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W. E. Wrather, Director**

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**QUALITY OF SURFACE WATERS
OF THE UNITED STATES
1942**

BY

W. D. COLLINS AND S. K. LOVE

**Prepared in cooperation with the States of
GEORGIA, NEW MEXICO, and TEXAS
and other agencies**



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INTRODUCTION

The water analyses given on the following pages indicate the suitability of the waters examined for industrial or agricultural use, and for domestic use so far as such use is affected by the dissolved or suspended mineral matter in the waters. The samples were collected between October 1, 1941, and September 30, 1942.

Most of the analyses are of 10-day composites of daily samples collected for a period of a year at a sampling point. The samples from streams were generally taken at points where gages are maintained for measurement of discharge. The discharge corresponding to an analysis of a composite sample is the mean of the daily discharges for the period covered by the daily samples used to make the composite. The discharges reported in the tables of single analyses are mean daily discharges for the days on which the samples were collected.

ANALYTICAL METHODS

For each month three composite samples were regularly made by mixing together equal quantities of daily samples collected from the 1st to the 10th, from the 11th to the 20th, and during the remainder of the month. For some streams that are subject to sudden large changes in quality of water, composite samples were at times made more frequently on the basis of the salt content indicated by measurements of the conductivity of the daily samples.

The samples were analyzed according to the methods ¹ regularly used by the Geological Survey, and the results are reported in parts per million. The constituents determined were not the same on all projects. In the analyses of some waters used for irrigation the quantity of dissolved solids is given in tons per acre-foot as well as in parts per million. The analyses give also results for a property, called "percent sodium," that has a bearing on the suitability of the waters

¹ Collins, W. D., Notes on practical water analysis: U. S. Geol. Survey Water-Supply Paper 596-H, pp. 236-261, 1928.

for irrigation. "Percent sodium" is the result obtained by dividing the equivalents per million of sodium by the equivalents per million of the total cations (usually sodium, potassium, calcium, and magnesium) and multiplying by 100. In analyses of waters carrying fairly large quantities of soluble salts the quantity reported for dissolved solids is the sum of the quantities of the various constituents determined. In other analyses the quantity reported as dissolved solids is the residue on evaporation, after heating to 180° C. for 1 hour. The total hardness as CaCO_3 is calculated from the calcium and magnesium. In some of the analyses the noncarbonate hardness is also reported. This is calculated from the total hardness and the bicarbonate.

COOPERATION AND DIVISION OF WORK

The analyses reported were made in connection with various Federal and cooperative projects, as described below. The descriptions of the work and the tables of analyses are arranged by drainage basins, according to Geological Survey practice in reporting records of stream flow.

SOUTH ATLANTIC SLOPE AND EASTERN GULF OF MEXICO BASINS

FLORIDA

The work on the quality of surface waters in Florida was confined to an area in the southeastern part of the State. It formed a part of a general study of the sources of water available for public and private supplies for Miami, Miami Beach, and the surrounding territory. The study was made under a cooperative agreement between the Geological Survey and Dade County and the cities of Miami, Miami Beach, and Coral Gables.

The quality of water investigations were made under the direction of S. K. Love. Some of the laboratory analyses were made at Washington and some at Miami, where space was provided through the cooperation of the Department of Health of that city. The analyses were made by S. K. Love, J. E. Mykytka, G. J. Petretic, and H. A. Swenson. Records of discharge were furnished by G. E. Ferguson, district engineer, Ocala, Fla.

GEORGIA

The work on the quality of surface waters in Georgia was done as part of a general study of the water resources of Georgia made under a cooperative agreement between the Geological Survey and the Georgia Division of Mines, Mining, and Geology, Capt. Garland Peyton, director.

The sampling and the analytical work were under the direction of W. L. Lamar, of the Geological Survey. The analyses were made by W. L. Lamar, E. W. Lohr, and C. G. Seegmiller. Records of discharge were furnished by M. T. Thomson, district engineer, Atlanta, Ga.

LOWER MISSISSIPPI RIVER BASIN**NEW MEXICO**

In cooperation with the Corps of Engineers, United States Army, records were obtained of the contributions of the Canadian River and the Conchas River to the storage behind Conchas Dam, in New Mexico, and of the quality of the water in the reservoir. The quality of water work was under the direction of C. S. Howard. Some of the analyses were made in Washington and some were made in Roswell and Albuquerque. The analyses were made by W. W. Brannock, J. D. Hem, C. S. Howard, E. W. Lohr, W. L. Minton, and W. F. White, Jr. Records of discharge were furnished by Berkeley Johnson, district engineer, Santa Fe, N. Mex.

TEXAS

Quality of water studies in the lower Mississippi River Basin in Texas were confined to analyses of samples collected from the Pease River near Crowell. The work was done by the Geological Survey in cooperation with the Texas State Board of Water Engineers, and was under the direction of W. W. Hastings. Analyses were made in the Geological Survey laboratory in Austin, Tex., by W. W. Hastings, and B. Ireland. Records of discharge were furnished by C. E. Ellsworth, district engineer, Austin, Tex.

WESTERN GULF OF MEXICO BASINS**NEW MEXICO**

Work on the quality of surface waters in New Mexico was done under a cooperative agreement between the Geological Survey and the New Mexico Interstate Stream Commission, Thomas M. McClure, secretary. The quality of water investigations were made under the supervision of C. S. Howard. The analyses were made in the Geological Survey laboratories in Roswell and Albuquerque. W. F. White, Jr., was in immediate charge of the program of sampling and of the analysis of samples in the Geological Survey laboratory in Roswell. The analyses were made by J. D. Hem, W. L. Minton, and W. F. White, Jr. Records of discharge were furnished by Berkeley Johnson, district engineer, Santa Fe, N. Mex.

TEXAS

Quality of water investigations in Texas were made in cooperation with State and local agencies. Work on the Brazos River was done under a cooperative agreement with the Texas State Board of Water Engineers, and work on the Pecos River was done under a cooperative agreement with the Red Bluff Water Power Control District.

The investigations were made under the direction of W. W. Hastings. Analyses were made in the Geological Survey laboratory in

Austin, Tex., by W. W. Hastings, B. Irelan, P. A. Witt, and J. Yett. Records of discharge were furnished by C. E. Ellsworth, district engineer, Austin, Tex.

COLORADO RIVER BASIN

Study of the quality of the water of the Colorado River and tributaries has been a continuing Federal project under the direction of C. S. Howard, with the cooperation of the following district engineers of the Geological Survey: J. H. Gardiner, Tucson, Ariz.; Robert Follansbee, Denver, Colo.; Berkeley Johnson, Santa Fe, N. Mex.; and A. B. Purton, Salt Lake City, Utah. Samples were collected from Lake Mead by the Bureau of Reclamation. Some of the analyses were made in Washington, D. C., and some in Roswell and Albuquerque, N. Mex. They were made by W. W. Brannock, J. D. Hem, C. S. Howard, E. W. Lohr, L. W. Miller, W. L. Minton, N. A. Talvitie, and M. B. Thomas.

In addition to the tables of analyses of the dissolved mineral matter, records are given of the loads of suspended sediment at a few points in the Colorado River Basin.

PUBLICATIONS

Records of chemical analyses of series of samples collected during the year ended September 30, 1941, for most of the stations listed in this report are included in Water-Supply Paper 942. Analyses for several stations in the Colorado River Basin are given in Water-Supply Papers 596-B, 636-A, and 636-D. Analyses which were representative of a large number of rivers throughout the United States in 1906 to 1908 are given in Professional Paper 135. Records of suspended sediment in the Colorado River Basin are given in Water-Supply Paper 636-B.

TABLES OF CHEMICAL ANALYSES

SOUTH ATLANTIC SLOPE AND EASTERN GULF OF MEXICO BASINS

ST. LUCIE CANAL AT LOCK 1, LAKE OKEECHOBEE, FLA.

[Composites of daily samples collected at bridge on Florida Highway 194, several hundred feet west of lock 1 and east of shore line of Lake Okeechobee and 8 miles north of Canal Point. Analyses in parts per million]

Date of collection	Mean discharge (second-feet)	Color	Specific conductance ($K \times 10^3$ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Dissolved solids	Total hardness as CaCO ₃
Oct. 1-10, 1941.....	2,695	100	42.2	---	---	40	13	25	---	144	27	43	---	1.0	220	153
Oct. 11-20.....	1,449	70	38.2	---	---	39	11	24	---	136	26	39	---	.4	206	143
Oct. 21-31.....	3,383	65	33.9	---	---	34	9.7	19	---	118	22	33	---	.2	176	125
Nov. 1-7.....	3,894	100	27.0	---	---	30	7.4	14	---	99	15	27	---	.2	142	105
Nov. 8-20.....	3,482	90	30.8	---	---	32	8.1	19	---	110	19	32	---	.5	165	113
Nov. 21-30.....	559	100	35.3	---	---	36	8.8	25	---	126	24	36	---	.5	192	126
Dec. 1-10.....	824	70	36.5	---	---	38	11	21	---	130	26	37	---	.4	197	140
Dec. 11-20.....	464	70	37.4	---	---	38	11	23	---	133	28	37	---	.4	203	140
Dec. 21-31.....	732	70	36.6	---	---	38	11	22	---	130	27	37	---	.4	199	140
Jan. 1-10, 1942.....	386	70	33.2	---	---	35	9.2	24	---	123	25	35	---	.4	189	125
Jan. 11-20.....	573	90	36.5	---	---	38	12	20	---	133	26	37	---	.4	199	144
Jan. 21-31.....	311	60	34.5	---	---	35	9.4	23	---	124	26	33	---	.3	188	126
Feb. 1-9.....	1,723	70	34.2	---	---	36	8.7	23	---	124	26	33	---	.3	188	126
Feb. 10-20.....	997	70	33.8	---	---	34	9.2	22	---	122	23	33	---	.2	182	123
Feb. 21-28.....	---	70	32.8	---	---	33	9.1	24	---	124	22	33	---	.2	182	120

MIAMI CANAL AT WATER PLANT, HIALEAH, FLA.

[Composites of daily samples collected at gaging station on Florida Highway 26, half a mile upstream from Fifty-fourth Street Bridge. Analyses in parts per million]

Oct. 1-10, 1941.....	1,010	120	41.8	5.8	0.02	76	6.3	11	1.3	239	4.9	18	0.3	1.0	287	216
Oct. 11-20.....	922	120	43.1	5.3	.13	78	7.0	11	1.3	249	4.3	20	.3	.9	296	224
Oct. 21-31.....	837	110	44.0	5.6	.08	79	6.6	12	1.2	253	4.0	19	.3	.9	304	224
Nov. 1-10.....	797	110	44.8	6.6	.07	80	6.3	12	1.2	255	5.1	20	.3	1.5	308	226
Nov. 11-20.....	869	110	44.8	8.1	.13	81	6.4	12	1.2	257	5.4	19	.3	1.3	306	228
Nov. 21-30.....	848	95	44.6	8.3	.07	81	7.2	12	2.0	257	5.0	20	.2	1.0	305	232
Dec. 1-10.....	781	95	45.0	6.0	.08	82	6.9	12	1.9	261	5.0	20	.2	1.4	313	233
Dec. 11-20.....	698	95	46.1	6.1	.12	84	7.3	12	1.4	268	5.2	20	.2	1.4	310	240
Dec. 21-31.....	643	90	46.6	6.0	.13	85	7.0	11	1.5	269	5.2	19	.2	1.7	314	241
Jan. 1-10, 1942.....	602	90	46.5	5.6	.17	85	7.3	12	1.8	275	5.2	20	.2	1.6	316	242
Jan. 11-20.....	602	90	48.9	5.9	.08	87	6.7	13	1.3	277	5.2	20	.1	1.8	318	244
Jan. 21-31.....	526	90	49.3	5.7	.07	88	6.9	13	1.4	279	5.1	20	.1	2.0	322	248
Feb. 1-10.....	477	90	49.1	5.5	.09	88	6.9	13	1.4	281	4.7	20	.1	1.8	321	248
Feb. 11-19.....	440	90	48.9	5.7	.10	88	7.0	12	1.4	280	4.3	21	.0	2.0	320	248
Feb. 20-28.....	494	90	49.8	5.2	.16	90	7.2	12	1.2	289	5.5	20	.1	2.0	328	254

NORTH NEW RIVER CANAL NEAR FORT LAUDERDALE, FLA.

[Composites of daily samples collected at lock and dam, on Florida Highway 26, 6 miles southwest of Fort Lauderdale. Analyses in parts per million]

Date of collection	Mean discharge (second-feet)	Color	Specific conductance ($K \times 10^4$ at 25° C.)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids	Total hardness as $CaCO_3$
Oct. 22-31, 1941	1,070	180	68.1	12	0.16	80	21	43	4.8	278	52	58	0.4	1.6	471	286
Nov. 3-10	940	170	66.3	12	.22	77	18	40	2.6	278	34	38	.5	.5	410	286
Nov. 11-20	642	180	66.3	12	.19	80	20	45	6.9	324	39	37	.6	2.2	475	282
Nov. 21-30	582	190	72.4	11	.18	83	23	52	6.3	320	36	72	.9	2.7	471	284
Dec. 1-10	482	120	76.3	15	.14	87	23	53	6.1	306	46	79	.5	1.1	500	312
Dec. 11-20	310	120	76.3	15	.08	81	23	53	5.3	306	46	70	.5	1.0	498	296
Dec. 21-31	337	110	66.3	13	.06	74	20	46	5.3	279	40	70	.4	.8	448	266
Jan. 1-6, 1942	311	95	75.7	15	.12	77	24	54	5.4	294	54	79	.5	.8	498	290
Jan. 7-20	388	100	80.3	19	.01	83	23	56	3.4	313	40	56	.4	1.1	514	302
Jan. 21-31	745	110	69.4	13	.04	77	19	45	2.6	281	30	69	.4	1.4	447	270
Feb. 1-10	473	110	68.6	12	.09	77	18	44	2.4	281	27	69	.4	1.2	438	268
Feb. 11-19	239	90	70.9	12	.02	76	19	47	2.6	282	35	71	.3	1.1	452	268
Feb. 20-28	433	90	51.5	8.0	.02	62	13	28	1.5	218	27	42	.2	1.1	330	208

CALOOSAHATCHEE CANAL AT MOORE HAVEN, FLA.

[Composites of daily samples collected at lock 1 at Lake Okeechobee outlet. Analyses in parts per million]

Oct. 5-20, 1941	190	13.8	42.4	14	3.4	6.9	45	1.4	13	66	49
Oct. 21-31	3,975	27.9	7.2	30	6.2	16	68	16	25	141	106
Nov. 1-10	3,976	33.4	7.9	36	7.2	16	104	23	32	173	128
Nov. 11-20	100	30.6	7.9	31	7.9	19	104	23	31	160	110
Nov. 21-30	90	38.1	8.9	40	8.9	22	133	26	37	204	141
Dec. 1-10	70	42.4	12	46	12	22	154	30	30	225	164
Dec. 11-20	70	43.7	12	47	12	22	156	32	41	225	167
Dec. 21-31	70	43.0	12	45	12	26	153	33	41	223	162
Jan. 1-10, 1942	70	39.7	13	41	13	30	143	30	36	211	156
Jan. 11-19	60	38.9	11	38	11	27	143	25	39	211	140
Jan. 20-31	90	32.4	7.6	30	7.6	25	114	19	34	172	106
Feb. 1-10	110	26.6	6.1	26	6.1	18	88	16	20	138	90
Feb. 11-20	90	27.4	7.1	28	7.1	18	97	15	20	146	99
Feb. 21-27	60	32.6	8.2	33	8.2	23	128	15	33	175	116

CANALS IN BROWARD, DADE, AND PALM BEACH COUNTIES, FLA.

[Single samples collected at monthly intervals at gaging stations. Analyses in parts per million]

CYPRESS CREEK CANAL AT POMPANO

Date of collection	Color	Specific conductance (K $\times 10^6$ at 25°C.)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na+K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Dissolved solids	Total hardness as CaCO ₃
Oct. 23, 1941	90	46.9	96	3.3	9.2	268	20	23	0.4	284	263
Nov. 26	90	48.8	88	2.8	14	245	21	27	.5	274	231
Dec. 26	70	47.7	89	3.3	11	258	14	23	.3	268	236
Jan. 22, 1942	100	26.1	38	1.6	14	102	23	16	.6	144	101
Feb. 19	90	44.5	80	3.1	12	235	15	21	.2	247	212
Apr. 8	60	49.2	93	3.5	8.3	258	16	26	.2	274	246
May 7	90	45.4	80	4.1	11	234	16	22	.4	249	216
June 4	130	44.2	74	3.7	17	204	33	25	.0	253	200
July 9	110	43.9	79	3.1	11	232	12	22	.1	242	210
Aug. 6	95	47.1	86	4.1	4.5	247	10	20	.1	246	231
Sept. 3	120	40.0	67	6.8	2.8	160	39	21	.2	216	194

HILLSBORO CANAL NEAR DEERFIELD BEACH

Oct. 23, 1941	180	37.8	32	10	34	143	11	47	0.4	205	121
Nov. 26	130	49.9	42	12	45	164	15	72	1.6	288	154
Dec. 26	110	65.4	52	15	69	217	22	100	.6	366	191
Jan. 22, 1942	100	17.8	22	1.6	14	69	6.4	20	.1	98	62
Feb. 19	110	78.4	62	14	83	239	25	120	1.0	482	212
May 7	180	35.7	32	9.2	26	122	5.3	48	.4	181	118
June 4	120	21.9	22	4.4	17	81	9.9	24	.1	117	73
July 9	180	22.0	22	5.5	14	84	3.3	25	.1	111	78
Aug. 7	240	99.4	72	23	98	314	21	148	.2	537	274
Sept. 3	180	59.0	56	17	33	205	14	71	.3	292	211

NORTH NEW RIVER CANAL NEAR FORT LAUDERDALE

Apr. 9, 1942	160	103	108	36	62	387	83	105	1.6	586	406
May 7	220	74.9	88	21	41	320	30	72	1.5	411	318
June 4	220	88.7	99	30	56	348	76	90	.4	523	370
July 9	360	31.9	46	7.4	5.0	160	3.7	15	.1	156	145
Aug. 6	240	79.0	90	24	37	329	44	63	.2	420	323
Sept. 3	220	84.2	93	29	36	315	70	69	.1	462	351

TAMIAMI CANAL AT KROME AVE. NEAR MIAMI

Oct. 23, 1941	60	24.6	40	3.7	9.3	132	4.1	16	0.2	138	115
Nov. 18	60	27.8	44	4.1	9.3	139	5.8	18	2.0	152	127
Dec. 27	60	31.5	52	5.5	6.5	162	3.7	21	.3	169	152
Jan. 20, 1942	100	33.5	54	4.1	13	177	1.9	23	.3	184	152
Feb. 16	70	42.7	70	5.7	14	233	4.9	23	.4	233	198
Apr. 9	60	53.5	95	4.8	13	301	1.6	26	.5	289	256
May 20	40	51.0	88	7.0	14	286	7.0	26	.2	283	243
June 4	70	37.4	64	4.8	11	206	4.9	20	.2	216	179
July 15	120	27.0	42	3.3	9.8	150	1	11	.1	142	118
Aug. 6	90	28.0	45	4.8	.8	143	1	11	.1	134	132
Sept. 1	100	27.5	46	6.6	-----	134	2.5	15	.1	-----	142

TAMIAMI CANAL NEAR CORAL GABLES

Oct. 23, 1941	65	37.8	70	5.0	8.0	223	5.1	17	0.8	226	195
Nov. 18	70	40.5	73	5.2	11	236	8.6	17	2.0	233	204
Dec. 27	90	42.7	77	5.7	7.3	245	4.9	18	.3	234	216
Jan. 20, 1942	120	43.3	79	5.0	8.0	251	2.5	19	.1	237	218
Feb. 17	110	45.5	82	5.7	7.8	266	1.6	18	.1	246	228
Apr. 9	80	47.0	86	5.0	7.4	269	4.9	18	.3	254	235
May 20	70	45.2	80	5.9	7.3	250	13	15	.2	245	224
June 5	70	46.3	86	5.2	9.7	268	16	15	.2	264	236
July 15	120	41.4	74	3.5	10	232	9.1	15	.2	226	199
Aug. 5	90	41.5	72	6.1	2.5	226	3.5	15	.2	211	205
Sept. 1	100	41.5	72	7.4	2.3	228	2.3	18	.1	214	211

CANALS IN BROWARD, DADE AND PALM BEACH COUNTIES, FLA.—Con.

WEST PALM BEACH CANAL AT WEST PALM BEACH

Date of collection	Color	Specific conductance ($K \times 10^3$ at 25° C.)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na+K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Dissolved solids	Total hardness as CaCO ₃
Oct. 23, 1941.....	160	24.1	27	5.8	14	102	7.0	22	0.2	76	91
Nov. 26.....	130	67.9	51	13	72	196	32	101	2.0	400	181
Dec. 26.....	130	86.4	57	18	98	233	42	138	1.2	469	216
Jan. 22, 1942.....	110	71.4	57	17	72	230	34	103	.4	392	212
Feb. 19.....	130	70.6	54	17	73	221	36	103	.5	392	205
Apr. 8.....	180	77.1	58	18	80	230	49	108	1.0	427	218
May 7.....	180	67.3	51	15	69	200	30	101	.4	366	189
June 4.....	140	18.0	19	3.6	15	61	14	22	.2	104	62
July 9.....	240	23.7	22	4.6	19	94	5.8	22	.1	120	74
Aug. 7.....	280	79.1	58	20	76	245	34	110	.4	419	226
Sept. 3.....	200	71.0	57	18	60	207	31	101	1.2	370	216

TIDAL CANALS IN AND NEAR MIAMI, FLA.

Single samples collected at semimonthly or monthly intervals at several bridges on each canal to give information about extent of salt-water contamination from Biscayne Bay. The values reported were determined on bottom samples]

SNAKE CREEK CANAL AT U. S. HIGHWAY 1

Date	Specific conductance ($K \times 10^3$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^3$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^3$ at 25° C.)	Chloride (Cl, p. p. m.)
1941			1942			1942		
Oct. 1.....	3,120	11,100	Jan. 16.....	3,570	12,600	May 22.....	1,720	5,680
Oct. 17.....	3,260	11,500	Feb. 4.....	4,040	13,700	June 9.....	101	160
Oct. 31.....	3,890	14,900	Feb. 17.....	4,900	17,700	June 24.....	84.8	122
Nov. 14.....	2,590	8,780	Mar. 4.....	3,900	14,100	July 9.....	91.0	135
Nov. 28.....	3,290	11,800	Mar. 19.....	4,740	17,500	July 24.....	333	880
Dec. 26.....	415	1,130	Apr. 2.....	4,650	17,000	Aug. 6.....	3,370	12,000
1942			Apr. 28.....	70.9	74	Aug. 22.....	4,060	15,100
Jan. 3.....	4,270	15,300	May 8.....	73.9	75	Sept. 4.....	3,340	12,100

SNAKE CREEK CANAL AT MIAMI DRIVE

Date	Specific conductance ($K \times 10^3$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^3$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^3$ at 25° C.)	Chloride (Cl, p. p. m.)
1941			1942			1942		
Oct. 1.....	55.6	31	Jan. 16.....	59.2	34	May 22.....	62.6	42
Oct. 17.....	58.6	37	Feb. 4.....	60.3	35	June 9.....	58.1	37
Oct. 31.....	57.9	34	Feb. 17.....	187	402	June 24.....	56.8	38
Nov. 14.....	50.6	27	Mar. 4.....	59.1	32	July 9.....	59.1	43
Nov. 28.....	50.0	33	Mar. 19.....	66.6	55	July 24.....	55.6	31
Dec. 26.....	58.0	37	Apr. 2.....	177	385	Aug. 6.....	70.5	31
1942			Apr. 28.....	55.1	30	Aug. 22.....	56.0	26
Jan. 3.....	57.8	34	May 8.....	60.1	35	Sept. 4.....	54.0	23

SNAKE CREEK CANAL AT MIAMI GARDENS DRIVE

Date	Specific conductance ($K \times 10^3$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^3$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^3$ at 25° C.)	Chloride (Cl, p. p. m.)
1941			1942			1942		
Oct. 1.....	53.1	27	Jan. 16.....	58.8	33	May 22.....	59.8	36
Oct. 17.....	57.8	33	Feb. 4.....	60.4	38	June 9.....	54.3	26
Oct. 31.....	66.6	32	Feb. 17.....	58.6	30	June 24.....	50.7	27
Nov. 14.....	51.8	23	Mar. 4.....	58.7	32	July 9.....	52.3	28
Nov. 28.....	53.3	34	Mar. 19.....	59.2	34	July 24.....	54.8	27
Dec. 26.....	55.5	32	Apr. 2.....	57.0	31	Aug. 6.....	56.8	29
1942			Apr. 28.....	54.3	30	Aug. 22.....	54.2	26
Jan. 3.....	58.2	35	May 8.....	59.2	33	Sept. 4.....	51.2	22

TIDAL CANALS IN AND NEAR MIAMI, FLA.—Continued

SNAKE CREEK CANAL AT FLORIDA HIGHWAY 145

Date	Specific conductance (K $\times 10^4$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance (K $\times 10^4$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance (K $\times 10^4$ at 25° C.)	Chloride (Cl, p. p. m.)
1941			1942			1942		
Oct. 1	47.8	17	Jan. 16	51.4	18	May 22	51.0	19
Oct. 17	49.5	19	Feb. 4	52.2	20	June 9	49.6	16
Oct. 31	48.3	17	Feb. 17	51.4	18	June 24	40.4	14
Nov. 14	46.6	17	Mar. 4	52.4	19	July 9	43.8	17
Nov. 28	48.8	17	Mar. 19	51.8	19	July 24	47.3	19
Dec. 26	50.1	18	Apr. 2	51.7	19	Aug. 6	51.1	19
			Apr. 28	48.2	15	Aug. 22	48.1	18
			May 8	53.1	17	Sept. 4	46.7	14
1942								
Jan. 3	50.5	18						

BISCAYNE CANAL AT U. S. HIGHWAY 1

1941			1942			1942		
Oct. 1	4,160	15,400	Jan. 16	4,940	18,000	May 22	2,620	8,640
Oct. 17	4,180	15,100	Feb. 4	5,140	18,200	June 9	72.4	86
Oct. 31	3,190	11,300	Feb. 17	4,810	17,300	June 24	65.2	66
Nov. 14	3,820	13,600	Mar. 4	4,640	17,400	July 9	63.6	61
Nov. 28	4,680	17,800	Mar. 19	4,720	17,500	July 24	676	1,975
Dec. 26	4,160	15,100	Apr. 2	4,990	18,500	Aug. 6	3,070	10,900
			Apr. 28	68.3	68	Aug. 22	756	2,300
			May 8	76.3	93	Sept. 4	132	278
1942								
Jan. 3	3,770	13,300						

BISCAYNE CANAL AT NORTHEAST SIXTH AVE.

