. 02...	--	--	--	--	--	--	--	--	--	--	--	--
FEB. 03...	--	--	0	4	23	0	10	4	<.5	0	560	4
APR. 06...	0	--	0	3	10	0	20	13	<.5	0	620	0
JUNE 02...	--	--	--	--	--	--	--	--	--	--	--	--
AUG. 18...	0	--	0	3	10	0	10	2	<.5	1	360	0

GUADALUPE RIVER BASIN

08176520 GUADALUPE RIVER BELOW VICTORIA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 07...	1245	855	.00	<.2	.00	3.6	.00	4.4	.01	8.9
FEB. 03...	1010	630	.00	<.2	.00	.8	.00	1.0	.00	<.2
APR. 06...	1930	412	.00	<.2	.00	1.5	.00	1.1	.00	<.2
AUG. 18...	0900	654	.00	<.2	.00	1.0	.00	.7	.00	.3

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. 07...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 03...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 06...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 18...	.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)	DI- AZINON IN BOTTOM DE- POSITS (UG/KG)	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 BOTTOM DE- POSITS (UG/KG)
OCT. 07...	.0	<1.0	.00	<.20	.00	<.2	.00	<.2	.00	<.2
FEB. 03...	.0	<1.0	.00	--	.00	<.2	.00	<.2	.00	<.2
APR. 06...	.0	8.3	.00	--	.00	<.2	.00	<.2	.00	<.2
AUG. 18...	.0	<1.0	.00	--	.00	<.2	.00	<.2	.00	<.2

DATE	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)	PCB IN BOTTOM DE- POSITS (UG/KG)
OCT. 07...	.0	<10	.00	<2.6	.00	<.4	.00	<.3	--
FEB. 03...	.0	<10	.00	<.7	.00	<.1	.00	<.1	--
APR. 06...	.0	<10	.00	<.6	.00	<.2	.00	<.2	14
AUG. 18...	.0	<10	.00	<.6	.02	<.2	.00	<.2	15

GUADALUPE RIVER BASIN

685

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 1971.

Pesticide analyses: October 1969 to September 1971.

Sediment analyses: October 1970 to September 1971

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	RICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
FEV. 26...	0930	1.2	10	52	2.1	10	--	6.7	128	0
APR. 16...	1100	4.4	11	68	5.2	--	25	--	180	0
16...	1430	18	6.6	45	1.3	--	4.0	--	132	0
16...	1600	35	6.0	43	1.2	--	1.6	--	116	0
JUNE 21...	1615	29	--	--	--	--	--	--	--	--
29...	1315	37	8.4	39	1.2	--	3.8	--	116	0
AUG. 02...	0930	28	7.3	45	1.1	--	3.5	--	127	0
03...	1030	269	7.3	33	1.0	--	2.4	--	98	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 (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)
FEV. 26...	30	14	.3	.10	.52	1.4	.80	100	195	140
APR. 16...	47	33	.3	.030	.77	.9	.63	370	284	190
16...	7.6	5.0	.2	.040	.00	.7	2.3	120	138	120
16...	11	5.0	.1	.030	.00	.5	.98	80	127	110
JUNE 21...	--	--	--	.010	.00	.2	.55	--	--	--
29...	5.6	4.0	.0	.000	.00	1.1	1.2	44	124	100
AUG. 02...	12	3.8	.1	.060	.14	.7	.69	50	138	120
03...	6.4	3.4	.0	--	--	--	--	40	102	86

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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)
FEV. 26...	34	.4	329	7.1	16.5	7.0	71	9.6	.00
APR. 16...	44	--	496	6.9	20.5	7.7	85	17	.24
16...	10	--	245	7.2	17.5	--	--	22	.04
16...	17	--	238	7.2	17.5	8.1	84	14	.01
JUNE 21...	--	--	137	--	--	--	--	8.5	.00
29...	7	.2	208	7.5	25.0	--	--	6.4	.00
AUG. 02...	13	.1	242	7.6	23.0	--	--	5.0	.06
03...	6	.1	180	7.6	22.0	--	--	3.6	--

GUADALUPE RIVER BASIN

08177700 OLMOS CREEK AT DRESDEN DRIVE, SAN ANTONIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
FEB. 26...	0930	1.2	.00	.00	.01	.03	.01	.00	.00	.00
APR. 16...	1100	4.4	.00	.00	.00	.26	.00	.00	.00	.00
16...	1430	18	.00	.13	.08	.86	.10	.00	.00	.00
16...	1600	35	.00	.00	.02	.17	.04	.00	.00	.00
JUNE 21...	1615	29	.00	.02	.00	.03	.02	.00	.00	.00
29...	1315	37	.00	.00	.00	.02	.02	.00	.00	.00
AUG. 02...	0930	28	.00	.00	.00	.01	.01	.00	.00	.00
03...	1030	269	.00	.00	.00	.02	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
FEB. 26...	.02	.0	.00	.00	.00	.00	.0	.00	.10	.00
APR. 16...	.00	1.9	1.2	.14	.14	.00	.0	.00	1.3	.00
16...	.00	1.7	.72	.00	.07	.00	.0	.00	.54	.00
16...	.03	.3	.24	.00	.06	.00	.0	.00	.12	.00
JUNE 21...	.00	.0	.04	.00	.00	.00	.0	.00	.05	.00
29...	.00	.0	.04	.00	.00	.00	.0	.00	.11	.00
AUG. 02...	.00	.0	.02	.00	.00	.00	.0	.00	.19	.02
03...	.00	.2	.03	.00	.00	.00	.0	.00	.16	.01

MONTHLY AND ANNUAL SUMMARY OF WATER AND SUSPENDED-SEDIMENT DISCHARGE

WATER YEAR, OCTOBER 1970 TO SEPTEMBER 1971

DATE	DISCHARGE (CFS-DAYS)	SUSPENDED SEDIMENT CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS)
OCT., 1970	10.62	355	10.1
NOV.....	1.96	176	.9
DEC.....	2.25	110	.7
JAN., 1971	.83	76	.2
FEB.....	4.84	663	8.7
MAR.....	1.37	122	.5
APR.....	13.75	782	29.0
MAY.....	15.41	737	30.7
JUNE.....	38.22	763	78.7
JULY.....	4.87	690	9.1
AUG.....	210.50	658	373.9
SEP.....	71.74	773	149.8
TOTAL.....	376.36	681	692.3

GUADALUPE RIVER BASIN

687

08177800 OLMOS RESERVOIR AT SAN ANTONIO, TEX.

LOCATION.--Lat 29°28'30", long 98°28'23", Bexar County, at dam on Olmos Drive in San Antonio, and 1.5 miles upstream from Brackenridge Park Zoo.

DRAINAGE AREA.-- 32.0 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1971.

Pesticide analyses: October 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SiO2) (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 (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
FEB. 26...	1530	6.3	63	5.2	25	7.6	131	0

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	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)
FEB. 26...	67	35	.3	.050	.25	1.1	.46	160	279

DATE	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
FEB. 26...	180	71	.8	478	6.9	18.5	7.5	.05

DATE	ALDRIN (UG/L)	DOD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)
MAR. 15...	.00	.06	.00	.09	.05	.00	.00

DATE	HEPTACHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	CHLORDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MAR. 15...	.00	.02	.1	.00	.13	.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 1971.
Pesticide analyses: October 1968 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
FEB. 26...	1045	3.5	10	58	12	16	--	4.7	190	0
APR. 16...	1645	383	6.2	45	5.6	--	7.8	--	134	0
MAY 11...	1000	226	13	72	17	--	14	--	256	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 (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)
FEB. 26...	34	22	.2	.030	.13	1.7	.34	140	258	190
APR. 16...	19	13	.2	.050	.00	1.0	.45	130	168	140
MAY 11...	31	24	.2	.040	.17	1.2	.15	110	303	250

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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)
FEB. 26...	38	.5	453	7.2	19.5	5.8	62	7.0	.16
APR. 16...	26	.3	309	7.1	18.0	--	--	13	.04
MAY 11...	40	--	531	7.4	24.5	--	--	2.2	.06

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)
FEB. 26...	1045	3.5	.00	.05	.02	.23	.02	.00	.00	.00
APR. 16...	1645	383	.00	.06	.06	.32	.04	.00	.00	.00
MAY 11...	1000	226	--	--	--	--	--	--	--	--

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)
FEB. 26...	.06	.2	.00	.39	.00	.00	--	.50	.26	.00
APR. 16...	.00	.7	.22	.04	.08	.00	.0	.00	.05	.09
MAY 11...	--	--	.08	.00	.00	.00	--	.00	.08	.00

GUADALUPE RIVER BASIN

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08178000 SAN ANTONIO RIVER AT SAN ANTONIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
MAY, 1970				
27...	1400	120	336	109
SEPT.				
25...	1210	240	363	235
FEB., 1971				
26...	1045	4.0	65	0.70
APR.				
16...	1610	391	366	386
MAY				
11...	1000	174	102	48

GUADALUPE RIVER BASIN

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 1971.

Pesticide analyses: October 1968 to September 1971.

Sediment analyses: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
APR. 16...	1525	94	10	49	2.4	6.5	154	0
JUNE 21...	1735	262	--	--	--	--	--	--
AUG. 02...	1135	25	3.8	32	1.1	4.8	96	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 BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)
APR. 16...	8.0	5.6	.2	.11	.00	.8	3.8	150	162
JUNE 21...	--	--	--	.020	.00	.4	.40	--	--
AUG. 02...	9.6	3.8	.1	.020	.07	.2	.23	50	103

DATE	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
APR. 16...	130	6	--	277	7.3	20.5	19	.01
JUNE 21...	--	--	--	164	--	--	8.7	.00
AUG. 02...	84	6	.2	186	7.4	--	3.4	.06

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)
APR. 16...	1525	94	.00	1.0	1.1	6.6	.14	.00	.00	.00
JUNE 21...	1735	262	.00	.05	.03	.20	.05	.00	.00	.00
AUG. 02...	1135	25	.00	.00	.00	.08	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
APR. 16...	.00	1.1	.13	.03	.06	.00	.0	.00	.44	.00
JUNE 21...	.00	.2	.07	.00	.00	.00	.0	.00	.90	.00
AUG. 02...	.00	.1	.03	.00	.00	.00	.0	.10	.31	.00

GUADALUPE RIVER BASIN

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08178300 ALAZAN CREEK AT ST. CLOUD STREET, SAN ANTONIO, TEX.--Continued

WATER QUALITY DATA

DATE	TIME	DIS- CHARGE (CFS)	SUS- PENDE D SEDI- MENT (MG/L)	SUS- PENDE D SEDI- MENT DIS- CHARGE (T/DAY)
SEPT., 1970				
25...	1615	100	2330	629
26...	1130	36	49	4.8
APR., 1971				
16...	1525	94	6430	1630
JUNE				
21...	1735	262	276	195
AUG.				
02...	1135	25	85	5.7

GUADALUPE RIVER BASIN

08178600 PANTHER SPRINGS CREEK AT FARM ROAD 2696, NEAR SAN ANTONIO, TEX.

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.

DRAINAGE AREA.--9.54 sq mi.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	TOTAL NITRITE (N) (MG/L)
AUG. 02...	0700	1.9	9.3	37	1.4	1.8	114	0	1.2	3.6	.0	.060

DATE	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)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LFNE BLUE ACTIVE SUB- STANCE (MG/L)
AUG. 02...	.14	.7	.65	40	114	98	5	.1	208	7.7	3.9	.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)
AUG. 02...	0700	1.8	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
AUG. 02...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00

GUADALUPE RIVER BASIN

693

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 1971.
Pesticide analyses: October 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED	DIS-SOLVED	DIS-SOLVED	DIS-SOLVED	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED
			SILICA (SI02) (MG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM PLUS POTAS-SIUM (MG/L)			SULFATE (SO4) (MG/L)
APR. 17...	1100	3.2	3.5	30	12	15	170	0	7.0
JUNE 21...	1600	1.6	--	--	--	--	--	--	--

DATE	DIS-SOLVED	DIS-SOLVED	TOTAL NITRITE (N) (MG/L)	AMMONIA	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED	HARD- NESS (CA,MG) (MG/L)
	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)		NITRO-GEN (N) (MG/L)				SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	
APR. 17...	4.7	.1	.050	.86	2.0	.98	70	167	120
JUNE 21...	--	--	.010	.07	.2	.27	--	--	--

DATE	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (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)
APR. 17...	0	194	6.8	20.5	8.2	90	16	.13
JUNE 21...	--	72	--	26.5	--	--	5.0	.07

DATE	TIME	DIS-CHARGE (CFS)	ALDRIN	DD	DDE	DDT	DI-ELDRIN	ENDRIN	HEPTA-CHLOR	HEPTA-CHLOR EPOXIDE
			(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
APR. 17...	1100	3.2	.00	.00	.00	.29	.05	.00	.00	.00
JUNE 21...	1600	1.6	.00	.02	.00	.05	.02	.00	.00	.00

DATE	LINDANE	CHLOR-DANE	DI-AZINON	MALA-THION	METHYL PARA-THION	PARA-THION	2,4-D	2,4,5-T	SILVEX
	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
APR. 17...	.01	.6	.06	.11	.05	.00	.00	.38	.00
JUNE 21...	.02	.0	.03	.03	.00	.00	.00	.05	.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 1971.
Pesticide analyses: October 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
AUG. 03...	1015	149	15	67	6.6	26	96	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 BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)
AUG. 03...	140	14	.5	.060	.24	.9	1.1	60	323

DATE	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
AUG. 03...	190	120	.8	508	7.7	21.5	4.2	.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)
AUG. 03...	1015	149	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
AUG. 03...	.00	.0	.00	.00	.00	.00	.0	1.4	2.2	.21

GUADALUPE RIVER BASIN

695

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 1971.
Pesticide analyses: October 1968 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 (HCO ₃) (CO ₃) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
FEB. 26...	1200	30	13	84	17	37	270	0	48
AUG. 04...	1142	108	11	53	5.5	15	128	0	53
04...	1555	83	12	52	5.8	18	123	0	55

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)
FEB. 26...	59	.3	.000	.00	1.2	.14	180	397	280
AUG. 04...	18	.2	.040	.36	.8	.51	100	223	150
04...	22	.2	.050	.22	.9	.47	90	230	150

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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)
FEB. 26...	58	--	694	7.6	17.5	7.2	75	2.4	.00
AUG. 04...	50	.5	375	7.5	23.0	--	--	2.5	.04
04...	53	.6	378	7.6	22.0	--	--	3.4	.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)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
FEB. 26...	1200	30	.00	.01	.00	.01	.00	.00	.00	.00
AUG. 04...	1142	108	.00	.00	.01	.02	.01	.00	.00	.00
04...	1555	83	.00	.00	.00	.01	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
FEB. 26...	.03	.0	.00	.00	.00	.00	.0	.00	.00	.00
AUG. 04...	.00	.0	.04	.00	.00	.00	.0	.11	.63	.01
04...	.00	.0	.04	.00	.00	.00	.0	.12	.48	.01

GUADALUPE RIVER BASIN

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.									
09...	1200	31	8.8	16	16	62	202	0	52
DEC.									
01...	1300	19	8.3	66	16	7.3	206	0	54
FEB.									
01...	0955	18	8.6	64	18	4.6	190	0	62
APR.									
05...	1100	22	7.7	62	17	10	192	0	64
MAY									
13...	1400	20	8.1	62	18	6.9	188	0	65
JUNE									
01...	1052	26	8.7	60	17	9.0	184	0	62
22...	1330	27	8.8	57	18	9.8	180	0	61
JULY									
29...	1520	25	8.8	61	17	9.8	188	0	62
AUG.									
16...	1045	153	9.6	44	6.8	3.3	134	0	21
31...	0915	66	10	61	13	7.3	196	0	39
SEP.									
09...	0938	155	9.4	60	14	7.1	192	0	42
28...	1530	175	7.8	55	14	9.9	188	0	41

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.									
09...	15	.1	.26	.000	.06	.1	.010	269	110
DEC.									
01...	14	.2	.07	.000	.00	.3	.020	268	230
FEB.									
01...	16	.2	--	.000	.00	.1	.000	267	230
APR.									
05...	15	.2	--	.000	.00	.1	.020	270	220
MAY									
13...	15	.2	--	.000	.00	.2	.000	268	230
JUNE									
01...	16	.2	--	.000	.00	.2	.010	264	220
22...	18	.2	--	.000	.00	.2	.040	263	220
JULY									
29...	17	.2	--	.000	.00	.1	.000	268	220
AUG.									
16...	7.8	.2	--	.000	.04	.5	.010	161	140
31...	13	.2	--	.000	.00	.4	.000	241	210
SEP.									
09...	14	.2	--	.000	.00	.4	.040	242	210
28...	13	.2	--	.000	.00	.2	.010	234	200

GUADALUPE RIVER BASIN

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08180500 MEDINA RIVER NEAR RIOMEDINA, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.								
09...	0	2.6	459	7.2	19.5	6.1	66	.2
DEC.								
01...	62	.2	463	7.6	18.0	8.8	93	.1
FFB.								
01...	78	.1	463	7.3	12.0	9.0	84	.3
APR.								
05...	67	.3	462	7.8	17.0	9.4	97	.6
MAY								
13...	74	.2	460	7.8	20.0	9.1	99	.3
JUNE								
01...	69	.3	452	7.5	21.0	7.2	80	.4
22...	69	.3	446	7.7	23.0	8.1	93	.4
JULY								
29...	68	.3	461	8.0	25.0	8.7	104	.7
AUG.								
16...	28	.1	277	7.3	26.0	7.1	87	1.1
31...	45	.2	419	7.4	24.5	5.9	70	1.2
SEP.								
09...	50	.2	419	7.5	26.0	7.8	95	.9
28...	41	.3	402	7.6	26.5	8.0	98	.9

GUADALUPE RIVER BASIN

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 1971.
Pesticide analyses: October 1968 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
AUG.								
02...	0900	10	8.6	41	5.9	7.8	122	0
12...	1235	44	--	--	--	--	--	--
12...	1815	25	9.6	63	9.0	3.0	206	0
13...	1430	86	9.6	64	9.1	3.1	210	0
13...	1735	196	9.9	64	8.1	3.8	212	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 BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
AUG.									
02...	22	12	.1	.040	.09	1.0	.31	40	162
12...	--	--	--	.020	.00	1.1	.070	--	--
12...	13	10	.1	.020	.00	1.1	.050	60	214
13...	13	10	.1	.010	.00	1.1	.040	40	217
13...	10	8.2	.1	.010	.00	1.5	.14	40	215

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
AUG.								
02...	130	27	.3	278	7.7	--	4.3	.03
12...	--	--	--	--	--	21.0	2.6	.00
12...	190	25	.1	377	7.7	21.0	1.5	.00
13...	200	25	.1	387	7.3	23.0	1.7	.04
13...	190	19	.1	379	7.4	23.0	2.7	.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)
AUG.										
02...	0900	10	.00	.00	.00	.00	.00	.00	.00	.00
12...	1815	25	.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 PAPA- 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.										
02...	.00	.0	.00	.00	.00	.00	--	.00	.11	.00
12...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00

GUADALUPE RIVER BASIN

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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 1971.

Pesticide analyses: October 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED CAL- SIUM (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM PLUS POTAS- SIUM (HC03) (MG/L)	BICAR- BONATE (C03) (MG/L)	CAR- BONATE (MG/L)
JUNE 21...	1635	21	5.0	29	1.2	1.8	88	0
AUG. 02...	1218	12	3.6	22	.8	.6	69	0
03...	1235	7.2	4.7	20	.7	2.1	66	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 BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
JUNE 21...	.4	2.4	.0	.020	.00	.4	.42	60	88
AUG. 02...	.4	1.8	.0	.010	.14	.1	.17	20	64
03...	1.2	1.4	.0	--	--	--	--	20	62

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
JUNE 21...	77	5	--	165	7.7	24.5	6.2	.00
AUG. 02...	58	2	.0	127	7.1	--	3.4	.10
03...	53	0	.1	114	7.6	22.5	3.7	--

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)
JUNE 21...	1635	21	.00	.11	.07	.49	.00	.00	.00	.00
AUG. 02...	1218	12	.00	.03	.01	.09	.00	.00	.00	.00
03...	1235	7.2	.00	.07	.01	.25	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
JUNE 21...	.00	.0	.00	.00	.00	.00	.0	.00	.03	.00
AUG. 02...	.00	.0	.04	.00	.00	.00	.0	.00	.03	.00
03...	.00	.0	.03	.00	.00	.00	.0	.00	.00	.00

GUADALUPE RIVER BASIN

08181500 MEDINA RIVER AT SAN ANTONIO, TEX.

LOCATION.--Lat 29°15'15", 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 1971.
Pesticide analyses: October 1970 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 (C03) (MG/L)
APR. 05...	1330	52	15	100	23	--	67	--	292	0
MAY 13...	1200	58	16	100	23	63	--	5.0	292	0
JUNE 01...	1236	54	17	88	21	56	--	6.1	268	0
22...	1615	214	13	67	15	--	35	--	180	0
JULY 27...	1200	46	17	96	22	62	--	7.4	284	0
AUG. 16...	1254	836	13	68	11	--	18	--	204	0
30...	1900	183	15	100	21	--	50	--	288	0
SEPT. 09...	1440	241	13	79	17	--	26	--	240	0
28...	1740	263	12	76	16		29		240	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)
APR. 05...	110	81	.3	.09	.060	.00	5.8	2.2	566	95
MAY 13...	110	75	.3	.42	.18	1.6	3.4	.35	551	--
JUNE 01...	100	62	.3	.41	.23	1.1	3.8	4.1	502	--
22...	78	49	.3	.77	.010	.00	1.7	.50	354	444
JULY 27...	100	75	.4	.34	.82	1.8	4.3	3.4	549	65
AUG. 16...	41	27	.2	.60	.010	.00	1.6	.32	285	532
30...	94	67	.3	.32	.010	.00	4.4	.60	508	86
SEPT. 09...	66	36	.2	.28	.000	.13	1.9	.38	364	--
28...	63	36	.2	.32	.000	.26	1.8	.40	359	208

DATE	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
APR. 05...	22	340	100	1.6	929	7.8	18.0	4	50	7.9
MAY 13...	--	350	110	1.5	904	7.8	21.5	--	--	6.3
JUNE 01...	--	310	86	1.4	842	7.6	26.0	--	--	5.4
22...	84	230	81	1.0	615	7.9	27.0	10	160	6.9
JULY 27...	14	330	98	1.5	913	7.5	28.0	11	35	4.4
AUG. 16...	58	220	48	.5	487	7.4	25.5	25	180	7.4
30...	13	340	100	1.2	849	7.8	27.0	0	50	7.0
SEPT. 09...	--	270	70	.7	619	7.6	27.0	--	--	8.2
28...	140	260	59	.8	613	7.8	27.5	10	45	7.4

GUADALUPE RIVER BASIN

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08181500 MEDINA RIVER AT SAN ANTONIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 COPPER (CO) (UG/L)
APR. 05...	83	19	2.9	3	.06	20	0	2	0	0
MAY 13...	71	--	11	--	.00	--	--	--	--	--
JUNE 01...	66	--	7.0	0	.00	--	--	--	--	--
22...	85	20	3.1	6	.00	--	--	--	--	--
JULY 27...	56	17	14	3	.03	--	--	--	--	--
AUG. 16...	89	37	2.0	19	.00	20	0	0	0	0
30...	86	15	1.6	0	.06	--	--	--	--	--
SEPT. 09...	101	13	1.1	0	.00	--	--	--	--	--
28...	92	11	.8	0	.01	--	--	--	--	--

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 STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
APR. 05...	31	50	34	20	9	<.5	1	960	130
MAY 13...	--	--	--	--	--	--	--	--	--
JUNE 01...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
JULY 27...	--	--	--	--	--	--	--	--	--
AUG. 16...	4	20	0	10	2	.6	2	360	0
30...	--	--	--	--	--	--	--	--	--
SEPT. 09...	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--

DATE	TIME	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)
APR. 05...	1330	.00	.00	.00	3.0	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
APR. 05...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.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 1971.

Chemical and biochemical analyses: January 1968 to September 1971.

Pesticide analyses: January 1968 to September 1971.

Water temperatures: October 1966 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	226	9.5	82	19	66	--	5.9	268	0	74
NOV.										
01-30	156	10	86	20	--	76	--	284	0	78
DEC.										
01-31	160	17	88	20	--	74	--	282	0	80
JAN.										
01-31	199	17	88	19	75	--	8.1	284	0	84
FEB.										
01-28	189	15	86	20	--	83	--	282	0	87
MAR.										
01-31	143	17	82	20	--	82	--	272	0	86
APR.										
01-16	140	18	84	20	77	--	8.2	272	0	87
17-18	420	12	68	15	--	55	--	200	0	72
19-30	140	18	84	20	77	--	8.2	272	0	87
MAY										
01-31	144	19	82	18	--	80	--	270	0	79
JUNE										
01-21	170	15	78	17	--	73	--	250	0	76
22-24	595	13	57	11	--	41	--	178	0	54
25-29	201	15	78	17	--	73	--	250	0	76
30...	848	13	57	11	--	41	--	178	0	54
JULY										
01-03	221	16	68	13	50	--	7.2	208	0	59
04-31	95	17	81	18	--	77	--	268	0	72
AUG.										
01-02	224	15	80	17	--	66	--	268	0	73
03-06	3280	11	50	6.6	--	26	--	154	0	34
07-13	676	15	80	17	--	66	--	268	0	73
14-16	1670	11	50	6.6	--	26	--	154	0	34
17-31	474	15	80	17	--	66	--	268	0	73
SEP.										
01-10	351	14	80	16	--	52	--	248	0	69
11-12	1300	9.6	58	9.6	--	28	--	164	0	53
13-30	420	14	80	16	--	52	--	248	0	69
WTD. AVG.	--	14	75	16	--	--	--	241	0	68
TIME WTD.										
AVG.	265	15	82	18	--	--	--	266	0	77
TOT. LOAD (TONS)	--	3660	19600	4080	--	--	--	63000	0	17700

GUADALUPE RIVER BASIN

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08181800 SAN ANTONIO RIVER NEAR ELMENDORF, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 556 mg/l Apr. 1-16, 19-30; minimum, 245 mg/l Aug. 3-6, 14-16.

Hardness: Maximum, 300 mg/l Nov. 1-30, Dec. 1-31, Jan. 1-31, Feb. 1-28; minimum, 150 mg/l Aug. 3-6, 14-16.

Specific conductance: Maximum daily, 1,000 micromhos Aug. 8; minimum daily, 334 micromhos Aug. 3.

Water temperatures: Maximum, 30.5°C on several days during June and July; minimum, 11.0°C Nov. 15.

EXTREMES, October 1966 to September 1971.--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, 334 micromhos Aug. 3, 1971.

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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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 COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	80	.5	6.2	496	280	63	1.7	840	7.8
NOV.									
01-30	85	.4	7.6	529	300	64	1.9	887	7.8
DEC.									
01-31	86	.4	7.2	536	300	71	1.9	895	7.8
JAN.									
01-31	90	.5	7.5	555	300	65	1.9	909	7.8
FEB.									
01-28	89	.5	8.0	554	300	66	2.1	909	7.7
MAR.									
01-31	91	.5	6.4	540	290	64	2.1	903	7.9
APR.									
01-16	91	.5	8.2	556	290	69	2.0	910	7.7
17-18	66	--	5.5	410	230	67	1.6	688	7.7
19-30	91	.5	8.2	556	290	69	2.0	910	7.7
MAY									
01-31	85	.6	7.6	531	280	57	2.1	872	7.7
JUNE									
01-21	80	.5	7.0	494	260	60	2.0	829	7.5
22-24	46	--	2.7	322	190	41	1.3	544	7.4
25-29	80	.5	7.0	494	260	60	2.0	829	7.5
30...	46	--	2.7	322	190	41	1.3	544	7.4
JULY									
01-03	64	.4	5.2	403	220	52	1.5	679	7.9
04-31	84	--	8.4	514	280	56	1.9	859	8.0
AUG.									
01-02	72	.5	4.0	474	270	50	1.7	777	8.1
03-06	23	.3	4.0	245	150	26	.9	391	7.8
07-13	72	.5	4.0	474	270	50	1.7	777	8.1
14-16	23	.3	4.0	245	150	26	.9	391	7.8
17-31	72	.5	4.0	474	270	50	1.7	777	8.1
SEP.									
01-10	59	.4	5.5	436	270	62	1.4	723	8.0
11-12	34	--	2.4	284	180	50	.9	487	7.4
13-30	59	.4	5.5	436	270	62	1.4	723	8.0
WTD. AVG.	67	.4	5.8	445	252	54	1.6	735	7.8
TIME WTD.									
AVG.	81	.5	6.9	509	281	61	1.9	845	7.8
TOT. LOAD (TONS)	17400	105	1510	116000	--	--	--	--	--

GUADALUPE RIVER BASIN

08181800 SAN ANTONIO RIVER NEAR ELMENDORF, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (STO2) (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 (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
OCT.										
08...	1430	142	18	83	19	71	--	6.7	311	0
DEC.										
01...	1515	122	15	90	19	61	--	5.6	308	0
FEB.										
01...	1357	147	17	89	20	72	--	7.2	298	0
APR.										
05...	1620	121	17	91	20	76	--	6.8	276	0
MAY										
13...	1230	121	17	84	18	69	--	7.2	272	0
JUNE										
01...	1343	150	17	83	17	61	--	7.2	260	0
22...	1700	807	13	56	11	31	--	7.5	166	0
JULY										
29...	1230	140	18	81	18	65	--	7.6	264	0
AUG.										
16...	1700	1040	13	68	11	--	22	--	200	0
30...	1800	336	16	88	19	--	56	--	272	0
SEP.										
09...	1535	325	15	80	17	--	46	--	252	0
28...	1845	421	15	75	16	--	40	--	244	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.										
08...	73	82	.4	.53	.95	2.3	1.6	3.9	520	44
DEC.										
01...	77	76	.3	.72	1.5	4.7	3.7	2.9	522	12
FEB.										
01...	90	87	.4	.32	.74	3.9	3.0	3.1	550	25
APR.										
05...	96	90	.4	.09	.050	1.1	5.1	3.8	558	205
MAY										
13...	77	86	.4	.37	.75	1.5	3.5	1.6	512	--
JUNE										
01...	74	70	.4	.27	1.1	1.1	3.7	2.0	479	67
22...	57	41	.3	1.0	.020	2.0	1.5	2.5	308	840
JULY										
29...	79	82	.5	.40	.98	1.4	2.4	2.0	497	45
AUG.										
16...	44	33	.2	.72	.27	.20	1.5	.50	297	510
30...	78	69	.3	.44	.48	.42	4.8	.75	483	85
SEP.										
09...	68	56	.4	.34	.31	.24	3.5	.79	423	--
28...	46	55	.3	.58	.41	.31	3.3	1.2	384	110

DATE	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
OCT.										
08...	5	280	30	1.8	868	7.4	27.5	15	25	2.8
DEC.										
01...	4	300	50	1.5	840	7.5	22.5	21	2	4.4
FEB.										
01...	4	300	60	1.8	929	7.3	15.0	5	15	5.2
APR.										
05...	30	310	84	1.9	937	7.5	19.5	6	90	6.0
MAY										
13...	--	280	60	1.8	844	7.5	24.0	--	--	4.9
JUNE										
01...	28	280	64	1.6	818	7.5	27.0	10	35	4.7
22...	156	180	49	1.0	525	7.3	27.0	20	250	4.4
JULY										
29...	1	280	60	1.7	860	7.5	30.0	8	20	4.6
AUG.										
16...	48	220	51	.7	503	7.5	30.0	24	180	6.4
30...	16	300	74	1.4	821	7.7	29.0	10	40	6.0
SEP.										
09...	--	270	63	1.2	726	7.6	28.5	--	--	7.3
28...	20	250	53	1.1	710	7.6	27.0	10	45	6.2

08181800 SAN ANTONIO RIVER NEAR ELMENDORF, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	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)
OCT. 08...	35	18	12	2	.26	200	0	0	--	0
DEC. 01...	50	68	9.0	5	.01	--	--	--	--	--
FEB. 01...	51	19	10	2	.03	0	0	1	--	--
APR. 05...	65	19	31	3	.20	20	0	1	0	--
MAY 13...	58	--	12	--	.14	--	--	--	--	--
JUNE 01...	58	21	12	0	.12	--	--	--	--	--
22...	54	66	25	3	--	--	--	--	--	--
JULY 29...	61	19	14	7	.08	--	--	--	--	--
AUG. 16...	84	37	2.8	1	.00	20	0	0	--	--
30...	77	17	3.0	11	.11	--	--	--	--	--
SEP. 09...	94	10	2.7	0	.03	--	--	--	--	--
28...	77	16	3.9	0	.03	--	--	--	--	--

[illegible]

GUADALUPE RIVER BASIN

08181800 SAN ANTONIO RIVER NEAR ELMENDORF, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDO (UG/L)	DDO 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. 08...	1430	142	.00	--	.01	--	.00	--	.01	--
DEC. 01...	1515	122	--	<.2	--	1.2	--	.4	--	<.2
FEB. 01...	1357	147	.00	<.2	.01	6.1	.00	1.0	.00	<.2
APR. 05...	1620	121	.00	<.2	.00	23	.00	8.0	.00	4.5
AUG. 16...	1700	1040	.00	<.2	.00	5.9	.00	5.5	.00	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)
OCT. 08...	.02	--	.00	--	.00	--	.00	--	.00
DEC. 01...	--	.3	--	<.2	--	<.2	--	<.2	--
FEB. 01...	.01	1.5	.00	<.2	.00	<.2	.00	<.2	.00
APR. 05...	.01	12	.00	<.2	.00	<.2	.00	<.2	.00
AUG. 16...	.00	1.3	.00	<.2	.00	<.2	.00	<.2	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
OCT. 08...	--	.0	--	.03	.00	--	.02	--	.00
DEC. 01...	<.2	--	3.1	--	--	<.2	--	<.2	--
FEB. 01...	<.2	.0	5.7	.00	.00	<.2	.00	<.2	.00
APR. 05...	<.2	.0	43	.20	.00	<.2	.00	<.2	.00
AUG. 16...	<.2	.0	10	.00	.00	<.2	.00	<.2	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
OCT. 08...	--	.0	--	.00	--	.00	--	.00	--
DEC. 01...	<.2	--	<10	--	<3.2	--	<.5	--	<.3
FEB. 01...	<.2	.0	<10	.00	<5.3	.01	<.8	.00	<5.0
APR. 05...	<.2	.0	<10	.00	<3.5	.00	<1.1	.00	<1.1
AUG. 16...	<.2	.0	<10	.15	< 2.1	.30	<.5	.02	<.5

08181800 SAN ANTONIO RIVER NEAR ELMENDORF, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	804	893	836	912	912	865	899	936	820	593	914	845
2	823	866	878	946	890	---	939	952	864	693	864	842
3	829	830	889	870	905	907	960	898	870	749	334	872
4	850	866	893	860	936	904	973	863	877	812	412	828
5	810	888	908	854	924	883	915	906	909	---	363	786
6	807	891	925	891	936	911	922	913	902	780	366	745
7	868	---	890	905	952	930	960	867	871	793	820	709
8	877	894	845	888	905	890	934	902	801	865	1000	696
9	875	866	903	902	866	850	926	932	891	868	706	685
10	884	846	893	935	920	918	943	884	888	881	782	645
11	886	---	909	883	898	911	934	815	894	885	832	491
12	884	873	900	860	898	934	895	812	927	821	852	483
13	769	863	911	908	957	957	911	838	934	810	700	628
14	838	906	883	887	961	930	911	853	905	865	391	702
15	829	917	855	923	936	915	911	905	770	861	410	712
16	844	881	915	923	905	862	923	880	625	868	469	732
17	859	831	911	927	917	804	632	853	763	895	564	829
18	865	917	915	908	917	840	750	812	770	885	616	748
19	830	898	911	867	940	911	806	874	905	868	662	758
20	737	894	914	898	932	978	854	902	842	824	696	743
21	771	900	905	923	952	949	880	877	712	849	732	746
22	815	944	882	912	913	893	---	940	535	868	734	788
23	843	880	907	954	887	856	---	924	597	895	716	612
24	827	840	899	966	921	889	903	860	529	906	757	558
25	853	891	925	938	917	962	907	704	728	913	754	717
26	821	917	925	884	824	911	888	830	778	865	806	723
27	805	905	867	923	880	942	850	837	817	827	800	691
28	890	863	876	942	873	945	888	350	745	---	824	683
29	877	928	856	923	---	865	903	887	742	861	848	579
30	893	873	892	927	---	852	918	887	514	858	820	650
31	910	---	915	954	---	922	---	---	---	891	805	---
MONTH	841	884	895	909	913	903	894	873	791	840	689	708

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	19.0	23.0	16.0	18.0	22.0	23.5	24.0	28.0	29.0	28.0	29.0
2	25.0	20.5	24.0	18.0	15.5	---	15.5	24.0	28.0	28.5	27.0	30.0
3	23.0	19.0	24.0	19.0	15.5	17.0	20.0	25.5	28.5	28.0	25.0	29.5
4	24.0	18.5	24.0	16.0	18.5	16.0	19.0	23.0	28.5	29.0	25.5	29.0
5	26.5	18.0	18.0	13.0	18.5	19.0	16.5	25.5	27.0	---	25.5	29.0
6	26.0	15.5	16.0	14.0	18.0	19.0	20.0	26.0	28.0	29.5	25.5	28.0
7	26.0	---	20.5	13.5	16.0	17.0	18.5	26.5	28.5	29.5	27.0	29.5
8	26.5	20.0	21.0	15.0	15.5	18.5	19.5	26.0	29.5	30.5	27.0	29.5
9	19.0	20.5	22.0	15.0	16.0	20.0	21.0	26.0	29.5	30.0	28.5	29.5
10	19.0	19.5	21.5	16.0	14.5	---	21.0	26.5	30.5	30.0	29.0	28.0
11	23.0	---	22.0	16.0	16.0	20.0	22.0	24.5	29.5	28.0	29.5	25.0
12	21.0	20.5	15.0	20.5	18.0	22.0	22.0	24.0	29.0	29.5	29.5	26.0
13	23.5	20.5	13.0	21.0	16.0	23.0	22.0	24.0	29.0	30.5	28.0	27.0
14	23.5	15.0	18.5	21.0	17.0	25.0	25.5	22.0	29.5	30.5	27.0	29.0
15	24.0	11.0	16.0	21.0	18.5	21.5	25.0	24.0	29.5	30.5	27.0	28.5
16	23.0	15.5	20.5	17.0	19.5	20.0	24.0	24.0	28.5	30.5	27.0	29.0
17	16.0	17.0	17.0	17.0	18.5	22.0	22.0	25.5	29.5	30.0	28.5	28.5
18	17.0	18.0	19.0	19.0	22.0	21.0	21.0	26.5	29.0	29.0	28.0	26.0
19	20.5	18.5	20.0	20.0	22.0	21.0	24.5	28.0	28.0	30.0	28.5	25.0
20	20.5	18.5	16.0	15.5	22.0	19.0	25.5	27.0	29.0	29.5	29.0	24.0
21	22.0	18.0	20.5	18.0	20.0	20.0	19.0	26.0	28.5	30.0	29.0	24.5
22	24.5	18.0	22.0	19.5	18.0	21.0	---	26.0	27.0	30.5	28.0	25.5
23	25.5	18.5	23.0	19.0	16.5	21.0	---	28.0	28.5	29.0	29.5	26.0
24	19.0	15.5	18.5	20.0	20.0	20.5	25.0	27.0	27.0	29.0	29.0	26.0
25	22.0	15.5	15.0	20.0	20.0	20.0	23.0	25.5	29.5	29.0	29.0	26.0
26	26.0	18.0	15.0	19.5	21.0	18.5	24.5	28.0	28.0	29.5	29.5	26.0
27	26.0	20.5	15.0	20.0	21.0	22.0	25.0	27.0	28.0	30.0	29.5	28.5
28	26.0	19.0	19.5	15.5	19.0	22.0	26.0	28.0	29.5	---	28.0	28.0
29	21.0	20.0	21.0	20.0	---	24.5	25.5	27.0	29.0	29.5	28.0	27.0
30	25.5	23.0	20.5	20.0	---	21.0	25.5	27.0	28.0	30.5	29.0	27.0
31	17.0	---	18.5	18.0	---	24.0	---	---	---	29.0	29.0	---
MONTH	23.0	18.5	19.5	18.0	18.5	20.5	22.0	25.5	28.5	29.5	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 1971.
Sediment analyses: 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 1970 TO SEPTEMBER 1971

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.									
08...	1400	187	18	90	18	72	280	0	84
DEC.									
01...	1715	144	17	93	21	86	296	0	98
FEB.									
01...	1545	171	17	97	22	86	296	0	110
APR.									
05...	1800	90	18	100	23	110	300	0	130
MAY									
13...	1540	218	18	90	21	92	286	0	100
JUNE									
01...	1530	112	19	86	19	89	270	0	100
22...	1840	298	16	61	13	67	206	0	68
JULY									
29...	1735	58	20	100	23	100	298	0	130
AUG.									
17...	0815	2010	11	44	7.1	13	140	0	25
30...	1600	294	18	93	19	65	286	0	86
SEP.									
09...	1645	326	15	89	18	42	264	0	75
29...	0915	405	13	79	16	52	256	0	75

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.									
08...	85	.4	.78	.75	.00	4.4	2.2	527	300
DEC.									
01...	100	.5	1.0	.17	.00	5.0	4.8	584	320
FEB.									
01...	100	.4	--	.030	.00	5.7	2.5	602	330
APR.									
05...	120	.4	--	.000	.00	4.9	4.8	674	340
MAY									
13...	100	.4	--	.12	.00	8.3	2.7	601	310
JUNE									
01...	98	.5	--	.20	.00	5.2	3.0	569	290
22...	69	.4	--	.020	.00	3.8	3.1	412	210
JULY									
29...	120	.5	--	.090	.00	3.3	3.0	659	350
AUG.									
17...	15	.2	--	.060	.00	1.0	.80	189	140
30...	87	.4	--	.37	.00	.7	1.4	514	310
SEP.									
09...	57	.3	--	.000	.00	2.9	.60	439	300
29...	56	.4	--	.070	.00	2.4	.75	429	260

GUADALUPE RIVER BASIN

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08183500 SAN ANTONIO RIVER NEAR FALLS CITY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 08...	69	1.8	892	7.5	26.0	2.2	27	4.6
DEC. 01...	76	2.1	991	7.5	20.0	5.0	54	2.2
FEB. 01...	90	2.1	987	7.5	15.5	7.4	73	1.5
APR. 05...	98	2.6	1100	7.8	18.0	9.4	99	4.2
MAY 13...	76	2.3	964	7.6	24.5	5.8	69	2.1
JUNE 01...	71	2.3	949	7.6	27.0	5.3	65	2.4
22...	36	2.0	706	7.4	27.0	2.8	35	3.9
JULY 29...	100	2.3	1110	7.9	30.0	8.0	105	4.6
AUG. 17...	24	.5	327	7.2	25.5	6.1	73	3.4
30...	76	1.6	898	7.6	29.0	4.6	59	2.0
SEP. 09...	80	1.1	758	7.7	28.0	7.1	90	1.2
29...	53	1.4	738	7.6	26.5	5.8	71	1.5

DATE	TIME	DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM
JULY, 1970							
14...	1100	84	28.0	26	--	--	--
SEP. 16...	1055	318	27.5	65	--	--	--
JUNE, 1971							
23...	1230	691	27.5	1110	--	--	--
AUG. 06...	1855	4400	--	1110	92	96	99

DATE	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	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
JULY, 1970						
14...	--	--	--	--	--	5.9
SEP. 16...	--	--	--	--	--	56
JUNE, 1971						
23...	--	--	--	--	--	2070
AUG. 06...	66	72	75	77	80	13200

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 1971.

Chemical and biochemical analyses: October 1969 to September 1971.

Water temperatures: October 1968 to September 1971.

Sediment records: October 1968 to September 1969.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	18	9.9	90	21	110	--	6.4	226	0	190
NOV.										
01-30	15	12	98	23	--	130	--	228	0	230
DEC.										
01-31	17	19	120	25	--	150	--	270	0	270
JAN.										
01-31	17	17	110	24	130	--	8.4	232	0	260
FEB.										
01-28	15	13	100	26	--	160	--	196	0	300
MAR.										
01-31	11	13	120	27	--	170	--	208	0	320
APR.										
01-30	5.2	16	150	33	240	--	13	258	0	460
MAY										
01-31	4.6	20	140	37	--	240	--	248	0	460
JUNE										
01-30	4.8	18	110	26	--	200	--	218	0	330
JULY										
01-31	2.0	15	89	19	150	--	11	204	0	250
AUG.										
01...	.00	--	--	--	--	--	--	--	--	--
02-06	1740	8.8	39	3.6	--	16	--	132	0	20
07-14	188	11	57	8.3	--	50	--	150	0	84
15-17	530	8.8	39	3.6	--	16	--	132	0	20
18-21	80	11	57	8.3	--	50	--	150	0	84
22-31	30	15	92	17	--	88	--	212	6	160
SEP.										
01-08	20	15	88	17	--	100	--	192	0	180
09-16	272	8.8	35	3.5	--	21	--	104	0	32
17-22	58	15	88	17	--	100	--	192	0	180
23-30	46	13	51	7.7	--	50	--	136	0	73
WTD. AVG.	--	10	53	8.0	--	--	--	147	0	75
TIME WTD.										
AVG.	52	15	105	24	--	--	--	218	0	273
TOT. LOAD (TONS)	--	500	2630	396	--	--	--	7270	5	3720

WATER QUALITY DATA

DATE	TIME	DIS- CHARGE (CFS)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
DEC., 1969				
09...	1520	68	48	8.8
JUNE, 1970				
03...	1710	180	209	102
09...	1500	55	60	8.9

GUADALUPE RIVER BASIN

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08186000 CIBOLO CREEK NEAR FALLS CITY, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 1,300 mg/l Apr. 1-30; minimum, 167 mg/l Aug. 2-6, 15-17.

Hardness: Maximum, 510 mg/l May 1-31; minimum, 100 mg/l Sept. 9-16.

Specific conductance: Maximum daily, 2,270 micromhos May 20, 21; minimum daily, 190 micromhos Aug. 5.

Water temperatures: Maximum, 30.0°C on many days during March, June, July, August, and September; minimum, 6.0°C Feb. 8.

EXTREMES, October 1968 to September 1971.--Dissolved solids: Maximum, 1,300 mg/l Apr. 1-30, 1971; minimum, 160 mg/l May 24-25, 28-29, 1970.

Hardness: Maximum, 510 mg/l May 1-31, 1971; minimum, 100 mg/l Dec. 1-2, 1969, Sept. 9-16, 1971.

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 1970 TO SEPTEMBER 1971

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	SPECI-FIC COND- UCTANCE (MICRO-MHOS)	PH (UNITS)
OCT.									
01-31	120	.3	.8	662	310	130	2.7	1100	7.8
NOV.									
01-30	140	.3	.7	748	340	150	3.1	1210	8.0
DEC.									
01-31	150	.3	.3	859	400	180	3.3	1350	7.9
JAN.									
01-31	150	.3	1.5	825	370	180	2.9	1310	7.8
FEB.									
01-28	170	.4	.5	873	360	200	3.7	1370	7.6
MAR.									
01-31	190	.4	.8	941	400	230	3.6	1480	7.9
APR.									
01-30	260	.4	.7	1300	500	290	4.6	1940	7.9
MAY									
01-31	260	.5	.3	1280	510	310	4.7	1950	7.9
JUNE									
01-30	210	.4	.6	1000	370	190	4.6	1540	7.9
JULY									
01-31	150	.4	.5	791	300	130	3.9	1260	7.8
AUG.									
01...	--	--	--	--	--	--	--	--	--
02-06	9.7	--	1.2	167	110	4	.7	276	8.0
07-14	51	--	.8	339	180	53	1.6	559	7.9
15-17	9.7	--	1.2	167	110	4	.7	276	8.0
18-21	51	--	.8	339	180	53	1.6	559	7.9
22-31	96	--	.7	584	300	120	2.2	931	8.3
SEP.									
01-08	120	.3	.7	617	290	130	2.6	1000	7.6
09-16	17	--	1.1	173	100	16	.9	294	7.1
17-22	120	.3	.7	617	290	130	2.6	1000	7.6
23-30	53	--	1.5	321	160	47	1.7	538	7.5
WTD. AVG.	44	.3	1.1	314	165	45	1.3	509	7.8
TIME WTD.									
AVG.	161	.4	.7	840	356	178	3.4	1320	7.8
TOT. LOAD (TONS)	2160	3.1	53	15500	--	--	--	--	--

GUADALUPE RIVER BASIN

08186000 CIBOLO CREEK NEAR FALLS CITY, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.									
08...	1300	18	17	94	18	110	250	0	170
DEC.									
02...	0750	20	21	130	25	150	302	0	270
FEB.									
01...	1645	15	15	120	26	150	256	0	290
APR.									
06...	0800	5.2	15	160	48	200	280	0	440
MAY									
13...	1615	3.5	16	170	44	270	256	0	530
JUNE									
01...	1652	3.1	19	130	28	190	260	0	340
23...	1200	1.8	19	120	30	200	212	0	340
JULY									
29...	1830	.04	19	100	23	200	230	0	300
AUG.									
17...	0912	224	12	43	4.8	11	127	0	25
30...	1430	23	17	96	17	91	212	0	180
SEP.									
09...	1730	18	17	110	21	120	250	0	210
29...	1015	27	16	86	15	89	212	0	140

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.									
08...	110	.3	.16	.000	.00	.5	.080	644	310
DEC.									
02...	160	.4	.32	.000	.00	.00	.080	905	430
FEB.									
01...	160	.3	--	.000	.00	.2	.040	880	410
APR.									
06...	250	.4	--	.000	.00	.00	.060	1250	600
MAY									
13...	310	.4	--	.000	.00	.2	.040	1470	610
JUNE									
01...	190	.4	--	.000	.00	.1	.13	1020	430
23...	240	.4	--	.000	.00	.2	.060	1060	420
JULY									
29...	190	.5	--	.000	.00	.00	.080	944	340
AUG.									
17...	13	.1	--	.30	.00	.6	.42	174	130
30...	110	.2	--	.000	.00	.2	.030	608	310
SEP.									
09...	140	.3	--	.000	.00	.1	.060	743	370
29...	100	.3	--	.000	.00	.7	.070	558	280