1941			1942			1942		
Oct. 1	59.3	54	Jan. 16	4,710	16,900	May 22	1,370	4,350
Oct. 17	3,190	11,200	Feb. 4	4,820	17,200	June 9	52.0	29
Oct. 31	3,020	10,500	Feb. 17	4,550	16,200	June 24	56.9	41
Nov. 14	56.8	45	Mar. 4	3,890	14,100	July 9	56.9	43
Nov. 28	3,600	13,000	Mar. 19	4,220	15,500	July 24	263	676
Dec. 26	2,860	9,860	Apr. 2	4,720	17,600	Aug. 6	2,090	6,900
			Apr. 28	60.3	48	Aug. 22	59.2	51
			May 8	59.4	45	Sept. 4	47.3	32
1942								
Jan. 3	4,150	14,800						

BISCAYNE CANAL AT WEST DIXIE HIGHWAY

1941			1942			1942		
Oct. 1	47.6	38	Jan. 16	3,430	12,100	May 22	56.9	37
Oct. 17	92.0	142	Feb. 4	4,030	13,900	June 9	50.5	24
Oct. 31	53.2	32	Feb. 17	3,460	11,900	June 24	54.9	37
Nov. 14	49.3	35	Mar. 4	1,050	3,250	July 9	54.6	36
Nov. 28	49.4	34	Mar. 19	3,160	11,100	July 24	52.9	29
Dec. 26	54.0	31	Apr. 2	3,910	14,000	Aug. 6	56.8	29
			Apr. 28	55.8	35	Aug. 22	49.0	23
			May 8	56.6	37	Sept. 4	44.2	21
1942								
Jan. 3	2,170	7,260						

BISCAYNE CANAL AT NORTHWEST SEVENTH AVE.

1941			1942			1942		
Oct. 1	41.1	17	Jan. 16	49.4	17	May 22	48.7	18
Oct. 17	49.0	17	Feb. 4	50.4	19	June 9	46.2	16
Oct. 31	47.8	18	Feb. 17	51.2	20	June 24	45.3	14
Nov. 14	47.3	18	Mar. 4	49.1	19	July 9	46.7	17
Nov. 28	44.2	17	Mar. 19	49.7	21	July 24	47.2	19
Dec. 26	48.3	17	Apr. 2	1,150	3,620	Aug. 6	47.8	19
			Apr. 28	47.8	16	Aug. 22	46.4	15
			May 8	48.6	19	Sept. 4	42.2	13
1942								
Jan. 3	49.5	17						

QUALITY OF SURFACE WATERS, 1942

TIDAL CANALS IN AND NEAR MIAMI, FLA.—Continued

BISCAYNE CANAL AT NORTHWEST TWENTY-SEVENTH AVE.

Date	Specific conductance (K $\times 10^6$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance (K $\times 10^6$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance (K $\times 10^6$ at 25° C.)	Chloride (Cl, p. p. m.)
1941			1942			1942		
Oct. 1.....	47.8	17	Jan. 16.....	51.3	17	May 22.....	50.5	18
Oct. 17.....	50.6	18	Feb. 4.....	51.1	18	June 9.....	46.2	13
Oct. 31.....	46.9	17	Feb. 17.....	48.8	17	June 24.....	44.6	15
Nov. 14.....	47.8	18	Mar. 4.....	50.7	17	July 9.....	46.0	14
Nov. 28.....	45.5	19	Mar. 19.....	49.5	19	July 24.....	47.2	20
Dec. 26.....	50.5	17	Apr. 2.....	49.7	19	Aug. 6.....	48.0	20
			Apr. 28.....	48.9	15	Aug. 22.....	47.0	17
1942			May 8.....	49.9	16	Sept. 4.....	41.7	13
Jan. 3.....	50.8	17						

BISCAYNE CANAL AT LE JEUNE RD.

Date	Specific conductance (K $\times 10^6$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance (K $\times 10^6$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance (K $\times 10^6$ at 25° C.)	Chloride (Cl, p. p. m.)
1941			1942			1942		
Oct. 1.....	40.6	18	Jan. 16.....	52.0	16	May 22.....	50.8	17
Oct. 17.....	50.6	17	Feb. 4.....	50.4	19	June 9.....	43.7	15
Oct. 31.....	48.8	17	Feb. 17.....	50.8	17	June 24.....	43.5	13
Nov. 14.....	47.8	18	Mar. 4.....	50.2	17	July 9.....	46.2	15
Nov. 28.....	45.1	18	Mar. 19.....	50.3	16	July 24.....	47.9	20
Dec. 26.....	50.9	17	Apr. 2.....	49.6	17	Aug. 6.....	48.2	18
			Apr. 28.....	49.4	14	Aug. 22.....	47.7	16
1942			May 8.....	50.0	17	Sept. 4.....	40.8	11
Jan. 3.....	51.4	19						

BISCAYNE CANAL AT RED RD.

Date	Specific conductance (K $\times 10^6$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance (K $\times 10^6$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance (K $\times 10^6$ at 25° C.)	Chloride (Cl, p. p. m.)
1941			1942			1942		
Oct. 1.....	42.3	17	Jan. 16.....	50.8	16	May 22.....	49.9	19
Oct. 17.....	47.8	16	Feb. 4.....	50.3	15	June 9.....	41.5	14
Oct. 31.....	46.8	16	Feb. 17.....	50.0	16	June 24.....	37.2	11
Nov. 14.....	42.6	16	Mar. 4.....	49.5	17	July 9.....	42.7	15
Nov. 28.....	43.3	16	Mar. 19.....	49.6	18	July 24.....	44.6	18
Dec. 26.....	49.3	17	Apr. 2.....	50.4	18	Aug. 6.....	44.0	25
			Apr. 28.....	48.7	16	Aug. 22.....	45.2	17
1942			May 8.....	49.2	19	Sept. 4.....	37.1	12
Jan. 3.....	48.4	16						

LITTLE RIVER CANAL AT U. S. HIGHWAY 1

Date	Specific conductance (K $\times 10^6$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance (K $\times 10^6$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance (K $\times 10^6$ at 25° C.)	Chloride (Cl, p. p. m.)
1941			1942			1942		
Oct. 1.....	3,680	13,300	Jan. 16.....	4,460	15,900	May 22.....	3,660	13,300
Oct. 17.....	4,230	15,700	Feb. 4.....	4,720	16,800	June 9.....	3,630	12,400
Oct. 31.....	3,320	11,800	Feb. 17.....	4,810	17,300	June 24.....	1,650	5,830
Nov. 14.....	4,300	15,400	Mar. 4.....	4,670	17,000	July 9.....	2,820	9,670
Nov. 28.....	4,130	15,100	Mar. 19.....	4,760	17,600	July 24.....	3,520	13,000
Dec. 24.....	4,640	16,900	Apr. 2.....	4,850	18,100	Aug. 6.....	3,580	13,000
			Apr. 28.....	148	308	Aug. 22.....	3,780	13,800
1942			May 8.....	1,760	5,930	Sept. 4.....	3,990	15,200
Jan. 3.....	4,530	16,300						

LITTLE RIVER CANAL AT NORTHEAST SECOND AVE.

Date	Specific conductance (K $\times 10^6$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance (K $\times 10^6$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance (K $\times 10^6$ at 25° C.)	Chloride (Cl, p. p. m.)
1941			1942			1942		
Oct. 1.....	130	250	Jan. 16.....	3,740	13,300	May 22.....	2,220	7,460
Oct. 17.....	3,220	11,500	Feb. 4.....	4,180	14,500	June 9.....	252	630
Oct. 31.....	2,820	9,860	Feb. 17.....	3,790	13,200	June 24.....	51.9	28
Nov. 14.....	1,490	4,780	Mar. 4.....	2,570	8,880	July 9.....	52.7	29
Nov. 28.....	2,550	8,930	Mar. 19.....	3,750	13,500	July 24.....	2,700	9,520
Dec. 24.....	3,530	12,400	Apr. 2.....	4,250	15,600	Aug. 6.....	2,680	9,220
			Apr. 28.....	52.6	29	Aug. 22.....	2,950	10,300
1942			May 8.....	103	177	Sept. 4.....	2,680	9,670
Jan. 3.....	3,690	12,900						

TIDAL CANALS IN AND NEAR MIAMI, FLA.—Continued

LITTLE RIVER CANAL AT NORTHWEST SEVENTH AVE.

Date	Specific conductance ($K \times 10^4$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^4$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^4$ at 25° C.)	Chloride (Cl, p. p. m.)
1941			1942			1942		
Oct. 1.....	50.4	25	Jan. 16.....	1,820	5,980	May 22.....	51.0	26
Oct. 17.....	328	870	Feb. 4.....	3,090	10,300	June 9.....	48.7	20
Oct. 31.....	398	1,110	Feb. 17.....	1,950	6,370	June 24.....	50.2	24
Nov. 14.....	54.5	89	Mar. 4.....	526	1,480	July 9.....	50.0	25
Nov. 28.....	125	245	Mar. 19.....	2,090	7,060	July 24.....	423	1,200
Dec. 24.....	2,530	8,640	Apr. 2.....	2,990	10,400	Aug. 6.....	1,460	4,650
1942			Apr. 28.....	50.0	22	Aug. 22.....	1,400	4,500
Jan. 3.....	1,750	5,730	May 8.....	50.1	24	Sept. 4.....	50.4	26

LITTLE RIVER CANAL AT NORTHWEST NINETY-FIFTH ST.

1941			1942			1942		
Oct. 1.....	45.6	22	Jan. 16.....	241	590	May 22.....	49.4	24
Oct. 17.....	49.9	19	Feb. 4.....	1,450	4,620	June 9.....	47.0	17
Oct. 31.....	48.1	21	Feb. 17.....	1,250	3,850	June 24.....	49.0	19
Nov. 14.....	45.2	20	Mar. 19.....	1,770	5,780	July 9.....	49.2	19
Nov. 28.....	43.7	21	Apr. 2.....	2,010	6,860	July 24.....	48.8	23
Dec. 24.....	48.2	21	Apr. 28.....	48.1	18	Aug. 6.....	52.7	21
1942			May 8.....	49.4	23	Aug. 22.....	46.7	17
Jan. 3.....	54.6	37				Sept. 4.....	45.8	14

LITTLE RIVER CANAL AT NORTHWEST TWENTY-SEVENTH AVE.

1941			1942			1942		
Oct. 1.....	45.6	16	Jan. 16.....	49.3	17	May 22.....	47.9	18
Oct. 17.....	48.9	16	Feb. 4.....	50.6	20	June 9.....	46.0	14
Oct. 31.....	47.8	16	Feb. 17.....	48.4	16	June 24.....	46.7	15
Nov. 14.....	46.9	17	Mar. 4.....	48.6	16	July 9.....	47.6	17
Nov. 28.....	43.6	16	Mar. 19.....	48.3	16	July 24.....	48.5	17
Dec. 24.....	46.6	16	Apr. 2.....	86.4	133	Aug. 6.....	50.0	21
1942			Apr. 28.....	46.1	13	Sept. 4.....	45.2	14
Jan. 3.....	48.0	17	May 8.....	46.6	16			

LITTLE RIVER CANAL AT LE JEUNE RD.

1941			1942			1942		
Oct. 1.....	40.2	16	Jan. 16.....	49.9	16	May 22.....	49.1	17
Oct. 17.....	48.9	15	Feb. 4.....	52.0	19	June 9.....	46.6	16
Oct. 31.....	43.3	17	Feb. 17.....	50.0	18	June 24.....	47.6	15
Nov. 14.....	46.4	17	Mar. 4.....	50.4	16	July 9.....	49.3	17
Nov. 28.....	40.4	18	Mar. 19.....	50.0	18	July 24.....	49.8	17
Dec. 24.....	48.2	16	Apr. 2.....	49.1	18	Aug. 6.....	50.9	19
1942			Apr. 28.....	46.4	12	Aug. 22.....	47.6	15
Jan. 3.....	49.8	16	May 8.....	47.6	15	Sept. 4.....	44.6	13

LITTLE RIVER CANAL AT RED RD.

1941			1942			1942		
Oct. 1.....	48.3	16	Jan. 16.....	54.2	16	May 22.....	51.4	18
Oct. 17.....	49.8	16	Feb. 4.....	55.7	19	June 9.....	47.2	13
Oct. 31.....	47.0	16	Feb. 17.....	53.8	17	June 24.....	48.6	14
Nov. 14.....	48.2	17	Mar. 4.....	52.8	17	July 9.....	54.6	17
Nov. 28.....	51.2	16	Mar. 19.....	54.0	19	July 24.....	51.6	15
Dec. 24.....	50.1	16	Apr. 2.....	53.1	17	Aug. 6.....	53.4	17
1942			Apr. 28.....	45.3	13	Aug. 22.....	53.0	17
Jan. 3.....	51.0	16	May 8.....	47.5	14	Sept. 4.....	48.8	14

QUALITY OF SURFACE WATERS, 1942

TIDAL CANALS IN AND NEAR MIAMI, FLA.—Continued

TAMIAMI CANAL AT NORTHWEST SOUTH RIVER DRIVE

Date	Specific conductance ($K \times 10^5$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^5$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^5$ at 25° C.)	Chloride (Cl, p. p. m.)
1941			1942			1942		
Oct. 1.....	43.7	23	Jan. 16.....	64.6	72	May 22.....	64.6	65
Oct. 17.....	39.8	21	Feb. 4.....	253	620	June 9.....	48.4	23
Oct. 31.....	42.0	21	Feb. 17.....	200	470	June 24.....	48.6	22
Nov. 14.....	42.9	21	Mar. 4.....	64.8	63	July 9.....	45.3	23
Nov. 28.....	40.2	19	Mar. 19.....	213	520	July 24.....	44.4	23
Dec. 24.....	45.0	24	Apr. 2.....	227	600	Aug. 6.....	44.5	23
1942			Apr. 28.....	55.5	38	Aug. 22.....	42.4	21
Jan. 3.....	45.8	24	May 8.....	57.8	47	Sept. 4.....	41.6	21

TAMIAMI CANAL AT NORTHWEST THIRTY-SEVENTH AVE.

Date	Specific conductance ($K \times 10^5$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^5$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^5$ at 25° C.)	Chloride (Cl, p. p. m.)
1941			1942			1942		
Oct. 1.....	38.8	19	Jan. 16.....	51.8	33	May 22.....	55.7	42
Oct. 17.....	36.6	19	Feb. 4.....	88.3	129	June 9.....	47.9	22
Oct. 31.....	40.2	19	Feb. 17.....	49.2	28	June 24.....	48.1	21
Nov. 14.....	41.0	19	Mar. 4.....	47.3	22	July 9.....	44.8	20
Nov. 28.....	39.1	18	Mar. 19.....	52.1	38	July 24.....	43.4	22
Dec. 24.....	40.5	18	Apr. 2.....	111	207	Aug. 6.....	42.9	17
1942			Apr. 28.....	51.1	25			
Jan. 3.....	44.0	20	May 8.....	53.6	34			

TAMIAMI CANAL AT LE JEUNE RD.

Date	Specific conductance ($K \times 10^5$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^5$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^5$ at 25° C.)	Chloride (Cl, p. p. m.)
1941			1942			1942		
Oct. 1.....	42.0	19	Jan. 16.....	46.2	21	May 22.....	52.1	31
Oct. 17.....	38.6	19	Feb. 4.....	48.2	23	June 9.....	49.6	27
Oct. 31.....	40.5	19	Feb. 17.....	47.6	24	June 24.....	49.6	25
Nov. 14.....	41.5	19	Mar. 4.....	46.6	19	July 9.....	46.3	22
Nov. 28.....	38.4	19	Mar. 19.....	50.7	32	July 24.....	44.5	21
Dec. 24.....	42.4	19	Apr. 2.....	94.0	163	Aug. 6.....	44.1	23
1942			Apr. 28.....	49.9	23	Aug. 22.....	40.3	18
Jan. 3.....	43.8	19	May 8.....	51.0	29	Sept. 4.....	41.5	19

TAMIAMI CANAL AT RED RD.

Date	Specific conductance ($K \times 10^5$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^5$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^5$ at 25° C.)	Chloride (Cl, p. p. m.)
1941			1942			1942		
Oct. 1.....	38.6	16	Jan. 16.....	44.4	18	May 22.....	46.3	19
Oct. 17.....	37.8	18	Feb. 4.....	45.9	19	June 9.....	45.3	17
Oct. 31.....	39.2	16	Feb. 17.....	45.8	19	June 24.....	46.0	17
Nov. 14.....	41.2	18	Mar. 4.....	46.0	18	July 9.....	42.6	17
Nov. 28.....	39.2	17	Mar. 19.....	45.9	20	July 24.....	41.9	16
Dec. 24.....	42.6	17	Apr. 2.....	46.4	18	Aug. 6.....	41.0	19
1942			Apr. 28.....	47.1	16	Aug. 22.....	39.3	16
Jan. 3.....	43.2	19	May 8.....	46.6	18	Sept. 4.....	38.7	15

CORAL GABLES CANAL AT INGRAHAM HIGHWAY

Date	Specific conductance ($K \times 10^5$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^5$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^5$ at 25° C.)	Chloride (Cl, p. p. m.)
1941			1942			1942		
Oct. 1.....	3,500	12,600	Jan. 16.....	4,670	17,000	May 22.....	3,820	13,900
Oct. 17.....	4,080	14,800	Feb. 4.....	5,100	17,600	June 9.....	3,690	12,600
Oct. 31.....	4,060	14,700	Feb. 17.....	4,580	16,700	June 24.....	3,810	13,500
Nov. 14.....	4,230	15,300	Mar. 4.....	4,700	17,600	July 9.....	3,650	12,800
Nov. 28.....	4,230	15,600	Mar. 19.....	4,830	18,000	July 24.....	4,340	16,400
Dec. 24.....	4,220	15,200	Apr. 2.....	4,590	17,000	Aug. 6.....	3,930	14,600
1942			Apr. 28.....	3,790	14,100	Aug. 22.....	4,250	15,900
Jan. 3.....	4,690	16,900	May 8.....	3,500	12,500	Sept. 4.....	4,200	16,400

TIDAL CANALS IN AND NEAR MIAMI, FLA.—Continued

CORAL GABLES CANAL AT HARDEE RD.

Date	Specific conductance (K $\times 10^3$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance (K $\times 10^3$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance (K $\times 10^3$ at 25° C.)	Chloride (Cl, p. p. m.)
1941			1942			1942		
Oct. 1.....	3, 570	13, 000	Jan. 16.....	4, 340	15, 500	May 22.....	3, 460	12, 700
Oct. 17.....	3, 420	12, 100	Feb. 4.....	4, 960	16, 800	June 9.....	3, 100	10, 600
Oct. 31.....	3, 880	14, 000	Feb. 17.....	4, 550	16, 600	June 24.....	3, 270	11, 600
Nov. 14.....	4, 230	15, 300	Mar. 4.....	4, 440	16, 300	July 9.....	3, 310	11, 700
Nov. 28.....	4, 320	16, 000	Mar. 19.....	3, 160	11, 100	July 24.....	3, 950	14, 800
Dec. 24.....	4, 010	14, 400	Apr. 2.....	4, 360	15, 900	Aug. 6.....	3, 870	14, 200
1942			Apr. 28.....	3, 660	13, 300	Aug. 22.....	3, 890	14, 300
Jan. 3.....	4, 460	15, 800	May 8.....	2, 830	10, 000	Sept. 4.....	4, 290	16, 400

CORAL GABLES CANAL AT MILLER RD.

1941			1942			1942		
Oct. 1.....	884	2, 780	Jan. 3.....	2, 760	9, 370	Apr. 28.....	366	1, 020
Oct. 17.....	1, 057	3, 300	Jan. 16.....	3, 640	12, 800	May 8.....	702	2, 125
Oct. 31.....	908	2, 800	Feb. 4.....	4, 480	15, 400	May 22.....	772	2, 300
Nov. 14.....	740	2, 250	Feb. 17.....	2, 110	7, 160	June 9.....	96.1	161
Nov. 28.....	2, 890	10, 100	Mar. 4.....	2, 210	7, 410	June 24.....	194	442
Dec. 24.....	1, 080	3, 350	Mar. 19.....	3, 340	11, 900	July 9.....	1, 030	3, 150
			Apr. 2.....	3, 250	11, 400			

CORAL GABLES CANAL AT U. S. HIGHWAY 1

1941			1942			1942		
Oct. 1.....	231	610	Jan. 16.....	2, 540	8, 640	May 22.....	172	392
Oct. 17.....	304	820	Feb. 4.....	2, 930	9, 620	June 9.....	71.3	89
Oct. 31.....	136	310	Feb. 17.....	1, 060	3, 320	June 24.....	164	348
Nov. 14.....	203	500	Mar. 4.....	679	2, 000	July 9.....	110	206
Nov. 28.....	2, 840	9, 910	Mar. 19.....	1, 490	4, 820	July 24.....	369	1, 050
Dec. 24.....	153	352	Apr. 2.....	2, 320	7, 900	Aug. 6.....	241	570
1942			Apr. 28.....	82.6	119	Aug. 22.....	798	2, 400
Jan. 3.....	1, 080	3, 380	May 8.....	165	365	Sept. 4.....	92.2	163

CORAL GABLES CANAL AT GRANADA BLVD.

1941			1942			1942		
Oct. 1.....	35.5	18	Jan. 16.....	86.0	136	May 22.....	61.3	71
Oct. 17.....	38.1	17	Feb. 4.....	59.0	54	June 9.....	46.3	18
Oct. 31.....	41.0	21	Feb. 17.....	299	790	June 24.....	50.0	22
Nov. 14.....	40.9	19	Mar. 4.....	52.1	38	July 9.....	54.3	49
Nov. 28.....	40.8	18	Mar. 19.....	84.4	136	July 24.....	49.1	33
Dec. 24.....	46.0	20	Apr. 2.....	269	710	Aug. 6.....	58.1	57
1942			Apr. 28.....	53.3	36	Aug. 22.....	44.8	29
Jan. 3.....	51.0	45	May 8.....	51.2	33	Sept. 4.....	41.5	14

CORAL GABLES CANAL AT BIRD RD.

1941			1942			1942		
Oct. 1.....	33.2	16	Jan. 16.....	47.6	18	May 22.....	46.8	20
Oct. 17.....	37.2	16	Feb. 4.....	51.5	23	June 9.....	46.6	17
Oct. 31.....	41.2	17	Feb. 17.....	45.0	21	June 24.....	49.4	18
Nov. 14.....	41.4	16	Mar. 4.....	47.9	17	July 9.....	48.1	18
Nov. 28.....	40.5	17	Mar. 19.....	46.8	25	July 24.....	46.1	19
Dec. 24.....	45.7	17	Apr. 2.....	44.3	23	Aug. 6.....	47.3	20
1942			Apr. 28.....	48.5	16	Aug. 22.....	40.9	17
Jan. 3.....	46.0	18	May 8.....	47.4	19	Sept. 4.....	41.5	14

QUALITY OF SURFACE WATERS, 1942

TIDAL CANALS IN AND NEAR MIAMI, FLA.—Continued

CORAL GABLES CANAL AT RED RD.

Date	Specific conductance ($K \times 10^4$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^4$ at 25° C.)	Chloride (Cl, p. p. m.)	Date	Specific conductance ($K \times 10^4$ at 25° C.)	Chloride (Cl, p. p. m.)
1941			1942			1942		
Oct. 1.....	35.6	15	Jan. 16.....	45.2	15	May 22.....	45.1	18
Oct. 17.....	36.0	15	Feb. 4.....	50.2	15	June 9.....	47.1	14
Oct. 31.....	45.0	15	Feb. 17.....	43.4	15	June 24.....	48.2	16
Nov. 14.....	40.9	18	Mar. 4.....	45.6	15	July 9.....	46.6	17
Nov. 28.....	41.8	16	Mar. 19.....	42.7	15	July 24.....	45.9	16
Dec. 24.....	41.7	15	Apr. 2.....	40.9	15	Aug. 6.....	46.5	16
1942			Apr. 28.....	47.7	13	Aug. 22.....	40.4	15
Jan. 3.....	43.9	15	May 8.....	46.5	15	Sept. 4.....	43.7	14

SNAPPER CREEK CANAL AT INGRAHAM HIGHWAY

1941			1942			1942		
Oct. 1.....	99.9	187	Jan. 16.....	4,170	15,200	May 22.....	184	412
Oct. 17.....	2,890	10,100	Feb. 4.....	1,160	3,280	June 9.....	80.9	116
Oct. 31.....	150	322	Feb. 17.....	660	1,940	June 24.....	96.4	155
Nov. 14.....	760	2,290	Mar. 4.....	156	1,335	July 9.....	92.0	145
Nov. 28.....	3,950	14,400	Mar. 19.....	651	1,550	July 24.....	2,120	7,310
Dec. 24.....	166	378	Apr. 2.....	1,070	3,380	Aug. 6.....	806	2,425
1942			Apr. 28.....	1,340	4,180	Aug. 22.....	885	2,700
Jan. 3.....	4,230	15,200	May 8.....	138	278	Sept. 4.....	113	211

SNAPPER CREEK CANAL AT NORTH KENDAL DRIVE AND RED RD.

1941			1942			1942		
Oct. 1.....	36.5	13	Jan. 16.....	46.7	13	May 22.....	48.9	17
Oct. 17.....	42.1	14	Feb. 4.....	51.4	13	June 9.....	45.6	15
Oct. 31.....	46.9	15	Feb. 17.....	46.3	14	June 24.....	48.0	14
Nov. 14.....	40.9	15	Mar. 4.....	45.6	14	July 9.....	46.3	16
Nov. 28.....	39.1	14	Mar. 19.....	45.2	15	July 24.....	45.4	16
Dec. 24.....	45.3	14	Apr. 2.....	45.0	14	Aug. 6.....	48.6	17
1942			Apr. 28.....	49.0	15	Aug. 22.....	44.2	13
Jan. 3.....	44.9	15	May 8.....	48.7	16	Sept. 4.....	45.3	13

SNAPPER CREEK CANAL AT U. S. HIGHWAY 1

1941			1942			1942		
Oct. 1.....	45.2	13	Jan. 16.....	47.0	13	May 22.....	49.0	18
Oct. 17.....	43.4	14	Feb. 4.....	51.5	13	June 9.....	45.1	15
Oct. 31.....	43.8	16	Feb. 17.....	46.0	13	June 24.....	47.8	14
Nov. 14.....	45.5	14	Mar. 4.....	45.4	14	July 9.....	46.5	15
Nov. 28.....	41.9	14	Mar. 19.....	46.2	13	July 24.....	44.8	16
Dec. 24.....	45.2	14	Apr. 2.....	45.2	13	Aug. 6.....	46.1	14
1942			Apr. 28.....	49.2	15	Aug. 22.....	43.5	13
Jan. 3.....	46.5	14	May 8.....	47.8	15	Sept. 4.....	43.6	14

SNAPPER CREEK CANAL AT KENDAL RD.

1941			1942			1942		
Oct. 1.....	42.3	13	Jan. 16.....	47.2	13	May 22.....	48.7	16
Oct. 17.....	40.2	14	Feb. 4.....	50.5	13	June 9.....	45.7	15
Oct. 31.....	44.2	14	Feb. 17.....	46.0	13	June 24.....	47.1	14
Nov. 14.....	45.1	15	Mar. 4.....	45.6	14	July 9.....	46.4	14
Nov. 28.....	38.7	13	Mar. 19.....	46.5	13	July 24.....	44.7	15
Dec. 24.....	43.1	13	Apr. 2.....	44.9	13	Aug. 6.....	45.9	18
1942			Apr. 28.....	48.8	15	Aug. 22.....	43.0	13
Jan. 3.....	46.1	12	May 8.....	47.8	16	Sept. 4.....	42.3	14

FLINT RIVER AT BAINBRIDGE, GA.

[Composites of daily samples collected at gaging station at Decatur County Memorial Bridge on U. S. Highway 84. Drainage area 7,330 square miles. Analyses in parts per million.]

Date of collection	Mean discharge (second-feet)	Temperature (°F.)	Suspended matter	Oxygen consumed		Color	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Total dissolved solids	Total hardness as CaCO ₃
				Unfiltered	Filtered														
Oct. 1-10, 1941.....	3,525	78	2	3.6	3.2	8	8.3	0.01	18	1.3	2.4	1.4	63	2.6	2.5	0.2	0.4	70	50
Oct. 11-20.....	4,875	73	6	4.3	4.9	20	9.2	.12	16	1.2	2.4	1.4	51	2.1	2.6	.2	.5	67	45
Oct. 21-31.....	3,392	72	3	4.3	4.9	20	9.2	.13	19	1.4	2.5	1.1	62	3.4	2.6	.2	.7	77	53
Nov. 1-10.....	3,442	66	2	4.1	3.2	28	8.6	.04	21	1.6	2.5	1.3	63	3.6	2.9	.2	.8	81	58
Nov. 11-20.....	3,442	60	2	4.1	3.2	28	8.6	.06	20	1.6	2.7	1.3	63	3.5	3.0	.1	.8	74	54
Nov. 21-30.....	3,585	60	2	4.1	3.1	12	8.4	.10	19	.9	2.7	.6	60	2.2	2.9	.1	.6	71	51
Dec. 1-10.....	4,964	62	18	5.2	4.3	34	8.5	.18	16	1.0	2.6	1.0	51	2.6	3.1	.1	.5	67	44
Dec. 11-20.....	6,965	54	16	5.2	5.5	24	9.2	.04	13	1.1	3.1	1.2	41	4.5	3.5	.1	.5	62	37
Dec. 21-31.....	14,450	55	31	5.6	5.5	25	8.7	.03	11	1.0	2.8	1.0	34	4.3	3.2	.0	.3	54	32
Jan. 1-10, 1942.....	26,880	50	31	6.6	6.2	35	6.0	.65	11	.7	2.4	1.1	41	4.7	2.6	.0	.3	54	19
Jan. 11-20.....	13,870	46	17	4.4	4.8	24	7.5	.01	15	.9	2.7	.9	43	3.7	3.1	.0	.4	56	41
Jan. 21-31.....	9,580	53	11	3.7	2.6	28	9.2	.3	16	.9	2.8	.7	52	4.2	3.1	.0	.4	68	44
Feb. 1-10.....	9,734	52	10	3.4	3.4	12	8.1	.03	15	.9	2.7	.7	48	3.0	3.1	.0	.3	62	41
Feb. 11-19.....	10,950	53	16	4.2	3.5	11	7.7	.02	13	.9	3.0	.8	29	2.9	3.0	.1	.6	56	36
Feb. 20-28.....	19,540	50	30	5.6	4.4	16	6.5	.8	8	.8	2.5	.9	29	2.6	2.9	.0	.5	47	23
Mar. 1-10.....	16,880	50	25	5.1	3.6	15	6.9	.01	11	.8	2.5	.9	33	3.1	2.8	.0	.6	51	31
Mar. 11-20.....	20,120	59	23	5.2	3.6	14	5.9	.01	11	.9	2.7	.8	35	3.3	2.5	.0	.5	51	31
Mar. 21-31.....	28,440	61	53	6.2	7.4	13	6.3	.01	8	.7	3.1	.7	30	3.0	2.2	.1	.5	47	26
Apr. 1-10.....	17,040	62	44	4.0	3.4	12	7.5	.04	15	1.1	2.9	.6	50	3.7	3.0	.0	.5	63	42
Apr. 11-20.....	13,100	66	16	4.4	3.7	9	8.4	.01	16	1.1	3.4	.8	51	3.7	3.0	.0	.7	66	44
Apr. 21-30.....	8,478	69	12	4.0	3.2	9	8.9	.01	21	1.1	3.1	.5	68	3.3	2.5	.0	.7	80	57
May 1-10.....	6,833	72	8	3.4	3.8	7	9.4	.01	22	1.1	3.1	.5	71	2.4	2.5	.0	.8	81	59
May 11-20.....	5,873	73	9	3.0	2.8	7	10	.01	24	1.4	3.3	.6	78	3.3	2.9	.1	.8	89	66
May 21-31.....	6,513	74	8	2.6	3.0	8	9.9	.02	20	1.1	3.1	.6	64	4.2	2.6	.1	.6	76	54
June 1-10.....	5,520	76	8	2.2	2.4	6	10	.03	22	1.1	3.0	.6	72	2.6	2.5	.1	.7	81	59
June 11-20.....	7,266	80	13	3.4	2.6	9	10	.15	17	1.0	3.0	.7	59	2.5	2.4	.1	.7	72	46
June 21-30.....	8,178	80	23	4.2	3.9	9	9.6	.02	17	1.0	2.5	.7	55	3.0	2.2	.1	.7	68	46
July 1-10.....	7,906	79	23	3.9	2.6	11	9.1	.01	18	1.2	2.7	.9	59	2.8	2.4	.1	.8	70	50
July 11-20.....	6,817	81	81	3.4	2.8	7	9.4	.01	20	1.1	2.6	.7	64	4.1	2.6	.1	.6	78	54
July 21-31.....	5,957	81	7	2.2	2.3	7	9.2	.07	21	1.1	2.7	.7	69	3.6	2.5	.0	.7	80	57
Aug. 1-10.....	6,948	80	11	3.1	2.4	8	9.9	.10	17	1.1	2.6	.8	58	3.1	2.4	.1	.6	70	47
Aug. 11-20.....	7,251	80	8	3.5	3.0	11	9.5	.03	18	1.0	2.6	.7	61	1.9	2.4	.1	.6	72	49
Aug. 21-31.....	8,688	80	19	3.0	2.4	9	10	.01	14	1.2	2.4	1.0	46	1.3	2.4	.2	.5	63	40
Sept. 1-10.....	5,560	76	38	2.4	1.2	8	11	.04	21	1.1	2.6	.7	71	2.3	2.4	.2	.9	81	57
Sept. 11-20.....	5,610	79	79	1.9	1.2	8	8.9	.02	19	1.0	2.4	.8	70	2.1	2.4	.1	1.0	72	51
Sept. 21-30.....	4,926	75	10	1.4	1.2	16	8.5	.14	21	1.0	2.4	.8	61	2.8	2.5	.1	.9	80	56
Average.....	9,547	-----	16	3.9	3.5	14	8.7	.05	17	1.0	2.7	.8	54	3.2	2.7	.1	.6	68	46

QUALITY OF SURFACE WATERS, 1942

OOSTANAULA RIVER AT ROME, GA.

[Composites of daily samples collected at Tubize Chatillon Corporation filtration plant intake, 0.5 mile above gaging station at Southern Ry. bridge and 1.8 miles above confluence of Oostanaula and Etowah Rivers. Analyses in parts per million]

Date of collection	Mean discharge (second-foot)	Temperature (°F.)	Suspended matter	Oxygen consumed		Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Total dissolved solids	Total hardness as CaCO ₃
				Unfiltered	Filtered													
Oct. 1-10, 1941	462	76	30	2.2	1.4	7.8	0.01	17	4.2	2.7	1.8	73	3.3	3.0	0.1	0.4	74	80
Oct. 11-20	503	67	29	2.4	2.2	6.0	.01	16	4.1	3.1	1.9	71	3.3	3.6	.2	.7	73	57
Oct. 21-31	708	66	87	4.2	3.3	7.4	.03	15	3.6	3.1	1.4	61	4.3	3.2	.2	.7	69	39
Nov. 1-10	842	66	100	4.9	3.3	7.6	.08	11	2.9	2.6	1.9	49	4.3	2.5	.1	.6	36	30
Nov. 11-20	883	48	34	5.3	3.8	8.4	.01	14	3.9	2.7	1.5	53	4.9	2.3	.1	.9	65	31
Nov. 21-30	1,053	49	84	5.3	3.1	8.2	.05	12	3.4	2.5	1.6	52	4.2	2.5	.1	.3	63	44
Dec. 1-10	1,455	40	78	5.2	4.1	7.5	.01	12	3.0	2.5	1.4	48	4.7	2.1	.1	.3	57	42
Dec. 11-20	1,351	43	56	2.6	2.2	8.1	.04	13	3.1	2.4	1.1	40	5.0	2.0	.1	.6	58	45
Dec. 21-31	3,180	46	110	3.4	2.8	7.3	.02	12	2.2	2.1	1.0	41	5.5	1.9	.1	.7	51	39
Jan. 1-10, 1942	3,585	41	75	3.2	2.4	7.8	.02	11	2.4	2.0	1.0	40	5.5	1.8	.1	.7	52	37
Jan. 11-20	1,340	38	84	7.4	2.2	8.0	.04	14	3.3	2.3	1.0	56	4.2	2.0	.0	.5	61	38
Jan. 21-31	2,359	44	84	3.2	2.4	6.4	.09	13	3.1	2.3	1.2	50	4.9	2.0	.1	.9	62	45
Feb. 1-10	4,445	44	154	4.4	2.6	6.6	.02	10	2.2	2.4	1.0	36	5.3	1.8	.1	1.0	51	34
Feb. 11-20	7,344	46	238	3.6	2.6	5.5	.01	9.3	2.1	2.1	1.1	34	4.4	1.8	.0	1.0	47	32
Feb. 21-30	8,167	44	88	4.4	5.4	5.8	.03	9.7	2.1	2.1	1.8	34	4.4	1.6	.0	1.4	50	33
Mar. 1-10	6,055	44	70	3.6	6.6	6.7	.01	11	2.2	2.0	1.0	37	5.6	1.8	.1	1.1	54	38
Mar. 11-20	6,810	48	131	4.8	2.0	7.1	.02	9.4	2.2	2.6	.6	36	4.3	1.5	.0	.8	48	32
Mar. 21-31	10,080	56	154	5.0	2.5	5.9	.01	8.0	1.9	2.3	.6	31	4.4	1.4	.0	.7	43	28
Apr. 1-10	3,180	53	36	3.6	1.8	8.0	.02	12	2.8	2.6	.6	46	4.5	1.6	.0	.8	57	41
Apr. 11-20	2,450	60	36	3.0	2.4	9.2	.02	13	2.8	2.8	.7	53	4.8	1.8	.0	.4	62	45
Apr. 21-30	1,650	64	23	2.7	2.1	7.4	.06	13	3.2	2.7	.9	54	4.9	1.9	.0	.4	61	46
May 1-10	1,910	68	118	3.5	2.1	8.1	.02	12	2.8	2.3	.9	48	4.1	1.6	.1	.8	56	41
May 11-20	1,355	68	49	2.6	2.0	9.6	.01	12	3.3	2.3	1.0	43	4.0	1.8	.0	.7	61	44
May 21-31	2,086	69	314	5.8	1.6	8.2	.01	11	2.6	2.3	.9	53	4.6	1.6	.0	1.1	54	38
June 1-10	1,740	77	280	5.5	1.4	7.6	.02	10	2.8	2.0	1.0	43	4.4	1.6	.1	1.1	52	36
June 11-20	2,645	75	263	5.8	1.6	7.1	.01	9.4	2.4	2.0	1.0	39	4.4	1.4	.1	1.4	48	43
June 21-30	1,350	78	122	2.7	1.6	8.4	.02	12	3.0	2.3	.9	49	4.8	1.6	.0	1.1	58	32
July 1-10	2,175	77	313	6.6	1.1	7.2	.01	9.8	2.5	2.1	1.0	41	4.0	1.4	.1	.7	49	35
July 11-20	1,700	80	148	3.3	.8	7.9	.02	10	2.7	2.2	1.0	44	4.0	1.5	.1	.7	51	38
July 21-31	1,168	80	110	2.6	1.0	8.0	.01	11	3.1	2.4	1.1	49	4.0	1.8	.0	.7	55	40
Aug. 1-10	2,107	80	254	5.2	1.1	7.0	.02	11	3.0	2.0	1.2	47	3.7	1.5	.1	.8	53	40
Aug. 11-20	2,450	77	222	4.0	.6	6.7	.02	10	2.4	2.1	1.1	41	4.1	1.5	.1	1.1	52	35
Aug. 21-31	5,686	73	152	4.4	1.2	6.3	.04	12	2.0	1.6	1.0	34	4.1	1.4	.1	.7	46	30
Sept. 1-10	1,560	74	83	1.8	.4	8.2	.04	12	3.0	2.2	.8	51	4.0	1.8	.0	.5	59	42
Sept. 11-20	1,725	75	75	1.4	.4	7.8	.06	12	3.0	2.1	.9	52	3.6	1.9	.0	.5	56	42
Sept. 21-30	1,723	67	88	2.6	.6	7.1	.02	12	3.0	2.1	1.2	51	4.0	1.8	.0	.6	58	42
Average	2,734		119	4.0	2.2	7.5	.03	12	2.8	2.3	1.1	47	4.4	1.9	.1	.7	56	41

LOWER MISSISSIPPI RIVER BASIN
CANADIAN RIVER NEAR SANCHEZ, N. MEX.

[Composites of daily samples collected at Sabino, N. Mex., about 5 miles upstream from gaging station, which is at bridge on New Mexico Highway 65, several hundred feet upstream from Lagartija Creek, 3 miles east of Sanchez, 8 miles downstream from Mora River, and 25 miles southwest of Mosquero. Drainage area, approximately 6,000 square miles. Analyses in parts per million]

Date of collection	Mean discharge (second-foot)	Specific conductance (K $\times 10^4$ at 25°C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Borate (BO ₃)	Dissolved solids			Hardness as CaCO ₃		Percent sodium
															Parts per million	Tons per acre-foot	Tons per day	Total	Non-borate	
Oct. 1-10, 1941	824	72.9	14	0.08	76	25	46	5.1	178	223	12	0.3	2.0	0.2	491	0.67	1,090	292	146	27
Oct. 11-20	683	90.6	15	10	90	34	60	5.3	203	302	15	3	2.0	3	624	0.85	1,150	364	198	27
Oct. 21-31	1,082	65.8	13	10	66	23	42	5.3	171	192	11	3	1.7	3	439	0.60	1,280	259	169	28
Nov. 1-7, 11-12	650	76.3	11	06	79	28	48	3.4	200	229	14	4	1.6	4	513	0.70	900	312	148	26
Dec. 1-3, 8, 12, 15, 16, 20, 23-26	258	106	19	04	104	44	72	2.6	218	377	19	4	1.3	3	747	1.02	520	440	262	27
Feb. 9-10, 1942	135	126	14	08	118	55	97	2.8	227	498	22	2	1.0	4	920	1.25	335	520	334	29
Feb. 11-19	104	129	12	11	123	59	95	1.8	234	512	24	2	2.2	6	944	1.28	263	550	358	27
Feb. 20-28	77.3	131	11	10	126	60	92	1.8	224	522	24	2	2.4	6	955	1.30	199	561	369	27
Mar. 1-7, 9, 10	128	132	13	14	123	61	97	2.2	221	532	23	3	2.4	4	963	1.31	333	558	377	28
Mar. 11-18, 20	105	146	12	18	130	68	113	2.0	210	617	25	4	2.1	6	1,073	1.46	304	604	432	29
Mar. 21-31	96.2	142	12	12	123	67	106	2.2	214	585	25	3	1.9	6	1,028	1.40	267	582	407	29
Apr. 1-10	146	129	12	14	112	59	101	2.4	205	522	23	3	1.3	6	934	1.27	368	522	354	30
Apr. 11-13, 15-16	521	102	14	16	84	44	81	1.6	187	376	18	2	2.2	4	713	0.97	1,000	390	237	31
May 1-6	2,100	64.1	12	06	65	22	41	2.2	168	177	11	4	2.1	4	416	0.57	2,360	232	115	27
May 7-10	1,790	53.5	14	13	57	18	33	2.6	180	141	10	2	2.9	2	358	0.49	1,730	216	85	26
May 11-31	1,273	61.1	13	13	65	21	40	3.2	167	171	13	2	3.8	4	413	0.56	1,420	248	112	27
June 1-7, 9-10	674	70.3	12	09	75	25	46	3.0	178	214	13	4	2.6	4	479	0.65	872	290	144	28
June 11-20	347	91.7	11	08	90	37	66	3.2	186	329	18	3	2.4	4	649	0.88	608	376	224	28
June 21-28, 30	221	102	11	11	90	43	78	3.8	167	393	20	3	2.1	4	724	0.98	432	402	264	30
July 1-5	292	102	12	09	96	41	80	3.0	178	386	23	2	2.7	716	0.97	564	408	262	30	
July 6-10	171	101	14	06	95	40	78	2.8	162	387	24	3	1.2	4	704	0.96	325	402	268	30
July 11-20	108	132	14	06	108	56	118	1.8	152	568	28	3	1.2	4	968	1.32	282	500	376	34
July 21	450	38.8	14	06	108	56	118	1.8	152	568	28	3	1.2	4	968	1.32	282	500	376	34
July 22-31	226	116	14	12	109	44	88	2.8	173	451	21	4	2.8	3	816	1.11	498	453	311	30
Aug. 1-2, 5-10	261	98.4	11	06	96	37	76	2.8	164	377	18	3	1.8	3	697	0.95	491	392	257	29
Aug. 3-4	602	54.3	11	06	60	19	30	1.8	153	146	11	3	1.8	3	341	0.46	554	228	102	22
Aug. 11-12, 14-20	513	63.7	11	25	70	23	49	2.0	170	208	12	2	1.0	2	468	0.62	634	269	130	28
Aug. 13	412	126	12	07	127	50	94	2.0	170	528	27	2	1.0	2	910	1.24	1,010	522	388	28
Aug. 21-31	165	95.7	13	07	86	38	74	2.0	179	343	19	1	1.0	3	662	0.90	295	370	224	30
Sept. 1, 6	28,000	45.5	12	07	59	12	22	2.2	142	114	7.0	2	3.1	2	284	0.39	21,470	196	80	20
Sept. 2-6, 7-10	11,730	86.5	12	07	88	28	56	2.2	145	300	16	2	3.1	2	575	0.78	18,210	334	216	27
Sept. 11, 13-20	1,280	92.0	12	04	87	34	70	2.0	174	328	18	2	1.9	3	635	0.86	2,210	357	214	30
Sept. 12	1,350	62.9	12	04	76	21	37	2.0	202	165	14	2	1.9	3	412	0.56	1,500	276	110	23
Sept. 21-30	1,361	121	14	04	108	51	97	2.0	199	468	26	3	1.9	3	864	1.13	842	479	316	30

CONCHAS RIVER AT VARIADERO, N. MEX.

[Composites of daily samples collected at the Quintana Ranch approximately 4 miles upstream from the gaging station which is located on State Highway 104 at Variadero, approximately 14 miles west of Conchas Dam. Samples are obtained at this point only when rainfall is sufficient to cause the river to flow. Analyses in parts per million]

Date of collection	Specific conductance (K $\times 10^6$ at 25° C.)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na+K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Dissolved solids	Total hardness as CaCO ₃
Oct. 1-2, 1941	47.8				166		13		
Oct. 3-5	36.2				139		10		
Oct. 6-7	61.4				196		22		
Oct. 8-9	79.5				241		28		
Oct. 22-23	51.3				167		18		
Oct. 24-31	77.9				218		30		
Nov. 1-5, 7-10	86.7	70	28	84	234	222	35	554	290
Nov. 11-23	95.2	71	32	95	240	254	38	608	308
Mar. 16-17, 1942	49.9	56	11	26	172	79	13	270	185
Apr. 20	47.3	50	13	36	160	94	19	291	178
Apr. 21-25, 27-28	49.2	49	12	37	169	90	16	287	172
June 24-28	62.4	56	17	58	196	135	25	388	210
July 3-6, 10-12, 21-23	69.7	56	22	66	190	169	31	438	230
Aug. 11, 15-16, 21, 30-31	62.7	48	18	65	172	149	28	393	194
Sept. 1-3	37.1	40	9.8	27	142	65	9.0	221	140

RESERVOIR BEHIND CONCHAS DAM, N. MEX.