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT.								
08...	100	2.7	1050	7.6	26.0	5.0	61	.8
DEC.								
02...	180	3.2	1400	7.8	19.0	6.2	66	3.5
FEB.								
01...	200	3.2	1360	7.7	13.0	11.4	108	.6
APR.								
06...	370	3.6	1920	7.7	14.0	7.2	69	1.7
MAY								
13...	400	4.8	2180	7.9	22.0	10.4	118	1.2
JUNE								
01...	220	3.9	1600	8.0	27.5	7.6	95	1.7
23...	250	4.2	1700	7.7	28.0	5.8	73	2.1
JULY								
29...	160	4.7	1500	7.9	30.0	7.8	103	3.4
AUG.								
17...	23	.4	292	7.5	26.0	7.0	85	3.7
30...	140	2.3	1000	8.2	30.5	11.4	150	2.4
SEP.								
09...	160	2.7	1210	7.7	27.5	8.5	106	.2
29...	100	2.3	924	7.7	26.0	7.2	88	1.2

GUADALUPE RIVER BASIN

713

08186000 CIBOLO CREEK NEAR FALLS CITY, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1070	1010	1300	1310	1300	1390	1730	1880	1520	1000	649	1030
2	1140	1120	1310	1280	1300	1420	1840	1850	1430	1010	267	1040
3	1090	1100	1340	1190	1290	1340	1830	1930	1440	1000	379	1070
4	967	1080	1360	1210	1280	1350	2000	1930	1410	970	308	1110
5	1060	1070	1310	1250	1250	1390	1880	1890	1400	958	190	1150
6	1010	1180	1430	1320	1250	1400	1880	1940	1440	983	202	1180
7	929	1180	1390	1290	1330	1340	1880	2010	1420	1020	469	1130
8	1000	1140	1420	1320	1320	1380	1960	1940	1420	1100	470	1120
9	1060	1110	1430	1300	1350	1320	2060	2130	1480	1100	858	281
10	1100	1220	1400	1340	1330	1330	1980	2110	1480	1100	858	291
11	1090	1090	1410	1300	1350	1310	2020	2100	1470	1160	855	262
12	1140	1170	1370	1290	1350	1300	1950	2170	1480	1160	512	310
13	1150	1220	1390	1270	1370	1400	1950	2170	1530	1220	526	313
14	1160	1160	1370	1260	1360	1390	---	---	1530	1210	512	511
15	1080	1230	1370	1250	1320	1380	1980	2130	1520	1180	279	516
16	1100	1220	1380	1260	1360	1370	2020	2090	1520	1320	281	307
17	1060	1250	1300	1300	1400	1460	2020	2110	---	1330	305	803
18	1060	1190	1330	1300	1390	1460	2060	2050	1570	1310	615	806
19	1080	1130	1350	1330	1380	1490	2080	2110	1570	1440	615	991
20	1110	1170	1280	1340	1400	1530	2070	2270	1740	---	613	1000
21	1060	1240	1330	1260	1390	1560	2020	2270	1730	1410	616	1000
22	---	1310	1290	1340	1390	1580	2040	2260	1730	1500	882	991
23	1190	1330	1370	1380	1410	1630	2040	1740	1730	1500	871	468
24	1180	1300	1360	1370	1480	1630	2040	1760	1800	1500	878	472
25	1150	1290	1350	1360	1480	1630	1920	1730	1800	1520	878	469
26	1140	1310	1280	1340	1500	1630	1920	1650	1800	1500	983	860
27	1140	1230	1340	1300	1490	1660	1920	1650	1800	1500	983	857
28	1160	1300	1340	1330	1500	1660	1900	1650	---	1480	983	857
29	1160	1310	1340	1330	---	1660	1890	1640	1220	1490	1040	665
30	1150	1300	1330	1370	---	1680	1870	1710	1220	1480	1050	661
31	---	---	1330	1380	---	1670	---	1710	---	1470	996	---
MONTH	1100	1200	1350	1310	1370	1480	1960	1950	1540	1260	643	751

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.0	26.5	27.0	19.5	18.5	23.0	26.0	25.0	27.0	30.0	30.0	30.0
2	27.0	25.5	24.0	19.5	20.0	22.0	25.5	26.0	30.0	30.0	30.0	30.0
3	26.5	25.5	26.0	21.0	20.0	14.0	26.0	25.0	30.0	30.0	30.0	30.0
4	27.0	25.5	24.0	15.5	25.0	13.0	25.0	26.0	29.0	29.0	29.0	29.0
5	26.0	26.0	24.5	10.0	29.0	23.0	25.0	25.0	30.0	29.0	30.0	30.0
6	27.0	26.5	25.5	10.0	20.0	22.0	24.0	25.0	30.0	30.0	29.0	30.0
7	28.0	26.5	25.5	10.5	11.0	20.0	21.0	25.0	30.0	30.0	29.0	30.0
8	26.5	26.0	26.5	12.0	6.0	23.0	23.0	26.0	---	29.0	30.0	30.0
9	26.5	27.0	25.5	13.5	10.0	24.0	23.0	26.0	29.0	29.0	29.0	30.0
10	27.0	27.0	26.5	18.5	15.0	25.0	24.0	26.0	30.0	29.0	30.0	30.0
11	28.0	26.5	25.5	18.5	19.0	24.0	25.0	26.0	---	30.0	30.0	29.0
12	27.0	27.0	25.5	18.5	17.0	25.0	26.0	26.0	29.0	30.0	30.0	29.0
13	28.0	26.5	26.0	18.5	17.0	30.0	25.0	27.0	29.0	30.0	29.0	30.0
14	28.0	26.5	20.0	18.0	18.0	25.0	---	---	30.0	30.0	29.0	30.0
15	27.0	25.5	18.5	18.5	18.0	27.0	25.0	25.0	29.0	29.0	30.0	30.0
16	26.5	25.5	19.5	18.5	19.0	26.0	24.0	27.0	30.0	30.0	30.0	29.0
17	26.5	26.0	19.5	19.0	19.0	27.0	25.0	26.0	---	30.0	30.0	30.0
18	26.5	26.0	20.5	19.5	18.0	29.0	24.0	26.0	30.0	30.0	30.0	29.0
19	27.0	26.5	20.5	18.0	24.0	27.0	25.0	27.0	29.0	30.0	30.0	29.0
20	27.0	26.5	18.5	18.5	23.0	25.0	25.0	26.0	30.0	---	30.0	30.0
21	26.5	27.0	20.0	19.5	22.0	26.0	26.0	27.0	29.0	30.0	30.0	30.0
22	---	26.5	20.0	20.0	18.0	25.0	25.0	27.0	29.0	30.0	30.0	29.0
23	26.5	18.5	18.5	19.5	18.0	26.0	26.0	27.0	30.0	30.0	30.0	29.0
24	27.0	14.5	18.5	20.0	24.0	27.0	26.0	27.0	30.0	30.0	30.0	30.0
25	27.0	20.0	19.5	20.0	24.0	25.0	26.0	26.0	30.0	---	30.0	29.0
26	26.5	26.5	18.5	20.0	25.0	23.0	25.0	26.0	30.0	30.0	30.0	30.0
27	26.5	25.5	20.0	19.5	25.0	23.0	26.0	27.0	29.0	30.0	30.0	30.0
28	26.0	25.5	19.5	20.0	24.0	26.0	26.0	27.0	---	30.0	29.0	29.0
29	21.0	---	20.0	19.5	---	26.0	25.0	27.0	30.0	30.0	29.0	30.0
30	20.0	26.5	18.5	20.0	---	27.0	26.0	27.0	---	30.0	30.0	30.0
31	---	---	18.5	18.5	---	25.0	---	26.0	---	30.0	30.0	---
MONTH	26.5	25.5	22.0	18.0	19.5	24.5	25.0	26.0	29.5	30.0	29.5	29.5

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 1971.

Chemical and biochemical analyses: January 1968 to September 1971.

Pesticide analyses: January 1968 to September 1971.

Water temperatures: September 1958 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	323	8.8	71	14	54	--	5.0	208	0	76
06-31	262	11	94	20	--	83	--	284	0	120
NOV.										
01-30	204	12	100	22	--	110	--	308	0	120
DEC.										
01-31	203	20	110	23	--	110	--	320	0	120
JAN.										
01-31	237	20	110	21	100	--	8.3	288	12	120
FEB.										
01-28	208	17	110	23	--	120	--	268	24	130
MAR.										
01-31	194	18	110	24	--	120	--	304	0	130
APR.										
01-14	134	23	120	24	130	--	9.5	324	0	150
15-30	209	21	100	20	--	100	--	278	0	120
MAY										
01-31	137	21	110	23	--	110	--	308	0	120
JUNE										
01-19	131	21	100	20	--	100	--	288	0	110
20-30	389	15	63	11	--	55	--	174	0	64
JULY										
01...	213	15	74	13	57	--	6.4	200	0	76
02-03	406	20	110	21	--	120	--	296	0	130
04-10	231	15	74	13	57	--	6.4	200	0	76
11-31	85	20	110	21	--	120	--	296	0	130
AUG.										
01-03	92	22	120	26	--	140	--	310	18	150
04-10	3000	9.3	42	6.2	--	25	--	132	0	33
11-13	938	16	78	14	--	53	--	236	0	70
14-17	1060	15	77	15	--	71	--	216	0	97
18-20	1750	9.3	42	6.2	--	25	--	132	0	33
21-31	569	16	78	14	--	53	--	236	0	70
SEP.										
01-10	393	16	94	19	--	79	--	290	0	95
11-16	2770	12	37	5.6	--	22	--	118	0	27
17-30	591	14	76	14	--	56	--	228	0	74
WTD. AVG.	--	15	77	15	--	65	--	222	2	81
TIME WTD.										
AVG.	354	17	98	20	--	96	--	277	3	111
TOT. LOAD (TONS)	--	5070	26800	5130	--	20400	--	77500	629	28200

GUADALUPE RIVER BASIN

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08188500 SAN ANTONIO RIVER AT GOLIAD, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 840 mg/l Apr. 1-14; minimum, 192 mg/l Sept. 11-16.

Hardness: Maximum, 410 mg/l Aug. 1-3; minimum, 120 mg/l Sept. 11-16.

Specific conductance: Maximum daily, 1,490 micromhos May 27; minimum daily, 241 micromhos Sept. 11.

Water temperatures: Maximum, 31.0°C on several days during May and July; minimum, 7.0°C Jan. 7.

EXTREMES, September 1945 to September 1946, September 1958 to September 1971.--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 (1958-71): Maximum, 36.0°C June 5, 1969; minimum, 7.0°C Jan. 7, 8, 1970, Jan. 7, 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.									
01-05	72	.4	3.5	418	230	64	1.5	706	7.9
06-31	120	--	5.1	573	320	84	2.0	991	7.9
NOV.									
01-30	140	.4	5.2	678	350	100	2.6	1110	8.1
DEC.									
01-31	150	.4	3.1	703	370	110	2.5	1170	8.0
JAN.									
01-31	140	.4	6.1	695	350	98	2.3	1130	8.4
FEB.									
01-28	150	.5	6.2	734	370	150	2.7	1170	8.5
MAR.									
01-31	160	.5	6.6	734	380	130	2.7	1190	8.1
APR.									
01-14	190	.4	6.3	840	400	140	2.8	1340	8.1
15-30	130	--	6.8	666	340	110	2.4	1070	7.7
MAY									
01-31	150	.6	3.2	703	370	120	2.5	1180	8.1
JUNE									
01-19	130	.5	4.7	656	330	96	2.5	1070	7.9
20-30	68	--	4.7	383	200	60	1.7	632	7.8
JULY									
01...	80	.3	2.7	432	240	74	1.6	720	8.1
02-03	160	--	2.9	714	360	120	2.7	1180	8.1
04-10	80	.3	2.7	432	240	74	1.6	720	8.1
11-31	160	--	2.9	714	360	120	2.7	1180	8.1
AUG.									
01-03	190	.4	2.8	833	410	120	3.0	1360	8.5
04-10	25	--	1.7	213	130	22	1.0	374	7.8
11-13	64	--	2.8	423	250	58	1.5	703	8.0
14-17	86	--	2.6	479	250	76	1.9	801	7.7
18-20	25	--	1.7	213	130	22	1.0	374	7.8
21-31	64	--	2.8	423	250	58	1.5	703	8.0
SEP.									
01-10	92	.4	4.7	559	310	75	1.9	902	8.1
11-16	24	--	1.5	192	120	19	.9	330	7.8
17-30	67	--	2.7	425	250	60	1.6	710	8.1
WTD. AVG.	86	--	3.5	466	253	70	1.8	773	8.0
TIME WTD.									
AVG.	128	--	4.6	630	329	101	2.3	1040	8.1
TOT. LOAD (TONS)	30200	--	1220	163000	--	--	--	--	--

GUADALUPE RIVER BASIN

08188500 SAN ANTONIO RIVER AT GOLIAD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 07...	1715	281	19	90	17	91	262	0	100	110	.3	.42
DEC. 02...	1500	203	20	110	21	120	326	0	120	150	.4	.30
FEB. 02...	1345	212	20	110	24	110	310	0	130	150	.4	.46
APR. 06...	1245	121	21	120	24	130	320	0	140	180	.5	.07
MAY 13...	1715	103	22	120	26	130	334	0	150	170	.5	.51
JUNE 02...	1230	126	19	90	17	82	247	0	98	110	.4	.49
23...	0910	155	18	46	6.4	36	128	0	48	43	.3	1.4
JULY 30...	1000	64	22	120	26	140	332	0	160	200	.5	.73
AUG. 17...	1425	2170	14	54	8.0	32	160	0	45	37	.3	.66
30...	1210	419	20	89	17	60	268	0	82	76	.3	.43
SEP. 09...	1915	387	18	96	19	72	290	0	94	91	.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 CONSTITU- ENTS) (MG/L)	TOTAL NON- FILTR- ABLE RESIDUE (MG/L)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 07...	.090	.00	5.0	2.3	579	152	91	290	80	--	961	7.6
DEC. 02...	.020	.00	4.0	1.9	719	53	9	360	94	2.7	1160	8.1
FEB. 02...	.000	.00	4.7	2.6	718	89	13	380	130	--	1190	8.0
APR. 06...	.000	.00	3.4	2.1	796	74	16	390	130	--	1330	8.1
MAY 13...	.000	.00	3.6	.72	796	--	--	400	130	2.8	1290	8.0
JUNE 02...	.010	.00	3.7	1.8	552	155	30	290	92	2.1	937	7.9
23...	.000	.00	1.0	1.0	265	1160	168	140	36	1.3	456	7.6
JULY 30...	.010	.00	.2	1.0	827	47	7	410	130	3.0	1390	8.1
AUG. 17...	.000	.00	1.8	1.4	277	2260	300	170	37	1.1	471	7.4
30...	.000	.00	3.0	.74	489	223	41	290	72	1.5	821	7.9
SEP. 09...	.000	.06	2.4	.88	544	--	--	320	80	1.8	928	7.9

DATE	TEMP- ERATURE (DEG C)	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)	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. 07...	26.5	12	55	5.0	61	25	1.6	0	.08	100	6	0
DEC. 02...	22.0	10	18	9.0	102	58	1.7	7	.01	--	--	--
FEB. 02...	13.0	4	45	9.4	89	13	1.2	17	.00	10	0	0
APR. 06...	19.0	4	30	10.2	109	20	4.2	0	.03	0	0	0
MAY 13...	24.0	--	--	10.0	118	--	2.4	--	.00	--	--	--
JUNE 02...	28.0	5	75	7.2	91	18	1.9	0	.00	--	--	--
23...	27.0	20	200	6.6	81	68	2.8	0	.00	--	--	--
JULY 30...	29.0	12	20	8.4	108	24	8.7	0	.00	--	--	--
AUG. 17...	29.0	30	210	5.6	72	110	2.6	0	.00	20	0	0
30...	29.5	10	85	6.4	83	21	1.4	0	.07	--	--	--
SEP. 09...	27.5	--	--	7.5	94	15	.6	0	.00	--	--	--

GUADALUPE RIVER BASIN

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08188500 SAN ANTONIO RIVER AT GOLIAD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 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. 07...	--	0	0	4	1	0	30	2	<.5	6	960	0
DEC. 02...	--	--	--	--	--	--	--	--	--	--	--	--
FEB. 02...	0	--	0	4	9	0	40	4	<.5	0	1100	6
APR. 06...	0	--	0	3	20	0	50	4	<.5	0	1200	0
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE 02...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
JULY 30...	--	--	--	--	--	--	--	--	--	--	--	--
AUG. 17...	0	--	0	5	10	0	20	1	.5	3	420	0
30...	--	--	--	--	--	--	--	--	--	--	--	--
SEP. 09...	--	--	--	--	--	--	--	--	--	--	--	--

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. 07...	1715	281	.00	--	.00	--	.00	--	.00	--
DEC. 02...	1500	203	--	<.2	--	2.0	--	.7	--	<.2
FEB. 02...	1345	212	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 06...	1245	121	.00	<.2	.00	2.1	.00	1.1	.00	.7
AUG. 17...	1425	2170	.00	<.2	.00	5.9	.01	7.0	.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 BOTTOM DE-POSITS (UG/KG)	LINDANE (UG/L)
OCT. 07...	.01	--	.00	--	.00	--	.00	--	.00
DEC. 02...	--	.8	--	<.2	--	<.2	--	<.2	--
FEB. 02...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.01
APR. 06...	.00	.6	.00	<.2	.00	<.2	.00	<.2	.01
AUG. 17...	.01	<.2	.00	<.2	.00	<.2	.00	<.2	.00

GUADALUPE RIVER BASIN

08188500 SAN ANTONIO RIVER AT GOLIAD, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
OCT. 07...	--	.0	--	.00	.00	--	.13	--	.00
DEC. 02...	<.2	--	3.0	--	--	<.2	--	<.2	--
FEB. 02...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
APR. 06...	<.2	.0	<1.0	.10	.00	<.2	.00	<.2	.00
AUG. 17...	<.2	.1	6.3	.00	.00	<.2	.00	<.2	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
OCT. 07...	--	.0	--	.09	--	.03	--	.00	--
DEC. 02...	<.2	--	<10	--	<7.9	--	<1.0	--	<1.0
FEB. 02...	<.2	.0	<10	.00	<2.3	.00	<.2	.00	<.2
APR. 06...	<.2	.0	<10	.00	<.7	.00	<.2	.01	<.2
AUG. 17...	<.2	.0	<10	.02	<.7	.02	<.2	.00	<.2

GUADALUPE RIVER BASIN

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08188500 SAN ANTONIO RIVER AT GOLIAD, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	700	1030	1130	1190	1160	1150	1350	1130	884	682	1400	849
2	650	1070	1150	1200	1160	1070	1310	1140	934	943	1390	879
3	674	1090	1150	1140	1150	1030	1300	1140	1010	906	1260	910
4	729	1090	1140	1090	1110	1050	1310	1130	1040	744	396	928
5	768	1020	1190	1060	1180	991	1290	1100	1120	648	367	903
6	849	1060	1180	1040	1180	1040	1320	1080	1130	584	441	879
7	941	1060	1160	1080	1160	1070	1400	1120	1130	667	342	925
8	980	1080	1160	1100	1180	1060	1380	1160	1120	728	247	932
9	1020	1090	1130	1120	1190	1060	1360	1190	1120	816	388	932
10	1030	1120	1120	1110	1150	1040	1390	1230	905	885	377	875
11	984	1140	1170	1070	1120	1090	1400	1230	1100	939	575	241
12	1030	1100	1210	1070	1160	1090	1350	1220	1160	991	688	320
13	1020	1120	1210	1040	1170	1110	1340	1280	1140	1050	635	318
14	1030	1160	1210	1080	1200	1110	1230	1250	1180	1080	939	335
15	1090	1140	1210	1090	1210	1150	1180	1230	1180	1100	808	368
16	1090	1130	1180	1110	1210	1170	1170	1200	1180	1130	847	399
17	1050	1130	1150	1170	1190	1180	1160	1120	728	1140	603	515
18	1020	1130	1180	1160	1160	1190	1140	1120	1040	1170	396	582
19	1000	1070	1200	1200	1190	1250	1270	1130	983	1170	335	508
20	946	1090	1190	1180	1220	1270	1130	1120	581	1200	446	707
21	996	1070	1190	1120	1240	1270	986	1160	576	1240	575	766
22	1010	1080	1190	1120	1200	1300	991	1130	667	1280	597	730
23	1010	1110	1160	1120	1220	1300	947	1190	458	1250	628	811
24	988	1150	1110	1140	1160	1310	843	1210	701	1280	679	853
25	968	1160	1170	1150	1120	1310	964	1150	819	1300	715	872
26	953	1160	1200	1150	1110	1320	1010	1240	730	1280	748	792
27	910	1140	1180	1110	1150	1340	1020	1490	547	1270	740	806
28	938	1180	1180	1150	1220	1340	1050	1360	555	1270	811	580
29	992	1130	1200	1170	---	1340	1090	1130	579	1340	797	661
30	1000	1150	1190	1180	---	1340	1130	1070	745	1370	797	726
31	1020	---	1180	1170	---	1330	---	974	---	1400	827	---
MONTH	948	1110	1170	1130	1170	1180	1190	1170	901	1060	671	697

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	19.5	19.5	15.5	14.5	19.5	21.0	23.5	29.5	29.5	29.5	28.0
2	24.0	18.5	20.5	15.5	13.0	18.5	18.5	24.0	29.5	30.5	28.0	28.0
3	23.5	16.5	20.5	18.5	14.0	14.5	19.5	24.0	29.5	29.5	26.5	29.0
4	25.0	15.5	21.0	14.5	16.5	14.5	18.0	24.5	28.0	31.0	---	29.5
5	25.5	14.0	21.0	10.0	15.0	15.5	15.5	25.5	28.0	31.0	24.0	29.5
6	23.5	14.5	18.5	9.0	15.5	16.5	15.5	25.5	29.5	29.5	24.0	29.5
7	25.0	15.5	18.5	7.0	13.0	15.5	16.5	25.5	28.0	30.0	24.0	29.5
8	22.0	18.0	19.5	8.5	11.0	15.5	16.5	26.5	28.0	29.5	24.0	29.5
9	21.0	19.0	19.5	9.0	11.0	16.5	20.0	26.5	28.0	31.0	25.5	28.0
10	20.0	18.5	20.5	13.5	11.0	16.5	20.0	26.5	29.0	29.5	26.5	25.5
11	23.5	16.5	18.5	14.5	13.0	18.5	21.0	26.5	29.0	29.5	28.0	24.0
12	21.5	20.0	15.0	15.0	14.0	20.0	21.0	23.5	29.5	29.5	25.5	25.0
13	19.5	18.5	14.0	18.5	13.0	21.0	20.5	24.0	30.5	29.5	28.0	25.0
14	19.5	15.5	14.5	18.5	11.0	24.0	22.0	24.0	30.5	31.0	28.0	25.5
15	21.0	14.5	14.5	18.0	15.5	24.0	22.0	22.0	29.5	29.5	28.0	25.5
16	19.5	13.0	13.0	15.5	17.0	21.0	22.0	26.5	29.5	29.5	28.0	26.5
17	18.5	14.0	14.5	15.5	18.5	21.0	22.0	24.0	29.0	30.0	28.0	26.5
18	18.5	14.0	16.5	16.5	20.5	21.0	23.0	26.5	29.5	31.0	28.0	25.5
19	19.0	20.5	18.5	14.0	20.0	18.5	24.0	26.5	29.0	29.0	26.5	21.0
20	18.5	20.5	15.5	14.0	19.5	16.5	22.0	26.5	28.0	29.0	28.0	20.5
21	20.0	18.5	18.5	15.5	19.5	18.5	21.0	26.5	25.5	29.5	28.0	22.0
22	21.0	16.5	20.0	16.5	13.0	21.0	22.0	26.5	29.0	29.5	29.0	23.5
23	23.5	14.5	20.0	16.5	15.5	21.0	24.0	26.5	29.0	29.5	29.0	25.5
24	21.0	13.0	15.5	18.5	15.5	20.0	21.0	25.5	29.5	29.5	29.5	22.0
25	23.5	11.0	18.5	18.5	18.5	22.0	26.0	26.5	29.5	31.0	29.5	24.5
26	24.5	14.5	15.5	16.5	16.5	18.5	24.0	26.5	29.0	29.5	29.5	26.5
27	24.5	16.5	15.5	18.0	18.5	20.0	24.5	28.0	28.5	31.0	29.0	25.5
28	21.0	16.5	17.0	17.0	18.5	25.5	24.5	31.0	28.0	29.5	29.5	26.5
29	18.0	17.0	19.0	18.0	---	24.0	25.5	28.0	29.5	29.5	29.5	26.5
30	18.0	20.5	18.5	18.5	---	21.0	24.5	29.5	29.5	29.5	28.0	28.0
31	18.5	---	15.5	18.5	---	21.0	---	26.5	---	28.0	28.0	---
MONTH	21.5	16.5	17.5	15.5	15.5	19.5	21.5	26.0	29.0	30.0	27.5	26.0

GUADALUPE RIVER BASIN

08188800 GUADALUPE RIVER NEAR TIVOLI, TEX.

LOCATION.--Lat 28°30'20", long 96°53'04", Refugio County, at water-stage recorder 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 1971.

Chemical and biochemical analyses: October 1968 to September 1971.