[Analyses in parts per million]

MONTHLY COMPOSITE SAMPLES

Date of collection	Sampling point	Depth (feet)	Specific conductance (K $\times 10^6$ at 25° C.)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na+K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Dissolved solids	Total hardness as CaCO ₃
Oct. 1, 8, 15, 22, 31, 1941	Station 1		46.4				115		9.0		
Nov. 5, 13, 20			50.7				131	147	10		
Dec. 4, 10, 17, 25			54.1				137	156	10		
Jan. 2, 8, 15, 21, 1942			55.8				140	161	10		
Feb. 6, 20			58.2				146	175	12		
Mar. 2, 5, 12			61.2	60	22	38	146	177	13	382	240
Apr. 2, 10, 15, 25			62.2	61	22	41	149	184	13	394	242
May 7, 8, 15, 28			62.2	60	23	40	141	189	13	394	244
June 3, 11, 17, 25			62.6				148				
July 2, 18, 24, 30			62.8				153				
Aug. 6, 13, 20, 25	Station 2		63.8				154				
Sept. 12, 17, 25			60.8				139	84	14		
Oct. 1, 9, 15, 22, 1941			46.6				114		7.0		
Nov. 5, 13, 20			50.8				133	147	9.0		
Dec. 4, 10, 17, 25			53.9				136	163	10		
Jan. 2, 8, 15, 21, 1942			55.8				140	168	10		
Feb. 6, 20			58.9				145	174	12		
Mar. 5, 12, 21			61.1	59	22	38	146	178	11	380	238
Apr. 2, 10, 15, 25			61.8	62	23	36	149	180	12	386	249
May 7-8, 15, 28			62.2	60	23	40	138	192	12	395	244
June 3, 11, 17, 25	Station 3		62.4				149				
July 2, 9, 14, 30			62.4				150				
Aug. 6, 13, 20, 25			63.8								
Sept. 12, 17, 25			60.9								
Oct. 1, 9, 15, 22, 1941			46.2				114		9.0		
Nov. 5, 13, 20			50.8				128	154	9.0		
Dec. 4, 10, 17, 25			54.5				137	163	9.0		
Jan. 2, 8, 15, 21, 1942			56.0				141	169	11		
Feb. 6, 20, 26			58.9				144	179	11		
Mar. 5, 12, 21			61.2	60	22	38	145	180	12	383	240
Apr. 2, 10, 15, 25			62.3	62	22	39	145	186	12	392	245
May 7-8, 15, 28			61.8	61	22	37	138	189	10	387	242
June 3, 11, 17, 25			62.9								
July 2, 9, 24, 30			64.2								
Aug. 6, 20, 25			65.2								
Sept. 12, 17, 25			61.0								

See footnotes at end of table.

RESERVOIR BEHIND CONCHAS DAM, N. MEX.—Continued

SAMPLES FROM DIFFERENT DEPTHS

Date of collection	Sampling point	Depth (feet)	Specific conductance (KX10 ³ at 25° C.)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na+K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Dissolved solids	Total hardness as CaCO ₃
Nov. 29, 1941.....	Station 1 ¹	Surface	51.3				132	147	9.0		
		25	51.5								
		50	51.6								
		75	60.8				144	190	10		
		100	61.5								
		123	82.9								
Feb. 13, 1942.....	Station 1 ¹	4 Surface	58.9	60	20	39	144	175	11	376	232
		25	59.1								
		50	58.7								
		75	59.7								
		100	59.2								
		105	70.4	74	26	45	160	231	12	467	292
		110	74.2								
		115	75.0								
		120	75.2				168	248	13		
		125	76.7								
Apr. 28, 1942.....	Station 1 ¹	Surface	64.8	62	24	36	148	184	13	392	253
		25	64.5				148				
		50	66.5	62	24	45	150	189	22	416	253
		75	65.6				146				
		97	65.1	62	22	44	149	192	14	407	245
		102	66.4				145				
		107	71.2	62	23	39	146	186	15	397	249
		112	65.8				147				
		117	64.9	61	23	36	149	180	11	384	246
		122	65.1				156				
Nov. 29, 1941.....	Station 2 ²	1	61.9								
		25	51.5								
		50	52.7				132	152	9.0		
		75	61.4				150	191	10		
		100	61.3								
Feb. 13, 1942.....	Station 2 ²	134	76.4								
		Surface	59.0								
		25	58.7								
		50	59.0								
		75	59.1	61	21	38	143	182	10	382	238
		100	67.5				156	221	12		
		111	73.4								
		116	70.4								
		121	74.4								
		126	75.7	77	30	51	170	257	14	513	316
Apr. 28, 1942.....	Station 2 ²	131	83.2								
		Surface	65.2	62	23	34	143	180	14	383	249
		25	64.6				143				
		50	64.6				143				
		75	58.9				131				
		100	58.2	57	22	35	127	183	10	370	233
		103	61.0				120				
		106	63.6				141				
		118	60.3				121				
		123	61.0				124				
		128	60.5				129				
		133	68.0	74	24	31	181	181	9.0	408	283
Nov. 29, 1941.....	Station 3 ³	Surface	53.1								
		25	53.4								
		50	52.6				134	159	9.0		
		75	59.0				142	189	9.0		
		100	61.5				149	195	10		
		123	73.0								
Feb. 13, 1942.....	Station 3 ³	Surface	58.7								
		25	58.4	61	20	38	143	177	11	377	234
		50	58.5								
		75	58.4								
		100	69.5				159	230	12		
		106	75.4								
		111	75.1								
		116	75.1								
		121	76.1	78	29	50	170	254	13	508	314
		126	76.1								

See footnotes at end of table.

RESERVOIR BEHIND CONCHAS DAM, N. MEX.—Continued

SAMPLES FROM DIFFERENT DEPTHS—Continued

Date of collection	Sampling point	Depth (feet)	Specific conductance (K $\times 10^3$ at 25° C.)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na+K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Dissolved solids	Total hardness as CaCO ₃
Apr. 28, 1942	Station 3 ¹	Surface	65.5	61	23	38	140	187	14	392	246
		25	64.2	—	—	—	142	—	—	—	—
		50	66.5	—	—	—	145	—	—	—	—
		75	62.7	—	—	—	130	—	—	—	—
		102	62.2	—	—	—	123	—	—	—	—
		107	63.9	—	—	—	126	—	—	—	—
		112	61.9	—	—	—	124	—	—	—	—
		117	60.6	58	22	32	130	180	8.0	364	235
		122	60.6	—	—	—	133	—	—	—	—
		127	94.4	114	46	52	614	67	10	591	474
		Surface	45.0	—	—	—	116	—	9.0	—	—
Oct. 15, 1941	Station 6 ²	25	44.8	44	14	28	114	118	8.0	268	118
		50	44.5	—	—	—	116	—	9.0	—	—
		58	44.3	—	—	—	114	—	7.0	—	—
		63	44.2	—	—	—	114	—	9.0	—	—
		68	43.6	—	—	—	113	—	8.0	—	—
		73	43.5	—	—	—	112	—	7.0	—	—
		75	44.3	44	14	26	114	115	8.0	263	118
		78	49.6	—	—	—	154	120	8.0	—	—
		Surface	55.5	—	—	—	—	—	—	—	—
		25	55.7	—	—	—	—	—	—	—	—
		50	55.5	—	—	—	—	—	—	—	—
Jan. 17, 1942	Station 6 ²	75	55.2	57	18	37	138	160	12	352	216
		90	56.6	—	—	—	—	—	—	—	—
		95	70.8	—	—	—	—	—	—	—	—
		100	72.1	—	—	—	—	—	—	—	—
		105	72.5	74	27	46	165	235	12	475	296
		110	72.5	—	—	—	—	—	—	—	—
		Surface	63.6	62	22	40	144	186	14	395	245
		25	65.6	—	—	—	144	—	—	—	—
		50	73.3	62	22	46	149	190	17	410	245
		75	62.4	60	21	40	138	184	13	386	236
		85	71.1	58	21	42	133	188	13	388	231
Sept. 3, 1942	Station 6 ²	90	67.8	—	—	—	142	—	—	—	—
		95	62.1	—	—	—	138	—	—	—	—
		100	62.0	62	23	36	146	184	11	388	249
		105	62.1	—	—	—	145	—	—	—	—
		Surface	65.4	64	21	51	144	209	15	431	246
		49	50.1	49	15	38	128	139	12	316	184
		98	61.2	76	21	28	180	168	10	392	276
		Surface	46.4	—	—	—	115	—	7.0	—	—
		25	46.0	47	17	23	114	128	7.0	278	188
		50	50.1	—	—	—	122	—	7.0	—	—
		75	51.9	—	—	—	123	—	9.0	—	—
Oct. 15, 1941	Station 7 ³	85	54.3	—	—	—	132	—	9.0	—	—
		90	55.0	—	—	—	132	—	8.0	—	—
		95	56.0	—	—	—	133	—	9.0	—	—
		100	59.6	—	—	—	140	—	—	—	—
		105	63.9	—	—	—	178	178	10	—	—
		Surface	59.4	62	21	38	145	181	11	384	241
		25	59.3	—	—	—	—	—	—	—	—
		50	60.5	—	—	—	—	—	—	—	—
		75	60.3	—	—	—	—	—	—	—	—
		97	62.9	—	—	—	—	—	—	—	—
		100	63.3	—	—	—	—	—	—	—	—
Apr. 28, 1942	Station 7 ⁴	102	64.2	—	—	—	—	—	—	—	—
		107	70.2	—	—	—	—	—	—	—	—
		112	78.6	—	—	—	—	—	—	—	—
		117	77.1	86	28	46	201	237	13	509	330
		Surface	68.0	64	26	27	140	186	12	384	266
		25	71.6	—	—	—	140	—	—	—	—
		50	70.7	—	—	—	129	—	—	—	—
		70	62.6	—	—	—	122	—	—	—	—
		75	61.9	—	—	—	126	—	—	—	—
		80	61.7	58	22	33	124	183	10	367	235
		85	63.4	—	—	—	122	—	—	—	—
Sept. 3, 1942	Station 7 ⁵	90	62.6	—	—	—	132	—	—	—	—
		95	70.4	76	27	31	200	184	9.0	426	300
		Surface	68.7	66	24	52	136	235	14	458	283
		40	48.7	50	15	34	113	147	10	312	186
		80	60.6	70	18	38	155	187	7.0	396	248
		—	—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—	—

¹ Conchas River arm of reservoir, approximately 3,000 feet above dam. ² 400 feet above dam.³ Canadian River arm of reservoir, 800 feet above dam. ⁴ Elevation 4,201 feet.⁵ Elevation 4,096 feet.⁶ Elevation 4,081 feet.⁷ Conchas River arm of reservoir, 5 miles above dam.⁸ Canadian River arm of reservoir, 5 miles above dam.

PEASE RIVER NEAR CROWELL, TEX.

[Composites of daily samples collected at gaging station at bridge on Texas Highway 283, 4 miles upstream from Raggedy Creek, 7 miles upstream from Kansas City, Mexico & Orient Ry. bridge, and 8 miles north of Crowell. Drainage area, 2,637 square miles. Analyses in parts per million]

Date of collection	Mean discharge (second-feet)	Specific conductance (K $\times 10^3$ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg.)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Dissolved solids			Percent sodium
													Parts per million	Tons per acre-foot	Tons per day	
July 1-4, 7-10, 1942	6.09	1,390	20	0.05	893	201	2,243	21	128	2,660	3,590	1.0	9,690	13.2	159	62
July 11-17	11.4	1,205	17	.08	840	149	1,887	18	114	2,333	3,050	4.1	8,360	11.4	257	60
July 21-25	87.3	1,024	19	.03	640	92	1,637	14	102	1,717	2,640	4.5	6,810	9.26	1,605	64
July 26-31	13.1	1,627	17	.03	922	171	2,790	19	116	2,600	4,510	2.0	11,090	15.1	392	67
Aug. 1-4	.32	1,073	16	.11	644	126	1,744	15	187	1,855	2,720	10	7,220	9.52	6.2	64
Aug. 12, 14-16, 18-20	81.4	977	16	.10	682	100	1,514	15	126	1,888	2,390	6.5	6,670	9.07	1,466	61
Aug. 16-17	113	594	19	.13	450	52	832	12	99	1,216	1,320	3.5	3,950	5.37	1,205	58
Aug. 21, 23-24, 26-31	38.1	1,126	14	.08	764	122	1,788	18	129	2,097	2,900	3.0	7,770	10.6	799	62
Sept. 1, 3-6, 10	25.7	1,230	21	.40	804	170	1,939	21	116	2,256	3,190	5.0	8,460	11.5	537	61
Sept. 7-9	233	520	21	.05	445	52	664	13	109	1,173	1,040	7.0	3,470	4.72	2,183	52
Sept. 11-18	18.8	1,163	20	.03	773	133	1,856	16	118	2,100	3,010	5.5	7,970	10.8	405	62
Sept. 19-20	6, 835	277	20	.06	306	35	250	11	102	812	378	3.0	1,866	2.64	34,400	38
Sept. 21-23	372	499	23	.05	342	54	706	13	120	905	1,120	7.0	3,230	4.39	3,250	59
Sept. 24-30	123	947	21	.05	548	98	1,546	14	138	1,486	2,470	8.0	6,260	8.51	2,086	66

WESTERN GULF OF MEXICO BASINS
BRAZOS RIVER NEAR SOUTH BEND, TEX.

[Composites of daily samples collected at gaging station at bridge on Texas Highway 67, 0.3 mile upstream from Wichita Falls & Southern R. R. bridge, 1.6 miles downstream from Clear Fork of Brazos River, and 2.0 miles northeast of South Bend. Drainage area, 21,600 square miles. Analyses in parts per million]

Date of collection	Mean discharge (second-feet)	Specific conductance (K $\times 10^3$ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Dissolved solids			Percent sodium
													Parts per million	Tons per acre-foot	Tons per day	
Jan. 15-20, 1942.	238	724	---	---	370	92	1,131	---	252	918	1,840	4.7	4,480	6.09	2,870	65
Jan. 21	204	281	---	---	362	88	1,199	---	173	551	515	3.5	---	6.27	2,540	67
Jan. 22-31	152	748	8.0	0.03	355	95	1,103	---	240	860	1,970	1.5	4,610	4.350	1,786	65
Feb. 1-10	134	709	---	---	352	91	1,024	---	238	802	1,855	1.0	4,120	5.60	1,488	64
Feb. 11-13, 15-19	267	669	---	---	324	93	852	---	254	752	1,430	5.6	3,610	4.91	2,000	61
Feb. 20-21, 24-28	469	575	---	---	288	72	525	---	265	595	845	4.5	2,410	3.28	3,050	56
Feb. 22-23	125	393	---	---	359	109	---	---	228	950	1,730	5.0	4,310	5.86	1,453	63
Mar. 1-8, 10	89.1	689	---	---	388	112	1,124	---	217	1,039	1,850	6.7	4,630	6.30	1,114	63
Mar. 11-20	63.1	718	8.0	0.06	402	118	1,117	---	212	1,030	1,900	2.0	4,680	6.36	797	62
Mar. 21-31	463.1	738	---	---	363	122	986	---	213	983	1,720	1.8	4,310	5.86	5,380	59
Apr. 1-7	22,100	673	---	---	91	8.0	56	---	94	184	95	1.2	312	1.37	16,300	50
Apr. 8-10	2,000	52.0	---	---	150	24	152	---	154	158	258	3.0	762	1.04	4,110	50
Apr. 11-13	2,000	127	---	---	315	43	165	---	165	252	270	4.0	1,445	1.97	7,800	53
Apr. 14-15	2,400	520	---	---	324	81	1,396	---	165	818	2,260	2.2	4,860	6.75	32,100	73
Apr. 16	1,860	823	---	---	241	55	621	---	162	709	925	2.5	2,630	3.58	13,200	62
Apr. 17-18	89.1	432	---	---	128	28	305	---	132	709	595	2.5	1,298	1.77	28,500	60
Apr. 19-20	5,117	205	---	---	73	15	120	---	136	167	167	2.0	651	0.89	8,900	52
Apr. 21	1,270	167.0	---	---	122	27	277	---	144	163	460	1.5	1,194	1.62	4,090	59
Apr. 22-24, 28-29	499	212	---	---	147	34	---	---	181	273	575	2.5	1,461	1.99	1,988	59
Apr. 30	296	284	---	---	102	50	518	---	197	324	983	1.2	2,127	2.89	1,703	62
May 1-4	1,493	362	---	---	108	28	164	---	145	136	323	2.2	906	1.13	3,520	50
May 5-6	1,694	180	---	---	146	39	330	---	189	268	572	2.0	1,450	1.97	3,660	58
May 7-10	3,815	283	---	---	74	17	---	---	128	46	121	2.8	413	0.86	5,640	48
May 11-18	181	67.1	---	---	106	28	110	---	140	115	182	3.0	630	0.86	5,640	48
May 19-20, 22, 24	934	103	---	---	106	28	227	---	151	181	395	2.8	1,014	1.38	2,560	56
May 21-22, 25-30	295	489	---	---	199	51	789	---	177	431	1,295	2.5	2,860	8.89	2,278	71
May 31	295	489	---	---	199	51	789	---	177	431	1,295	2.5	2,860	8.89	2,278	71

June 1-6	396	548	59	887	184	560	1,460	1.5	3,310	4.50	3,540	68
June 7-8	1,685	183	100	243	122	180	410	2.2	1,017	1.38	4,630	61
June 9-10	1,000	339	200	475	173	464	785	2.2	2,060	2.80	5,560	60
June 13-14	228	586	271	964	183	612	1,580	7.8	3,550	4.83	2,181	70
June 15-17	4,493	87.1	58	74	115	66	133	1.5	1,400	.64	4,850	46
June 11-12, 18-20	2,279	287	163	296	134	396	468	5.8	1,428	1.94	8,790	54
June 21-26, 28-30	394	450	262	653	135	640	1,055	7.6	2,730	3.71	2,910	62
July 1-10	96.0	593	304	906	154	741	1,500	9.0	3,610	4.91	986	65
July 11-14	588	457	261	650	137	640	1,070	5.0	2,790	3.74	4,370	62
July 15-20	192	706	404	1,119	109	981	1,820	13	4,450	6.05	2,304	66
July 21, 23-27, 30-31	31.1	837	406	1,384	145	945	2,300	.8	5,190	7.06	2,436	69
Aug 1-10	783	10.8	97	1,169	148	849	2,080	.2	4,670	6.35	136	65
Aug 11-20	39.3	779	405	1,168	153	794	2,140	.5	4,680	6.36	497	64
Aug 21-23	364	825	80	1,206	109	1,244	2,140	4.5	5,320	7.24	5,230	64
Aug 24-31	1,557	378	278	489	104	723	770	3.8	2,355	3.20	9,910	35
Sept. 1-6	1,159	249	191	317	109	445	515	2.2	1,553	2.11	4,860	54
Sept. 7-9	53.0	60	40	60	91	153	92	1.5	298	.41	8,910	50
Sept. 10	9,335	96.4	7.3		106	130	157	3.2	624	1.24	6,550	43
Sept. 11-14	149		24	150	116	335	215	2.5	934	2.22	1,791	54
Sept. 15-20	283	336	199	336	113	171	540	2.5	1,953	2.31	12,600	64
Sept. 21, 27-30	253	420	28	420	158	368	630	2.5	1,702			
Weighted average	1,309	184	110	251	125	226	411	2.2	1,085	1.48	4,070	59

BRAZOS RIVER AT POSSUM KINGDOM DAM, NEAR GRAFORD, TEX.

[Composites of daily samples collected immediately below dam on Brazos River, 2.6 miles upstream from Loving Creek and 11.3 miles southwest of Grafard. Discharge records reported are for gaging station at bridge on Palo Pinto-Grafard Highway, 300 feet downstream from Dark Valley Creek and 6½ miles north of Palo Pinto. The gage is about 15 miles downstream from Possum Kingdom Dam. No appreciable inflow between dam and gaging station except during periods of heavy local rains. Drainage area above dam, 22,650 square miles; above gaging station, 22,760 square miles. Analyses in parts per million.]

Date of collection	Mean discharge (second-feet)	Specific conductance (K×10 ³ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Nitrate (NO ₃)	Dissolved solids			Percent sodium
													Parts per million	Tons per acre-foot	Tons per day	
Jan. 15-16, 20, 1942	183	333			188	43	450		190	400	745	1.2	1,921	2.61	951	60
Jan. 17-19	4,703	167			120	21			136	247	300	1.2	943	1.28	12,000	51
Jan. 21-26, 27-31	131	350	11	0.15	191	41	504		188	411	820	1.5	2,073	2.82	735	63
Feb. 2-9	184	367			194	43	523		192	424	860	2.0	2,131	2.90	1,086	63
Feb. 11-19	139	359			193	42	508		189	421	825	1.0	2,083	2.83	752	63
Feb. 20-21, 23-24, 26-28	129	335			186	42	483		189	406	755	1.5	1,997	2.72	696	62
Mar. 1-10	129	309			174	40	431		176	388	700	1.2	1,821	2.48	635	61
Mar. 11-20	116	300			172	37	431		181	379	690	2.0	1,800	2.45	562	62
Mar. 21-31	118	300			172	36	408	16	186	378	655	1.8	1,798	2.45	575	61
Apr. 1-6, 8-10	6,257	219		.08	147	29	324		161	322	512	1.5	1,415	1.92	23,900	59
Apr. 12, 14-19	3,307	234			146	29	312		163	312	498	1.5	1,379	1.88	398	58
Apr. 13, 20	13,300	165			112	21	189		139	228	300	1.8	920	1.25	33,000	53
Apr. 21-22, 25, 29	10,620	165			116	20	204		137	239	320	1.2	968	1.32	27,800	54
May 1-10	1,115	204			129	26	265		153	272	422	1.5	1,191	1.62	3,590	57
May 11-17, 19-20	3,518	191			125	25	241		148	258	358	1.0	1,111	1.51	10,600	56
May 21-23, 26-31	2,098	183			126	26	220		151	258	340	1.3	1,116	1.52	6,200	55
June 1-6, 8-10	1,854	184			119	23	240		148	246	348	1.2	1,080	1.40	8,320	55
June 11-20	3,643	189			108	21	191		136	200	318	3.0	908	1.23	8,950	54
June 21-22, 24-30	577	180			119	21	228		143	238	308	3.5	1,050	1.43	1,637	56
July 1-10	242	180			118	24	220		148	237	308	3.5	1,052	1.43	689	56
July 11-20	303	175			118	24	223		144	232	306	4.8	1,037	1.41	849	55
July 21-31	304	171			111	22	216		147	232	311	4.8	988	1.34	811	56
Aug. 1-10	272	168			108	21	213		148	232	335	3.8	966	1.31	709	57
Aug. 11-20	251	164			108	20	209		148	202	330	2.8	930	1.29	644	56
Aug. 21-31	304	167			106	21	207		142	207	352	2.0	945	1.29	776	56
Sept. 1-10	4,225	145			94	18	182		136	176	200	1.5	820	1.13	9,480	56
Sept. 11-20	1,571	157			128	21	155		138	182	308	1.8	862	1.17	1,632	46
Sept. 21-30	1,746	162			106	22	192		140	188	322	2.0	905	1.23	4,270	54
Weighted average	1,750	177			119	23	220		144	242	352	1.6	1,029	1.40	5,080	55

RIO GRANDE AT SAN ACACIA, N. MEX.

[Composites of daily samples collected at the San Acacia diversion dam, which is 0.2 mile above the San Acacia gaging station, half a mile east of San Acacia, and 2 miles downstream from Rio Salado. Drainage area, 26,770 square miles, including 2,940 square miles in closed basin in northern part of San Luis Valley, Colo. Analyses in parts per million.]

Date of Collection	Mean discharge (second-foot)	Specific conductance (KX10 ³ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Borate (BO ₃)	Dissolved solids			Hardness as CaCO ₃		Percent sodium
															Parts per million	Tons per acre-foot	Tons per day	Total	Non-carbonate	
Oct. 1-6, 1941.	3,053	106	24	0.08	91	19	121		178	342	44	0.5	2.0	0.2	731	0.99	6,030	305	159	46
Oct. 7-10.	1,858	66.8	26	.04	60	12	66		165	157	30		1.6	.3	436	.59	2,190	199	64	42
Oct. 11-20.	3,046	52.0	26	.05	52	9.8	46	3.6	155	117	18	.4	2.2	.2	351	.48	2,890	170	44	38
Oct. 21-25.	3,068	44.5	28	.04	46	8.5	38		136	91	18		1.0	0	298	.41	2,960	150	38	36
Oct. 26, 27, 29-31.	5,068	70.2	23	.04	67	13	69		151	200	26	.4	2.7	.2	476	.65	6,500	220	98	41
Nov. 2-10.	3,801	43.4	24	.08	44	8.5	38	2.9	142	86	18	.3	.8	.1	293	.40	3,010	145	28	37
Nov. 11-20.	2,304	46.6	29	.05	46	8.7	39	3.2	147	88	20	.4	1.3	.4	308	.42	1,920	151	30	37
Nov. 21-30.	1,999	51.1	30	.04	51	9.8	42	2.1	160	96	21	.2	1.2	.2	352	.45	1,790	168	37	36
Dec. 1-4, 7-10.	1,672	52.3	30	.04	51	9.8	46	1.9	164	100	24	.2	.9	.4	345	.47	1,560	168	34	38
Dec. 5, 6.	1,820	95.0			75	17	108		200	175	103		2.0		578	.79	2,940	257	93	48
Dec. 11-20.	1,774	54.4	28	.04	52	9.8	49	2.2	163	105	28	.2	1.8		356	.48	1,710	170	37	39
Dec. 21-31.	1,337	56.2	28	.02	56	11	49	5.4	170	110	29	.5	1.6	.6	374	.51	1,350	185	46	38
Jan. 1-10, 1942.	1,163	58.0	26	.02	51	11	51	5.4	174	115	27	.5	1.3		379	.52	1,190	185	42	39
Jan. 12, 13, 16-20.	1,144	56.9	30	.02	56	11	48	5.2	169	111	28	.5	1.6	.5	375	.51	1,160	185	46	38
Jan. 21-31.	1,064	56.9	28	.02	55	11	50	5.4	170	112	28	.5	1.9	.6	376	.51	1,070	182	43	39
Feb. 1-10.	1,040	55.2	26	.02	54	11	47	5.0	164	108	28	.5	1.3	.4	392	.49	1,020	180	46	38
Feb. 11-14, 16-19.	1,035	56.6	28	.02	56	12	47	4.4	169	113	28	.5	1.2	.4	373	.51	1,040	190	51	36
Feb. 20-28.	1,977	59.8	28	.02	58	11	57	5.0	183	116	32	.5	1.8	.6	389	.54	1,050	190	40	41
Mar. 1-10.	1,085	58.1	30	.02	54	10	50	4.0	170	115	30	.5	2.2	.4	384	.52	1,120	176	36	42
Mar. 11-20.	1,591	55.9	30	.02	56	10	46	3.4	160	122	23	.5	2.2	.4	375	.51	1,010	181	50	38
Mar. 21-31.	1,949	52.5	25	.02	54	10	46	3.6	160	122	18	.5	2.2	.2	384	.48	1,860	176	53	37
Apr. 1-10.	3,429	51.4	27	.04	51	11	40	5.0	136	120	18	.3	2.3	.6	342	.47	3,170	172	61	35
Apr. 11-20.	7,470	44.7	26	.04	46	9.4	32	3.8	125	96	16	.3	2.6	.8	294	.40	5,630	153	54	33
Apr. 21-30.	11,960	42.7	27	.04	46	9.2	29	3.6	121	96	12	.2	2.7	.8	274	.37	6,540	133	54	30
May 1-10.	9,335	39.3	24	.04	40	9.0	27	4.0	115	85	11	.2	2.5	.5	269	.35	6,530	137	42	32
May 11-20.	11,540	33.0	24	.04	36	7.9	23	3.6	114	65	10	.2	2.0	.3	225	.31	7,010	122	29	31
May 21-31.	11,080	30.7	22	.06	34	7.3	13	3.6	97	54	7.5	.4	1.7	.2	191	.26	5,710	115	36	23
June 1-10.	10,700	26.7	21	.06	31	6.8	16	3.2	105	45	6.5	.4	1.0	.2	183	.25	5,290	105	20	27
June 11-20.	7,402	27.3	21	.07	30	6.4	19	2.8	99	49	8.0	.4	1.0	.2	186	.25	3,720	101	20	30
June 21-24, 26-30.	8,342	33.6	24	.11	35	6.7	22	5.6	111	60	10	.3	1.0	.2	219	.30	1,980	115	24	42
July 1-10.	1,006	59.9	27	.07	53	9.5	45	4.0	158	108	18	.3	1.5	.4	344	.47	935	172	42	38
July 11-20.	748	53.3	26	.06	54	10	48	4.5	159	112	23	.3	1.5	.6	358	.49	724	176	46	39
July 21-30.	549	71.1	24	.08	60	13	69	5.0	170	182	32	.4	2.4	.8	481	.65	713	226	46	41

RIO GRANDE AT SAN ACACIA, N. MEX.—Continued

Date of Collection	Mean discharge (second-foot)	Specific conductance ($K \times 10^4$ at 25° C.)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Borate rate (BO_3)	Dissolved solids			Hardness as $CaCO_3$		Percent sodium
														Parts per million	Tons per acre-foot	Tons per day	Total	Non-carbonate	
Aug. 2-4, 6, 7, 9, 10	578	60.5	25	0.08	67	13	66	4.6	179	164	33	1.3	0.4	492	0.63	721	220	74	40
Aug. 8	696	106	28	.11	182	45	216	5.8	326	614	138	1.5	.6	1,354	1.84	2,520	631	364	43
Aug. 11-14, 16-20	616	73.8	28	.11	168	12	63	6.0	199	154	29	1.6	.8	601	.68	697	210	66	40
Aug. 21-24, 26-31	476	73.2	28	.06	98	13	74	6.0	188	184	24	1.4	.4	501	.68	481	222	40	43
Aug. 25	590	209	27	.07	197	44	251	4.0	230	874	74	1.9	.6	1,564	2.58	4,185	672	470	45
Sept. 1-10	740	61.1	27	.07	60	11	58	4.0	172	144	24	1.2	.6	445	.68	820	104	54	40
Sept. 11-20	1,270	66.4	22	.10	64	12	64	2.6	170	168	26	2.4	.6	448	.61	1,540	209	70	41
Sept. 21-30	622	57.3	26	.07	57	11	53	4.8	172	126	26	1.0	.4	390	.63	655	187	46	39
Weighted average	3,255	43.5	23	.05	45	9.1	34	3.7	129	93	16	1.8	.3	289	.39	2,540	160	44	34

PECOS RIVER NEAR GUADALUPE, N. MEX.

[Composites of daily samples collected from river channel between Alamogordo Dam and the gaging station which is located 1,200 feet downstream from the dam, 1½ miles down stream from Alamogordo Creek and 4½ miles northeast of Guadalupe. Drainage area, 4,980 square miles. Analyses in parts per million]

Date of collection	Mean discharge (second-foot)	Specific conductance (K $\times 10^3$ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Borate (BO ₃)	Dissolved solids			Percent sodium
															Parts per million	Tons per acre-foot	Tons per day	
Oct. 1-8, 1941.....	1,757	62.9	13	0.03	98	12	19	2.3	93	230	13	0.2	1.4	0.2	435	0.59	2,060	13
Oct. 12-20.....	625	64.1	11	.02	98	12	23	2.4	98	232	15	.2	1.2	.4	441	.60	744	15
Oct. 21-31.....	1,173	67.5	12	.05	102	13	23	30	104	244	16	.3	1.5	.2	465	.63	1,470	15
Nov. 1-10.....	345	75.2	12	.05	112	15	26	1.9	115	272	20	.3	1.4	.2	519	.71	484	16
Nov. 11-20.....	460	74.5	10	.08	114	16	26	31	116	273	21	.3	.6	.1	520	.71	646	14
Nov. 21-30.....	81.4	73.7	12	.08	124	17	31		125	268	23	.3	.9	.1	568	.77	125	15
Dec. 1-10.....	281	83.3	10	.07	130	18	29	2.2	123	316	26	.3	1.1	.3	593	.81	450	14
Dec. 11-20.....	60.4	86.9	12	.03	138	20	35		125	344	29	.3	1.3	.2	641	.87	105	15
Dec. 21-31.....	170	94.7	13	.03	143	21	33	2.0	129	372	31	.5	4.5	.2	689	.94	316	14
Jan. 1-10, 1942.....	69.4	101	18	.05	154	23	36	3.4	129	398	38	.2	1.2	.4	725	.99	136	15
Jan. 11-20.....	155	99.8	14	.06	154	23	37	3.4	133	393	31	.2	1.0	.2	722	.98	302	15
Jan. 21-31.....	199	101	16	.05	156	24	36	3.7	130	401	32	.2	.8	.2	734	1.00	394	14
Feb. 1-10.....	518	114	16	.06	176	28	46	3.8	136	474	37	.3	7	.4	849	1.15	1,190	16
Feb. 11-20.....	14.2	117	14	.02	179	29	52		134	491	40		1.2	.5	872	1.19	33	17
Feb. 21-28.....	11.0	117	14	.02	186	29	39		139	494	40		1.0	.5	880	1.20	26	15
Mar. 1-10.....	7.95	116	13	.02	185	27	44	3.8	137	486	38	.4	1.0	.4	866	1.18	19	15
Mar. 11-20.....	35.7	115	12	.03	187	26	45	4.0	140	486	38	.5	1.0	.4	868	1.18	84	15
Mar. 21-30, 31.....	68.5	126	12	.03	212	29	42	2.0	131	544	47	.5	.6	.4	954	1.30	151	13
Apr. 1-10.....	69.9	120	12	.03	198	27	37	2.6	129	503	41	.6	.4	.6	885	1.20	167	12
Apr. 11-16, 18-20.....	574	121	10	.03	200	25	45	2.4	132	514	41	.4	.2	.4	903	1.23	1,400	14
Apr. 21-30.....	2,599	117	19	.03	190	30	29	3.8	116	493	39	.2	1.4	.4	863	1.17	6,060	10
May 1-10.....	76.6	104	18	.03	168	25	26	3.8	122	414	33	.8	.8	.4	747	1.02	154	11
May 11-20.....	1,480	91.3	14	.03	146	19	28	3.6	117	353	30	.2	.8	.6	632	.89	2,610	13
May 21-31.....	779	88.6	13	.03	149	19	27	3.6	117	342	27	.2	.2	.2	630	.86	630	13
June 1-2, 4-10.....	264	84.8	13	.04	137	20	17	4.4	110	324	27	.3	.6	.2	598	.81	426	9
June 3.....	135	135			108	46	48		126	588	48		5.2		995	1.35		13
June 11-20.....	586	85.0	12	.04	136	21	17	4.4	115	320	28	.2	.6	.2	596	.81	944	9
June 21-30.....	150	84.0	12	.04	135	20	19	3.6	118	316	27	.2	.2	.2	591	.80	239	10
July 1-10.....	336	87.1	13	.05	137	21	23	3.8	127	324	27	.2	.2	.2	612	.83	554	11
July 11-20.....	181	86.8	13	.06	133	21	30	2.7	131	365	32	.1	.4	.2	637	.87	312	14
July 21-31.....	194	90.9	13	.08	143	22	29	2.4	92	376	30	.1	.4	.2	661	.90	347	13
Aug. 1-10.....	92.6	97.6	14	.05	162	22	33	2.8	108	387	35	.1	.8	.2	699	.95	175	14
Aug. 11-20.....	364	98.9	12	.06	168	21	33	3.2	108	402	33	.2	.6	.2	716	.97	703	14
Aug. 21-31.....	384	99.9	11	.09	181	23	32	3.8	110	414	33	.6	1.0	.4	736	1.00	763	14
Sept. 1-10.....	4,832	103	10	.09	160	22	27	4.0	107	463	24	.6	.6	.4	778	1.08	9,710	11
Sept. 11-20.....	1,380	105.5	9.5	.09	164	21	26	3.6	104	410	24	.6	.6	.4	710	.97	2,660	11
Sept. 21-30.....	279	94.5	13	.03	160	22	24	4.0	103	408	24	.7	.6	.4	702	.95	529	10
Weighted averages.....	568	93.7	13	.06	153	21	27	4.3	108	385	27	.4	1.0		684	.93	1,050	12

PECOS RIVER NEAR ACME, N. MEX.

[Composites of daily samples collected at highway bridge on U. S. Highway 70, approximately 3 miles above the gaging station which is located 1 mile southeast of Melena railroad station, 3½ miles downstream from Salt Creek, 5 miles southwest of Acme, and 13 miles northeast of Roswell. Drainage area, 11,380 square miles. Analyses in parts per million]

Date of collection	Mean discharge (second-feet)	Specific conductance (K×10 ³ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Borate (BO ₃)	Dissolved solids			Percent sodium
															Parts per million	Tons per acre-foot	Tons daily	
Oct. 1-10, 1941	3,328	180	16		278	37	96		125	744	126		1.5		1,360	1.85	12,200	20
Oct. 11, 14-20	962	147	16		206	30	85		117	547	111		1.0		1,054	1.43	2,740	23
Oct. 12-13		200							132		182							
Oct. 21-28	3,120	144	15		220	30		67	108	591	81		1.5		1,059	1.44	8,920	18
Oct. 27-30, 31	1,323	247	16		306	61	183		141	848	243		1.5		1,778	2.42	6,350	28
Nov. 1-3	1,520	172	16		219	38	116		130	599	157		3.2		1,212	1.65	4,970	26
Nov. 4-10	1,386	252	19		315	63	198		150	914	284		2.0		1,869	2.54	1,946	29
Nov. 11-12, 14-20	556	191	19		242	47	133		143	688	179		2.5		1,381	1.88	2,075	27
Nov. 21-22		188									174							
Nov. 23-30	159	363	18		426	106	311		176	1,274	500		1.0		2,720	3.70	1,166	31
Dec. 1-10	329	242	20		299	68	171		154	868	280		1.5		1,763	2.40	1,566	27
Dec. 11-16	309	238	16		287	63	177		152	814	274		1.5		1,707	2.32	1,423	28
Dec. 17-20	124	387	17		432	109	358		176	1,217	595		2.5		2,870	3.90	961	34
Dec. 21-25	95.2	450	15		494	133	430		196	531	680		2.0		3,380	4.60	969	34
Dec. 26-31	229	264	13		312	74	198		138	840	298		2.0		1,905	2.59	1,179	28
Jan. 1-10, 1942	192	310	15		347	84	262		158	1,024	414		2.0		2,226	3.03	1,155	32
Jan. 11-16	92.2	431	14		408	123	415		175	1,435	665		1.8		3,210	4.37	1,799	35
Jan. 17-20	229	264			315	73	203		161	938	286		2.2		1,922	2.61	1,188	29
Jan. 21-31	227	244	14		288	66	191		152	876	270		1.5		1,786	2.43	1,096	29
Feb. 1-10	443	294	16		289	54	142		145	754	192		2.5		1,491	20.3	1,785	26
Feb. 11-12		211							141		243							
Feb. 13-18, 20	90.1	621	16		422	105	375		156	1,294	588		2.0		2,880	3.92	701	36
Feb. 19		624									2,306							
Feb. 27-28	61.2	527	19		588	143	602		180	1,679	835		1.5		4,000	5.44	660	41
Mar. 1-10	91.8	552	16		522	149	632		192	1,704	985		1.5		4,080	6.55	961	42
Mar. 11-20	40.8	610	17		576	172	735		148	1,420	1,130		1.5		4,620	6.28	584	42
Mar. 21-31	70.4	428	13		464	122	419		144	1,465	635		1.0		3,220	4.38	612	33
Apr. 1-6, 9-10	86.6	456	14		464	126	470		136	1,495	730		5		3,370	4.58	788	38
Apr. 7-8	44.0	878			580	182	1,291		149	1,819	2,090		2.0		6,020	8.19	715	57
Apr. 11-17	126	391	12		415	114	350		125	1,300	572		2.0	.8	2,830	3.85	963	34
Apr. 18-20	1,079	243	20		328	72	144		128	960	218		2.2		1,813	2.47	5,280	22

Apr. 21-30	3,160	164	18	---	280	38	72	114	714	88	---	1.5	---	1,248	1.70	10,600	16
May 1-4	3,365	220	13	---	312	52	136	102	891	196	---	1.5	---	1,652	2.25	1,628	23
May 5-10	117	358	10	---	447	94	301	100	1,350	474	---	1.0	---	2,730	3.71	1,865	30
May 11-12	97.0	371	13	---	464	109	293	115	1,412	480	---	1.0	---	2,830	3.85	741	28
May 13-20	1,299	146	13	---	216	35	70	121	601	78	---	2.0	---	1,075	1.46	3,770	18
May 21-27	1,810	140	13	---	202	29	55	116	525	71	---	2.0	---	1,954	1.80	4,660	16
May 28-31	1,382	212	13	---	302	52	136	118	842	204	---	2.5	---	1,610	2.19	793	23
June 1-10	164	195	15	---	259	46	137	109	744	190	---	2.0	---	1,447	1.97	641	26
June 11-20	466	144	12	---	201	29	71	118	526	92	---	1.5	---	1,991	1.35	1,247	20
June 21-28, 30	128	201	11	---	267	48	136	100	790	180	---	1.5	---	1,483	2.02	513	25
June 29	16.0	1,350	22	---	550	211	2,355	103	893	3,760	---	2.0	---	8,840	12.0	382	70
July 1-10	534	1,185	15	---	273	53	86	91	777	142	---	2.5	---	1,393	1.89	1,255	17
July 11-30	112	213	17	---	283	60	112	101	786	208	---	1.5	---	1,517	2.06	458	20
July 21-31	223	175	15	---	240	51	90	100	697	138	---	2.5	---	1,283	1.74	772	19
Aug. 1-7	48.6	293	19	---	345	83	230	85	1,063	372	---	1.0	---	2,155	2.93	283	29
Aug. 8-10	160	202	17	---	238	55	142	86	723	214	---	3.7	---	1,435	1.95	619	27
Aug. 12-21	315	206	20	---	270	60	130	101	815	190	---	3.8	---	1,539	2.09	1,308	23
Aug. 22-30	379	156	13	---	208	41	82	102	596	114	---	2.0	---	1,106	1.50	21	41
Aug. 31	602	251	---	---	221	50	244	74	584	436	---	4.0	---	1,576	2.14	1,133	21
Sept. 1-10	5,206	194	15	---	309	44	92	116	843	125	---	2.5	---	1,488	2.02	2,590	41
Sept. 11-20	1,359	177	15	---	293	38	74	114	774	105	---	2.0	---	1,357	1.85	4,980	17
Sept. 21-30	1,405	181	15	---	281	42	79	113	731	135	---	2.0	---	1,341	1.82	1,466	15
Weighted average	712	190	16	---	274	45	108	121	757	151	---	1.9	---	1,412	1.92	2,720	21

PECOS RIVER NEAR ARTESIA, N. MEX.

[Composites of daily samples collected at gaging station at new bridge on Artesia-Lovington Highway, 4.2 miles east of Artesia, 6.5 miles north of mouth of Rio Penasco, and 16½ miles north of McMillan Dam. Drainage area, 15,300 square miles. Analyses in parts per million]

Date of collection	Mean discharge (second-foot)	Specific conductance (K×10 ³ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Borate (BO ₃)	Dissolved solids			Percent sodium
															Parts per million	Tons per acre-foot	Tons per day	
Oct. 1-7, 1941	10,140	278	18	0.05	412	63	173	7.6	133	1,166	248	0.4	1.5	0.5	2,155	2.93	59,000	23
Oct. 8-10	1,890	391	25	—	429	103	366	—	173	1,279	578	—	2.2	—	2,570	3.90	14,900	33
Oct. 11-20	1,693	379	21	.01	396	101	358	7.2	167	1,197	578	.5	—	—	2,740	3.73	13,900	36
Oct. 21-23, 29-31	1,566	431	20	.01	408	120	469	—	180	1,286	725	.4	.5	—	3,110	4.22	13,100	40
Oct. 23-28	4,812	269	16	.04	360	60	197	6.8	127	1,034	286	.4	1.0	.3	2,024	2.75	20,300	28
Nov. 1-3	2,990	297	22	.05	393	80	255	8.0	146	1,030	392	.4	2.0	.6	2,194	2.98	17,700	33
Nov. 4-10	1,327	407	23	.07	398	121	415	—	186	1,276	615	.5	2.5	—	2,970	4.04	10,900	38
Nov. 11-20	1,700	422	20	.08	398	130	416	8.0	168	1,300	675	.4	3.0	.3	3,050	4.15	9,060	37
Nov. 21-30	484	424	27	.08	408	143	501	9.6	197	1,356	705	.5	2.5	.8	3,340	4.54	7,150	41
Nov. 31-20	680	484	22	.08	432	151	520	9.6	207	1,437	830	.5	1.8	.2	3,510	4.77	6,530	40
Dec. 1-20	682	460	20	.07	414	154	545	8.0	212	1,409	860	.6	2.2	.2	3,520	4.77	6,480	42
Dec. 21-31	484	571	23	.06	478	181	655	8.0	235	1,615	1,045	1.0	5.9	1.0	4,130	5.62	5,400	43
Jan. 1-2, 4-10, 1942	547	486	21	.08	422	152	535	8.4	214	1,414	850	.4	4.4	.6	3,510	4.77	5,180	41
Jan. 11-20	433	588	28	.07	484	184	667	9.2	227	1,631	1,090	.8	4.5	1.0	4,210	5.73	4,920	43
Jan. 21-31	516	471	22	.07	414	141	517	7.6	207	1,381	805	.6	4.0	.6	3,390	4.61	4,720	41
Feb. 1-10	624	418	16	.02	362	122	459	6.0	193	1,258	700	.8	4.2	.4	3,040	4.13	5,120	41
Feb. 11-13	964	299	14	.02	311	86	278	—	169	1,978	408	—	4.2	.6	2,161	2.94	5,570	35
Feb. 14-20	377	516	17	.02	444	156	597	6.8	213	1,433	940	—	4.8	.6	3,750	5.10	3,820	43
Feb. 21-28	295	642	17	.02	522	194	796	—	231	1,807	1,250	.6	4.7	.8	4,710	6.41	3,750	45
Mar. 1-10	268	687	27	.03	530	220	867	15	182	1,924	1,400	1.0	3.2	1.0	5,080	6.91	3,680	46
Mar. 11-20	201	789	25	.04	576	254	992	16	186	2,117	1,630	.9	2.6	1.0	5,710	7.77	3,100	47
Mar. 21-31	197	746	23	.04	588	236	938	14	194	2,081	1,500	.9	2.5	1.6	5,460	7.43	2,900	46
Apr. 1-10	254	723	21	.04	546	222	929	12	191	1,995	1,470	.8	2.0	1.2	5,290	7.19	3,630	47
Apr. 12-19	361	629	20	.05	488	190	774	9.6	173	1,783	1,240	1.0	2.6	2.0	4,550	6.19	4,440	46
Apr. 20	775	631	—	—	426	157	603	—	188	1,477	1,940	—	3.8	—	3,700	5.06	7,740	46
Apr. 21-24	2,392	312	18	.07	344	82	262	4.0	133	1,059	394	.3	2.5	.6	2,821	3.03	13,800	32
Apr. 25-30	3,857	238	18	.03	350	68	139	4.0	129	988	200	.4	2.2	.4	1,823	2.48	19,000	22
May 1-3	2,015	227	18	.04	338	57	124	4.4	137	936	186	.3	3.0	.4	1,734	2.36	9,430	20
May 4-10	406	390	20	.05	409	116	351	4.8	163	1,270	575	.4	3.8	.8	2,830	3.85	3,100	34
May 11-15	371	513	23	.02	498	169	509	9.6	122	1,677	852	.7	4.0	1.2	3,810	5.18	3,810	37

May 16-20	1,600	232	20	.03	306	59	140	7.6	121	577	216	.6	2.0	.8	1,698	2.30	7,230	24
May 21-27	1,955	188	16	.02	277	46	92	5.6	116	759	142	.6	1.5	.8	1,307	1.90	7,370	19
May 28-31	1,351	310	18	.03	350	85	260	8.4	129	1,049	424	.7	2.0	1.0	2,261	3.07	2,144	32
June 1-10	301	415	16	.02	408	123	408	7.6	135	1,239	675	.8	3.0	1.0	3,010	4.09	2,447	37
June 11-13	288	451	14	-----	408	144	462	4.0	112	1,342	795	.6	2.0	-----	3,220	4.38	2,500	38
June 14-20	563	272	16	.05	310	71	230	4.4	128	918	360	.6	2.0	.6	1,975	3.69	3,000	32
June 21-25	224	373	17	.03	350	110	375	4.4	111	1,159	600	.7	2.0	.4	2,670	3.63	1,612	38
June 26-30	146	510	18	.03	422	151	593	5.2	114	1,493	935	.7	2.0	.6	3,680	5.00	1,447	44
July 1-3	287	614	17	.03	460	153	781	8.8	128	1,584	1,215	.7	2.0	.6	4,280	5.82	3,320	49
July 4-10	388	339	17	.04	370	92	237	4.8	115	1,184	445	.6	3.5	.4	2,471	3.36	2,590	33
July 11-14	272	332	17	.03	328	90	327	7.2	128	1,050	505	.7	2.5	.6	2,391	3.25	1,757	33
July 15-20	132	530	19	.06	434	155	617	9.6	118	1,529	995	.7	2.0	.4	3,820	5.20	1,865	44
July 21-22	284	600	27	.09	456	184	716	16	90	1,672	1,150	.4	2.0	.8	4,270	5.31	3,270	45
July 23-31	314	351	23	.08	329	95	354	8.0	109	1,072	540	.5	2.0	.8	2,477	3.37	2,101	39
Aug. 1-9	112	551	25	.08	436	169	642	14	98	1,551	1,040	.5	2.0	1.0	3,930	5.34	1,191	44
Aug. 10-17	100	965	22	.09	496	197	1,467	13	113	1,765	2,340	.5	2.0	-----	3,330	8.41	1,709	61
Aug. 18	164	515	22	.09	414	156	598	7.2	113	1,677	404	.8	2.0	.8	3,690	5.03	1,535	44
Aug. 19-20	853	237	18	.20	293	72	293	7.2	108	1,070	308	.7	2.3	1.0	2,134	2.80	5,010	37
Aug. 21-30	273	263	17	.04	312	93	244	7.2	108	1,002	308	.7	2.3	.4	2,131	2.90	2,146	32
Aug. 31	1,480	153	-----	-----	156	36	127	-----	142	416	186	-----	2.5	-----	2,994	1.35	3,970	34
Sept. 1-7, 9	4,707	295	16	.04	468	76	175	6.4	102	1,348	256	.2	2.5	.4	2,398	3.26	30,500	21
Sept. 11-20	1,420	270	16	.04	422	70	152	3.2	111	1,193	298	.6	2.5	.6	2,152	2.98	8,300	20
Sept. 21-30	636	316	17	.02	378	92	254	4.0	139	1,131	414	.9	4.0	.6	2,363	3.21	4,060	30
Weighted average	1,071	343	19	.05	400	93	297	6.8	145	1,214	459	.5	2.1	.6	2,560	3.48	7,400	32

Revision.—The weighted average analysis of the Pecos River near Artesia for the year ended Sept. 30, 1941, which is given in Water-Supply Paper 942, should be revised as shown below. Revised loads of dissolved matter in tons per day for the composite periods may be computed by using the discharge data given in Water-Supply Paper 928.