Water temperatures: October 1966 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	SODIUM (NA) (MG/L)	SODIUM PLUS PO- TAS- SIUM (NA+K) (MG/L)	PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	SULFATE (S04) (MG/L)
OCT.									
01-28	7.8	72	16	45	--	3.5	238	0	46
29-30	6.2	51	9.0	--	23	--	163	0	22
NOV.									
01-30	8.1	82	16	--	47	--	264	0	48
DEC.									
01-31	13	90	19	--	52	--	296	0	54
JAN.									
01-31	16	90	18	55	--	4.1	300	0	54
FEB.									
01-28	13	88	19	--	61	--	292	0	57
MAR.									
01-31	14	85	18	--	68	--	272	0	64
APR.									
01-30	15	85	18	69	--	5.4	274	0	64
MAY									
01-31	17	82	18	--	68	--	272	0	59
JUNE									
01-29	16	74	16	--	71	--	248	0	60
30...	12	42	4.4	--	19	--	132	0	21
JULY									
01-31	15	68	13	56	--	4.7	216	0	48
AUG.									
01-06	16	73	16	--	75	--	244	0	58
07-31	14	55	11	--	33	--	188	0	40
SEP.									
01-10	13	61	14	--	33	--	220	0	35
11-15	11	32	2.9	--	11	--	112	0	9.2
16-25	14	42	4.9	--	18	--	139	0	18
26-30	13	61	14	--	33	--	220	0	35

GUADALUPE RIVER BASIN

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08188800 GUADALUPE RIVER NEAR TIVOLI, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 504 mg/l Apr. 1-30; minimum, 132 mg/l Sept. 11-15.
Hardness: Maximum, 300 mg/l Dec. 1-31, Jan. 1-31, Feb. 1-23; minimum, 92 mg/l Sept. 11-15.

EXTREMES, October 1965 to September 1971.--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.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	CHLORIDE (CL) (MG/L)	DIS- SOLVED FLUORIDE (F) (MG/L)	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 COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-28	64	.4	2.4	383	250	50	1.2	674	7.9
29-30	36	--	2.0	236	160	31	.8	452	7.4
NOV.									
01-30	70	.2	2.2	411	270	54	1.2	714	8.0
DEC.									
01-31	78	.3	1.8	460	300	60	1.3	795	7.9
JAN.									
01-31	82	.4	2.2	477	300	52	1.4	806	8.0
FEB.									
01-28	87	.3	2.2	479	300	58	1.5	824	8.0
MAR.									
01-31	91	.3	4.0	492	290	63	1.7	820	7.8
APR.									
01-30	100	.3	2.1	504	290	62	1.8	859	7.9
MAY									
01-31	96	.4	1.6	482	280	56	1.8	828	7.8
JUNE									
01-29	94	.3	1.6	460	250	48	2.0	791	7.7
30...	20	--	1.6	190	120	15	.7	296	7.4
JULY									
01-31	82	.3	1.0	397	220	46	1.6	693	7.8
AUG.									
01-06	100	.2	.8	466	250	48	2.1	824	7.7
07-31	38	--	1.2	288	180	28	1.1	494	7.5
SEP.									
01-10	42	.3	1.3	312	210	29	1.0	538	7.9
11-15	10	--	.3	132	92	0	.5	227	7.1
16-25	21	--	.7	189	120	11	.7	325	7.5
26-30	42	.3	1.3	312	210	29	1.0	538	7.9

GUADALUPE RIVER BASIN

08188800 GUADALUPE RIVER NEAR TIVOLI, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER¹ 1970 TO SEPTEMBER 1971

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)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.												
07...	1400	14	70	16	43	240	0	45	60	.2	.28	.000
DEC.												
03...	1000	13	90	18	55	300	0	54	78	.3	.26	.020
FEB.												
02...	1755	15	88	19	59	292	0	57	84	.3	.30	.040
APR.												
06...	1700	15	86	19	73	284	0	62	110	.4	.08	.000
JUNE												
02...	1605	16	83	17	80	278	0	73	100	.3	.61	.010
AUG.												
17...	1930	18	64	12	49	196	0	63	60	.3	.56	.020

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- FILT- RABLE RESIDUE (MG/L)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.												
07...	.00	1.2	.36	372	84	65	240	44	--	660	7.6	26.0
DEC.												
03...	.00	1.3	.76	462	67	12	300	52	1.4	781	7.9	20.5
FEB.												
02...	.00	2.0	.93	475	86	22	300	58	--	810	7.9	16.0
APR.												
06...	.00	1.1	.84	506	70	19	290	60	--	878	8.1	19.0
JUNE												
02...	.00	1.2	.80	512	49	17	280	49	2.1	872	8.1	28.5
AUG.												
17...	.00	1.3	.63	368	384	48	210	48	1.5	621	7.3	28.5

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATU- RATION	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)
OCT.												
07...	9	40	4.8	59	12	.8	0	.04	200	0	0	0
DEC.												
03...	7	36	7.5	82	47	1.4	5	.00	--	--	--	--
FEB.												
02...	0	45	8.0	80	13	1.3	2	.00	0	0	0	0
APR.												
06...	2	40	8.2	87	13	3.5	0	.03	0	0	0	0
JUNE												
02...	0	35	7.1	91	10	2.2	0	.06	--	--	--	--
AUG.												
17...	22	120	4.3	55	35	2.9	0	.00	30	0	0	0

DATE	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.											
07...	0	0	2	7	0	30	0	<.5	4	540	0
DEC.											
03...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
02...	--	0	2	2	0	20	5	<.5	0	730	21
APR.											
06...	--	0	4	10	0	30	4	<.5	0	790	0
JUNE											
02...	--	--	--	--	--	--	--	--	--	--	--
AUG.											
17...	--	0	4	10	0	20	19	<.5	3	510	0

GUADALUPE RIVER BASIN

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08188800 GUADALUPE RIVER NEAR TIVOLI, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 07...	1400	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.01
FEB. 02...	1755	.00	<.2	.00	8.8	.00	3.4	.00	<.2	.00
APR. 06...	1700	.00	<.2	.00	2.7	.00	2.9	.00	<.2	.00
AUG. 17...	1930	.00	<.2	.00	1.4	.00	2.7	.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. 07...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 02...	<.2	.00	<.2	.00	<.2	.00	<.2	.01	<.2
APR. 06...	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 17...	<.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)	DI- AZINON IN BOTTOM DE- POSITS (UG/KG)	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)
OCT. 07...	.0	<1.0	.00	<.20	.00	<.2	.00	<.2	.00
FEB. 02...	.0	<1.0	.00	--	.00	<.2	.00	<.2	.00
APR. 06...	.0	5.4	.00	--	.00	<.2	.00	<.2	.00
AUG. 17...	.0	2.5	.00	--	.00	<.2	.00	<.2	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
OCT. 07...	<.2	.0	<10	.00	<1.3	.02	<.2	.00	<.2
FEB. 02...	<.2	.0	<10	.00	<11	.01	<1.5	.00	<1.2
APR. 06...	<.2	.0	<10	.00	<.7	.01	<.2	.00	<.2
AUG. 17...	<.2	--	<10	--	<1.7	--	<.4	--	<.4

GUADALUPE RIVER BASIN

08188800 GUADALUPE RIVER NEAR TIVOLI, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MAXIMUM VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	820	500	800	820	825	780	860	840	1000	625	880	520
2	800	530	800	810	840	800	890	840	970	520	850	530
3	750	610	800	820	840	820	890	840	860	575	850	550
4	710	630	800	830	835	900	900	860	855	590	880	550
5	660	680	800	840	840	880	900	855	830	760	880	565
6	660	690	805	850	835	850	890	850	820	725	880	575
7	660	700	810	840	825	840	900	880	800	640	675	580
8	670	710	800	830	815	825	890	870	820	620	650	590
9	670	720	800	820	820	820	870	860	860	610	420	590
10	690	740	805	820	820	800	870	860	850	610	390	600
11	690	720	805	820	825	830	870	855	820	620	445	400
12	695	740	795	820	835	830	870	855	820	620	445	220
13	670	760	790	820	825	830	930	845	820	670	530	215
14	590	760	790	810	820	840	940	860	810	670	565	230
15	620	770	790	820	810	860	910	850	890	700	570	290
16	620	740	810	800	825	850	900	845	840	720	650	345
17	660	775	810	800	820	810	880	835	830	750	730	350
18	730	770	810	800	830	810	860	910	880	780	790	335
19	760	740	810	800	850	800	860	920	840	800	710	380
20	770	790	805	800	840	810	840	900	820	800	450	380
21	750	790	805	800	840	820	860	840	900	800	415	330
22	730	790	810	820	840	840	880	820	950	800	450	340
23	690	790	815	820	840	830	930	830	830	800	520	350
24	710	740	810	820	850	810	910	845	590	800	540	360
25	745	740	805	820	850	840	890	835	530	800	540	415
26	760	740	800	830	840	850	860	815	640	810	540	460
27	700	785	805	830	830	850	840	780	750	810	540	530
28	660	785	805	850	810	850	780	640	830	810	530	560
29	530	740	810	840	---	855	780	700	800	840	510	530
30	460	740	810	840	---	930	820	780	550	860	505	500
31	---	---	830	840	---	920	---	840	---	850	510	---
MONTH	688	733	805	822	831	838	876	837	814	722	608	439

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MINIMUM VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	800	460	770	800	815	760	830	820	900	380	800	510
2	750	500	790	800	835	800	870	835	860	370	820	520
3	710	530	785	810	835	810	880	830	855	510	810	510
4	660	605	770	825	815	880	880	855	805	515	800	540
5	640	625	780	830	835	840	880	820	780	520	835	550
6	610	650	795	830	825	830	870	840	770	605	675	560
7	640	670	800	830	815	820	890	870	770	590	400	560
8	650	700	795	800	805	815	860	860	800	570	410	570
9	660	700	800	810	810	780	860	850	820	590	360	580
10	660	715	805	810	810	795	860	850	820	600	325	400
11	660	720	785	800	825	820	860	845	800	600	390	185
12	660	735	790	810	825	820	860	845	800	600	400	185
13	570	750	780	800	815	820	910	835	800	620	430	175
14	570	750	770	800	810	830	910	850	790	600	520	180
15	470	760	785	800	800	850	870	840	840	650	530	230
16	540	760	800	800	815	810	880	835	800	680	530	290
17	610	760	800	800	820	750	860	825	800	690	650	315
18	660	760	810	800	820	780	840	900	830	710	690	325
19	730	760	800	800	830	800	840	900	820	720	440	325
20	750	770	795	800	840	800	820	840	780	740	410	250
21	730	770	795	800	840	810	840	800	760	710	390	270
22	690	770	805	810	840	820	860	810	650	710	400	315
23	650	760	805	810	820	810	910	820	550	720	440	340
24	660	770	800	810	830	790	890	835	480	710	510	350
25	720	770	795	810	830	820	860	815	440	720	510	360
26	710	770	800	825	830	840	840	780	530	720	530	415
27	640	770	800	825	810	840	780	640	570	720	500	460
28	530	775	795	840	780	840	740	600	700	720	490	510
29	430	770	805	820	---	845	740	680	550	780	490	480
30	420	770	805	820	---	920	770	760	270	800	475	450
31	---	---	820	820	---	840	---	820	---	800	490	---
MONTH	639	713	795	811	821	819	852	816	725	644	531	390

725

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	810	400	795	810	820	770	845	830	950	600	840	515
2	775	515	795	805	837	800	875	836	915	440	830	525
3	730	570	790	815	837	817	885	835	858	530	820	530
4	685	618	780	828	820	890	890	858	820	550	810	530
5	650	652	790	835	837	850	890	835	800	610	850	560
6	625	670	800	840	830	840	880	845	790	620	795	570
7	645	685	805	835	820	830	895	875	785	600	515	570
8	660	705	795	815	810	820	870	865	815	585	470	580
9	665	710	800	815	815	795	865	855	850	595	370	585
10	680	728	805	815	815	800	865	855	840	605	340	560
11	680	720	795	810	825	825	865	852	805	610	410	250
12	682	738	790	815	829	822	865	852	805	610	415	205
13	585	755	785	810	820	822	920	840	805	635	445	195
14	585	755	780	805	815	835	930	857	800	640	530	205
15	600	765	787	810	805	855	890	845	870	660	540	260
16	610	770	805	800	820	830	890	840	810	685	550	310
17	640	768	805	800	820	769	870	830	810	720	690	330
18	710	765	810	800	825	790	850	905	850	750	730	330
19	745	770	805	800	840	800	845	917	830	770	500	350
20	760	780	800	800	840	805	830	850	790	780	420	315
21	745	740	800	800	840	815	855	815	775	760	405	300
22	700	780	808	815	840	830	870	815	885	760	430	325
23	670	785	810	815	830	820	925	825	660	760	450	345
24	690	775	805	815	839	800	895	840	520	760	515	355
25	730	775	800	815	840	830	870	820	450	760	515	385
26	745	775	800	828	833	846	845	795	580	770	535	435
27	660	778	803	828	820	845	795	670	710	760	515	500
28	610	780	800	845	790	845	765	620	770	770	505	535
29	480	775	808	830	---	848	770	690	660	810	495	510
30	450	775	808	830	---	923	815	770	280	830	485	475
31	---	---	825	830	---	872	---	830	---	830	495	---
MONTH	667	723	799	817	825	827	864	825	763	683	555	415

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), INSTANTANEOUS VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

MISCELLANEOUS ANALYSES OF STREAMS IN THE GUADALUPE RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08167700 CANYON LAKE NEAR NEW BRAUNFELS, TEX. (Lat 29°52'07", long 98°11'55")

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 PO- TAS- SIUM (K) (MG/L)	HICAR- RONATE (HCO ₃) (MG/L)	CAR- RONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 04...	1442	10	47	17	9.6	2.0	204	0	18	18
JULY 01...	1208	11	54	16	9.4	2.1	214	0	19	17
AUG. 20...	1100	10	50	17	8.7	2.2	210	0	17	17

DATE	TIME	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- RONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
JAN. 04...		.2	.20	150	223	190	20	.3	401	7.6	13.5
JULY 01...		.2	.20	--	235	200	25	.3	418	7.6	15.5
AUG. 20...		.2	.10	50	226	200	23	.3	412	7.5	--

08179500 MEDINA LAKE NEAR SAN ANTONIO, TEX. (Lat 29°32'24", long 98°56'01")

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 PO- TAS- SIUM (K) (MG/L)	HICAR- RONATE (HCO ₃) (MG/L)	CAR- RONATE (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)
FEB. 26...	1125	8.1	61	18	8.0	2.1	186	0	64	15	.3
JULY 21...	1055	7.5	51	18	7.5	2.4	160	0	61	15	.3

DATE	TIME	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- RONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- CORAL UNITS)
FEB. 26...		.20	50	268	230	74	.2	463	7.5	14.0	0
JULY 21...		.00	45	242	200	70	.2	421	8.0	23.0	--

08186500 ECLETO CREEK NEAR RUNGE, TEX., (lat 28°55'12", long 97°46'19")

DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	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	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
DEC., 1969											
09...	1733	8.1	13.5	45	--	--	--	--	--	--	.98
JAN., 1970											
13...	1648	1.7	9.0	30	--	--	--	--	--	--	.14
MAR.											
24...	1705	5.7	19.0	105	--	--	--	--	--	--	1.6
AUG., 1971											
05...	1700	81	24.5	1070	93	94	97	99	99	100	234

SALT CREEK BASIN

729

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.

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

Pesticide analyses: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
SEP. 14...	1130	246	18	9.8	2.0	4.0	4.3	45	0	1.6	4.4

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 BORON (B) (UG/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)
SEP. 14...	.0	.27	.000	.30	.00	.040	70	66	32	33	0

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	TUR- BID- ITY (JTU)	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)
SEP. 14...	.3	94	6.7	27.0	15	24	1.8	70	10	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)
SEP. 14...	0	3	90	0	0	3	1.4	0	80	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)
SEP. 14...	1130	246	.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)
SEP. 14...	.00	.0	.00	.00	.00	.00	.00	.03	.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.

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

WATER QUALITY DATA. WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
NOV.												
04...	1200	.09	11	36	5.5	140	7.0	116	0	45	200	.2
05...	0900	--	--	--	--	--	--	--	--	--	--	--
AUG.												
10...	1650	9.6	30	16	3.8	48	11	79	0	15	65	.1
SEP.												
14...	1540	3110	9.6	5.0	1.2	3.5	3.3	26	0	.4	4.0	.0

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)
NOV.												
04...	.900	.070	.55	.000	.00	.1	.17	750	504	144	110	18
05...	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
10...	.500	.049	1.1	.000	.29	.00	.40	260	229	25	56	0
SEP.												
14...	--	--	.24	.000	.24	.00	.060	30	40	8	17	0

DATE	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (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)
NOV.												
04...	5.7	942	7.4	14.0	80	7.4	71	60	3.3	--	--	--
05...	--	--	--	--	--	--	--	--	--	200	0	0
AUG.												
10...	2.8	366	7.0	31.5	10	--	--	91	4.5	70	0	0
SEP.												
14...	.4	62	7.1	27.0	6	2.6	32	21	1.4	80	0	0

DATE	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)
NOV.											
04...	--	--	--	--	--	--	--	--	--	--	--
05...	0	0	5	29	0	40	1	<.5	2	640	0
AUG.											
10...	--	1	8	340	0	10	4	--	3	480	30
SEP.											
14...	--	0	2	100	0	0	1	1.4	0	80	40

COPANO CREEK BASIN

731

08189200 COPANO CREEK NEAR REFUGIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 04...	1200	.09	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 10...	1650	9.6	.00	<.2	.00	<.2	.00	<.2	.00	<.2
SEP. 14...	1540	3110	.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)
NOV. 04...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
AUG. 10...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
SEP. 14...	.00	--	.00	--	.00	--	.00	--	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
NOV. 04...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
AUG. 10...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
SEP. 14...	--	.0	--	.00	.00	--	.00	--	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
NOV. 04...	<.2	.0	<10	.00	<9.0	.00	<1.9	.00	<1.2
AUG. 10...	<.2	.0	<10	.00	<1.3	.00	<.4	.00	<.4
SEP. 14...	--	.0	--	.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 1971.
Chemical and biochemical analyses: January 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	8.5	35	220	37	1500	--	12	292	0	30
NOV.										
01-30	5.6	37	230	46	--	--	--	188	0	--
DEC.										
01-31	5.0	37	260	40	--	--	--	296	0	--
JAN.										
01-31	4.9	36	240	46	1700	--	12	188	0	48
FEB.										
01-28	4.9	35	240	48	--	--	--	192	0	--
MAR.										
01-31	4.1	36	260	54	--	--	--	152	0	--
APR.										
01-30	3.8	34	320	58	2100	--	15	289	0	50
MAY										
01-23	3.0	44	360	81	--	--	--	240	0	--
24...	15	26	--	--	--	750	--	162	0	26
25...	28	26	330	14	--	290	--	129	0	20
26-27	7.7	26	--	--	--	750	--	162	0	26
28-31	2.9	44	360	81	--	--	--	240	0	--
JUNE										
01-30	1.8	37	450	80	--	--	--	250	0	--
JULY										
01-31	8.3	38	880	170	8000	--	48	184	0	36
AUG.										
01-04	4.3	28	860	140	--	7500	--	184	0	28
05...	349	30	200	31	--	1200	--	258	0	28
06-08	1770	11	16	2.0	--	5.3	--	64	0	8
09...	158	--	39	3.5	--	--	--	117	0	--
10-12	45	23	76	11	--	250	--	164	0	13
13-18	10	29	150	17	--	680	--	244	0	22
19-31	6.0	30	200	31	--	1200	--	258	0	28
SEP.										
01-09	4.0	34	200	38	--	1400	--	130	0	--
10-14	23000	6.8	16	5	--	3.8	--	57	0	--
15-22	1260	17	35	3.6	--	33	--	118	0	--
23-27	254	29	99	17	--	300	--	204	0	--
28...	780	17	35	3.6	--	33	--	118	0	--
29...	544	--	58	5.7	--	130	--	140	0	--
30...	247	29	99	17	--	300	--	204	0	--
WTD. AVG.	--	8.4	22	1.6	--	--	--	67	0	--
TIME WTD.										
AVG.	371	35	317	59	--	--	--	217	0	--
TOT. LOAD (TONS)	--	3070	8050	601	--	--	--	24400	0	--

MISSION RIVER BASIN

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08189500 MISSION RIVER AT REFUGIO, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Hardness: 2,900 mg/l July 1-31; minimum, 42 mg/l Sept. 10-14.
 Specific conductance: Maximum daily, 51,100 micromhos Aug. 1; minimum daily, 85 micromhos Sept. 13.
 Water temperatures: Maximum, 32.0°C July 13; minimum, 6.5°C Jan. 7.

EXTREMES, September 1961 to September 1971.--Dissolved solids (1961-69): Maximum, 70,100 mg/l Aug. 1-10, 13-30, 1963; minimum, 80 mg/l May 5-7, 1966.

Hardness (1961-69): Maximum, 6,280 mg/l Aug. 1-10, 13-30, 1963; minimum, 43 mg/l May 5-7, 1966.

Specific conductance: Maximum daily, 100,000 micromhos Nov. 28, 1965; minimum daily, 85 micromhos Sept. 13, 1971.

Water temperatures (1962-70): 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 1970 TO SEPTEMBER 1971

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.									
01-31	2600	--	--	4580	710	470	25	8230	7.7
NOV.									
01-30	3000	--	--	--	760	610	--	9380	7.7
DEC.									
01-31	2800	--	--	--	820	580	--	8830	7.8
JAN.									
01-31	3000	--	--	5090	790	640	26	8920	7.7
FEB.									
01-28	3000	--	--	--	800	640	--	9290	7.6
MAR.									
01-31	3400	--	--	--	860	740	2.2	10200	7.7
APR.									
01-30	3700	--	--	6420	1000	800	28	11000	7.7
MAY									
01-23	4400	--	--	--	1200	1000	--	13100	7.5
24...	1300	--	.6	--	430	300	16	4250	7.6
25...	540	.3	1.1	--	270	170	4.3	1990	7.8
26-27	1300	.3	.6	6400	430	300	16	4250	7.6
28-31	4400	--	--	--	1200	1000	--	13100	7.5
JUNE									
01-30	6000	--	--	--	1400	1200	--	17200	7.3
JULY									
01-31	14000	--	--	23700	2900	2700	65	39400	7.7
AUG.									
01-04	13000	.2	--	22100	2700	2600	63	37400	7.6
05...	2000	.2	--	3620	620	400	20	6280	8.1
06-08	3.0	.1	.5	71	48	0	.3	143	7.3
09...	120	--	--	--	110	16	--	548	7.4
10-12	440	.1	.6	894	240	100	7.0	1580	7.5
13-18	1200	.3	.5	2220	450	250	14	3880	7.9
19-31	2000	.2	--	3620	620	400	20	6280	8.1
SEP.									
01-09	2550	--	.7	--	650	540	24	8100	7.6
10-14	1.8	.1	.2	58	42	0	.3	96	7.6
15-22	54	.1	.4	202	100	5	1.4	350	7.7
23-27	560	.2	.7	1100	320	150	7.3	2110	8.2
28...	54	.1	.4	202	100	5	1.4	350	7.7
29...	230	.1	.4	490	170	54	4.2	966	8.0
30...	560	.2	.7	1100	320	150	7.3	2110	8.2
WTD. AVG.	56	--	--	--	61	11	--	273	7.6
TIME WTD.									
AVG.	4120	--	--	--	1020	841	--	12200	7.7
TOT. LOAD (TONS)	20400	--	--	--	--	--	--	--	--

MISSION RIVER BASIN

08189500 MISSION RIVER AT REFUGIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 07...	1530	7.5	32	210	34	--	1400	--	296	0
DEC. 02...	1400	5.8	35	250	42	1400	--	8.9	368	0
FEB. 02...	1515	4.6	35	300	51	--	1700	--	344	0
APR. 06...	1530	3.1	34	330	14	--	2100	--	328	0
JUNE 02...	1345	--	--	--	--	--	--	--	234	0
AUG. 17...	1645	7.5	16	170	26	--	780	--	246	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 CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
OCT. 07...	34	2400	.2	.38	.020	.46	.00	.040	4260	47
DEC. 02...	49	2500	.4	.68	.020	5.7	.00	2.1	4470	24
FEB. 02...	56	3000	.3	.28	.010	.57	.00	.030	5360	54
APR. 06...	50	3700	.3	.03	.020	.00	.00	.040	6400	24
JUNE 02...	52	4000	.3	.23	.010	.08	.00	.10	6840	67
AUG. 17...	26	1400	.2	.39	.000	.00	.00	.040	2560	20

DATE	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
OCT. 07...	21	660	420	--	7870	7.5	27.5	14	15	5.8
DEC. 02...	8	800	490	22	8080	7.7	24.0	22	6	5.7
FEB. 02...	20	950	670	--	9440	7.7	13.0	6	20	5.0
APR. 06...	8	890	620	--	11000	7.8	22.0	0	10	8.7
JUNE 02...	18	1100	900	29	11800	7.7	31.0	0	40	10.2
AUG. 17...	19	530	320	15	5170	7.8	31.0	45	10	9.2

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)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)
OCT. 07...	74	25	2.0	0	.10	0	5	0	--	0
DEC. 02...	67	170	8.0	20	.13	--	--	--	--	--
FEB. 02...	49	28	2.1	8	.00	10	0	0	--	--
APR. 06...	102	28	2.4	0	.11	0	0	0	0	--
JUNE 02...	142	37	2.4	0	.03	--	--	--	--	--
AUG. 17...	124	37	4.3	0	.14	20	10	0	--	--