Weighted average	1,378	272	15	0.06	353	64	207	7.3	114	1,027	310	0.4	2.6	-----	2,042	2.78	7,600	29
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PECOS RIVER AT CARLSBAD, N. MEX.

[Composites of daily samples collected at gaging station at Green Street Bridge in Carlsbad, half a mile upstream from Dark Canyon. Drainage area, 18,100 square miles. Analyses in parts per million]

Date of collection	Mean discharge (second-foot)	Specific conductance ($K \times 10^3$ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Borate (BO ₃)	Dissolved solids			Percent sodium
															Parts per million	Tons per acre-foot	Tons per day	
Oct. 1-10, 1941.....	9,448	255	14	.....	381	58	108	.....	129	1,088	224	.....	2.0	.....	1,998	2.72	51,000	24
Oct. 11-20.....	2,033	341	19	428	428	80	279	.....	149	1,271	424	.....	1.5	.....	2,447	3.52	14,200	30
Oct. 21-31.....	3,356	328	19	384	384	80	288	.....	174	1,174	428	.....	1.2	.....	2,447	3.83	22,300	32
Nov. 1-8, 10.....	2,047	327	19	353	353	87	325	.....	131	1,185	420	.....	8	.....	2,710	3.82	13,500	32
Nov. 9-10.....	704	381	23	368	368	114	323	.....	163	1,272	498	.....	2.5	.....	2,710	3.69	5,150	32
Nov. 11-20.....	803	382	25	400	400	138	365	.....	188	1,314	548	.....	.....	.....	2,830	3.85	6,130	34
Nov. 21-23, 27-30.....	700	390	24	416	416	122	366	.....	151	1,366	558	.....	1.8	.....	2,830	3.98	5,530	34
Dec. 1-10.....	885	417	22	426	426	130	407	.....	177	1,391	630	.....	1.5	.....	3,090	4.20	7,380	36
Dec. 11-20.....	544	406	21	443	443	128	384	.....	150	1,405	590	.....	2.0	.....	3,090	4.15	4,480	34
Dec. 21-29.....	910	469	.....	442	442	132	484	.....	163	1,481	705	.....	2.2	.....	3,440	4.68	8,460	38
Jan. 1-10, 1942.....	452	417	18	442	442	130	390	.....	182	1,449	600	.....	2.5	.....	3,130	4.26	3,520	35
Jan. 11-20.....	633	453	17	450	450	143	463	.....	187	1,506	705	.....	2.0	.....	3,380	4.50	5,770	37
Jan. 21-27.....	892	465	18	448	448	147	474	.....	176	1,496	745	.....	2.0	.....	3,420	4.65	8,240	37
Feb. 2-10.....	167	454	17	422	422	141	470	.....	191	1,356	615	.....	2.0	.....	3,020	4.14	1,280	33
Feb. 11-16, 18-20.....	196	358	16	428	428	128	342	.....	188	1,363	540	.....	2.0	.....	3,010	3.99	1,740	33
Feb. 21-28.....	213	462	22	448	448	123	374	.....	136	1,481	555	.....	1.5	.....	3,070	4.45	2,860	33
Mar. 1-8, 10.....	153	358	21	440	440	117	351	.....	148	1,419	528	.....	1.2	.....	2,950	4.01	1,220	33
Mar. 9-15, 17-20.....	100	350	21	369	369	112	311	.....	162	1,215	468	.....	2.0	.....	2,880	3.51	697	33
Mar. 21-29, 31.....	103	345	20	368	368	112	315	.....	192	1,193	470	.....	2.0	.....	2,870	3.50	714	33
Apr. 1-4, 6-10.....	102	333	20	340	340	110	306	.....	162	1,159	460	.....	2.5	.....	2,469	3.36	681	34
Apr. 11-13, 15-16, 18-20.....	1,718	452	15	426	426	145	475	.....	140	1,485	730	.....	1.5	.....	3,350	4.56	15,500	35
Apr. 21-28, 30.....	1,075	317	16	353	353	92	267	.....	157	1,202	378	.....	1.5	.....	2,417	3.29	7,010	30
May 1-10.....	416	347	18	382	382	111	323	.....	66	1,332	475	.....	2.0	.....	2,680	3.64	3,010	33
May 11-20.....	1,409	322	18	393	393	95	268	.....	87	1,256	405	.....	2.0	.....	2,482	3.38	9,440	30
May 21-22, 24-25, 29, 31.....	270	349	21	375	375	109	306	.....	80	1,266	470	.....	2.0	.....	2,590	3.52	1,890	32
June 1-6, 8-10.....	168	364	20	371	371	119	330	.....	73	1,299	510	.....	2.0	.....	2,690	3.66	1,150	34
June 16, 18-20.....	85.9	371	22	364	364	132	331	.....	115	1,289	520	.....	1.5	.....	2,720	3.70	631	33
June 21-24, 30.....	99.7	381	24	346	346	114	280	.....	124	1,185	444	.....	1.5	.....	2,466	3.35	664	32
July 1-10.....	102	340	21	354	354	114	310	.....	154	1,200	460	.....	2.5	.....	2,540	3.45	693	33
July 11-20.....	102	340	21	344	344	118	305	.....	119	1,203	465	.....	2.5	.....	2,510	3.41	877	33
July 21-31.....	91.3	351	16	349	349	124	321	.....	116	1,233	495	.....	2.5	.....	2,600	3.54	641	34
Aug. 1-10.....	88.5	351	15	344	344	111	266	.....	134	1,090	445	.....	2.5	.....	2,328	3.17	556	30
Aug. 11-20.....	91.8	312	16	323	323	112	272	.....	113	1,111	430	.....	2.5	.....	2,329	3.17	577	32
Aug. 21-31.....	2,926	339	14	461	461	93	252	.....	141	1,417	360	.....	2.0	.....	2,660	3.62	21,000	24
Sept. 1-10.....	1,170	332	13	486	486	91	239	.....	134	1,455	340	.....	2.0	.....	2,690	3.66	8,500	25
Sept. 11-20.....	652	325	15	439	439	92	247	.....	135	1,337	360	.....	2.0	.....	2,560	3.45	4,510	27
Sept. 21-30.....	974	335	17	407	407	94	283	.....	138	1,262	419	.....	1.8	.....	2,550	3.47	6,700	31
Weighted average.....	974	335	17	407	407	94	283	.....	138	1,262	419	.....	1.8	.....	2,550	3.47	6,700	31

PECOS RIVER NEAR MALAGA, N. MEX.

[Composites of daily samples collected at point on right bank about 2½ miles above gaging station which is located 3 miles southeast of Malaga and 3 miles downstream from Black River. Drainage area, 19,190 square miles. Analyses in parts per million]

Date of collection	Mean discharge (second-feet)	Specific conductance (K ₂ Cr ₂ O ₇ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Borate (BO ₃)	Dissolved solids			Percent sodium
															Parts per million	Tons per acre-foot	Tons per day	
Oct. 1-10, 1941.....	10,400	259	20	—	378	61	164	—	134	1,077	226	—	2.0	—	1,904	2.71	56,000	23
Oct. 11-20.....	2,044	358	19	—	434	95	317	—	164	1,320	462	—	2.5	—	2,730	3.71	15,100	32
Oct. 21-31.....	3,631	345	18	—	396	91	303	—	122	1,212	464	—	1.5	—	2,550	3.47	25,000	33
Nov. 1-10.....	2,208	340	16	—	394	90	323	—	151	1,215	472	—	1.5	—	2,590	3.52	15,400	34
Nov. 11-20.....	874	409	20	—	440	120	397	—	170	1,388	615	—	2.5	—	3,070	4.18	7,250	35
Nov. 21-30.....	982	433	18	—	442	128	434	—	182	1,426	665	—	2.5	—	3,210	4.37	8,080	37
Dec. 1-10.....	831	424	19	—	448	128	401	—	180	1,427	625	—	2.5	—	3,140	4.27	7,050	35
Dec. 11-20.....	989	433	20	—	442	134	422	—	178	1,435	660	—	2.0	—	3,200	4.35	8,550	36
Dec. 21-31.....	692	446	18	—	450	140	443	—	186	1,473	680	—	2.5	—	3,310	4.50	5,910	38
Jan. 1-10, 1942.....	965	446	16	—	460	141	445	—	188	1,519	680	—	2.0	—	3,360	4.57	8,750	36
Jan. 11-20.....	636	484	16	—	450	152	518	—	203	1,516	800	—	3.0	—	3,560	4.84	6,110	39
Jan. 21-31.....	626	460	16	—	462	143	471	—	197	1,531	715	—	2.5	—	3,440	4.68	5,810	37
Feb. 1-10.....	1,052	488	13	—	458	149	539	—	182	1,582	800	—	4.1	—	3,630	4.94	10,300	40
Feb. 11-20.....	281	508	15	—	472	161	566	—	196	1,620	865	—	3.6	—	3,800	5.17	2,890	40
Feb. 21-28.....	284	493	15	—	474	157	522	—	202	1,593	805	—	4.6	—	3,670	4.96	2,810	38
Mar. 1-10.....	374	456	18	—	486	140	448	—	175	1,585	685	—	2.9	—	3,450	4.69	3,480	35
Mar. 11-20.....	269	473	19	—	482	147	467	—	162	1,600	725	—	2.9	—	3,520	4.79	2,560	36
Mar. 21-31.....	162	522	18	—	506	160	552	—	159	1,699	865	—	2.8	—	3,880	5.28	1,692	38
Apr. 1-10.....	163	522	19	—	476	166	564	—	169	1,654	875	—	2.8	—	3,840	5.22	1,689	40
Apr. 11-20.....	136	546	20	—	466	169	632	—	137	1,672	975	—	3.7	—	4,000	5.44	1,470	42
Apr. 21-30.....	1,791	524	19	—	464	166	599	—	154	1,630	905	—	3.3	—	3,850	5.24	18,000	42
May 1-10.....	1,295	395	14	—	426	140	392	—	149	1,366	565	—	2.0	—	3,940	5.00	10,300	36
May 11-20.....	1,398	440	20	—	444	146	444	—	106	1,526	714	—	2.5	—	3,350	4.56	3,600	36
May 21-31.....	1,568	342	16	—	402	100	296	—	111	1,278	450	—	1.5	—	2,600	3.54	11,000	31
June 1-10.....	315	456	21	—	440	140	471	—	118	1,490	744	—	2.0	—	3,370	4.58	2,870	38
June 11-20.....	217	494	19	—	504	152	507	—	137	1,651	820	—	3.0	—	3,720	5.06	2,182	37
June 21-30.....	135	547	24	—	472	173	598	—	90	1,684	960	—	4.0	—	3,960	5.39	1,442	41
July 1-10.....	193	547	22	—	468	182	584	—	114	1,689	945	—	4.0	—	3,950	5.37	2,063	40
July 11-20.....	176	520	20	—	460	169	576	—	122	1,656	900	—	2.0	—	3,840	5.22	1,824	40
July 21-31.....	165	520	14	—	468	177	555	—	84	1,631	945	—	5.0	—	3,840	5.22	1,708	39

PECOS RIVER NEAR MALAGA, N. MEX.—Continued

Date of collection	Mean discharge (second-feet)	Specific conductance ($K \times 10^4$ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Borate (BO ₃)	Dissolved solids			Percent sodium
															Parts per million	Tons per acre-foot	Tons per day	
Aug. 1-10.....	152	532	13	---	460	176	552	---	85	1,656	890	---	4.0	---	3,880	5.38	1,592	40
Aug. 11-20.....	152	536	17	---	472	177	557	---	108	1,691	945	---	5.0	---	3,850	5.37	2,043	40
Aug. 21-30.....	171	642	20	---	452	183	562	---	121	1,697	970	---	5.0	---	4,000	5.43	2,048	40
Sept. 1-10.....	2,469	372	13	---	452	112	362	---	121	1,891	475	---	1.5	---	2,690	3.87	92,800	26
Sept. 11-20.....	1,369	378	13	---	456	105	367	---	122	1,529	430	---	1.5	---	2,690	3.87	10,900	23
Sept. 21-30.....	1,788	384	14	---	488	114	305	---	142	1,468	465	---	2.5	---	2,950	4.01	6,360	28
Weighted average.	1,098	370	18	---	425	105	332	---	144	1,328	504	---	2.3	---	2,790	3.79	8,270	33

REVISION.—The weighted average analysis of the Pecos River near Malaga for the year ended September 30, 1941, which is given in Water-Supply Paper 943 should be revised as shown below. Revised loads of dissolved matter in tons per day for the composite periods may be computed by using the discharge data given in Water-Supply Paper 928.

Weighted average.	1,632	242	15	0.06	285	64	191	7.5	111	856	291	0.4	2.8	-----	1,766	2.40	7,880	30
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PECOS RIVER AT RED BLUFF, N. MEX.

[Composites of daily samples collected at pipe line bridge, 2½ miles below Red Bluff gaging station, which is located just downstream from Red Bluff Creek and 5½ miles upstream from Delaware River. Drainage area, 19,540 square miles. Analyses in parts per million]

Date of collection	Mean discharge (second-feet)	Specific conductance ($K \times 10^4$ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Borate (BO ₃)	Dissolved solids			Percent sodium
															Parts per million	Tons per acre-foot	Tons per day	
Oct. 1-10, 1941.....	10,050	263	16	0.01	332	63	178	8.0	132	1,121	244	0.3	1.0	0.7	2,078	2.83	56,400	25
Oct. 11-20.....	2,154	394	21	.04	431	97	393	16	152	1,319	600	.4	.5	.9	2,950	4.01	17,200	37
Oct. 21-23.....	1,730	424	22	---	428	111	444	---	153	1,363	670	---	.5	---	3,110	4.23	14,500	39
Oct. 24-31.....	4,462	342	18	.03	378	90	304	9.6	131	1,161	475	.5	.5	.6	2,500	3.40	30,100	34
Nov. 1-10.....	2,279	409	16	.03	402	106	414	17	149	1,286	670	.5	.5	.7	2,940	4.00	18,100	39
Nov. 11-13.....	1,388	432	20	---	416	114	472	---	163	1,342	710	---	2.5	---	3,160	4.30	11,900	41
Nov. 14-19.....	563	716	20	.05	460	138	1,046	26	177	1,516	1,610	1.0	3.8	.6	4,900	6.66	7,310	58
Nov. 21-26, 29-30.....	1,176	504	19	.04	436	135	886	18	166	1,457	910	.7	3.5	.8	3,650	4.96	11,600	44
Nov. 27-28.....	293	865	21	---	466	155	1,865	31	196	1,618	2,130	---	3.0	---	5,910	8.04	4,680	63

Dec. 1-10	841	515	21	.04	442	136	611	14	174	5,498	950	.5	3.5	.6	3,730	5.07	3,470	45
Dec. 11-20	984	495	19	.04	442	140	564	11	174	1,470	880	.3	3.2	1.0	3,620	4.92	3,620	42
Dec. 21-31	632	562	21	.08	452	147	700	12	183	1,524	1,090	.3	3.5	.8	4,040	5.49	6,890	43
Jan. 1-10, 1942	1,281	529	23	.06	464	144	604	12	180	1,644	935	.6	3.8	.8	3,820	5.20	8,770	47
Jan. 11-13	483	493	22	.08	448	146	551	17	186	1,514	840	.9	3.8	1.2	3,620	4.92	12,500	41
Jan. 14-20	401	685	24	.08	462	162	934	17	198	1,607	1,440	.9	3.8	1.2	4,760	6.46	5,140	53
Jan. 21-28	422	670	25	.08	466	169	902	19	192	1,598	1,400	.9	5.0	1.4	4,670	6.35	5,320	52
Jan. 29-31	1,083	493	21	---	470	132	466	19	169	1,531	1,705	.5	2.2	---	3,410	4.64	9,970	37
Feb. 1-10	990	556	16	.02	456	150	678	9.6	172	1,555	1,025	.7	3.0	.6	4,010	5.45	10,700	46
Feb. 11-15	293	737	15	.03	486	172	1,060	19	191	1,704	1,640	.7	4.1	1.0	5,190	7.06	4,100	56
Feb. 16-28	266	766	17	.03	496	172	1,109	20	199	1,710	1,710	.7	6.2	.8	6,320	7.24	3,810	56
Mar. 1-10	405	604	22	.04	474	143	771	20	136	1,633	1,175	.5	2.5	1.0	4,310	5.86	4,719	49
Mar. 11-20	310	638	20	.03	480	161	852	22	120	1,633	1,360	.7	1.0	1.2	4,610	6.27	3,860	50
Mar. 21-31	181	852	19	.04	514	183	1,250	29	136	1,796	1,990	.7	2.0	---	5,560	7.96	2,870	57
Apr. 1-10	185	892	17	.04	500	190	1,347	31	149	1,794	2,130	.9	2.0	1.0	6,090	8.28	3,040	59
Apr. 11-20	164	895	17	.04	482	184	1,332	26	131	1,770	2,110	.5	4.5	1.0	6,000	8.16	2,660	59
Apr. 21-24	176	966	18	.04	494	205	1,462	30	137	1,830	2,320	.3	4.0	1.4	6,430	8.74	3,060	61
Apr. 25-30	2,707	579	20	.04	476	165	669	10	135	1,656	1,060	.5	2.5	1.2	4,130	5.62	30,200	44
May 1-6	2,226	836	17	.03	410	107	362	6.8	142	1,317	545	.4	1.5	.8	2,840	3.86	17,100	35
May 7-10	236	665	18	.03	440	127	770	15	144	1,455	1,190	.4	1.5	1.2	4,090	3.86	3,280	51
May 11-19	314	669	20	.04	466	164	914	13	111	1,635	1,450	.5	3.0	.6	4,720	6.52	4,000	52
May 20	1,330	438	---	---	468	149	421	---	138	1,321	705	.6	5.0	---	3,340	4.54	12,000	34
May 21-31	1,561	364	18	.04	414	106	322	3.2	114	1,305	508	.6	3.0	.6	2,740	3.73	11,500	32
June 1-3	292	516	16	.04	422	119	636	7.6	130	1,358	1,000	.6	3.0	.8	3,630	4.94	2,860	47
June 4-9	242	511	17	.04	406	149	1,036	9.2	142	1,354	1,010	.5	3.0	.8	4,940	6.72	2,220	46
June 10-12	357	536	14	---	474	166	577	---	131	1,363	960	.7	4.0	---	3,500	5.24	3,270	41
June 13	371	576	19	.04	438	149	524	6.0	135	1,749	938	.3	3.0	.8	3,800	4.70	2,850	41
June 14-20	215	700	23	.04	504	163	676	9.6	132	1,827	1,525	.9	2.0	.6	5,010	6.81	2,850	52
June 21-30	186	894	18	.02	493	184	1,111	13	130	1,892	1,810	.7	3.0	.6	5,750	7.83	2,550	56
July 1-10	186	893	18	.02	493	184	1,111	13	130	1,892	1,810	.7	3.0	.6	5,750	7.83	2,550	56
July 11-20	171	744	24	.12	482	189	1,032	26	124	1,742	1,825	.7	3.0	1.0	5,180	7.02	2,466	57
July 21-31	168	784	23	.12	476	190	1,068	26	114	1,774	1,740	.7	5.0	1.0	5,390	7.33	2,450	55
Aug. 1-10	147	770	27	.09	470	190	1,076	22	132	1,733	1,715	.7	3.0	1.0	5,300	7.21	2,100	55
Aug. 11-20	189	820	24	.02	490	195	1,163	21	133	1,758	1,855	.7	3.0	1.0	5,600	7.62	2,740	56
Aug. 21-31	171	768	22	.04	472	195	1,087	21	124	1,756	1,705	.7	3.0	1.0	5,300	7.21	2,450	54
Sept. 1-9	264	716	26	.03	432	183	982	22	124	1,618	1,550	.7	3.0	1.0	4,860	6.61	3,480	54
Sept. 10	3,644	352	14	.03	418	103	287	6.4	97	1,355	435	.5	1.5	.8	2,670	3.63	25,500	30
Sept. 11-20	1,518	355	18	.02	514	104	309	10	121	1,590	460	.5	2.0	.8	3,070	4.18	12,600	29
Sept. 21-30	1,854	489	19	.04	476	118	478	16	141	1,513	730	.5	2.0	.8	3,420	4.65	7,880	39
Weighted average.	1,102	423	18	.03	424	109	443	11	140	1,366	681	.5	1.8	.7	3,110	4.23	9,260	39

PECOS RIVER NEAR ORLA, TEX.

[Composites of daily samples collected at gaging station about 600 feet upstream from Pasotex pipe line crossing, 6 miles southeast of Orla, 16 miles downstream from Salt (Screw) Dam Draw, and 19 miles downstream from Red Bluff Dam. Drainage area, 21,300 square miles. Analyses in parts per million]

Date of collection	Mean discharge (second-foot)	Specific conductance (K $\times 10^3$ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Borate (BO ₃)	Dissolved solids			Percent sodium
															Parts per million	Tons per acre-foot	Tons per day	
Nov. 1-10, 1941	2,717	328	23	0.06	391	80	285	9.6	111	1,174	426	0.7	3.0	---	2,447	3.33	18,000	33
Nov. 11-15	1,488	364	29	---	399	90	343	12	116	1,230	530	.5	3.5	---	2,680	3.64	10,300	36
Nov. 16-20	538	590	31	.05	488	149	696	15	116	1,536	1,380	.4	3.0	---	4,160	5.66	6,040	46
Nov. 21-28	691	453	18	.06	428	110	500	14	106	1,340	785	.6	2.0	---	3,250	4.42	6,060	42
Dec. 1-10	776	463	18	.10	418	121	519	13	144	1,340	795	.7	3.0	---	3,300	4.49	6,920	43
Dec. 11-20	850	445	18	.06	404	118	494	13	142	1,325	750	.5	2.0	---	3,200	4.35	7,670	42
Dec. 21-31	885	465	17	.12	440	117	485	12	140	1,361	765	.5	2.0	---	3,280	4.46	7,530	40
Jan. 1-10, 1942	687	502	24	.07	452	138	573	26	168	1,445	905	.6	1.0	---	3,650	4.98	6,570	43
Jan. 11-20	922	456	20	.06	436	126	574	20	160	1,373	780	.0	1.0	---	3,300	4.49	8,210	40
Jan. 21-31	561	515	26	.06	432	134	607	19	166	1,431	870	.4	1.8	---	3,700	5.11	8,700	44
Feb. 1-10	879	493	19	.06	448	139	537	15	169	1,447	875	.6	2.5	---	3,690	4.98	8,280	42
Feb. 11-20	24	575	16	.05	456	139	570	15	185	1,466	1,385	.6	2.5	---	3,700	6.30	7,420	47
Feb. 21-31	241	575	16	.06	573	177	821	19	185	1,666	1,385	.6	2.5	---	7,190	9.78	3,560	59
Feb. 28	30	1,031	26	---	672	267	1,459	---	280	2,176	2,475	---	4.0	---	---	---	382	---
Mar. 1-2	74.5	1,035	18	---	664	266	1,516	---	172	2,254	2,520	---	7.4	---	---	---	1,474	---
Mar. 3-10	281	570	19	.05	476	149	689	19	160	1,562	1,090	1.0	2.5	---	4,090	5.56	3,100	46
Mar. 11-20	279	570	19	.04	474	144	697	19	160	1,562	1,090	.8	1.5	---	4,090	5.56	3,060	46
Mar. 21-31	308	566	16	.05	486	142	703	21	161	1,577	1,075	.6	1.8	---	4,100	5.88	3,410	46
Apr. 1-10	335	547	26	.05	472	142	629	23	161	1,537	1,020	.8	3.0	---	3,910	5.32	3,540	44
Apr. 11-20	552	520	26	.07	456	126	596	21	146	1,473	950	.6	2.2	---	3,720	5.06	5,540	44
Apr. 21-30	915	490	24	.05	458	126	527	19	143	1,454	850	.6	1.8	---	3,530	4.84	8,720	41
May 1-10	1,112	485	29	.03	452	129	532	12	120	1,465	825	1.0	1.8	---	3,510	4.77	10,500	41
May 11-20	412	542	28	.16	480	146	623	13	118	1,570	985	.6	2.8	---	3,910	5.32	4,350	43
May 21-31	1,580	467	23	.08	456	124	500	12	120	1,465	775	.6	1.5	---	3,410	4.64	14,100	40
June 1-10	238	536	27	.13	472	146	629	13	96	1,616	970	.6	1.5	---	3,920	5.33	2,510	44
June 11-20	280	540	16	.07	480	144	615	15	127	1,602	975	1.0	3.5	---	3,910	5.32	2,520	43
June 21-30	454	492	13	.03	487	131	524	13	138	1,539	840	1.0	1.5	---	3,610	4.91	4,420	40
July 1-10	536	473	20	.05	428	126	533	16	93	1,463	808	.8	.0	---	3,440	4.68	4,990	43
July 11-20	485	441	14	.03	458	128	541	14	132	1,481	845	1.0	.8	---	3,550	4.83	5,140	42
July 21-31	657	488	16	.04	456	126	549	13	127	1,493	840	1.2	2.2	---	3,560	4.84	6,320	42
Aug. 1-10	697	490	15	.06	458	124	554	14	130	1,490	840	.8	3.7	---	3,560	4.84	6,700	43
Aug. 11-20	488	505	16	.05	466	127	590	15	134	1,523	885	.8	2.8	---	3,690	5.02	4,870	44
Aug. 21-31	600	491	15	.07	494	145	752	18	137	1,628	1,168	.6	2.2	---	4,290	5.83	2,330	48
Sept. 1-10	817	570	31	.04	492	149	634	12	122	1,597	1,040	.6	4.0	---	4,020	5.47	8,870	43
Sept. 11-20	542	541	24	.10	480	144	614	14	124	1,602	890	.8	4.0	---	3,910	5.32	8,880	43
Sept. 21-30	386	505	24	.06	472	140	566	14	122	1,580	890	.4	2.8	---	3,750	5.10	3,910	41
Weighted average ¹	1,115	375	20	.05	396	96	370	12	129	1,220	570	.5	1.7	---	2,760	3.75	8,300	37

¹ Includes estimated analysis for October.

PECOS RIVER BELOW GRANDFALLS, TEX.

[Composites of daily samples collected at gaging station at bridge on county road between Grandfalls and Imperial, 7.1 miles southeast of Grandfalls, 3 miles northwest of Imperial, and about 10 miles downstream from Chacator Draw. Drainage area, 27,820 square miles. Analyses in parts per million]

Date of collection	Mean discharge (second-feet)	Specific conductance ($R \times 10^6$ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Borate (BO ₃)	Dissolved solids			Percent sodium
															Parts per million	Tons per acre-foot	Tons per day	
Oct. 1-10, 1941.....	12,300	310	24	0.08	366	71	294	13	136	1,073	428	-----	3.5	-----	2,340	3.18	78,300	35
Oct. 11-20.....	8,810	326	24	0.05	380	75	291	10	128	1,122	432	-----	1.2	-----	2,309	3.26	57,100	34
Oct. 21-31.....	2,840	488	31	0.06	424	113	569	14	139	1,319	895	-----	1.2	-----	3,420	4.65	26,200	45
Nov. 1-10.....	2,960	302	25	0.06	416	93	384	12	128	1,265	588	-----	1.8	-----	2,850	3.88	32,800	37
Nov. 11-20.....	2,030	507	15	0.04	464	124	541	13	152	1,412	905	-----	1.0	-----	2,550	4.83	19,500	42
Nov. 21-30.....	821	878	20	0.07	592	224	1,220	22	201	1,987	1,980	-----	1.5	-----	6,150	8.36	13,600	53
Dec. 1-10.....	873	693	24	0.11	512	169	910	17	163	1,681	1,450	-----	3.0	-----	4,850	6.60	11,400	50
Dec. 11-20.....	917	642	17	0.10	498	162	823	15	168	1,613	1,310	-----	2.5	-----	4,520	6.15	11,200	49
Dec. 21-31.....	956	608	12	0.28	494	156	755	12	177	1,584	1,204	-----	1.5	-----	4,310	5.86	11,100	47
Jan. 1-10, 1942.....	766	685	19	0.07	506	185	891	23	158	1,707	1,465	-----	1.5	-----	4,880	6.64	10,100	49
Jan. 11-20.....	985	584	26	0.07	498	154	725	26	159	1,561	1,160	-----	1.5	-----	4,200	5.71	11,200	47
Jan. 21-31.....	737	744	24	0.06	536	202	968	23	172	1,789	1,620	-----	1.0	-----	5,250	7.14	10,400	50
Feb. 1-10.....	804	686	21	0.07	512	176	892	18	176	1,715	1,430	-----	5.0	-----	4,860	6.61	10,500	50
Feb. 11-20.....	879	620	20	0.06	492	162	793	18	176	1,612	1,265	-----	3.5	-----	4,450	6.05	10,600	48
Feb. 20-28.....	526	878	20	0.05	582	219	1,261	18	204	1,998	2,005	-----	3.0	-----	6,210	8.45	8,820	54
Mar. 1-5, 7-10.....	237	1,345	26	0.03	694	334	2,142	27	181	2,650	3,420	-----	3.3	-----	9,390	12.8	6,010	60
Mar. 11-20.....	248	1,017	26	0.06	616	251	1,504	25	187	2,202	2,390	-----	3.3	-----	7,110	9.67	4,760	56
Mar. 21-31.....	141	1,190	25	0.20	669	293	1,826	27	226	2,459	2,910	-----	5	-----	8,320	11.3	3,160	58
Apr. 1-10.....	66.2	1,424	40	0.05	718	361	2,259	27	160	2,810	3,020	-----	3.2	-----	9,920	13.5	1,770	60
Apr. 11-20.....	50.5	1,417	38	0.05	744	357	2,242	30	203	2,830	3,620	-----	4.5	-----	9,970	13.6	1,360	60
Apr. 21-30.....	118	1,270	37	0.05	690	316	1,937	31	195	2,590	3,180	-----	4.5	-----	8,880	12.1	2,830	58
May 1-8, 10.....	656	539	33	0.08	496	137	618	11	128	1,587	985	-----	2.8	-----	3,930	5.34	6,960	43
May 11-13.....	571	579	35	0.06	506	145	641	11	151	1,633	1,010	-----	3.5	-----	4,050	5.51	6,240	43
May 14-20.....	128	984	42	0.04	632	248	1,412	18	157	2,265	2,260	-----	3.5	-----	6,960	9.47	2,400	54
May 21-23.....	105	1,139	39	0.03	668	294	1,711	11	139	1,565	2,730	-----	3.5	-----	7,980	10.8	2,260	57
May 24-31.....	808	535	28	0.03	482	138	620	11	139	1,565	950	-----	3.5	-----	3,890	5.29	8,480	43
June 1-10.....	366	754	27	0.04	552	192	1,009	14	121	1,957	1,590	-----	2.8	-----	5,400	7.34	5,340	51
June 11-20.....	93.7	1,151	56	0.05	674	285	1,707	20	154	2,550	2,770	-----	4.6	-----	8,140	11.1	2,060	57
June 21-25, 27-30.....	75.4	1,328	48	0.03	714	326	2,088	20	166	2,770	3,290	-----	8.4	-----	9,350	12.7	1,900	59
Weighted average.....	1,535	462	24	0.07	429	111	519	14	143	1,335	811	-----	2.3	-----	3,820	4.52	13,700	42

QUALITY OF SURFACE WATERS, 1942

CARLSBAD PROJECT MAIN CANAL AT AVALON DAM, NEAR CARLSBAD, N. MEX.

[Composites of daily samples collected at head of Carlsbad project main canal at Avalon Dam, 5 miles north of Carlsbad. Analyses in parts per million]

Date of collection	Mean discharge (second-feet)	Specific conductance (KX10 ³ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Borate (BO ₃)	Dissolved solids			Percent sodium
															Parts per million	Tons per acre-foot	Tons per day	
Oct. 21-27, 1941.....		350	20	.....	400	93	322	154	1.220	485	.....	.....	0.5	.....	2,620	3.55	.....	34
Nov. 12-17.....		366	22	.....	434	105	317	142	1,360	475	.....	.....	1.5	.....	2,780	3.78	.....	31
Feb. 2-10, 1942.....		463	16	.....	463	154	510	172	1,564	790	.....	.....	2.5	.....	3,480	4.87	.....	38
Feb. 11-18, 20.....		473	17	.....	470	150	474	163	1,561	750	.....	.....	1.5	.....	3,510	4.77	.....	36
Feb. 21-22, 25.....		451	16	.....	496	139	424	156	1,598	665	.....	.....	2.5	.....	3,420	4.65	.....	34
Mar. 15-20.....		431	17	.....	524	124	380	130	1,672	570	.....	.....	.5	.....	3,350	4.55	.....	31
Mar. 21-31.....		433	16	.....	544	125	369	121	1,694	575	.....	.....	.5	.....	3,380	4.60	.....	30
Apr. 1-3, 5-10.....		488	15	.....	542	142	477	139	1,738	745	.....	.....	.5	.....	3,730	5.07	.....	35
Apr. 11-20.....		546	14	.....	518	163	601	130	1,784	925	.....	.....	1.5	.....	4,070	5.54	.....	40
Apr. 21-29.....		510	15	.....	484	158	547	136	1,661	855	.....	.....	1.0	.....	3,790	5.15	.....	39
Apr. 30.....		343	.....	.....	.....	.....	.....	.....	.....	422	.....	.....	.....	.....	.....	.....	.....	.....
May 1-10.....		327	13	.....	410	88	264	143	1,264	372	.....	.....	.5	.....	2,482	3.38	.....	29
May 11-20.....		361	18	.....	454	120	334	80	1,421	570	.....	.....	4.0	.....	2,960	4.03	.....	31
May 21-31.....		313	12	.....	390	95	235	113	1,195	380	.....	.....	2.0	.....	2,367	3.22	.....	27
June 1-7.....		378	17	.....	456	115	313	86	1,452	502	.....	.....	4.0	.....	2,900	3.94	.....	30
June 13-20.....		453	16	.....	514	136	400	109	1,644	644	.....	.....	2.5	.....	3,410	4.64	.....	32
June 21-30.....		434	16	.....	516	131	361	113	1,585	614	.....	.....	3.0	.....	3,280	4.46	.....	30
July 1-10.....		418	17	.....	480	124	358	106	1,598	586	.....	.....	2.5	.....	3,130	4.26	.....	31
July 11-13, 15-20.....		436	15	.....	506	131	372	116	1,579	618	.....	.....	1.5	.....	3,280	4.46	.....	31
July 21-31.....		431	28	.....	505	129	395	100	1,625	620	.....	.....	3.3	.....	3,350	4.56	.....	32
Aug. 1-10.....		414	18	.....	469	123	388	102	1,500	600	.....	.....	4.4	.....	3,140	4.27	.....	34
Aug. 11-20.....		429	15	.....	481	123	396	103	1,551	615	.....	.....	2.0	.....	3,230	4.39	.....	34
Aug. 21-30.....		438	15	.....	522	132	387	98	1,695	595	.....	.....	2.5	.....	3,400	4.62	.....	31
Sept. 3-10.....		327	14	.....	474	84	240	118	1,435	325	.....	.....	2.5	.....	2,630	3.98	.....	25
Sept. 11-20.....		333	14	.....	506	84	235	119	1,513	315	.....	.....	3.7	.....	2,730	3.71	.....	24
Sept. 21-25, 27-30.....		339	18	.....	479	93	239	124	1,435	355	.....	.....	2.5	.....	2,680	3.64	.....	25

COLORADO RIVER BASIN

COLORADO RIVER NEAR GLENWOOD SPRINGS, COLO.

[Composites of daily samples collected at Shoshone power plant, 6 miles upstream from gaging station, which is at Glenwood Springs half a mile upstream from Roaring Fork. Drainage area, approximately 4,560 square miles. Analyses in parts per million]

Date of collection	Mean discharge (second-feet)	Specific conductance (KX10 ³ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Borate (BO ₃)	Dissolved solids			Hardness as CaCO ₃		Percent sodium
															Parts per million	Tons per acre foot	Tons per day	Total	Non-carbonate	
Oct. 1-10, 1941	1,178	73.7	12	0.01	67	15	62	2.5	136	122	87	0.3	0.5	0.2	435	0.59	1,380	228	117	38
Oct. 11-20	1,379	68.5	13	.01	63	15	56	2.2	133	114	78	.2	.4	.2	407	.55	1,520	218	110	36
Oct. 21-31	1,253	69.4	12	.01	62	14	59	2.4	132	111	83	.2	.4	.1	409	.56	1,380	212	104	38
Nov. 1-10	1,126	72.4	12	.01	63	15	63	2.2	136	116	87	.3	.5	.2	426	.58	1,300	218	107	39
Nov. 11-20	1,094	73.1	12	.01	64	15	64	2.2	135	115	90	.3	.5	.2	430	.58	1,270	221	110	39
Nov. 21-30	1,770	90.4	12	.01	73	17	86	2.6	153	135	128	.3	.7	.2	528	.72	1,100	232	126	43
Dec. 2, 6-8, 15, 22, 24-26, 28	780	85.2	13	.02	67	16	83	2.2	146	121	120	.3	.5	.2	495	.67	1,040	233	114	44
Jan. 1-10, 1942	623	100	15	.02	73	17	107	4.2	157	132	157	.2	1.0	.2	584	.79	983	252	124	49
Jan. 11-20	700	91.7	15	.02	67	16	95	3.8	147	118	142	.2	1.0	.1	530	.72	1,000	233	112	48
Jan. 21-31	749	91.0	17	.02	67	15	94	3.4	147	117	141	.2	1.0	.2	528	.72	1,070	228	108	48
Feb. 1-10	770	88.4	14	.02	64	15	95	3.0	141	115	135	.2	1.0	.1	512	.70	1,060	221	106	49
Feb. 11-19	693	91.2	14	.02	65	15	97	2.6	143	113	146	.2	1.0	.3	524	.71	981	224	106	49
Feb. 20-28	726	89.8	14	.02	64	15	95	3.4	142	112	140	.2	1.0	.1	515	.70	1,010	221	104	49
Mar. 1-10	746	86.4	15	.04	65	14	88	4.2	139	112	133	.2	1.0	.2	501	.68	1,010	220	106	47
Mar. 11-20	758	83.9	15	.04	65	14	81	3.2	136	119	123	.2	1.0	.2	488	.66	998	220	108	45
Mar. 21-31	760	85.9	14	.04	68	16	86	4.2	143	128	126	.1	1.0	.1	514	.70	1,050	236	118	45
Apr. 1-10	1,538	69.4	13	.04	81	14	41	4.9	143	148	59	.2	1.8	.1	433	.89	2,770	260	142	27
Apr. 11-20	3,488	46.0	13	.08	59	9.2	24	3.6	134	84	27	.3	1.8	.2	288	.39	2,710	185	75	22
Apr. 21-30	3,052	40.9	14	.08	43	9.5	27	2.5	114	62	34	.3	.6	.1	249	.34	2,050	146	53	29
May 1-10	3,109	41.1	13	.09	42	9.8	27	2.0	115	61	34	.3	.6	.1	247	.34	2,070	146	52	30
May 11-20	4,670	31.1	13	.07	36	7.4	16	2.0	106	39	20	.3	.8	.1	187	.25	2,360	120	34	23
May 21-31	10,760	25.0	12	.19	33	5.6	11	2.0	102	28	13	.3	.9	.1	186	.21	4,530	106	22	20
June 1-10	14,140	17.1	11	.15	22	4.1	6.2	1.3	69	19	6.5	.3	.5	.1	105	.14	4,010	72	16	17
June 11-20	13,270	17.8	8.6	.08	22	4.3	8.3	1.2	67	23	8.0	.3	.5	.1	109	.16	3,910	72	18	21
June 21-30	8,967	20.0	7.6	.08	22	4.6	11	1.3	63	27	14	.2	.4	.1	119	.16	2,880	74	22	26
July 1-10	5,293	27.1	9.0	.06	28	6.4	17	1.5	73	37	24	.3	.2	.2	159	.22	2,270	96	36	29
July 11-20	5,690	34.7	9.0	.06	25	8.1	24	1.4	88	54	30	.3	.4	.2	206	.28	2,050	121	49	31
July 21-31	2,356	46.8	10	.06	44	10	48	1.5	106	74	49	.3	.4	.2	277	.48	1,760	151	64	35
Aug. 1-10	1,693	56.7	10	.02	50	11	43	2.1	116	88	64	.2	.4	.2	320	.45	1,510	170	76	39
Aug. 11-20	1,219	67.5	9.2	.06	52	12	62	2.1	127	101	88	.3	.5	.2	395	.54	1,360	194	90	41
Aug. 21-31	1,980	78.3	8.4	.06	66	14	75	2.6	136	119	106	.1	.5	.2	489	.62	1,180	222	110	30
Sept. 1-10	702	92.9	13	.06	76	18	91	2.4	147	149	130	.5	.5	.4	553	.75	1,040	264	143	44
Sept. 11-20	790	95.0	11	.06	83	19	88	5.0	161	165	127	.6	.5	.4	578	.79	1,220	285	153	44
Sept. 21-30	843	92.9	11	.09	80	19	86	4.8	159	157	123	.4	.5	.4	590	.76	1,280	278	197	41
Weighted average	2,688	38.8	11	.09	39	8.1	23	2.0	98	56	38	.3	.6	.1	232	.52	1,696	131	50	33

COLORADO RIVER AT BRIGHT ANGEL CREEK, NEAR GRAND CANYON, ARIZ.

[Composites of daily samples collected at gaging station at Kaibab Bridge, a quarter of a mile upstream from Bright Angel Creek, 11 miles by trail northeast of Grand Canyon Village, and 267 miles upstream from Boulder Dam. Drainage area, 137,900 square miles. Analyses in parts per million]

Date of collection	Mean discharge (second-foot)	Temperature (°F.)	Specific conductance (KX10 ⁴ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Borate (BO ₃)	Dissolved solids			Hardness as CaCO ₃		Percent sodium
																Parts per million	Tons per acre-foot	Tons per day	Total	Non-carbonate	
Oct. 1-8, 10, 1941	23,850	60	123	16	0.18	102	26	134	5.8	211	371	65	0.4	1.1	0.4	825	1.12	53,100	382	188	45
Oct. 12-20	36,740	59	134	14	0.08	132	32	119	6.0	194	472	54	4	2.8	3	928	1.26	92,100	481	392	37
Oct. 21-22, 25-27, 30-31	32,170	56	111	14	0.03	119	26	90	4.8	204	360	45	5	4.6	4	764	1.04	66,480	404	237	33
Nov. 1-4, 6-10, 12, 14	17,900	51	107	12	0.03	97	29	83	4.2	195	313	58	4	3.7	4	706	0.96	34,160	361	201	36
Dec. 2-6, 8-10	11,280	41	133	13	0.02	102	40	132	4.2	218	369	106	4	3.6	4	878	1.19	26,700	419	240	41
Dec. 12-13, 15-20	9,742	42	136	13	0.06	100	41	138	4.2	220	373	112	4	3.5	4	894	1.22	23,500	418	238	42
Dec. 22-24, 26-27, 29-31	9,023	38	141	13	0.08	101	43	146	4.5	224	386	120	4	3.8	5	928	1.26	22,600	429	246	43
Jan. 1-3, 6-7, 10, 1942	6,737	35	150	12	0.04	109	48	145	11	234	398	139	3	3.8	5	981	1.33	17,800	470	278	43
Jan. 11-17, 19-20	6,032	37	173	13	0.04	120	53	178	12	259	440	181	3	4.2	5	1,129	1.54	18,400	518	305	44
Jan. 21-24, 26, 28-31	8,884	39	153	15	0.04	114	48	148	11	245	402	139	3	4.0	5	1,062	1.36	24,000	482	281	41
Feb. 1-2, 4-7, 9-10	8,469	42	147	13	0.04	110	46	142	8.3	232	392	132	3	3.4	5	961	1.31	22,000	464	274	41
Feb. 11-14, 16-19	9,064	40	148	12	0.04	107	46	150	7.0	231	391	138	3	3.6	5	969	1.32	23,700	456	266	42
Feb. 20-22, 24-28	5,910	39	153	9.6	0.16	111	46	158	9.9	237	397	149	4	4.4	4	1,002	1.36	16,000	466	272	43
Mar. 1-2, 4-7, 9-10	7,443	44	157	10	0.16	115	48	161	9.6	240	411	154	4	4.1	4	1,031	1.40	20,700	484	288	43
Mar. 12-14, 17-20	11,000	47	144	12	0.28	113	42	144	8.7	238	392	122	4	4.0	4	956	1.30	29,900	454	260	42
Mar. 21-23, 25-31	12,630	49	124	8.8	0.20	97	37	125	7.4	208	349	97	4	3.4	4	828	1.13	28,200	394	222	42
Apr. 1, 3-10	28,030	56	107	8.4	0.33	88	30	99	6.7	188	294	73	4	2.5	4	688	0.94	52,100	343	189	39
Apr. 11, 13-20	54,530	59	64.9	8.2	0.08	60	19	51	5.1	151	168	31	4	8	4	418	0.57	61,500	228	104	34
Apr. 21-30	56,760	56	52.5	9.8	0.12	55	17	31	5.1	146	122	23	4	8	4	336	0.46	51,500	208	88	26
May 1-5, 7-10	40,240	57	64.4	11	0.08	60	20	47	5.4	162	157	30	4	6	3	411	0.56	44,700	232	98	32
May 11-20	51,490	59	56.2	17	0.04	49	19	41	5.4	154	126	26	3	2.3	4	362	0.49	50,300	200	74	32
May 21-30	61,580	65	50.9	16	0.04	45	17	35	5.0	139	111	24	3	2.1	4	324	0.44	53,900	182	68	31
June 1-10	82,240	65	38.6	15	0.04	38	12	23	4.3	121	71	17	4	1.8	4	242	0.33	53,700	144	46	28
June 11-16, 18-20	76,580	69	35.9	13	0.04	34	11	22	4.8	102	72	17	4	1.0	4	225	0.31	46,500	130	46	30
June 21-30	55,010	70	40.1	13	0.04	37	12	24	4.8	102	85	19	4	1.0	4	246	0.33	36,500	142	58	29
July 1-10	29,030	75	55.3	14	0.08	45	16	45	2.2	123	121	35	1	2.1	4	341	0.46	26,700	178	78	36
July 11-20	20,400	78	69.7	14	0.22	54	19	64	2.7	139	163	52	1	2.3	4	440	0.60	24,200	213	99	40
July 21-31	16,700	79	90.3	14	0.08	69	26	80	3.6	152	242	65	1	2.5	6	552	0.79	26,200	279	154	40
Aug. 1-10	10,160	79	107	16	0.09	78	30	108	5.5	179	278	91	1	2.0	6	697	0.95	19,160	318	172	43
Aug. 11-20	7,933	78	132	12	0.08	93	38	142	6.0	195	370	116	5	3.4	6	878	1.19	18,800	390	230	45
Aug. 21-31	5,826	75	155	13	0.08	103	46	173	8.0	174	459	145	1	3.0	8	1,037	1.41	16,300	446	304	46
Sept. 1-2, 4-10	4,777	73	162	13	0.12	104	54	183	8.8	188	477	163	4	4.9	1.0	1,101	1.50	14,200	492	328	46
Sept. 11-20	4,854	70	173	16	0.14	108	58	207	8.8	199	535	173	4	6.0	1.0	1,210	1.65	15,900	508	345	48
Sept. 21-30	5,174	67	191	13	0.16	126	63	222	11	196	635	176	4	6.7	1.0	1,350	1.84	18,900	574	413	46
Weighted average	23,840	-----	79.9	13	0.07	69	23	60	5.3	160	212	50	4	2.2	3	523	0.71	33,700	266	136	37

COLORADO RIVER BELOW BOULDER DAM, ARIZ.-NEV.