08189500 MISSION RIVER AT REFUGIO, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 07...	0	2	10	0	230	460	<.5	5	9400	0
DEC. 02...	--	--	--	--	--	--	--	--	--	--
FEB. 02...	0	2	6	0	270	650	<.5	0	12000	9
APR. 06...	0	4	10	0	350	610	<.5	0	14000	30
JUNE 02...	--	--	--	--	--	--	--	--	--	--
AUG. 17...	1	3	20	0	120	240	<.5	2	4900	0

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. 07...	1530	7.5	.00	<.2	.00	4.8	.00	3.0	.00	4.0
FEB. 02...	1515	4.6	.00	<.2	.00	4.7	.00	.8	.00	15
APR. 06...	1530	3.1	.00	<.2	.00	2.4	.00	1.8	.00	<.2
AUG. 17...	1645	7.5	.00	<.2	.00	4.0	.00	6.6	.00	1.1

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)
OCT. 07...	.00	1.9	.00	<.2	.00	<.2	.00	<.2	.00	<.2
FEB. 02...	.00	.6	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 06...	.00	1.0	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 17...	.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)	DI-AZINON IN BOTTOM DE-POSITS (UG/KG)	MALA-THION (UG/L)	MALA-THION IN BOTTOM DE-POSITS (UG/KG)	METHYL PARA-THION (UG/L)	METHYL PARA-THION IN BOTTOM DE-POSITS (UG/KG)	PARA-THION (UG/L)
OCT. 07...	.0	<1.0	.00	<.20	.00	<.2	.00	<.2	.00
FEB. 02...	.0	<1.0	.00	--	.00	<.2	.00	<.2	.00
APR. 06...	.0	6.3	.00	--	.00	--	.00	--	.00
AUG. 17...	.0	35	.00	--	.00	<.2	.00	<.2	.00

DATE	PARA-THION IN BOTTOM DE-POSITS (UG/KG)	TOX-APHENE (UG/L)	TOX-APHENE IN BOTTOM DE-POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE-POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE-POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE-POSITS (UG/KG)
OCT. 07...	<.2	.0	<10	.00	<2.7	.03	<.4	.00	<.3
FEB. 02...	<.2	.0	<10	.00	<2.4	.00	<.3	.00	<.2
APR. 06...	--	.0	<10	.00	<1.3	.04	<.4	.00	<.4
AUG. 17...	<.2	.0	<10	.00	<3.4	.03	<.7	.00	<.7

MISSION RIVER BASIN

08189500 MISSION RIVER AT REFUGION, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6360	7540	8690	8540	9380	---	11800	11800	11300	22100	51100	7960
2	7610	8030	8070	---	9380	8840	11300	---	12000	22000	40300	7480
3	8420	8970	8190	9120	8940	7460	11500	12800	12800	23300	32900	7730
4	9000	8600	8450	8700	9250	---	11400	12200	---	25100	22900	7790
5	9130	---	---	8280	10000	10600	11100	10900	14000	26900	8190	---
6	6880	9630	8690	7110	9950	9360	10700	10900	14300	28300	124	7790
7	7830	9630	8620	7200	9810	9280	10900	12000	14800	32600	132	8320
8	---	9860	8620	7030	7500	9200	11500	12500	16000	33600	172	8600
9	8290	9770	8770	8000	8530	10000	12000	13300	17500	34900	548	9040
10	8530	9680	---	9370	8530	10000	12300	13900	18200	34400	1070	---
11	7960	9900	8690	9490	9290	9900	12500	13800	18900	---	1520	---
12	8090	10000	8590	9900	8940	10000	12000	12800	19500	37100	2160	90
13	5990	10000	9770	---	8680	9860	---	12900	---	37700	3080	85
14	6980	9800	8730	9450	8860	9860	12400	13100	20700	37800	3490	114
15	8140	9050	9030	9460	9380	10100	12300	13100	20500	38200	3970	356
16	8330	9090	8730	9010	8940	10400	12600	14200	20300	39500	4330	---
17	---	10100	---	9170	9550	10500	9720	15000	21600	39700	4640	---
18	9170	10100	8990	8860	9860	10600	7420	15300	22200	41000	---	---
19	9460	10000	9180	8850	9680	10300	8180	---	23100	42300	5200	---
20	9590	9720	9380	9200	9590	10600	8900	15700	16300	41900	5730	---
21	9670	9630	8770	9450	9540	10600	9220	15800	11900	44200	5940	---
22	9240	---	8770	---	9130	10900	9810	16300	11700	46200	6800	---
23	9630	9540	8840	9630	9630	10500	10000	17000	---	46800	5190	1900
24	9010	9200	8730	9370	9950	10500	10100	4720	13000	47300	5460	1790
25	9290	8820	8800	9040	10100	10500	---	1990	14500	47400	---	---
26	9460	9010	8880	9290	8860	10700	11200	3310	16200	48600	5450	---
27	9500	9090	9100	9400	8860	10400	11500	4710	17100	48100	6120	2850
28	6400	8600	8990	9240	9090	10800	11600	6530	19800	49000	6670	343
29	---	8790	---	9240	---	10500	11200	---	21300	48700	7480	966
30	5140	---	9060	9120	---	11000	11500	9010	21500	49000	7110	1860
31	6200	---	8690	9680	---	11100	---	10300	---	50400	7550	---
MONTH	8190	9340	8810	8940	9260	10150	10950	11640	17070	38800	8800	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.5	20.5	21.0	15.0	21.0	---	22.0	25.5	29.5	31.0	28.0	29.5
2	23.0	18.0	23.0	---	13.5	16.5	21.0	---	29.5	28.0	29.0	31.0
3	24.0	16.5	23.0	19.0	17.0	15.0	19.5	28.0	29.5	28.0	25.5	31.0
4	26.0	15.5	22.0	14.5	20.5	---	21.5	26.5	---	28.0	26.0	30.0
5	25.5	---	---	11.0	18.5	15.5	18.0	26.5	31.0	28.0	25.0	---
6	26.5	16.0	20.5	8.0	22.0	15.5	16.5	26.5	29.5	---	25.0	30.0
7	25.5	18.5	20.0	6.5	15.0	15.0	21.0	26.5	28.0	31.0	28.0	31.5
8	---	20.0	20.0	8.0	11.0	15.5	21.0	26.5	30.0	29.0	28.0	31.5
9	21.5	21.0	21.0	8.0	12.0	20.5	23.0	26.5	30.5	27.0	29.5	31.0
10	20.0	19.0	---	14.0	11.0	23.0	24.5	28.0	30.5	27.0	30.0	---
11	25.0	18.0	20.5	16.5	15.0	22.0	24.0	25.0	30.5	---	28.5	---
12	23.5	18.0	15.0	20.5	16.5	21.5	23.0	28.0	31.0	---	28.5	24.5
13	24.5	20.0	19.0	---	15.5	23.0	---	26.5	---	32.0	28.5	24.5
14	22.0	16.0	14.5	24.5	14.5	26.5	24.0	23.5	31.0	28.0	29.0	26.0
15	21.0	13.5	15.5	21.0	20.0	24.0	24.0	24.0	31.0	29.0	31.0	---
16	21.0	13.0	15.5	18.0	20.0	21.5	23.5	27.0	29.0	28.0	31.0	---
17	---	15.5	---	16.5	21.0	21.5	21.0	27.0	31.0	28.5	31.0	---
18	21.0	16.5	18.0	17.0	21.5	23.5	25.0	27.0	30.5	28.5	---	---
19	21.0	18.0	20.5	15.0	23.0	20.5	24.5	---	30.5	31.0	30.5	---
20	21.5	17.0	19.5	14.0	21.5	23.5	22.0	27.0	30.0	28.5	31.0	---
21	23.5	19.0	21.5	18.0	21.5	21.5	23.0	27.0	30.0	28.0	29.0	---
22	23.5	---	23.5	---	16.0	23.5	25.0	28.5	30.5	31.0	28.5	---
23	23.5	15.5	22.0	20.0	15.5	21.0	27.0	28.0	---	27.0	31.5	26.0
24	24.0	11.5	18.0	20.0	19.5	20.5	29.0	24.5	29.5	28.0	28.0	28.0
25	25.0	14.5	19.0	22.0	20.5	22.0	---	27.0	28.5	28.5	---	---
26	25.5	18.5	15.5	20.5	22.0	17.0	25.5	28.5	29.5	31.0	29.0	---
27	27.0	18.0	16.5	19.5	25.5	21.0	27.0	29.0	26.5	28.0	29.0	26.5
28	20.0	21.0	18.5	18.5	24.0	24.0	27.0	29.5	30.0	31.0	30.0	27.0
29	---	22.0	---	24.0	---	25.0	27.0	---	30.5	28.5	29.5	28.5
30	19.0	---	21.0	23.0	---	24.0	26.5	29.5	30.5	28.0	29.0	28.0
31	16.0	---	16.5	21.0	---	21.0	---	29.5	---	30.5	29.5	---
MONTH	23.0	17.5	19.5	17.0	18.5	21.0	23.5	27.0	30.0	29.0	29.0	---

ARANSAS RIVER BASIN

737

08189800 CHILTIPI 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 1971.

Pesticide analyses: October 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT. 01...	1415	4.4	19	490	87	4900	27	88	0	15
NOV. 04...	1615	65	18	50	8.5	400	8.7	52	0	6.0
DEC. 08...	1600	1.6	19	2300	370	22000	75	102	0	16
JAN. 14...	1550	2.4	21	2500	390	22000	67	119	0	19
FEB. 17...	1415	1.9	20	2400	380	23000	84	98	0	42
MAR. 26...	1315	1.6	22	2500	450	24000	69	124	0	21
APR. 30...	1315	1.6	21	2300	19	23000	100	95	0	14
JUNE 01...	1115	1.3	15	1900	14	18000	120	105	0	15
JULY 06...	1645	1.2	23	2400	430	24000	87	72	0	13
AUG. 10...	1355	33	33	160	33	1400	14	90	0	7.0
SEP. 14...	1425	893	15	17	2.7	20	5.2	68	0	2.4

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)
OCT. 01...	8600	.2	--	--	1.2	.010	.45	.1	.19	--
NOV. 04...	690	.2	3.1	.180	1.1	.020	.66	.5	.85	350
DEC. 08...	39000	.4	--	--	4.4	.020	.00	.00	.10	--
JAN. 14...	40000	.3	--	--	9.0	.000	.00	.00	.070	--
FEB. 17...	41000	.4	--	--	3.6	.000	.00	.00	.040	--
MAR. 26...	42000	.3	190	14	.44	.000	1.7	.1	.070	39000
APR. 30...	40000	--	--	--	.62	.010	5.4	.1	.070	--
JUNE 01...	32000	--	--	--	1.8	.000	3.1	.2	.13	--
JULY 06...	42000	.5	200	16	.50	.010	4.2	.2	.070	40000
AUG. 10...	2600	.2	13	1.3	.74	.000	.46	.00	.75	3000
SEP. 14...	32	.2	--	--	.37	.000	.34	.2	.26	70

ARANSAS RIVER BASIN

08189800 CHILTIPIN CREEK AT SINTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	TUR- BID- ITY (JTU)
OCT.										
01...	14200	32	10	1600	1500	54	24000	8.6	29.5	20
NOV.										
04...	1210	1040	--	160	120	14	2270	7.4	14.5	250
DEC.										
08...	63800	--	--	7300	7200	112	92700	7.4	24.5	15
JAN.										
14...	65700	--	--	7900	7800	108	94600	7.6	25.5	5
FEB.										
17...	66600	--	--	7600	7500	115	96300	7.3	26.0	7
MAR.										
26...	68800	10	194	8100	8000	116	97600	7.5	23.5	2
APR.										
30...	64800	--	--	5700	5600	131	95800	7.3	30.5	6
JUNE										
01...	52100	--	--	4900	4800	113	80000	7.8	30.0	7
JULY										
06...	69600	2	--	7800	7800	119	101000	7.5	36.5	1
AUG.										
10...	4310	35	--	540	470	26	7700	7.5	35.0	20
SEP.										
14...	129	350	--	54	0	1.2	220	6.8	26.0	150

DATE	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)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)
OCT.										
01...	16.7	239	19	5.0	--	--	--	--	--	--
NOV.										
04...	8.6	84	77	2.9	100	12	0	--	0	0
DEC.										
08...	16.9	319	280	3.8	--	--	--	--	--	--
JAN.										
14...	13.6	267	49	4.8	--	--	--	--	--	--
FEB.										
17...	14.3	292	49	4.8	--	--	--	--	--	--
MAR.										
26...	16.6	319	77	6.5	10	0	0	--	--	0
APR.										
30...	12.0	273	44	4.3	--	--	--	--	--	--
JUNE										
01...	13.9	278	70	7.1	--	--	--	--	--	--
JULY										
06...	--	--	64	2.9	0	0	2	0	--	0
AUG.										
10...	--	--	52	3.6	20	10	0	--	--	0
SEP.										
14...	4.3	52	24	2.5	240	10	0	--	--	0

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)
OCT.									
01...	--	--	--	--	--	--	--	--	--
NOV.									
04...	4	11	0	60	4	<.5	5	2300	0
DEC.									
08...	--	--	--	--	--	--	--	--	--
JAN.									
14...	--	--	--	--	--	--	--	--	--
FEB.									
17...	--	--	--	--	--	--	--	--	--
MAR.									
26...	0	5	0	1600	1300	<.5	0	160000	60
APR.									
30...	--	--	--	--	--	--	--	--	--
JUNE									
01...	--	--	--	--	--	--	--	--	--
JULY									
06...	4	30	0	4000	760	<.5	0	180000	140
AUG.									
10...	4	60	0	30	90	<.5	3	11000	0
SEP.									
14...	3	70	0	0	4	1.4	0	220	30

08189800 CHILTIPI CREEK AT SINTON, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 04...	1615	65	.00	<.2	.00	.4	.01	.4	.01	.4
MAR. 26...	1315	1.6	.00	<.2	.00	<.2	.00	<.2	.00	<.2
JULY 06...	1645	1.2	.00	<.2	.00	4.3	.00	3.2	.00	3.3
AUG. 10...	1355	33	.00	<.2	.00	<.2	.00	<.2	.00	<.2
SEP. 14...	1425	893	.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)
NOV. 04...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
MAR. 26...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
JULY 06...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
AUG. 10...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00
SEP. 14...	.01	--	.00	--	.00	--	.00	--	.00

DATE	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	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)
NOV. 04...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
MAR. 26...	<.2	.0	<1.0	.00	.00	--	.00	--	.00
JULY 06...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
AUG. 10...	<.2	.0	<1.0	.00	.00	<.2	.00	<.2	.00
SEP. 14...	--	.0	--	.00	.00	--	.00	--	.00

DATE	PARA- THION IN BOTTOM DE- POSITS (UG/KG)	TOX- APHENF (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)
NOV. 04...	<.2	.0	<10	.00	<1.1	.00	<.3	.00	<.4
MAR. 26...	--	.0	<10	.00	<8.0	.00	<3.6	.00	<2.2
JULY 06...	<.2	.0	<10	.00	<1.2	.00	<.4	.00	<.4
AUG. 10...	<.2	.0	<10	.00	<.8	.00	<.2	.00	<.2
SEP. 14...	--	.0	<10	.10	--	.03	--	.00	--

MISCELLANEOUS ANALYSES OF STREAMS IN THE ARANSAS RIVER BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08189700 ARANSAS RIVER NEAR SKIDMORE, TEX., (lat 28°16'56", long 97°37'14")

DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM
AUG., 1971							
06...	1340	734	26.0	194	98	98	99
07...	1055	161	26.0	97	--	--	--
SEP.							
02...	1200	4.5	--	357	--	--	--
13...	1145	644	--	251	--	--	--
13...	1730	380	--	206	--	--	--

DATE	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	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
AUG., 1971							
06...	100	93	97	98	98	98	384
07...	--	--	--	--	--	--	42
SEP.							
02...	--	--	--	--	--	--	4.3
13...	--	--	--	--	--	--	436
13...	--	--	--	--	--	--	211

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 1971.

Water temperatures: November 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	169	12	63	8.9	41	--	5.5	152	0	64
08-31	23	12	67	10	--	110	--	227	0	77
NOV.										
01-15	8.3	9.9	67	10	--	191	--	272	8	88
16-30	6.0	7.8	103	20	--	280	--	284	0	196
DEC.										
01-31	6.2	4.4	160	36	--	430	--	310	0	400
JAN.										
01-31	7.3	2.3	130	36	530	--	9.5	314	0	440
FEB.										
01-28	2.5	2.9	170	51	--	530	--	262	0	480
MAR.										
01-31	.83	2.7	170	44	--	660	--	204	0	470
APR.										
01-16	.74	2.0	170	46	600	--	13	216	0	450
17...	18	8.7	60	5.2	--	400	--	58	0	170
18-30	1.9	2.0	170	46	600	--	13	216	0	450
MAY										
01-02	.04	3.1	150	44	--	570	--	208	0	490
03-31	.00	--	--	--	--	--	--	--	--	--
JUNE										
01-14	.00	--	--	--	--	--	--	--	--	--
15-21	30	12	45	3.4	--	86	--	108	0	67
22-24	53	11	24	7.4	--	240	--	232	0	140
25-27	20	10	200	56	--	480	--	101	0	680
28-30	434	13	38	2.7	--	63	--	142	0	51
JULY										
01-05	294	4.2	43	5.3	43	--	9.4	158	0	38
06...	392	11	100	22	--	160	--	123	0	180
07-12	171	4.2	43	5.3	43	--	9.4	158	0	38
13-28	3.1	20	57	7.7	--	94	--	226	0	38
29-31	.00	--	--	--	--	--	--	--	--	--
AUG.										
01...	.00	--	--	--	--	--	--	--	--	--
02-05	81	17	61	9.4	--	100	--	199	0	66
06-17	1290	15	48	4.8	--	23	--	153	0	25
18-21	26400	13	42	3.0	--	7.4	--	140	0	7.0
22-23	7290	15	48	4.8	--	23	--	153	0	25
24-31	1370	16	84	11	--	28	--	232	0	48
SEP.										
01-05	382	14	88	14	--	75	--	194	4	98
06-11	226	17	120	21	--	130	--	217	0	170
12-17	1070	16	52	5.7	--	44	--	135	0	59
18-24	151	17	120	21	--	130	--	217	0	170
25-26	280	14	88	14	--	75	--	194	4	98
27-30	194	17	120	21	--	130	--	217	0	170
WTD. AVG.	--	14	49	4.8	--	--	--	152	0	23
TIME WTD.										
AVG.	455	8.1	112	25	--	--	--	227	0	253
TOT. LOAD (TONS)	--	6090	22100	2140	--	--	--	68100	29	10500

NUECES RIVER BASIN

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08207000 FRIO RIVER AT CALLIHAM, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 2,430 mg/l Mar. 1-31; minimum, 151 mg/l Aug. 18-21.

Hardness: Maximum, 740 mg/l June 25-27; minimum, 90 mg/l June 22-24.

Specific conductance: Maximum daily, 4,450 micromhos Mar. 11; minimum daily, 229 micromhos Aug. 18.

Water temperatures: Maximum, 33.0°C July 17; minimum, 9.0°C Jan. 7, 8.

EXTREMES, November 1967 to September 1971.--Dissolved solids: Maximum, 3,320 mg/l Nov. 30, 1968; minimum, 70 mg/l Feb. 13, 1969.

Hardness: Maximum, 833 mg/l May 24, 1969; 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 1970 TO SEPTEMBER 1971

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-07	63	.2	1.6	340	190	69	1.3	579	7.5
08-31	120	--	.6	511	210	22	3.3	858	7.9
NOV.									
01-15	208	.3	.6	719	208	0	5.8	1230	8.3
16-30	362	--	.3	1110	340	107	6.6	1900	8.0
DEC.									
01-31	580	.4	.3	1760	560	300	8.0	2880	7.9
JAN.									
01-31	650	.6	.1	1950	460	200	11	3180	8.0
FEB.									
01-28	770	--	.4	2140	640	430	9.2	3550	7.6
MAR.									
01-31	980	--	.4	2430	600	440	12	3990	7.8
APR.									
01-16	920	--	.3	2320	620	440	11	3880	7.9
17...	570	.3	1.1	1250	170	120	13	2250	7.0
18-30	920	--	.3	2320	620	440	11	3880	7.9
MAY									
01-02	780	--	.5	2130	550	380	11	3460	7.6
03-31	--	--	--	--	--	--	--	--	--
JUNE									
01-14	--	--	--	--	--	--	--	--	--
15-21	110	.2	.9	378	130	38	3.3	658	7.5
22-24	180	--	.9	722	90	0	11	1230	8.2
25-27	690	--	1.3	2170	740	660	7.7	3460	7.6
28-30	49	--	1.5	293	110	0	2.7	486	8.0
JULY									
01-05	48	.2	.6	272	130	0	1.6	472	7.8
06...	290	--	1.2	840	350	250	3.8	1480	7.4
07-12	48	.2	.6	272	130	0	1.6	472	7.8
13-28	110	--	.5	438	170	0	3.1	759	7.9
29-31	--	--	--	--	--	--	--	--	--
AUG.									
01...	--	--	--	--	--	--	--	--	--
02-05	130	.2	.8	483	190	28	3.1	845	7.9
06-17	26	--	.7	220	140	14	.8	372	7.6
18-21	5.6	--	.9	151	120	2	.3	254	7.8
22-23	26	--	.7	220	140	14	.8	372	7.6
24-31	50	--	1.5	358	250	64	.8	594	8.2
SEP.									
01-05	120	.2	2.1	514	280	110	2.0	847	8.3
06-11	210	--	1.9	777	380	200	2.8	1290	8.2
12-17	51	--	1.6	301	150	43	1.5	501	8.0
18-24	210	--	1.9	777	380	200	2.8	1290	8.2
25-26	120	.2	2.1	514	280	110	2.0	847	8.3
27-30	210	--	1.9	777	380	200	2.8	1290	8.2
WTD. AVG.	25	--	.9	216	144	18	.7	363	7.8
TIME WTD.									
AVG.	428	--	.6	1250	384	199	6.3	2080	7.9
TOT. LOAD (TONS)	11400	--	435	97000	--	--	--	--	--

NUECES RIVER BASIN

08207000 FRIO RIVER AT CALLIHAM, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	446	1060	2370	3150	---	---	4230	3460	---	483	---	842
2	713	1100	2410	3160	---	4080	4240	3450	---	392	---	858
3	669	1160	2510	3100	3340	4030	4270	---	---	419	863	877
4	659	1200	2560	3180	3350	4040	4240	---	---	543	879	900
5	558	1230	2630	3160	3370	4110	4180	---	---	379	793	959
6	465	1140	2670	3200	3360	4150	4270	---	---	1480	380	1050
7	537	1070	2710	3150	3370	4220	4170	---	---	429	450	1110
8	726	1030	2720	3110	3370	4290	4200	---	---	424	282	1150
9	787	1070	2810	3190	3400	4260	4300	---	---	501	288	1180
10	806	1140	2910	3070	3430	4270	4320	---	---	532	284	---
11	833	1300	2890	3100	3450	4450	4410	---	---	545	331	1330
12	850	1410	2950	3160	3470	3800	4290	---	---	558	325	596
13	829	1440	2950	3170	3500	3540	4300	---	---	590	374	444
14	799	1490	2970	3170	3490	3570	4340	---	---	623	463	497
15	775	1510	2860	3130	3520	3730	4370	---	---	648	504	463
16	760	1580	2930	3140	3550	3740	4020	---	519	681	437	631
17	758	1590	2930	3170	3600	3780	2250	---	513	692	369	776
18	765	1630	2930	3240	3610	3810	3420	---	549	717	229	1020
19	788	1660	2930	3250	3640	3830	2920	---	688	735	237	1290
20	820	1730	2950	3280	3630	3070	3310	---	702	752	252	1420
21	859	1760	2970	3230	3680	3930	3430	---	715	781	299	---
22	885	1810	3000	3200	3700	4000	3360	---	1040	795	333	1550
23	906	1890	2970	3200	3740	3960	3360	---	474	833	409	1500
24	917	1980	2960	3180	3810	4020	3410	---	1410	836	446	1690
25	896	2070	3040	3150	3820	4070	3450	---	3190	849	503	781
26	872	2060	3050	3180	3310	4080	3440	---	3620	856	541	963
27	951	2100	3110	3210	3810	4070	3460	---	3600	869	568	1190
28	975	2210	3080	3280	3930	4140	3440	---	912	875	609	1270
29	983	2230	3100	3320	---	4060	3450	---	553	---	664	1420
30	1010	2180	3110	3300	---	4170	3440	---	432	---	667	1140
31	1030	---	3130	3320	---	4210	---	---	---	---	768	---
MONTH	794	1560	2870	3190	3550	3980	3810	---	---	672	467	1030

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	21.0	---	16.0	---	---	21.0	23.5	---	29.0	---	29.5
2	23.0	17.0	---	16.0	---	18.0	19.0	28.0	---	28.5	---	30.0
3	22.0	17.0	---	19.5	16.0	15.0	18.5	---	---	29.0	26.0	30.0
4	24.0	16.0	---	12.0	16.0	17.0	17.5	---	---	30.0	27.0	30.0
5	23.0	16.0	---	12.0	16.0	21.0	18.5	---	---	29.0	25.0	30.0
6	25.0	16.0	---	10.0	15.0	17.0	18.5	---	---	30.0	25.0	31.0
7	26.0	14.0	---	9.0	14.0	17.0	19.0	---	---	30.0	27.0	30.0
8	26.0	21.0	---	9.0	13.0	18.0	20.0	---	---	29.0	27.0	30.0
9	22.5	17.0	26.0	10.0	11.0	21.0	20.5	---	---	29.0	27.0	29.0
10	25.0	15.0	22.0	14.0	12.0	18.0	19.5	---	---	30.0	26.0	---
11	23.0	18.5	18.0	14.0	15.0	22.0	25.0	---	---	29.0	28.0	25.5
12	24.0	15.0	27.0	15.5	14.5	24.0	23.0	---	---	30.5	28.5	25.0
13	21.0	16.0	16.5	17.0	15.0	27.0	23.0	---	---	30.0	28.0	25.0
14	23.0	14.5	15.5	18.0	15.0	25.0	22.5	---	---	30.0	27.0	27.0
15	23.0	14.0	16.0	18.0	18.0	23.0	23.0	---	---	31.0	28.0	27.5
16	21.0	14.0	15.0	17.0	18.0	24.0	21.0	---	27.0	---	28.0	28.0
17	18.0	14.0	15.0	18.5	18.0	21.0	22.0	---	32.0	33.0	28.0	28.5
18	18.0	14.0	17.0	16.0	22.0	24.0	24.5	---	31.0	30.0	26.0	28.0
19	17.0	17.0	20.0	14.0	22.0	19.0	24.0	---	27.0	29.0	29.0	25.5
20	19.5	13.0	18.0	15.0	19.0	19.0	21.5	---	27.5	30.0	28.0	24.0
21	22.0	14.0	18.0	17.0	19.0	22.0	24.5	---	26.0	31.0	30.0	---
22	21.0	18.0	21.0	18.0	18.0	23.0	24.5	---	25.0	32.0	30.0	25.0
23	22.0	---	17.5	16.0	15.0	21.0	25.0	---	27.0	30.0	30.0	26.0
24	24.0	---	16.0	18.0	18.0	19.0	24.0	---	27.0	31.0	29.0	26.0
25	24.0	---	16.0	20.0	21.0	24.0	23.0	---	28.0	30.0	30.0	27.0
26	24.5	---	14.0	18.5	20.0	18.0	24.0	---	26.0	28.0	30.5	28.0
27	26.0	---	16.0	18.5	18.0	19.0	26.0	---	27.0	30.0	30.5	28.5
28	20.0	---	16.0	18.0	20.0	24.0	26.0	---	27.0	31.0	30.0	27.5
29	20.0	---	16.0	21.0	---	21.0	26.5	---	26.0	---	29.5	27.5
30	20.0	---	16.0	19.5	---	21.0	24.0	---	28.0	---	29.0	27.0
31	18.0	---	16.0	17.0	---	21.5	---	---	---	---	29.5	---
MONTH	22.0	---	---	16.0	17.0	21.0	22.5	---	---	30.0	28.0	27.5

NUECES RIVER BASIN

745

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 1971.

Pesticide analyses: January 1968 to September 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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.												
08...	1020	990	13	49	6.4	23	152	0	30	30	.1	.32
13...	1445	222	15	58	6.7	37	179	0	39	45	.2	--
DEC.												
02...	1025	13	20	130	20	290	444	0	190	340	.4	.33
JAN.												
27...	0930	17	7.7	140	32	480	460	0	360	540	.6	--
FEB.												
02...	0900	13	13	130	30	470	462	0	340	520	.6	.26
MAR.												
04...	1513	11	14	130	30	430	468	0	330	470	.6	--
APR.												
06...	1030	5.1	16	140	30	440	508	0	320	470	.7	.03
MAY												
10...	1305	1.5	32	120	27	530	433	0	250	670	--	--
JUNE												
02...	1000	.21	31	130	26	510	462	0	270	640	.6	.83
16...	1140	711	40	45	2.3	63	150	0	31	70	.4	--
17...	1515	1050	2.5	42	1.8	45	88	6	54	50	.3	--
JULY												
03...	1045	1430	13	46	1.8	23	162	0	17	14	.2	--
07...	1345	23000	14	38	3.0	13	136	0	14	6.0	.1	--
12...	1525	11400	15	48	3.0	12	164	0	12	7.5	.1	--
20...	1105	92	23	69	4.9	36	242	0	18	36	.1	--
AUG.												
17...	1100	5690	31	48	5.0	25	156	0	28	27	.2	.27
20...	1420	30200	12	42	3.7	6.6	147	0	6.0	5.0	.0	--
SEP.												
30...	1250	1730	17	56	6.9	50	172	0	38	67	.1	--

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)	LOSS ON IGNI- TION (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.												
08...	.000	.00	.3	.14	228	213	69	150	24	--	393	7.3
13...	--	--	.3	--	290	--	--	170	26	1.2	493	7.6
DEC.												
02...	.000	.00	.00	.36	1210	54	19	410	43	6.3	1990	8.0
JAN.												
27...	--	--	.00	--	1790	--	--	470	92	9.5	2910	8.0
FEB.												
02...	.000	.00	.00	.25	1720	29	7	450	72	--	2810	8.0
MAR.												
04...	--	--	.2	--	1640	--	--	450	67	8.8	2670	8.1
APR.												
06...	.000	.00	.4	.60	1660	26	6	460	44	--	2690	8.1
MAY												
10...	--	--	1.2	--	1850	--	--	420	60	11	3190	7.8
JUNE												
02...	.000	.00	.1	.63	1840	67	33	440	63	11	3090	8.0
16...	--	--	1.0	--	330	--	--	120	0	2.5	558	7.3
17...	--	--	.00	--	245	--	--	110	40	1.8	481	8.5
JULY												
03...	--	--	.4	--	197	--	--	120	0	.9	345	7.2
07...	--	--	.3	--	156	--	--	110	0	.5	265	7.4
12...	--	--	.2	--	180	--	--	130	0	.5	312	7.4
20...	--	--	.3	--	307	--	--	190	0	1.1	530	7.7
AUG.												
17...	.000	.00	.00	.12	241	54	8	140	12	.9	388	7.4
20...	--	--	.2	--	148	--	--	120	0	.3	261	7.3
SEP.												
30...	--	--	.6	--	323	--	--	170	27	1.7	538	7.7

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

NUECES RIVER BASIN

747

08210000 NUECES RIVER NEAR THREE RIVERS, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 08...	1020	990	.00	--	.00	--	.00	--	.00	--
DEC. 02...	1025	13	--	<.2	--	<.2	--	<.2	--	<.2
FEB. 02...	0900	13	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 06...	1030	5.1	.00	<.2	.00	<.2	.00	.6	.00	<.2
AUG. 17...	1100	5690	.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. 08...	.00	--	.00	--	.00	--	.00	--	.00	--
DEC. 02...	--	<.2	--	<.2	--	<.2	--	<.2	--	<.2
FEB. 02...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
APR. 06...	.00	<.2	.00	<.2	.00	<.2	.00	<.2	.00	<.2
AUG. 17...	.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)	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 BOTTOM DE- POSITS (UG/KG)
OCT. 08...	.0	--	.00	.00	--	.00	--	.00	--
DEC. 02...	--	<1.0	--	--	<.2	--	<.2	--	<.2
FEB. 02...	.0	<1.0	.00	.00	<.2	.00	<.2	.00	<.2
APR. 06...	.0	<1.0	.00	.00	<.2	.00	<.2	.00	<.2
AUG. 17...	.0	<1.0	.00	.00	<.2	.00	<.2	.00	<.2

DATE	TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOTTOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOTTOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOTTOM DE- POSITS (UG/KG)	PCB IN BOTTOM DE- POSITS (UG/KG)
OCT. 08...	.0	--	.00	--	.02	--	.00	--	--
DEC. 02...	--	<10	--	<5.0	--	<.6	--	<.5	--
FEB. 02...	.0	<10	.00	<4.0	.00	<.5	.00	<.4	--
APR. 06...	.0	<10	.00	<1.9	.00	<.5	.00	<.5	--
AUG. 17...	.0	<10	.00	<1.8	.00	<.5	.00	<.5	--

NUECES RIVER BASIN

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 1971.

Chemical and biochemical analyses: October 1969 to September 1970.

Water temperatures: October 1947 to September 1964, October 1965 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	142	11	54	5.3	38	--	6.7	171	0	36
NOV. 01-30	111	7.2	56	5.6	--	44	--	178	0	38
DEC. 01-31	97	19	58	6.0	--	46	--	186	0	36
JAN. 01-31	101	20	60	6.0	44	--	9.9	193	0	38
FEB. 01-28	113	19	63	6.3	--	47	--	200	0	37
MAR. 01-31	124	16	64	6.1	--	47	--	200	0	39
APR. 01-30	111	19	64	6.2	47	--	11	208	0	40
MAY 01-31	119	20	66	6.4	--	53	--	216	0	35
JUNE 01-30	140	20	68	6.8	--	56	--	216	0	46
JULY 01-31	3600	19	58	5.6	40	--	8.4	192	0	33
AUG. 01-23	7000	20	48	4.6	--	29	--	174	0	21
SEP. 01-31	18800	18	45	3.8	--	12	--	156	0	11
01-30	10900	13	40	3.5	--	14	--	140	0	12
WTD. AVG. TIME WTD. AVG.	--	16	46	4.2	--	--	--	160	0	18
TOT. LOAD (TONS)	2140	17	58	5.7	--	--	--	189	0	34
	--	34700	97300	8850	--	--	--	337000	0	37500

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	463	495	524	543	559	560	582	585	613	628	431	305
2	467	505	522	547	554	556	580	585	611	627	468	308
3	468	507	531	548	557	561	579	585	---	627	386	307
4	470	506	540	559	568	567	579	584	615	628	546	312
5	474	534	536	552	569	565	585	591	616	633	400	312
6	481	539	527	555	581	564	594	585	615	632	405	312
7	484	515	552	566	572	568	599	701	615	635	545	337
8	483	508	535	556	568	571	586	595	620	639	410	327
9	509	506	530	559	558	568	584	797	620	651	402	307
10	484	510	538	567	549	574	587	665	619	671	395	298
11	499	500	542	555	565	576	589	596	620	639	388	289
12	485	516	559	557	565	575	583	596	618	541	383	294
13	484	499	576	567	562	583	581	591	623	498	379	311
14	484	505	557	555	566	578	589	596	621	472	378	303
15	484	519	540	553	571	559	587	596	625	431	370	290
16	477	527	535	539	559	572	572	597	623	423	370	237
17	476	524	544	539	558	588	596	592	625	415	368	228
18	474	515	538	563	564	565	594	596	623	419	359	223
19	526	522	523	564	562	565	584	601	625	506	358	216
20	578	526	535	563	560	571	586	598	620	454	303	225
21	495	525	538	565	563	570	585	604	624	434	352	234
22	511	510	547	555	562	575	587	597	623	436	332	244
23	494	554	539	562	569	570	587	599	625	435	326	244
24	501	533	538	563	573	576	579	597	630	433	289	245
25	503	530	536	558	567	572	590	604	623	433	271	246
26	503	521	523	573	557	569	585	601	645	429	274	245
27	509	521	539	557	560	569	587	601	627	454	287	311
28	489	519	544	559	558	570	591	595	629	443	295	313
29	502	523	540	559	---	569	591	596	624	438	306	255
30	497	524	540	563	---	574	591	604	625	430	306	251
31	502	---	550	562	---	577	---	604	---	463	307	---
MONTH	492	518	539	558	563	570	586	608	622	516	367	278

08211000 NUECES RIVER NEAR MATHIS, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 370 mg/l June 1-30; minimum, 164 mg/l Sept. 1-30.

Hardness: Maximum, 200 mg/l June 1-30; minimum, 110 mg/l Sept. 1-30.

Specific conductance: Maximum daily, 797 micromhos May 9; minimum daily, 216 micromhos Sept. 19.

Water temperatures: Maximum, 30.0°C on several days during July; minimum, 9.5°C Jan. 7, 8.

EXTREMES, October 1947 to September 1971.--Dissolved solids: Maximum, 548 mg/l June 1-30, 1948; minimum, 120 mg/l September 24-27, 1967.

Hardness: Maximum, 202 mg/l Sept. 1-30, 1969; 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, 1965-71): 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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	48	.3	.90	287	160	16	1.3	493	7.6
NOV.									
01-30	50	.2	.60	292	160	16	1.5	517	7.4
DEC.									
01-31	54	.2	.40	312	170	16	1.5	540	7.6
JAN.									
01-31	57	.2	.60	333	170	16	1.4	557	7.6
FEB.									
01-28	58	.2	.20	329	180	19	1.5	563	7.7
MAR.									
01-31	57	.3	.20	328	180	20	1.5	571	7.8
APR.									
01-30	60	.2	.20	350	180	14	1.5	585	7.8
MAY									
01-31	64	.3	.10	351	190	14	1.7	607	7.9
JUNE									
01-30	66	.2	.20	370	200	20	1.7	619	7.6
JULY									
01-31	48	.2	.30	308	170	10	1.3	516	7.4
AUG.									
01-23	25	.2	.20	235	140	0	1.1	393	7.6
24-31	8.8	--	.40	177	130	0	.5	292	7.2
SEP.									
01-30	11	.1	.40	164	110	0	.6	278	7.7
WTD. AVG.	21	.2	.34	208	131	2	.8	350	7.5
TIME WTD.									
AVG.	49	.2	.36	304	167	13	1.4	518	7.6
TOT. LOAD (TONS)	43600	256	726	440000	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	19.5	14.5	14.5	13.5	14.0	18.5	---	---	30.0	29.0	29.0
2	23.0	16.5	14.5	14.5	13.0	13.0	18.5	---	---	30.0	28.0	29.0
3	---	16.0	14.5	15.0	13.5	13.5	18.5	---	---	30.0	27.0	29.0
4	---	16.5	14.5	14.5	14.0	14.5	16.5	---	---	30.0	27.0	29.0
5	23.0	16.5	14.5	13.0	14.0	15.5	17.0	---	---	30.0	26.0	29.0
6	---	16.5	14.5	13.0	14.0	15.5	17.0	---	---	28.0	26.0	29.0
7	22.0	16.5	---	9.5	12.0	14.0	18.0	---	---	28.0	28.0	29.5
8	21.0	16.5	15.5	9.5	12.0	14.0	19.0	---	---	28.0	28.0	29.5
9	21.0	16.5	15.5	10.0	11.5	16.0	19.0	---	---	28.0	26.0	29.5
10	20.0	16.5	16.5	11.0	12.0	---	19.0	---	---	---	27.0	29.0
11	20.0	16.5	---	11.5	13.5	16.5	19.0	---	---	28.0	27.0	28.5
12	20.0	28.0	15.5	11.5	13.0	16.5	18.5	---	---	28.0	27.0	28.0
13	21.0	16.5	16.5	11.5	13.5	16.5	18.5	---	---	28.0	27.0	28.5
14	21.0	14.5	14.0	11.5	13.5	18.0	18.5	---	---	28.0	27.0	28.0
15	21.0	14.0	14.0	11.5	14.0	19.0	13.5	---	---	28.0	27.0	28.0
16	21.0	14.0	14.0	11.5	14.0	16.5	18.0	---	---	28.0	27.0	28.0
17	22.0	14.0	13.5	11.5	14.0	19.0	19.5	---	---	28.0	27.0	28.0
18	22.0	14.5	13.5	12.0	14.0	19.0	20.0	---	28.0	28.0	27.0	28.0
19	22.0	14.5	13.5	11.5	13.5	18.5	20.0	---	28.0	30.0	27.0	28.0
20	19.0	14.5	13.5	11.5	14.5	17.0	19.0	---	28.0	30.0	29.0	26.0
21	20.0	14.5	13.5	12.0	14.0	18.0	19.0	---	28.0	29.0	---	25.0
22	19.0	14.0	13.5	13.5	14.0	18.0	19.0	---	28.0	29.0	27.0	25.0
23	19.0	14.0	13.5	13.0	13.5	18.0	19.0	---	28.0	29.0	27.0	---
24	19.0	13.0	14.5	13.0	14.0	18.0	20.0	---	21.0	29.0	27.0	26.0
25	19.0	13.5	14.0	14.0	14.5	18.5	---	---	28.0	29.0	27.0	26.0
26	19.0	14.0	---	13.0	14.0	18.5	---	---	27.0	29.0	29.0	26.0
27	19.0	14.0	15.0	13.0	13.5	18.5	---	---	27.0	29.0	29.0	27.0
28	18.0	14.0	14.0	---	13.5	18.5	---	---	28.0	29.0	29.0	26.0
29	21.0	14.5	---	13.5	---	18.5	---	---	28.0	29.0	29.0	26.0
30	21.0	14.5	14.0	13.5	---	18.5	---	---	28.0	29.5	29.0	26.0
31	20.0	---	14.5	14.0	---	18.5	---	---	---	29.0	29.0	---
MONTH	20.5	15.5	14.5	12.5	13.5	17.0	18.5	---	---	29.0	27.5	27.5

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 1971.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1970 to September 1971 given in International Boundary and Water Commission Water Bulletins 40 and 41.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	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 PO-TAS-SIUM (K) (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
NOV. 01-30	29	138	30	332	11	308	0	562	275
DEC. 01-31	30	132	33	360	10	280	0	570	320
JAN. 01-31	31	131	32	351	12	290	0	566	295
FEB. 01-28	31	131	32	381	12	320	0	590	310
MAR. 01-31	--	94	17	125	8.6	224	0	234	106
APR. 01-30	--	91	17	140	7.4	230	0	270	110
MAY 01-31	--	88	16	138	7.0	244	0	234	107
JUNE 01-30	--	84	15	124	7.2	230	0	219	94
JULY 01-31	--	83	16	129	7.4	232	0	222	99
AUG. 01-31	--	90	18	159	7.6	242	0	264	126
SEP. 01-30	--	105	21	216	8.9	260	0	358	173

DATE	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL RESIDUE (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)
NOV. 01-30	.00	340	1530	468	216	6.7	2270	7.8
DEC. 01-31	.1	340	1590	465	236	7.3	2400	7.7
JAN. 01-31	.3	400	1560	458	221	7.1	2350	7.6
FEB. 01-28	.1	430	1640	458	196	7.7	2470	7.7
MAR. 01-31	.1	160	695	304	121	3.1	1120	7.5
APR. 01-30	.2	200	797	300	110	3.7	1240	7.6
MAY 01-31	.01	170	743	286	86	3.5	1160	7.6
JUNE 01-30	.09	170	687	271	82	3.3	1080	7.5
JULY 01-31	.1	310	699	273	83	3.4	1090	7.8
AUG. 01-31	.2	260	854	298	100	4.0	1270	7.7
SEP. 01-30	.01	220	1120	348	136	5.0	1600	7.6

RIO GRANDE BASIN

751

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 1971.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1970 to September 1971 given in International Boundary and Water Commission Water Bulletin Numbers 40 and 41.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	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. 01-31	30	265	58	646	14	336	0	792	870
NOV. 01-30	30	268	59	708	13	332	0	844	950
DEC. 01-31	30	272	65	730	12	334	0	840	960
JAN. 01-31	28	275	66	752	16	308	0	852	1020
FEB. 01-28	25	392	128	1410	22	196	0	1380	2100
MAR. 01-31	--	420	138	1520	19	152	0	1470	2350
APR. 01-30	--	360	100	1200	17	246	0	1200	1700
MAY 01-31	--	512	146	1670	17	336	0	1580	2580
JUNE 01-30	--	555	170	1900	17	272	0	1760	2950
JULY 01-31	--	498	159	1740	18	228	0	1660	2700
AUG. 01-31	--	338	105	1180	14	220	0	1070	1780
SEP. 01-30	--	360	105	1180	13	226	0	1120	1840

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	1.4	520	2850	900	624	9.4	4400	7.5
NOV. 01-30	2.8	540	3050	911	639	10	4560	7.6
DEC. 01-31	2.7	470	3090	946	672	10	4650	7.9
JAN. 01-31	4.0	540	3180	958	705	11	4840	7.7
FEB. 01-28	.1	890	5550	1500	1340	16	8510	7.5
MAR. 01-31	.3	850	5990	1620	1490	16	9020	7.6
APR. 01-30	.5	720	4940	1300	1100	14	7400	7.4
MAY 01-31	.04	920	7110	1880	1600	17	10300	7.6
JUNE 01-30	.1	720	7840	2080	1860	18	11500	7.1
JULY 01-31	.2	900	7500	1900	1710	17	10700	7.6
AUG. 01-31	.8	720	5280	1280	1100	14	7330	7.8
SEP. 01-30	.6	660	5280	1330	1140	14	7580	7.9

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 1971.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1970 to September 1971 given in International Boundary and Water Commission Water Bulletin Numbers 40 and 41. Records prior to 1964 were published under the title "Rio Grande at Upper Presidio."

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	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 POTAS-SIUM (K) (MG/L)	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)
OCT. 01-31	--	--	--	--	--	--	184	0	--
NOV. 01-30	--	--	--	--	--	--	236	0	--
DEC. 01-31	--	--	--	--	--	--	264	0	--
JAN. 01-31	--	--	--	--	848	--	244	0	--
FEB. 01-28	12	335	96	1040	--	19	240	0	1170
MAR. 01-31	--	--	--	--	1330	--	166	0	--
JUNE 01-30	--	111	6.8	--	62	--	130	0	--
JULY 01-31	--	128	6.6	64	--	7.1	104	0	349
AUG. 01-31	--	--	--	--	74	--	144	0	--
SEP. 01-30	--	--	--	--	60	--	122	0	--

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL RESIDUE (MG/L)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT. 01-31	430	--	--	1560	484	333	--	2380	7.4
NOV. 01-30	1650	--	--	3340	930	736	--	4790	7.7
DEC. 01-31	1040	--	--	3350	930	714	--	5050	7.7
JAN. 01-31	1160	--	--	3650	940	740	--	5450	7.7
FEB. 01-28	1480	.2	800	4270	1230	1030	13	6570	7.5
MAR. 01-31	1950	--	--	5630	1420	1280	--	7940	7.5
JUNE 01-30	47	--	--	592	305	198	1.5	868	7.1
JULY 01-31	30	.06	280	700	346	262	1.5	945	7.7
AUG. 01-31	44	--	--	581	255	137	2.0	838	7.5
SEP. 01-30	35	--	--	585	298	198	1.5	848	7.3

RIO GRANDE BASIN

753

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 1971.

REMARKS.--Records of specific conductance and records of discharge for water year October 1970 to September 1971 given in International Boundary and Water Commission Water Bulletin Numbers 40 and 41.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 01-31	--	--	--	--	--	--	180	0	--
NOV. 01-30	--	--	--	--	--	--	192	0	--
DEC. 01-31	--	--	--	--	--	--	216	0	--
JAN. 01-31	--	--	--	--	235	--	220	0	--
FEB. 01-28	30	106	19	191	--	9.0	162	0	456
MAR. 01-31	--	--	--	--	195	--	200	0	--
APR. 01-30	--	--	--	--	210	--	180	0	--
MAY 01-31	--	--	--	--	203	--	174	0	--
JUNE 01-30	--	130	12	--	112	--	192	0	--
JULY 01-31	--	115	11	96	--	5.7	222	0	298
AUG. 01-31	--	--	--	--	92	--	224	0	--
SEP. 01-30	--	--	--	--	126	--	192	0	--

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	94	--	--	905	370	222	--	1270	7.4
NOV. 01-30	114	--	--	1020	356	198	--	1400	7.5
DEC. 01-31	151	--	--	1130	465	288	--	1620	7.5
JAN. 01-31	188	--	--	1220	475	294	--	1790	7.6
FEB. 01-28	118	1.6	370	1020	342	210	4.5	1480	7.6
MAR. 01-31	98	--	--	1010	370	206	--	1480	7.7
APR. 01-30	120	--	--	1180	410	260	4.5	1630	7.6
MAY 01-31	112	--	--	1090	376	234	4.5	1570	7.4
JUNE 01-30	54	--	--	806	374	216	2.5	1160	7.3
JULY 01-31	39	.4	220	734	332	150	2.3	1030	7.5
AUG. 01-31	32	--	--	726	332	148	2.2	996	7.5
SEP. 01-30	51	--	--	824	344	186	2.9	1170	7.8

RIO GRANDE BASIN

755

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 1971.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1970 to September 1971 given in International Boundary and Water Commission Water Bulletin Numbers 40 and 41.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	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. 01-31	24	122	13	139	6.4	226	0	349	89
NOV. 01-30	28	108	17	158	5.7	200	0	372	103
DEC. 01-31	28	109	20	172	6.0	200	0	371	120
JAN. 01-31	24	101	22	172	7.3	174	0	366	137
FEB. 01-28	24	100	21	158	7.5	190	0	366	106
MAR. 01-31	--	98	20	140	7.3	188	0	345	80
APR. 01-30	--	93	22	130	6.0	180	0	350	83
MAY 01-31	--	87	22	138	6.2	168	0	344	84
JUNE 01-30	--	111	13	104	5.8	224	0	284	57
JULY 01-31	--	96	14	109	6.4	204	0	280	58
AUG. 01-31	--	99	7.0	50	4.8	228	0	161	17
SEP. 01-30	--	84	9.6	99	5.5	204	0	234	40

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	.4	280	855	358	173	3.2	1270	7.5
NOV. 01-30	.4	280	892	340	176	3.7	1310	7.5
DEC. 01-31	.5	350	927	354	190	4.0	1380	7.6
JAN. 01-31	.8	310	919	342	200	4.0	1400	7.6
FEB. 01-28	.4	300	878	336	180	3.8	1300	7.6
MAR. 01-31	.6	300	785	327	173	3.4	1210	7.7
APR. 01-30	.3	290	813	320	180	3.2	1190	7.8
MAY 01-31	.2	310	817	308	170	3.4	1190	7.6
JUNE 01-30	1.0	250	729	330	147	2.5	1070	7.6
JULY 01-31	.6	260	703	297	130	2.7	1010	7.7
AUG. 01-31	1.2	140	507	276	89	1.3	710	7.5
SEP. 01-30	.9	240	639	249	82	2.7	912	7.8

RIO GRANDE BASIN

08412500 PECOS RIVER NEAR ORLA, TEX.

LOCATION.--Lat 31°52'21", long 103°49'52", Reeves County, 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 1971

Water temperatures: March 1953 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN 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	15	9.8	640	220	2200	--	47	140	0	2100
NOV.										
01-30	14	7.5	640	240	--	2500	--	136	0	2200
DEC.										
01-31	13	6.8	660	210	--	2700	--	144	0	2300
JAN.										
01-31	11	5.6	660	250	2600	--	65	142	0	2300
FEB.										
01-28	22	4.0	600	210	--	2300	--	134	0	2000
MAR.										
01-31	11	2.5	660	240	--	2700	--	138	0	2400
APR.										
01-30	109	2.7	570	200	2000	--	80	130	0	1900
MAY										
01-31	177	2.0	580	200	--	2100	--	125	0	2000
JUNE										
01-30	53	1.8	640	220	--	2400	--	126	0	2200
JULY										
01-31	133	4.7	600	240	2400	--	79	132	0	2300
AUG.										
01...	1900	8.0	220	16	--	140	--	116	0	530
02...	2660	7.2	390	33	--	310	--	88	0	970
03...	401	13	620	120	--	1200	--	120	0	1700
04-16	37	12	720	260	--	2700	--	160	0	2400
17-18	396	7.2	390	33	--	310	--	88	0	970
19...	41	13	620	120	--	1200	--	120	0	1700
20-31	54	12	720	260	--	2700	--	160	0	2400
SEP.										
01-22	97	9.1	640	190	--	2300	--	136	0	2100
23...	555	12	490	110	--	1200	--	123	0	1400
24...	1020	9.2	260	21	--	260	--	89	0	620
25...	442	5.8	400	43	--	520	--	93	0	1000
26-27	65	12	490	110	--	1200	--	123	0	1400
28-30	60	12	660	160	--	1800	--	141	0	1900
WTD. AVG.	--	5.6	538	166	--	--	--	123	0	1780
TIME WTD.										
AVG.	78	5.7	627	218	--	--	--	136	0	2150
TOT. LOAD (TONS)	--	429	41300	12700	--	--	--	9460	0	136000

08412500 PECOS RIVER NEAR ORLA, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Dissolved solids: Maximum, 10,500 mg/l Aug. 4-16, 20-31; minimum, 1,190 mg/l Aug. 1.

Hardness: Maximum, 2,800 mg/l Aug. 4-16, 20-31; minimum, 630 mg/l Aug. 1.

Specific conductance: Maximum daily, 23,900 micromhos June 21; minimum daily, 1,740 micromhos Aug. 1.

Water temperatures: Maximum, 27.0°C on several days during summer months; minimum, 0.5°C Jan. 6.

EXTREMES, July 1937 to September 1971.--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; minimum daily, 1,610 micromhos June 2, 1948.

Water temperatures (1953-61, 1968-71): Maximum, 27.0°C on many days during summer months; 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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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 AN- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.									
01-31	3600	--	--	9000	2500	2400	19	13400	7.5
NOV.									
01-30	3900	--	--	9550	2600	2500	21	14000	7.1
DEC.									
01-31	4200	--	--	10200	2500	2400	23	15000	7.3
JAN.									
01-31	4200	--	--	10100	2700	2600	22	15000	7.2
FEB.									
01-28	3600	--	--	8800	2400	2200	21	13100	7.4
MAR.									
01-31	4200	--	--	10200	2600	2500	23	14900	7.2
APR.									
01-30	3200	--	--	8100	2200	2100	18	12100	7.3
MAY									
01-31	3300	--	--	8260	2300	2200	19	12500	7.0
JUNE									
01-30	3800	--	--	9280	2500	2400	21	13700	6.9
JULY									
01-31	4000	--	--	9720	2600	2500	21	13800	7.5
AUG.									
01...	200	.2	.80	1190	630	530	2.5	1740	7.6
02...	500	--	.40	2250	1100	1000	4.0	3250	7.4
03...	1900	--	.60	5620	2000	1900	11	8410	7.5
04-16	4300	--	.80	10500	2800	2700	22	15700	7.5
17-18	500	--	.40	2250	1100	1000	4.0	3250	7.4
19...	1900	--	.60	5620	2000	1900	11	8410	7.5
20-31	4300	--	.80	10500	2800	2700	22	15700	7.5
SEP.									
01-22	3700	--	--	9000	2400	2300	21	13500	7.8
23...	1900	--	.60	5220	1700	1600	13	7890	7.5
24...	400	.2	.60	1610	730	660	4.1	2370	7.7
25...	800	--	.01	2850	1200	1100	6.6	4030	7.6
26-27	1900	--	.60	5220	1700	1600	13	7890	7.5
28-30	2900	--	--	7500	2300	2200	16	11200	7.5
WTD. AVG.	2790	--	--	7130	2040	1940	16	10500	7.4
TIME WTD.									
AVG.	3740	--	--	9200	2470	2360	20	13600	7.3
TOT. LOAD (TONS)	215000	--	--	547000	--	--	--	--	--

08412500 PECOS RIVER NEAR ORLA, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13100	14100	15000	14700	14200	13200	15100	12400	12700	13700	1740	14600
2	12800	14000	15000	15000	14800	13200	11600	12100	12700	13600	2920	14700
3	12100	14200	15000	15200	14200	13200	11600	12200	12700	13300	7790	14600
4	11800	14200	15100	15200	13200	14200	12200	12100	12700	13600	11800	14600
5	11700	14200	15100	15300	13100	14500	11600	12200	12700	13600	14300	14100
6	11700	14300	15000	15000	12800	14800	11900	12300	12800	13600	16100	14100
7	12000	14300	15000	14500	12900	14800	11600	12300	12800	13700	17200	14100
8	12200	14300	14800	14500	12900	14700	11600	12200	12800	13700	17800	13900
9	12400	12900	14800	14400	12800	14500	11600	12300	12800	13700	18200	13700
10	12200	13600	14900	14200	12800	14600	11600	12300	13000	13700	18400	13700
11	12000	13900	15000	14300	12800	14500	11600	12400	13000	13700	16800	13500
12	12100	13800	15200	14300	12900	14400	11700	12400	12900	13700	18300	13400
13	12100	13700	15200	14500	12800	14300	11700	12400	13000	13700	18300	13200
14	12100	13500	15200	14700	12900	15100	11700	12400	13000	13700	18200	13200
15	12200	13500	15100	14600	13000	15700	11700	12400	13100	13700	13300	13000
16	12000	13000	15100	14600	12900	15800	11800	12400	13100	13800	11100	12300
17	11800	13100	15200	14400	12900	15800	11800	12400	13100	13800	3420	12600
18	13500	13000	15000	14400	13000	15600	11700	12700	13200	13900	3290	12800
19	13700	13000	14900	14500	13000	15600	11800	12700	12600	13900	9000	---
20	14500	13100	15300	14600	13000	15500	11800	12700	13400	14000	12600	12100
21	14600	13200	14900	14600	12900	15300	11800	12700	23900	14000	14400	12100
22	14100	13100	14800	14500	13100	15300	12000	12700	17900	14000	15300	11900
23	14600	13500	14700	14500	13000	15400	12000	12700	15300	13900	15800	7960
24	14900	13500	14700	14400	13000	15400	12000	12800	14200	14000	15900	2370
25	15000	13400	14800	14500	13000	15300	12000	12700	13900	14100	16200	4030
26	14900	13700	14900	14500	13100	15500	12000	12700	14800	14100	16000	6770
27	14800	14100	14900	14500	13100	15700	12000	12700	13700	14100	16000	8940
28	14700	14400	14800	14300	13000	15700	12000	12700	13700	14100	16200	10500
29	14500	14600	14700	14300	---	15700	12200	12700	13700	14100	16300	11500
30	14400	14600	14700	14400	---	15700	12100	12700	13600	11600	16500	11400
31	14300	---	14800	14300	---	15600	---	12700	---	14400	13300	---
MONTH	13190	13730	14950	14570	13100	14990	11930	12490	13730	13760	13630	11920

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	11.5	14.0	9.0	9.5	9.0	14.0	18.5	20.0	25.0	20.0	24.0
2	23.5	11.5	11.0	8.5	7.0	8.5	13.5	16.5	21.0	23.5	21.5	24.5
3	21.0	10.5	13.0	7.0	8.0	4.5	14.0	17.0	21.0	26.0	23.0	24.0
4	21.0	10.0	13.5	4.0	8.5	6.5	12.0	17.0	21.0	26.5	24.5	24.5
5	23.0	9.0	11.0	1.0	9.5	14.0	11.5	17.0	21.5	27.0	25.0	23.5
6	21.0	12.0	9.5	0.5	8.5	10.5	11.0	16.5	20.0	26.5	24.5	24.0
7	20.0	11.0	8.5	1.0	9.0	10.0	11.5	18.5	20.5	24.5	24.0	23.5
8	17.0	14.0	9.0	2.0	4.0	13.0	13.0	18.5	21.0	24.0	24.5	23.5
9	16.0	13.0	9.0	3.0	5.5	12.0	13.5	18.0	21.0	24.0	26.0	25.0
10	15.0	11.5	9.5	5.0	5.5	11.5	15.0	18.0	24.5	23.5	25.5	23.5
11	16.0	12.0	10.5	6.0	8.0	14.0	15.0	18.0	24.5	24.0	24.5	24.0
12	15.5	11.5	8.0	6.5	10.5	11.5	15.0	18.5	25.0	24.0	25.0	23.0
13	16.0	12.0	6.5	9.0	9.5	14.0	14.5	19.5	24.0	26.0	26.0	23.0
14	17.0	9.0	6.0	10.0	9.5	15.5	15.0	18.0	24.5	23.5	26.0	23.0
15	16.0	9.0	7.0	8.5	11.0	13.0	16.5	18.5	24.0	24.5	24.5	23.0
16	13.5	8.5	6.5	9.0	11.0	11.0	15.5	18.5	25.0	23.5	23.5	23.5
17	11.5	9.0	6.5	8.0	11.0	13.0	15.5	18.5	26.5	24.0	23.0	23.5
18	13.0	10.0	8.0	9.0	13.0	13.5	16.0	18.5	25.5	23.5	21.5	18.0
19	13.0	9.5	8.0	8.5	12.0	14.0	15.0	18.0	26.0	27.0	24.0	---
20	14.5	14.0	8.5	8.5	13.5	11.5	14.0	19.5	26.0	26.5	25.0	18.0
21	16.0	13.5	8.5	12.0	9.5	14.0	14.5	23.5	25.0	24.0	26.0	18.5
22	17.0	13.5	8.0	10.0	7.0	14.5	14.0	22.0	25.5	25.5	26.5	19.0
23	18.0	9.5	8.0	10.0	8.0	14.0	15.0	20.0	26.0	24.5	27.0	16.0
24	15.5	6.5	7.0	10.5	9.5	15.0	15.0	18.5	27.0	25.0	26.5	14.5
25	16.0	7.0	6.5	10.0	10.5	18.5	16.5	19.5	26.0	25.0	26.5	18.0
26	15.5	9.5	6.5	9.0	11.5	17.0	15.5	19.0	25.5	25.0	27.0	21.0
27	15.0	12.0	6.5	9.0	10.0	19.5	15.5	20.0	24.5	25.0	26.5	21.0
28	13.0	14.0	9.0	11.0	10.5	19.0	16.5	19.5	25.5	24.5	27.0	23.5
29	13.5	13.5	9.5	9.0	---	16.0	18.5	14.5	26.0	25.0	26.5	24.0
30	12.0	13.0	9.5	9.5	---	15.0	17.0	19.5	25.5	22.0	20.0	22.0
31	11.5	---	10.0	12.0	---	15.5	---	22.0	---	23.5	25.0	---
MONTH	16.5	11.0	9.0	7.5	9.5	13.0	14.5	18.5	24.0	24.5	24.5	22.0

RIO GRANDE BASIN

759

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 1971.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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. 20...	0700	16	1.7	600	200	1900	80	0	1900
DEC. 01...	1315	9.3	2.1	640	230	2500	102	0	2200
JAN. 11...	1315	11	1.7	680	250	2700	138	0	2400
FEB. 22...	1345	15	2.1	610	210	2400	106	0	2100
MAR. 29...	1330	8.4	.0	740	300	3000	81	0	2600
MAY 03...	1625	269	13	600	180	1900	130	0	1700
31...	1445	127	18	580	220	2000	92	0	1800
AUG. 09...	1530	44	3.5	720	220	2000	102	0	2200
SEP. 13...	1445	93	2.7	630	210	2400	78	0	2100

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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 20...	3200	--	7840	2300	2300	17	12100	7.2
DEC. 01...	3900	--	9530	2500	2500	22	14200	7.2
JAN. 11...	4200	--	10300	2700	2600	23	14700	7.5
FEB. 22...	3700	--	9040	2400	2300	21	13400	7.7
MAR. 29...	4800	--	11500	3100	3000	24	16700	7.3
MAY 03...	3200	--	7700	2200	2100	18	12300	7.5
31...	3400	.10	8060	2400	2300	18	12900	7.4
AUG. 09...	3300	--	8440	2700	2600	17	12700	7.0
SEP. 13...	3800	--	9230	2400	2400	21	13900	7.1

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 1971.

Pesticide analyses: October 1968 to September 1971.

Water temperatures: October 1953 to January 1959, March 1964 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT. 21...	33	2.4	630	390	3000	--	37	68	0
DEC. 02	26	1.6	760	450	--	3600	--	160	0
JAN. 12...	28	13	800	460	3700	--	62	175	0
FEB. 23...	24	13	820	490	--	4000	--	206	0
MAR. 30...	22	5.0	890	530	--	4200	--	158	0
APR. 13...	54	2.2	970	580	5200	--	79	192	0
MAY 05...	24	.0	860	500	--	3500	--	132	0
JUNE 02...	5.8	3.1	580	360	--	1900	--	65	0
AUG. 11...	38	.4	420	200	--	1500	--	66	0
SEP. 15...	12	7.4	590	340	--	2600	--	64	0

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)
FEB. 23...	1400	24	.00	.00	.00	.00	.00	.00	.00	.00
MAY 05...	1310	24	.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. 23...	.00	.0	.00	.00	.00	.00	.00	.00	.00
MAY 05...	.00	.0	.00	.00	.00	.00	.00	.00	.00

RIO GRANDE BASIN

761

08446500 PECOS RIVER NEAR GIRVIN, TEX.--Continued

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 29,000 micromhos Aug. 2; minimum daily, 9,500 micromhos Aug. 12.

Water temperatures: Maximum, 34.0°C July 21; minimum, 8.0°C Jan. 8, 12.

EXTREMES, October 1939 to June 1941, October 1946 to September 1947, October 1953 to September 1970.--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, 1970-71): 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 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLORIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	ORTHO PHOS- PHORUS (P) (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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 21...	2800	4700	.00	0.08	--	11500	3200	3100	23	16500	7.1
DEC. 02	3400	5600	--	--	--	13900	3800	3600	26	19400	7.5
JAN. 12...	3400	6000	1.0	.00	--	14500	3900	3700	26	20100	7.7
FEB. 23...	3700	6200	.70	.10	--	15400	4100	3900	27	21600	7.7
MAR. 30...	4000	6600	1.2	.10	--	16400	4400	4300	28	22400	7.7
APR. 13...	3900	8700	.70	.10	--	19500	4800	4600	33	26300	7.5
MAY 05...	2600	6400	--	.00	--	14000	4200	4100	24	21600	7.1
JUNE 02...	2500	3100	--	--	0.44	8500	2900	2900	15	12200	6.7
AUG. 11...	1700	2400	.30	--	.010	6290	1900	1800	15	10000	7.3
SEP. 15...	2800	4000	.40	--	.28	10300	2900	2800	21	14800	7.3

RIO GRANDE BASIN

08446500 PECOS RIVER NEAR GIRVIN, TEX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18300	17500	20200	20500	20400	21700	22100	23000	13600	22200	25500	10300
2	13300	17800	19400	20100	20800	21700	22000	20200	12200	22600	29000	11400
3	---	18000	19300	19900	20400	21300	22300	20600	13600	22100	24300	---
4	13300	18100	19100	19900	20500	21100	22900	19400	12400	25100	15900	11300
5	13500	18300	---	19200	20500	21300	21900	21600	13000	23300	16400	12400
6	13600	18400	19100	---	20300	21700	22100	21100	13000	21400	17200	12300
7	14900	18300	18800	19400	20500	22100	22900	20200	14200	20900	18500	12000
8	15500	18400	19100	19900	20700	21300	22400	20200	17900	24100	18700	12000
9	15400	18400	19100	19500	20500	21300	22100	20200	17900	19500	16600	12900
10	15800	18400	19400	19500	20000	21300	22200	20200	---	20900	13700	12800
11	15900	18600	19600	19700	20300	21600	23000	19500	19700	21300	10000	13400
12	14400	18800	20100	20100	20700	21600	24000	20100	22100	20700	9500	14200
13	15500	18800	19900	19900	20500	22600	26300	19900	22300	22900	16000	14600
14	16300	18400	19700	19800	20500	22300	24200	20100	22100	24300	16900	15300
15	16700	18400	19700	19500	20500	22300	23400	20900	20300	22700	10400	14800
16	16300	18400	19900	19500	20700	22800	13600	20700	21700	22600	19200	16500
17	16400	18400	19900	19700	20700	22400	21800	21400	21700	26000	15400	16100
18	16500	18800	19900	19500	20800	22100	21600	22400	19200	24400	16500	17800
19	16600	18800	20100	19500	20800	22500	20800	22000	21800	24500	16300	18000
20	16600	18800	19900	19800	21000	22100	20900	21600	22500	23800	16000	18400
21	16500	18900	---	19900	21200	22200	20700	23000	21300	23500	15300	17500
22	16600	18800	19900	19700	21500	21700	---	22500	20500	24200	13700	17900
23	16700	19400	19700	19700	21600	22300	19400	---	---	24100	12900	17600
24	17400	19400	19900	20500	21500	22200	20400	23100	19000	25100	12000	16800
25	17700	19400	19700	20700	21200	23200	20700	22400	20500	23300	11800	18400
26	18100	19300	19700	20300	21500	22500	20100	21900	23000	25600	11600	18500
27	18300	19300	19700	20500	21500	22900	19900	21800	23100	25100	11200	18700
28	17700	19300	20300	20500	21200	22800	20900	22800	22600	23200	11000	19000
29	18000	18900	19900	20500	---	22700	20600	17200	24000	---	10600	19200
30	17300	19400	20100	20200	---	22400	21400	16400	23400	24900	10600	18400
31	17300	---	20200	20200	---	22800	---	15100	---	26900	10500	---
MONTH	16150	18660	19700	19920	20800	22090	21610	20720	19240	23370	15260	15470

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	22.0	19.0	21.0	10.0	19.0	18.0	28.0	30.0	20.0	25.0	27.0
2	23.0	19.0	20.0	18.0	9.0	13.0	22.0	29.0	26.0	25.0	24.0	30.0
3	---	16.0	20.0	15.0	16.0	20.0	19.0	28.0	28.0	25.0	27.0	---
4	25.0	19.0	21.0	10.0	16.0	15.0	17.0	25.0	30.0	30.0	27.0	29.0
5	28.0	19.0	---	10.0	12.0	15.0	20.0	29.0	28.0	33.0	26.0	28.0
6	29.0	18.0	13.0	---	15.0	15.0	21.0	28.0	30.0	32.0	29.0	30.0
7	27.0	18.0	17.0	9.0	10.0	17.0	17.0	28.0	30.0	30.0	26.0	29.0
8	22.0	21.0	18.0	8.0	10.0	16.0	23.0	26.0	29.0	32.0	29.0	30.0
9	21.0	19.0	20.0	14.0	11.0	15.0	25.0	26.0	30.0	28.0	28.0	30.0
10	20.0	19.0	20.0	10.0	11.0	19.0	17.0	28.0	---	32.0	25.0	30.0
11	19.0	20.0	15.0	15.0	15.0	17.0	25.0	28.0	30.0	29.0	24.0	29.0
12	21.0	19.0	13.0	8.0	16.0	19.0	21.0	25.0	29.0	29.0	23.0	29.0
13	23.0	14.0	12.0	18.0	16.0	20.0	21.0	25.0	30.0	29.0	24.0	28.0
14	24.0	20.0	14.0	17.0	18.0	19.0	24.0	28.0	29.0	32.0	29.0	29.0
15	15.0	19.0	14.0	15.0	17.0	17.0	24.0	27.0	30.0	30.0	25.0	25.0
16	15.0	20.0	15.0	16.0	18.0	22.0	21.0	25.0	30.0	31.0	29.0	30.0
17	15.0	16.0	18.0	14.0	19.0	16.0	21.0	26.0	30.0	31.0	29.0	29.0
18	17.0	15.0	19.0	16.0	21.0	17.0	24.0	25.0	31.0	31.0	27.0	20.0
19	19.0	19.0	14.0	17.0	22.0	17.0	22.0	24.0	29.0	30.0	28.0	21.0
20	20.0	16.0	16.0	13.0	18.0	17.0	24.0	27.0	29.0	30.0	27.0	25.0
21	16.0	17.0	---	15.0	14.0	20.0	26.0	26.0	30.0	34.0	26.0	28.0
22	24.0	16.0	19.0	18.0	13.0	21.0	---	25.0	29.0	29.0	29.0	22.0
23	20.0	15.0	18.0	15.0	10.0	21.0	25.0	---	---	29.0	28.0	22.0
24	24.0	13.0	14.0	15.0	19.0	24.0	26.0	25.0	32.0	31.0	29.0	25.0
25	22.0	12.0	15.0	15.0	20.0	25.0	29.0	20.0	30.0	31.0	28.0	23.0
26	24.0	18.0	13.0	12.0	18.0	22.0	28.0	25.0	30.0	29.0	29.0	23.0
27	20.0	17.0	15.0	14.0	17.0	23.0	29.0	25.0	29.0	29.0	28.0	29.0
28	20.0	17.0	20.0	13.0	20.0	28.0	20.0	25.0	30.0	30.0	29.0	29.0
29	20.0	16.0	15.0	15.0	---	24.0	26.0	23.0	29.0	---	29.0	29.0
30	21.0	19.0	15.0	17.0	---	18.0	27.0	24.0	30.0	27.0	29.0	25.0
31	15.0	---	13.0	18.0	---	19.0	---	26.0	---	28.0	31.0	---
MONTH	21.0	17.5	16.5	14.5	15.5	19.0	23.0	26.0	29.5	29.5	27.5	27.0

RIO GRANDE BASIN

763

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). Basin is thinly populated ranching and farming country. Annual precipitation of about 12 inches.

PERIOD OF RECORD.--Chemical analyses: November 1939 to June 1941. October 1946 to September 1947. October 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTERRER 1971

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)
NOV. 02...	1145	29	5.1	400	240	1900	104	0	1700
DEC. 08...	1350	212	5.1	500	560	1900	130	0	2100
JAN. 12...	1100	38	5.0	550	340	2800	128	0	2500
FEB. 16...	1100	28	2.6	580	340	2800	144	0	2500
MAR. 22...	1100	22	5.5	580	350	2700	181	0	2500
APR. 27...	1200	20	12	350	270	1300	170	0	1400
JUNE 02...	1210	32	20	180	80	480	193	0	460
JULY 12...	1145	38	12	210	110	790	239	0	630
SEP. 21...	1225	24	12	320	170	1200	116	0	1100

DATE	DIS- SOLVED CHLO- RIDE (CL) (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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
NOV. 02...	3000	.00	7330	2000	1900	--	11300	7.5
DEC. 08...	3800	--	8920	3600	3500	14	13800	7.6
JAN. 12...	4300	--	10500	2800	2600	23	14900	7.7
FEB. 16...	4400	.00	10600	2800	2700	23	15100	7.7
MAR. 22...	4200	--	10400	2900	2700	22	15300	7.2
APR. 27...	2400	--	5750	2000	1800	13	9170	7.7
JUNE 02...	840	1.0	2200	770	610	7.5	3590	7.3
JULY 12...	1300	.40	3170	980	780	11	5210	7.5
SEP. 21...	2100	--	4990	1500	1400	14	8440	7.6

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 1971.

REMARKS.--Records of specific conductance and records of discharge for water year October 1970 to September 1971 given in International Boundary and Water Commission Water Bulletin Numbers 40 and 41.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 (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.									
01-31	16	109	43	287	6.6	182	0	264	460
NOV.									
01-30	14	126	53	346	6.2	184	0	329	575
DEC.									
01-31	14	142	61	384	6.3	188	0	376	640
JAN.									
01-31	13	148	68	452	9.1	156	0	430	770
FEB.									
01-28	11	163	81	514	9.7	160	0	496	860
MAR.									
01-31	--	174	79	538	11	168	0	504	900
APR.									
01-30	--	160	61	440	9.3	174	0	430	730
MAY									
01-31	--	135	59	394	7.8	184	0	358	650
JUNE									
01-30	--	116	50	324	6.3	168	0	294	532
JULY									
01-31	--	64	14	83	3.5	138	0	85	138
AUG.									
01-31	--	105	36	231	5.2	204	0	215	368
SEP.									
01-30	--	89	24	147	4.6	185	0	146	242

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	.6	230	1280	449	300	5.9	2160	7.7
NOV.								
01-30	.5	190	1540	532	382	6.5	2600	7.4
DEC.								
01-31	.6	250	1720	606	452	6.8	2890	7.4
JAN.								
01-31	.9	220	1970	649	521	7.7	3270	7.4
FEB.								
01-28	.7	240	2220	740	608	8.2	3660	7.3
MAR.								
01-31	.2	230	2290	759	622	8.5	3710	7.6
APR.								
01-30	.7	200	2150	660	520	7.5	3240	7.4
MAY								
01-31	.3	190	1840	580	428	7.1	2920	7.5
JUNE								
01-30	.3	180	1520	495	358	6.3	2430	7.2
JULY								
01-31	1.1	240	542	217	104	2.4	833	7.7
AUG.								
01-31	1.4	180	1280	410	243	5.0	1860	7.9
SEP.								
01-30	1.1	120	768	320	169	3.6	1350	7.6

RIO GRANDE BASIN

765

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 1971.

REMARKS.--The flow is controlled largely by releases from Amistad Reservoir. Records of mean daily discharge for water year October 1970 to September 1971 given in International Boundary and Water Commission Water Bulletins 40 and 41.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 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. 01-31	17	80	13	90	4.9	166	0	198	80
NOV. 01-30	17	76	15	94	4.9	164	0	203	87
DEC. 01-31	19	86	16	109	5.1	170	0	242	94
JAN. 01-31	16	79	15	102	6.0	156	0	226	92
FEB. 01-28	17	84	16	105	6.2	172	0	225	94
MAR. 01-31	--	84	18	109	6.4	172	0	232	98
APR. 01-30	--	86	17	110	5.1	176	0	240	100
MAY 01-31	--	85	17	115	5.0	190	0	228	107
JUNE 01-30	--	84	18	116	5.1	172	0	235	110
JULY 01-31	--	80	17	106	4.9	166	0	217	102
AUG. 01-31	--	78	14	88	4.2	175	0	178	86
SEP. 01-30	--	84	14	88	3.8	184	0	169	92

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	.4	230	567	253	117	2.5	898	7.7
NOV. 01-30	.3	160	579	251	116	2.6	913	7.8
DEC. 01-31	.4	240	657	280	141	2.8	1030	7.7
JAN. 01-31	.1	170	614	258	130	2.8	978	7.7
FEB. 01-28	.3	140	634	276	134	2.8	1000	7.5
MAR. 01-31	.2	190	633	284	142	2.8	1030	7.8
APR. 01-30	.3	180	691	280	140	2.8	1060	7.9
MAY 01-31	.06	180	696	282	126	3.0	1070	7.7
JUNE 01-30	.3	190	698	284	142	3.0	1080	7.7
JULY 01-31	.2	190	656	270	134	2.8	1000	7.8
AUG. 01-31	.07	230	595	252	108	2.4	896	7.4
SEP. 01-30	.2	140	590	267	116	2.3	931	7.6

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 Nueva 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 1971.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1970 to September 1971 given in International Boundary and Water Commission Water Bulletin Numbers 40 and 41.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	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	--	--	--	--	--	--	172	0	--
NOV. 01-30	--	--	--	--	--	--	154	0	--
DEC. 01-31	--	--	--	--	--	--	152	0	--
JAN. 01-31	--	--	--	--	94	--	158	0	--
FEB. 01-28	31	76	17	109	--	6.0	152	0	227
MAR. 01-31	--	--	--	--	118	--	144	0	--
APR. 01-30	--	--	--	--	120	--	156	0	--
MAY 01-31	--	--	--	--	116	--	170	0	--
JUNE 01-30	--	54	8.8	--	54	--	124	0	--
JULY 01-31	--	66	13	68	--	4.7	148	0	140
AUG. 01-31	--	--	--	--	41	--	150	0	--
SEP. 01-30	--	--	--	--	46	--	146	0	--

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	40	--	--	369	198	57	--	562	7.6
NOV. 01-30	64	--	--	468	182	56	--	714	7.7
DEC. 01-31	77	--	--	525	212	88	--	830	7.6
JAN. 01-31	88	--	--	577	252	122	--	921	7.4
FEB. 01-28	95	.6	150	639	260	135	2.9	991	7.6
MAR. 01-31	108	--	--	681	274	156	--	1050	7.7
APR. 01-30	110	--	--	719	280	160	3.0	1070	7.8
MAY 01-31	108	--	--	706	288	148	3.0	1070	7.4
JUNE 01-30	52	--	--	372	170	69	1.8	597	7.6
JULY 01-31	73	.7	300	482	218	96	2.0	748	7.8
AUG. 01-31	44	--	--	390	170	47	1.4	548	7.7
SEP. 01-30	52	--	--	369	182	62	1.5	589	7.6

RIO GRANDE BASIN

767

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 1971.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1970 to September 1971 given in International Boundary and Water Commission Water Bulletin Numbers 40 and 41.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	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)
OCT.									
01-31	12	68	18	108	5.7	128	0	220	108
NOV.									
01-30	11	68	18	109	5.6	130	0	226	108
DEC.									
01-31	11	68	18	105	5.2	132	0	217	106
JAN.									
01-31	11	71	18	106	6.5	136	0	216	110
FEB.									
01-28	11	72	18	105	6.4	143	0	214	104
MAR.									
01-31	--	76	19	104	6.4	148	0	222	101
APR.									
01-30	--	74	18	110	5.3	144	0	230	100
MAY									
01-31	--	74	18	111	5.3	153	0	231	106
JUNE									
01-30	--	78	19	117	5.6	146	0	242	113
JULY									
01-31	--	62	13	74	4.7	124	0	160	72
AUG.									
01-31	--	57	12	64	4.6	124	0	141	64
SEP.									
01-30	--	58	11	62	4.3	127	0	133	62

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.								
01-31	.1	240	603	244	138	3.0	979	7.7
NOV.								
01-30	.00	220	610	244	137	3.0	973	7.4
DEC.								
01-31	.1	270	596	244	136	2.9	970	7.5
JAN.								
01-31	.1	240	606	251	140	2.9	996	7.3
FEB.								
01-28	.1	200	601	254	136	2.9	983	7.4
MAR.								
01-31	.00	200	602	268	146	2.8	987	7.6
APR.								
01-30	.1	210	649	260	140	2.9	1010	7.6
MAY								
01-31	.00	230	678	258	133	3.0	1030	7.5
JUNE								
01-30	.03	230	695	272	153	3.1	1070	7.5
JULY								
01-31	.1	300	474	208	106	2.2	748	7.6
AUG.								
01-31	.04	120	460	192	90	2.0	693	7.4
SEP.								
01-30	.1	160	423	190	86	2.0	679	8.0

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 1971.

REMARKS.--Records of specific conductance and daily samples and records of discharge for water year October 1970 to September 1971 given in International Boundary and Water Commission Water Bulletin Numbers 40 and 41.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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 (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. 01-31	11	74	19	114	4.6	137	0	224	124
NOV. 01-30	11	73	19	125	5.5	139	0	244	129
DEC. 01-31	13	70	19	110	5.4	139	0	222	114
JAN. 01-31	11	72	18	106	6.5	140	0	211	106
FEB. 01-28	11	74	19	116	6.8	148	0	222	114
MAR. 01-31	--	78	19	110	6.5	152	0	226	107
APR. 01-30	--	75	20	120	5.3	148	0	240	120
MAY 01-31	--	76	19	117	5.3	154	0	235	113
JUNE 01-30	--	78	16	106	5.2	158	0	204	104
JULY 01-31	--	60	9.4	64	4.9	152	0	102	72
AUG. 01-31	--	62	9.4	71	4.6	151	0	117	78
SEP. 01-30	--	64	11	61	4.2	141	0	134	62

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	.2	280	639	262	150	3.1	1050	7.7
NOV. 01-30	.00	260	675	260	146	3.4	1090	7.5
DEC. 01-31	.00	280	622	252	138	3.0	1010	7.4
JAN. 01-31	.00	230	600	254	139	2.9	978	7.4
FEB. 01-28	.1	250	636	262	141	3.1	1020	7.5
MAR. 01-31	.00	230	622	272	148	2.9	1010	7.8
APR. 01-30	.00	260	692	270	150	3.1	1080	7.6
MAY 01-31	.00	220	695	268	142	3.1	1060	7.7
JUNE 01-30	.6	240	627	260	131	2.9	996	7.4
JULY 01-31	.6	310	414	188	64	2.0	677	7.6
AUG. 01-31	.2	240	472	193	70	2.2	719	7.7
SEP. 01-30	.02	160	431	204	89	1.9	693	7.4

RIO GRANDE BASIN

769

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 1971.
Pesticide analyses: October 1968 to September 1971.

REMARKS.--Records of specific conductance of daily samples and records of discharge for water year October 1970 to September 1971 given in International Boundary and Water Commission Water Bulletin Numbers 40 and 41.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	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)
OCT. 01-31	11	80	21	136	4.9	135	0	242	166
NOV. 01-30	12	91	24	164	5.3	154	0	277	197
DEC. 01-31	13	78	21	132	5.6	144	0	246	147
JAN. 01-31	12	74	18	110	6.5	142	0	222	112
FEB. 01-28	12	78	20	129	7.1	151	0	242	136
MAR. 01-31	--	83	22	141	7.4	154	0	256	149
APR. 01-30	--	80	19	130	5.4	151	0	250	130
MAY 01-31	--	81	20	136	5.6	157	0	252	140
JUNE 01-30	--	84	21	148	6.0	147	0	271	155
JULY 01-31	--	72	12	89	4.8	166	0	123	119
AUG. 01-31	--	70	12	124	4.4	136	0	167	144
SEP. 01-30	--	61	11	66	4.3	129	0	134	70

DATE	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL RESI- DUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	.2	330	728	286	176	3.5	1200	7.6
NOV. 01-30	.3	380	848	326	200	4.0	1370	7.6
DEC. 01-31	.00	290	714	281	163	3.4	1160	7.4
JAN. 01-31	.2	230	626	258	142	3.0	1010	7.7
FEB. 01-28	.2	280	699	277	154	3.4	1130	7.6
MAR. 01-31	.00	310	735	298	172	3.6	1200	7.7
APR. 01-30	.4	260	730	280	150	3.3	1130	7.7
MAY 01-31	.01	280	760	284	156	3.5	1180	7.3
JUNE 01-30	.6	340	804	296	176	3.7	1250	7.2
JULY 01-31	.7	400	449	229	93	2.6	893	7.7
AUG. 01-31	.2	310	644	224	112	3.6	1010	7.5
SEP. 01-30	.4	200	431	197	92	2.0	710	7.4

RIO GRANDE BASIN

08469200 RIO GRANDE AT ANZALDUAS DAM, TEX.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)
OCT. 13...	0800	125	.00	.00	.00	.00	.00	.00	.00	.00
NOV. 16...	1045	400	.00	.00	.00	.00	.00	.00	.00	.00
DEC. 18...	1115	600	.00	.00	.00	.00	.00	.00	.00	.00
JAN. 15...	1210	2200	.00	.00	.00	.00	.00	.00	.00	.00
FEB. 26...	1105	1040	.00	.00	.00	.00	.00	.00	.00	.00
MAR. 17...	1025	1100	.00	.00	.00	.00	.00	.00	.00	.00
APR. 16...	1135	200	.00	.00	.00	.00	.00	.00	.00	.00
MAY 20...	0945	2200	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 17...	0800	3000	.00	.00	.00	.00	.00	.00	.00	.00
JULY 19...	0955	400	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 12...	1020	10	.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)	TOX- APHENE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT. 13...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
NOV. 16...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
DEC. 18...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
JAN. 15...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
FEB. 26...	.00	.0	--	.00	.00	.00	.0	.00	.00	.00
MAR. 17...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
APR. 16...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
MAY 20...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
JUNE 17...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00
JULY 19...	.00	.0	.00	.00	.00	.00	.0	.00	.01	.00
AUG. 12...	.00	.0	.00	.00	.00	.00	.0	.00	.00	.00

RIO GRANDE BASIN

771

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 1971.

REMARKS.--Records of discharge given in International Boundary and Water Commission Bulletin Number 40 and 41.

MONTHLY AND ANNUAL SUMMARY OF WATER AND SUSPENDED-SEDIMENT DISCHARGE

WATER YEAR, OCTOBER 1970 TO SEPTEMBER 1971

DATE	DISCHARGE (CFS-DAYS)	SUSPENDED SEDIMENT CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS)
OCT., 1970	5709.2	350	5400
NOV.....	2761.3	230	1717
DEC.....	2862.9	221	1710
JAN., 1971	2692.2	270	1963
FEB.....	3273.1	310	2740
MAR.....	3343.9	310	2800
APR.....	3818.8	300	3093
MAY.....	2920.7	290	2287
JUNE.....	2518.2	228	1552
JULY.....	2179.2	282	1663
AUG.....	2023.4	216	1180
SEP.....	47395.8	533	68221
TOTAL.....	81498.7	429	94326

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 1971.

Sediment records: February 1966 to September 1971.

REMARKS.--Records of discharge given in International Boundary and Water Commission Bulletin Nos. 40 and 41.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN (UG/L)
AUG. 19...	1630	.00	<.2	.00	1.8	.01	9.8	.00	.9	.01	<.2	.00

DATE	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)	DI- AZINON (UG/L)	MALA- THION (UG/L)	MALA- THION IN BOTTOM DE- POSITS (UG/KG)
AUG. 19...	<.2	.00	<.2	.00	<.2	.00	<.2	.0	<1.0	.00	.00	<.2

DATE	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)	TOX- APHENE IN BOT- TOM DE- POSITS (UG/KG)	2,4-D (UG/L)	2,4-D IN BOT- TOM DE- POSITS (UG/KG)	2,4,5-T (UG/L)	2,4,5-T IN BOT- TOM DE- POSITS (UG/KG)	SILVEX (UG/L)	SILVEX IN BOT- TOM DE- POSITS (UG/KG)
AUG. 19...	.00	<.2	.00	<.2	<10	.00	<1.3	.00	<.3	.00	<.3

MONTHLY AND ANNUAL SUMMARY OF WATER AND SUSPENDED-SEDIMENT DISCHARGE

WATER YEAR, OCTOBER 1970 TO SEPTEMBER 1971

DATE	DISCHARGE (CFS-DAYS)	SUSPENDED SEDIMENT CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS)
OCT., 1970	4031.2	190	2071
NOV.....	1983.7	129	689
DEC.....	2004.9	122	659
JAN., 1971	2100.7	118	669
FEB.....	1850.4	93	464
MAR.....	1961.8	119	629
APR.....	1710.2	104	478
MAY.....	1775.4	134	644
JUNE.....	1942.4	128	671
JULY.....	1467.1	119	471
AUG.....	1173.8	296	938
SEP.....	17686.0	244	11600
TOTAL.....	39687.6	186	19983

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 Matamoras, 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 1971.

Water temperatures: October 1966 to September 1969, October 1970 to September 1971.

Sediment records: February 1966 to September 1971.

EXTREMES, October 1970 to September 1971.--Specific conductance: Maximum daily, 2,070 micromhos Nov. 28; minimum daily, 418 micromhos Sept. 27.

Water temperatures: Maximum, 31.0°C on many days during October, June, July and August; minimum, 9.5°C Jan. 8.

Sediment concentrations: Maximum daily, 3,560 mg/l Sept. 16; minimum daily, 12 mg/l Oct. 31, Dec. 25, Jan. 7,8.

Sediment loads: Maximum daily, 83,500 tons Sept. 16; minimum daily, 1.1 tons Apr. 24.

EXTREMES, February 1966 to September 1971.--Specific conductance (April 1967 to September 1969, October 1970 to September 1971): Maximum daily, 2,750 micromhos Mar. 8, 1968; minimum daily, 337 micromhos Sept. 3, 1967.

Water temperatures (October 1966 to September 1969, October 1970 to September 1971): 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. 40 and 41.

WATER QUALITY DATA

DATE	TIME	DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 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	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
SEP., 1971 16...	0700	8000	26.5	4110	100	63	78	90	98	99	88800

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1420	1540	1800	1490	1040	1310	1340	1460	1400	1440	1490	1120
2	1340	1440	1630	1440	1050	1390	1350	1290	1320	1400	1650	1210
3	1340	1460	1600	1440	1030	1290	1360	1270	1310	1360	1410	1280
4	1280	1460	1620	1520	1030	1240	1240	1220	1370	1310	1370	1450
5	944	1450	1590	1430	1060	1320	1070	1190	1390	628	1100	1600
6	1320	1410	1540	1250	1130	1390	1160	1280	1460	651	1380	1660
7	1460	1470	1340	1250	1220	1510	1090	1350	1570	616	1600	1580
8	1240	1410	---	1220	1100	1470	1060	1290	1600	732	1690	1610
9	1310	1410	1540	1140	1160	1430	1100	1220	1530	837	1600	1690
10	1450	1460	1510	1060	1130	1500	1090	1280	1540	958	1050	1700
11	1600	1510	1530	1080	1100	1500	1160	1170	1690	823	899	1520
12	1680	1550	1580	1160	1230	1470	1160	1070	1390	649	743	1430
13	1730	1610	1490	1230	1260	1420	1170	1100	1410	726	818	1380
14	1680	1610	1460	1270	1330	1410	1220	1130	1530	872	896	1130
15	1610	1530	---	1340	1240	1410	1260	1150	1360	923	920	854
16	1610	1510	---	1260	1240	1600	1410	1190	1410	1010	954	929
17	1720	1330	---	1230	1240	1850	1340	1230	1300	1050	1060	454
18	1810	1570	---	1230	1340	1690	1340	1290	1420	1100	1130	427
19	1840	1750	---	1130	1340	1500	1410	1340	1430	1210	1170	553
20	1970	1790	---	1110	1360	1520	1490	1300	952	1350	1250	685
21	1900	1890	---	1120	1390	1510	1500	1260	1270	1520	1250	716
22	1900	2000	---	1150	1300	1550	1490	1330	1240	1280	1210	711
23	1820	2010	---	1290	1300	1570	1490	1350	1190	1210	1230	721
24	1710	2010	1460	1110	1290	1520	1550	1430	1260	1180	1300	755
25	1700	1940	1470	1070	1300	1470	1560	1490	1290	1210	1190	537
26	1610	1950	1360	1050	1350	1490	1510	1610	1340	1140	1230	584
27	1730	1980	---	1060	1350	1490	1440	1250	1330	1210	1460	418
28	1720	2070	1350	1140	1340	1470	1430	1140	1290	1420	1580	553
29	1680	2010	1420	1180	---	1430	1470	1200	1320	1560	1580	729
30	1790	1920	1440	1270	---	1410	1650	1230	1400	1510	1430	737
31	1660	---	1530	1040	---	1280	---	1270	---	1500	1250	---
MONTH	1600	1670	---	1220	1220	1460	1330	1270	1380	1110	1250	1020

RIO GRANDE BASIN

08475000 RIO GRANDE NEAR BROWNSVILLE, TEX.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	422	50	57	163	40	18	113	30	9.2
2	309	45	38	188	54	27	78	27	5.7
3	220	36	21	162	67	29	68	25	4.6
4	246	40	27	133	42	15	73	21	4.1
5	328	53	47	110	41	12	71	13	2.5
6	267	36	26	111	15	4.5	63	27	4.6
7	268	27	20	126	39	13	63	33	5.6
8	259	53	37	135	59	22	62	57	9.5
9	231	62	39	162	60	26	60	54	8.7
10	194	60	31	114	62	19	68	57	10
11	193	52	27	105	40	11	94	40	10
12	198	40	21	97	30	7.9	89	25	6.0
13	177	23	11	95	14	3.6	84	47	11
14	164	29	13	96	42	11	113	46	14
15	158	49	21	91	43	11	128	50	17
16	145	66	26	164	51	23	81	45	9.8
17	146	67	26	584	54	85	43	40	4.6
18	146	63	25	563	51	78	35	35	3.3
19	146	63	25	259	37	26	53	30	4.3
20	147	61	24	141	47	18	91	25	6.1
21	142	64	25	115	39	12	156	60	25
22	135	64	23	113	55	17	131	50	18
23	133	68	24	138	40	15	132	40	14
24	152	46	19	178	29	14	70	33	6.2
25	145	50	20	135	23	8.4	81	12	2.6
26	149	62	25	92	37	9.2	94	60	15
27	145	70	27	87	32	7.5	183	70	35
28	137	71	26	102	33	9.1	117	46	15
29	110	88	26	110	54	16	104	35	9.8
30	107	35	10	137	30	11	55	43	6.4
31	125	12	4.1	--	--	--	42	61	6.9
TOTAL	5844	--	791.1	4806	--	579.2	2695	--	304.5

08475000 RIO GRANDE NEAR BROWNSVILLE, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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	47	45	5.7	136	36	13	104	72	20
2	41	38	4.2	322	39	34	93	54	14
3	42	98	11	407	55	60	116	64	20
4	95	49	13	352	77	73	102	52	14
5	252	42	29	119	46	15	79	31	6.6
6	168	20	9.1	51	62	8.5	67	52	9.4
7	127	12	4.1	101	61	17	96	58	15
8	166	12	5.4	250	64	43	134	49	18
9	402	31	34	172	36	17	69	52	9.7
10	351	49	46	284	34	26	58	48	7.5
11	107	37	11	386	69	72	62	64	11
12	54	37	5.4	166	46	21	56	62	9.4
13	22	34	2.0	79	47	10	54	53	7.7
14	15	42	1.7	147	34	13	69	57	11
15	28	17	1.3	228	38	23	97	57	15
16	28	56	4.2	122	70	23	82	74	16
17	21	44	2.5	64	52	9.0	54	66	9.6
18	93	47	12	70	69	13	35	68	6.4
19	113	45	14	62	53	8.9	47	56	7.1
20	50	50	6.8	41	60	6.6	54	52	7.6
21	28	50	3.8	102	62	17	37	64	6.4
22	22	49	2.9	191	64	33	46	43	5.3
23	67	57	10	224	50	30	59	44	7.0
24	77	56	12	174	59	28	47	36	4.6
25	120	35	11	106	60	17	39	54	5.7
26	123	56	19	86	57	13	47	26	3.3
27	47	59	7.5	88	67	16	51	44	6.1
28	24	55	3.6	94	70	18	55	57	8.5
29	24	47	3.0	--	--	--	59	49	7.8
30	101	56	15	--	--	--	62	71	12
31	164	31	14	--	--	--	62	56	9.4
TOTAL	3019	--	324.2	4624	--	678.0	2092	--	311.1

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	46	58	7.2	56	50	7.6	101	70	19
2	30	59	4.8	52	65	9.1	117	64	20
3	26	48	3.4	59	73	12	106	84	24
4	26	39	2.7	131	72	25	84	96	22
5	196	35	19	46	76	9.4	45	70	8.5
6	442	29	35	13	67	2.4	35	65	6.1
7	493	83	110	22	46	2.7	46	71	8.8
8	503	42	57	32	54	4.7	39	85	9.0
9	462	47	59	45	76	9.2	22	81	4.8
10	403	49	53	84	76	17	16	83	3.6
11	338	50	46	239	50	32	36	55	5.3
12	276	38	28	416	56	63	64	67	12
13	227	43	26	444	94	113	37	64	6.4
14	174	41	19	332	97	87	27	71	5.2
15	126	38	13	157	58	25	153	55	23
16	120	59	19	103	51	14	75	65	13
17	152	38	16	88	52	12	22	70	4.2
18	203	24	13	87	28	6.6	11	95	2.8
19	150	24	9.7	114	42	13	99	113	30
20	59	52	8.3	121	40	13	203	49	27
21	54	60	8.7	113	38	12	199	80	43
22	30	40	3.2	99	35	9.4	142	71	27
23	16	31	1.3	82	39	8.6	163	57	25
24	13	32	1.1	52	49	6.9	79	73	16
25	20	49	2.6	54	48	7.0	55	66	9.8
26	37	43	4.3	357	46	44	41	74	8.2
27	54	55	8.0	533	139	200	59	49	7.8
28	22	63	3.7	515	186	259	70	51	9.6
29	18	60	2.9	182	88	43	77	42	8.7
30	12	55	1.8	72	80	16	52	49	6.9
31	--	--	--	72	25	4.9	--	--	--
TOTAL	4728	--	586.7	4772	--	1088.5	2275	--	416.7

RIO GRANDE BASIN

08475000 RIO GRANDE NEAR BROWNSVILLE, TEX.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

RIO GRANDE BASIN

777

MISCELLANEOUS ANALYSES OF STREAMS IN THE RIO GRANDE BASIN IN TEXAS

WATER QUALITY DATA, OCTOBER 1970 TO SEPTEMBER 1971

08431700 LIMPIA CREEK ABOVE FORT DAVIS, TEX. (Lat 30°36'55", long 104°00'10")

DATE	TIME	DIS- SOLVED CHLORIDE (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)
OCT. 22...	1340	1.8	29	22	2.9	7.4	2.5	54	4	22

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED 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	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 22...	6.1	.4	.30	125	67	16	.4	175	8.4

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