[Composites of daily samples collected at gaging station, 1 mile downstream from Boulder Dam. Drainage area, 167,800 square miles. Analyses in parts per million]

Date of collection	Mean discharge (second-foot)	Temperature (°F.)	Specific conductance (K $\times 10^6$ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Boiling rate (B ₀)	Dissolved solids		Hardness as CaCO ₃	Percent sodium
																Parts per million	Tons per acre-foot	Total	
Oct. 1-3, 5-7, 9-10, 1941.	23,560	65	105	12	0.04	98	24	89	6.1	147	315	68	0.5	3.1	0.4	688	47,480	343	222
Oct. 11, 13-18, 20.	25,440	64	106	12	0.04	100	25	91	6.4	148	321	70	0.5	2.9	0.4	702	48,220	352	231
Oct. 21, 24, 26-31.	28,830	64	104	11	0.04	100	24	85	7.0	145	314	68	0.5	2.8	0.4	684	53,240	346	228
Nov. 1, 3-8, 10.	27,800	64	104	13	0.02	99	24	84	5.4	140	315	67	0.4	2.7	0.4	689	51,720	346	222
Nov. 11-13, 15-20.	29,760	63	103	12	0.02	98	25	88	5.4	146	312	67	0.4	2.9	0.5	683	54,880	348	228
Nov. 21, 23-27, 29, 30.	34,030	61	104	12	0.02	98	24	89	5.3	147	312	67	0.4	3.0	0.5	683	62,760	343	222
Dec. 1-10.	34,390	61	104	12	0.02	98	24	90	4.8	148	315	67	0.4	3.1	0.5	687	63,790	343	222
Dec. 11-12, 14-19.	34,390	60	106	11	0.02	100	25	91	4.5	151	320	68	0.4	3.0	0.5	697	64,720	352	228
Dec. 21, 24, 26-27, 29, 31.	32,370	69	105	10	0.08	105	26	86	8.0	149	322	69	0.3	2.6	0.4	702	61,360	369	247
Jan. 2, 4-10, 1942.	30,770	57	108	9.6	0.08	105	27	89	9.0	153	335	72	0.3	2.6	0.4	725	60,170	373	248
Jan. 11-14, 16-20.	31,740	57	109	10	0.08	106	28	93	8.0	154	343	73	0.3	2.8	0.4	740	63,480	380	254
Jan. 21-24, 27-30.	35,330	57	109	10	0.08	108	27	91	8.7	156	337	74	0.3	2.3	0.4	735	70,110	380	252
Feb. 2-3, 5-7, 9-10.	32,760	56	109	16	0.08	104	27	97	97	157	332	74	0.4	2.6	0.4	730	64,390	370	242
Feb. 11-19.	28,570	56	109	14	0.08	104	27	98	98	157	335	73	0.4	2.6	0.4	732	56,460	370	242
Feb. 20-21, 23-28.	21,860	55	109	14	0.08	104	27	98	98	159	333	74	0.4	2.1	0.4	731	43,140	370	240
Mar. 2-3, 6-7, 9-10.	25,280	55	109	13	0.08	103	27	100	98	159	335	74	0.4	1.8	0.4	733	50,030	368	238
Mar. 12-14, 16-20.	25,390	55	109	13	0.08	104	27	99	99	160	335	74	0.4	1.8	0.4	733	50,250	370	240
Mar. 23-31.	19,260	55	109	13	0.04	104	27	100	100	159	335	76	0.4	2.0	0.4	736	38,190	370	240
Apr. 1-4, 6-10.	15,800	55	109	14	0.04	104	28	97	97	161	333	74	0.4	1.8	0.4	732	31,220	374	242
Apr. 11, 13-14, 16-18, 20.	24,020	55	109	13	0.04	104	28	99	99	161	335	75	0.4	1.6	0.4	735	48,890	374	242
Apr. 21, 23-25, 28-30.	25,180	55	110	13	0.04	104	28	98	98	162	333	75	0.4	1.8	0.4	735	49,880	374	242
May 1-2, 4-5, 7-8.	24,860	56	110	12	0.08	103	28	98	4.8	162	332	73	0.4	1.8	0.4	731	49,060	372	239
May 11-16, 18-20.	21,170	56	111	16	0.02	103	27	98	8.7	162	331	75	0.4	3.3	0.4	736	42,070	368	235
May 21-23, 25-27, 29-30.	19,730	57	111	13	0.04	105	28	95	8.7	162	338	75	0.4	2.9	0.4	746	38,730	377	244
June 1, 3-4, 6, 8.	26,550	58	111	12	0.04	105	27	95	9.0	162	335	75	0.4	3.3	0.4	742	53,190	373	240
June 11-12, 15, 19-20.	25,400	58	111	13	0.04	104	28	97	8.7	161	340	75	0.3	2.8	0.4	748	51,300	374	242
June 22-23, 25-27, 29.	26,790	59	111	12	0.08	105	28	92	8.7	161	334	75	0.3	2.8	0.4	737	53,240	377	245
July 1-4, 6-10.	26,490	59	109	12	0.01	102	27	100	100	156	335	72	0.6	3.0	0.8	729	52,130	366	238
July 11, 13-18, 20.	22,490	59	109	12	0.01	102	27	100	99	159	334	72	0.6	3.0	1.0	729	44,270	366	235
July 21-26, 27-31.	14,380	59	109	13	0.01	102	27	99	99	157	333	72	0.6	3.8	1.0	728	28,270	366	237
Aug. 1-5, 7-8, 10.	13,090	59	109	14	0.06	102	28	99	99	161	335	72	0.4	2.5	0.6	732	25,870	370	238
Aug. 11-15, 17-20.	14,260	59	108	14	0.01	102	27	99	99	160	332	72	0.6	2.7	1.0	728	25,030	366	235
Aug. 21-25, 27-28, 31.	13,600	59	109	14	0.01	103	27	98	98	157	331	70	0.6	3.1	1.0	725	27,160	365	235
Sept. 2-5, 7-10, 12-13.	14,820	59	107	12	0.06	103	28	98	98	160	333	70	0.4	2.5	1.0	725	27,870	372	241
Sept. 12, 14-16, 18-19.	15,940	60	107	14	0.04	102	29	94	94	161	331	70	0.4	2.5	1.0	722	31,070	374	242
Sept. 21-22, 24-26, 28-30.	21,410	61	106	10	0.05	101	28	94	94	161	326	68	0.4	2.0	0.6	708	40,960	367	235
Weighted average.	24,960	58	108	12	0.05	103	27	98	98	156	329	72	0.4	2.6	0.5	719	48,000	367	239

SAN JUAN RIVER AT SHIPROCK, N. MEX.

[Composites of daily samples collected at highway bridge approximately 3 miles above gaging station and about 3 miles downstream from Chaco River. Drainage area, approximately 12,800 square miles. Analyses in parts per million]

Date of collection	Mean discharge (second-foot)	Specific conductance (KX10 ³ at 25°C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)		Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Borate (BO ₃)	Dissolved solids			Hardness as CaCO ₃		Percent sodium
							Parts per million	Tons per acre-foot								Tons per day	Total	Non-carbonate			
Oct. 1-3, 6-10, 1941	5,206	46.3	---	---	55	9.3	30	139	111	7.0	0.3	1.0	---	---	---	282	0.38	4,040	176	62	27
Oct. 11, 13-14, 17-18, 20	10,040	48.9	---	---	60	8.7	34	148	123	8.0	---	3	---	---	---	310	.42	7,820	193	68	28
Oct. 21-26, 28-31	9,186	49.7	---	---	61	10	32	158	124	8.0	---	3	---	---	---	309	.42	7,660	193	68	27
Nov. 1-10	8,024	45.1	---	---	61	12	34	138	110	8.0	---	3	---	---	---	279	.38	2,960	190	70	21
Nov. 12-17	2,554	55.1	---	---	64	14	33	150	145	9.0	---	3	---	---	---	340	.46	2,340	217	94	21
Nov. 21, 23-29	1,909	60.9	---	---	71	16	39	160	169	13	---	3	---	---	---	388	.53	2,060	243	112	23
Dec. 3-7, 10	1,646	63.0	---	---	72	16	42	157	180	14	---	3	---	---	---	403	.55	1,790	246	117	27
Dec. 11, 13, 16-17, 19	1,541	64.3	---	---	73	16	43	153	186	14	---	3	---	---	---	409	.56	1,700	248	123	27
Dec. 21-24, 26, 28-31	1,176	68.4	11	0.04	78	17	45	164	198	16	---	4	---	0.1	---	453	.62	1,440	264	130	28
Jan. 1-6, 8-10, 1942	887	80.7	11	.06	91	21	53	186	243	20	---	4	---	---	---	538	.73	1,290	314	161	28
Jan. 12-19	1,081	68.8	11	.06	77	18	43	164	200	15	---	4	---	---	---	452	.61	1,320	266	132	27
Jan. 21-23, 27-30	1,216	74.4	12	.06	84	20	51	164	233	17	---	3	---	---	---	504	.69	1,650	292	157	26
Feb. 2-10	1,271	73.3	10	.06	79	19	50	183	223	16	---	3	---	---	---	484	.66	1,660	275	142	29
Feb. 12-19	1,013	76.3	11	.02	84	20	55	177	234	19	---	3	---	---	---	517	.70	1,410	292	146	30
Feb. 20, 22-28	1,983	79.1	11	.04	88	20	58	179	248	19	---	3	---	---	---	539	.73	1,430	302	155	30
Mar. 1-10	1,102	85.8	13	.08	92	20	71	189	277	20	---	3	---	---	---	593	.81	1,760	312	156	34
Mar. 12-14, 17-18	1,849	79.3	13	.08	82	17	72	180	246	17	---	4	---	---	---	647	.84	2,730	274	119	37
Mar. 21, 23-25, 28-30	2,094	77.4	13	.10	83	21	56	191	231	16	---	4	---	---	---	521	.71	2,950	294	137	30
Apr. 1-2, 4-5, 7, 9	7,572	57.4	29	.28	69	18	30	195	188	7.0	---	4	---	---	---	391	.53	7,990	246	86	48
Apr. 11-14, 16-18, 20	10,040	42.0	15	.13	55	12	16	2.6	170	77	---	3.2	---	---	---	266	.36	7,210	187	48	17
Apr. 21-23, 26-30	9,975	43.5	14	.07	56	13	17	2.6	160	88	---	3.9	---	---	---	275	.37	7,410	194	62	17
May 1-2, 4-8	5,897	48.1	14	.09	58	15	22	2.6	163	109	---	4.8	---	---	---	307	.42	4,890	206	72	20
May 12, 15-16, 18, 20	6,795	34.0	13	.03	42	9.3	14	1.8	121	65	---	3.5	---	---	---	210	.23	3,850	143	44	19
May 21-29	10,080	27.0	10	.06	36	6.6	9.7	1.5	108	42	---	2.2	---	---	---	166	.23	4,520	117	26	18
June 1-6, 8	10,310	23.5	12	.07	28	5.4	9.1	1.6	86	39	---	2.6	---	---	---	143	.19	3,980	97	26	18
June 13, 16-19	10,040	21.6	10	.07	28	5.1	8.7	1.6	75	40	---	2.2	---	---	---	134	.18	3,630	91	30	19
June 22-24, 26-27, 29	6,837	22.6	12	.06	28	5.4	11	1.8	49	3.8	---	2	---	---	---	148	.20	2,730	92	33	22

SAN JUAN RIVER NEAR BLUFF, UTAH

[Composites of daily samples collected at highway bridge, 2,000 feet downstream from gaging station and 20 miles southwest of Bluff. Drainage area, 23,900 square miles. Analyses in parts per million]

Date of collection	Mean discharge (second-feet)	Specific conductance (KX10 ⁶ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Borate (BO ₃)	Dissolved solids			Hardness as CaCO ₃		Percent sodium
															Parts per million	Tons per acre foot	Tons per day	Total	Non-carbonate	
Oct. 1-10, 1941.....	8,299	76.4	14	0.08	73	14	71	4.5	168	233	11	0.4	1.2	0.2	505	0.69	11,300	240	102	40
Oct. 11-20.....	13,610	69.5	14	0.04	74	15	57	4.3	159	215	9.6	0.3	1.5	0.2	469	0.64	17,200	246	116	34
Oct. 21-31.....	10,060	67.3	12	0.12	75	15	47	4.2	154	202	9.4	0.3	1.8	0.1	443	0.60	12,000	248	122	34
Nov. 1-10.....	4,422	99.3	13	0.04	66	16	45	3.2	144	169	9.5	0.3	1.9	0.1	385	0.62	4,600	230	112	26
Nov. 11-13, 16-20.....	3,010	71.4	14	0.02	78	21	46	2.9	166	219	13	0.4	2.0	0.8	477	0.65	3,880	281	145	27
Nov. 21-30.....	2,198	78.1	12	0.03	86	24	50	2.8	172	252	15	0.4	2.0	0.4	529	0.72	3,140	313	172	26
Dec. 2, 4-10.....	1,814	84.3	8.8	0.08	92	28	50	8.3	176	279	18	0.3	2.6	0.1	574	0.78	2,810	344	200	26
Dec. 11, 13-20.....	1,729	84.7	8.8	0.08	91	28	52	8.0	174	284	19	0.2	2.4	0.1	578	0.79	2,700	342	200	26
Dec. 21-25, 27-31.....	1,568	88.5	10	0.08	94	30	58	7.4	175	305	19	0.2	2.4	0.1	612	0.83	2,590	358	214	27
Jan. 1-8, 10, 1942.....	828	105	11	0.08	115	35	69	9.0	210	368	23	0.3	2.8	0.1	737	1.00	1,650	431	259	27
Jan. 11-14, 16, 18-20.....	1,481	95.8	11	0.08	102	31	65	7.7	187	333	22	0.2	2.6	0.2	667	0.91	2,670	382	228	28
Jan. 21-31.....	1,618	94.9	12	0.12	101	30	64	9.6	186	326	21	0.3	2.6	0.2	658	0.89	2,870	376	223	29
Feb. 1-10.....	1,400	101	12	0.08	103	35	68	11	181	362	22	0.2	2.9	0.2	705	0.96	2,680	401	252	29
Feb. 11-19.....	1,177	94.1	12	0.04	100	31	62	11	183	330	21	0.3	2.6	0.2	660	0.90	2,100	377	227	28
Feb. 20-28.....	1,050	98.3	11	0.04	102	34	63	11	183	345	23	0.3	2.8	0.2	682	0.93	1,930	394	244	28
Mar. 1-10.....	1,273	104	11	0.08	103	35	74	9.6	185	372	23	0.3	2.6	0.2	721	0.98	2,480	401	250	30
Mar. 11-20.....	2,560	99.7	9.6	0.16	104	28	80	9.9	215	335	22	0.5	4.2	0.3	699	0.95	4,830	374	198	33
Mar. 21-26, 28-30.....	2,296	99.4	11	0.03	104	31	69	10	214	326	22	0.5	4.2	0.3	684	0.93	4,240	383	208	33
Apr. 2-10.....	8,650	70.0	17	0.03	74	19	53	3.7	213	178	11	0.4	2.3	0.2	463	0.46	10,800	262	88	31
Apr. 11, 13-14, 16-20.....	11,120	52.4	18	0.05	62	15	29	2.9	182	115	5.8	0.4	1.8	0.1	340	0.46	10,200	216	67	24
Apr. 21-30.....	10,570	52.9	16	0.06	63	15	29	2.9	176	122	5.8	0.3	1.4	0.2	342	0.47	9,760	218	74	23
May 1-10.....	6,404	56.3	18	0.06	64	17	33	2.7	176	139	7.2	0.3	1.4	0.1	369	0.50	6,380	230	86	25
May 11-20.....	7,015	44.1	15	0.04	54	13	21	2.6	149	95	5.5	0.3	1.1	0.1	281	0.38	5,320	135	66	21
May 21-31.....	9,757	35.6	13	0.02	45	9.4	16	2.1	129	67	3.2	0.3	0.9	0.1	221	0.30	5,820	151	46	20
June 1-10.....	10,260	31.3	13	0.03	42	7.3	13	1.4	117	58	3.5	0.3	1.0	0.1	197	0.27	5,460	135	39	18
June 11-20.....	9,475	30.3	13	0.03	40	6.7	12	2.1	109	56	3.0	0.2	0.8	0.1	188	0.26	4,810	128	38	18
June 21-30.....	7,149	31.4	11	0.06	39	7.2	15	2.4	99	68	4.2	0.2	0.6	0.2	196	0.27	3,780	127	46	22
July 2-10.....	3,588	45.2	12	0.04	52	11	26	2.6	116	119	7.0	0.1	1.0	0.2	285	0.38	2,720	175	80	24
July 11-17, 19-20.....	2,453	55.9	14	0.05	40	14	41	4.1	127	167	11	0.3	1.2	0.2	371	0.50	2,490	207	103	30
July 21-31.....	1,416	67.5	12	0.02	70	18	31	3.1	136	215	15	0.7	1.8	0.4	451	0.61	1,720	248	137	32
Aug. 1-10.....	1,807	80.7	12	0.01	82	23	33	2.5	131	272	19	0.6	1.9	0.6	548	0.75	1,490	268	175	31
Aug. 11-20.....	1,808	87.3	14	0.01	87	25	35	2.5	160	306	21	0.8	1.9	0.6	610	0.83	1,430	320	189	34
Aug. 21-23, 26-31.....	623	105	16	0.10	98	35	87	8.7	159	381	34	0.2	2.5	1.0	732	1.00	1,350	388	238	33
Sept. 1-10.....	516	104	12	0.04	96	34	90	9.0	156	391	26	0.3	2.5	0.6	729	0.99	1,010	390	252	34
Sept. 11-20.....	855	107	14	0.06	107	35	86	8.6	173	400	26	0.3	2.5	0.6	756	1.03	1,170	411	269	31
Sept. 21-30.....	549	102	10	0.06	98	31	83	8.6	168	371	28	0.3	2.5	0.6	713	0.97	1,090	372	234	34
Weighted average.....	4,252	86.7	14	0.06	66	16	39	3.9	157	168	9.4	0.3	1.6	0.2	395	0.54	4,530	260	102	28

ANIMAS RIVER AT FARMINGTON, N. MEX.

[Composites of daily samples collected at gaging station at bridge on New Mexico Highway 17, 0.6 mile southeast of Farmington and 1.1 miles upstream from mouth. Drainage area, 1,360 square miles. Analyses in parts per million]

COLORADO RIVER BASIN

45

Date of collection	Mean discharge (second-feet)	Specific conductance (KX 10 ³ at 25°C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Boiling rate (BO ₃)	Dissolved solids			Hardness as CaCO ₃		Percent sodium
															Parts per million	Tons per acre-foot	Tons per day	Total	Non-carbonate	
Oct. 1-10, 1941	1,990	41.7	8.6	0.03	58	8.2	17	2.6	130	98	7.0	0.2	1.2	0.2	295	0.36	1,420	178	72	19
Oct. 11-12, 14-20	2,857	33.9	8.6	.03	48	7.3	10	2.2	121	66	5.5	.2	1.0	.2	208	.28	1,660	150	51	14
Oct. 21-23, 25-31	8,276	37.1	8.8	.03	54	8.6	13	2.4	144	94	5.2	.3	.9	.2	230	.31	2,030	170	52	16
Nov. 1-10	1,505	44.5	8.6	.02	63	11	15	2.2	154	66	8.5	.4	1.0	.2	280	.38	1,440	202	76	15
Nov. 11-20	1,096	49.4	8.8	.02	69	12	18	2.7	157	115	11	.4	1.1	.2	315	.43	832	222	93	16
Nov. 23-27, 29-30	1,820	54.7	8.2	.02	77	13	22	2.7	167	134	12	.4	1.4	.2	363	.48	782	246	108	17
Dec. 1-10	665	59.8	7.8	.02	84	14	23	5.4	172	150	16	.3	1.6	.3	388	.53	697	267	126	18
Dec. 11-14, 16-18, 20	666	63.7	7.8	.02	90	15	27	5.3	179	166	18	.3	1.4	.2	419	.57	640	286	140	19
Dec. 21-22, 24-29, 31	474	68.1	8.8	.06	95	16	32	5.4	188	182	20	.3	1.8	.2	454	.62	581	303	149	20
Jan. 1, 3, 5-8, 10, 1942	382	79.0	11	.08	112	18	39	5.4	215	217	24	.4	2.2	.3	535	.73	553	354	172	21
Jan. 11-12, 14-20	446	71.9	11	.10	101	16	35	4.8	193	198	21	.3	1.7	.2	484	.66	583	318	160	20
Jan. 21, 24-31	413	74.3	10	.10	102	17	37	4.8	192	208	22	.3	1.0	.3	497	.68	554	324	167	21
Feb. 1-10	390	74.3	7.8	.02	101	17	37	5.3	196	205	23	.4	1.0	.3	494	.67	520	322	162	21
Feb. 11-19	332	78.9	9.4	.02	107	18	40	5.9	203	222	25	.4	1.3	.3	529	.72	474	341	174	22
Feb. 20, 22-28	358	74.9	9.4	.02	103	17	35	5.8	194	211	22	.3	.9	.3	500	.68	483	327	168	20
Mar. 1-10	388	72.4	9.4	.04	96	17	37	5.3	191	199	22	.4	1.0	.3	481	.65	504	310	153	22
Mar. 11-18, 20	499	67.1	9.6	.04	86	15	40	5.3	186	181	20	.3	1.2	.3	450	.61	606	276	124	26
Mar. 21-29, 31	525	68.8	13	.16	70	18	49	4.2	199	205	20	.4	1.7	.3	498	.68	706	296	133	27
Apr. 1-10	1,342	51.8	12	.16	89	15	16	3.8	181	111	7.5	.3	1.5	.2	326	.44	1,180	236	88	15
Apr. 11-14, 16-20	1,996	39.8	8.4	.16	59	11	7.4	3.2	162	67	4.9	.3	1.6	.2	243	.33	1,310	192	59	9
Apr. 21-30	2,047	40.0	8.2	.18	59	12	5.3	3.0	156	72	4.8	.2	1.6	.1	243	.33	1,340	196	68	7
May 1-2, 5-7, 9-10	1,634	41.6	7.4	.16	60	12	8.3	2.8	155	80	5.8	.2	1.6	.5	255	.35	1,120	199	72	10
May 11-20	2,021	34.9	7.2	.18	52	9.6	4.6	2.6	129	67	4.6	.2	1.4	.1	206	.28	1,120	169	64	7
May 21-22, 24-31	3,839	26.0	9.0	.18	41	6.6	(¹)	2.3	101	45	3.0	.2	2.1	.1	161	.22	1,570	130	46	---
June 1-6	4,153	23.0	5.4	.18	35	6.4	(¹)	2.4	83	31	3.2	.2	2.1	.1	140	.19	1,670	114	46	---
June 11-17, 20	4,287	20.7	6.0	.18	31	5.9	(¹)	2.6	69	41	3.1	.2	1.4	.1	125	.17	1,450	102	46	---
June 21-30	2,846	25.1	7.2	.16	36	6.1	(¹)	3.0	71	54	4.9	.2	.4	.1	148	.20	1,140	115	57	---
July 1-10	1,798	32.0	6.8	---	38	6.7	9.4	9.4	76	68	6.0	---	1.0	---	173	.24	840	128	60	14
July 11-20	1,257	34.5	5.6	---	46	7.6	13	13	90	85	7.0	---	1.0	---	209	.28	709	146	72	16
July 21-31	650	46.7	7.6	---	62	10	21	21	112	124	14	---	1.0	---	295	.40	518	196	104	19
Aug. 1-10	496	54.9	8.0	---	71	12	30	8	139	148	16	---	.8	---	354	.48	474	226	113	22
Aug. 11-20	322	66.0	11	---	86	15	36	36	159	188	20	---	.8	---	435	.59	378	276	146	22
Aug. 21-31	211	74.7	9.2	---	173	17	43	223	173	223	22	---	.8	---	497	.68	283	312	170	23
Sept. 1-10	178	81.3	8.8	---	105	19	51	183	183	266	24	---	1.0	---	555	.75	266	340	190	25
Sept. 11-20	357	70.2	9.2	---	91	15	39	163	201	21	26	---	1.5	---	458	.62	442	288	155	23
Sept. 21-30	297	80.3	10	---	103	17	51	177	177	244	26	---	2.0	---	540	.73	301	327	182	25
Weighted average	1,301	39.1	8.0	.12	55	9.6	13	3.0	126	86	7.7	.3	1.3	.2	245	.33	861	177	74	16

¹ Less than 5 parts per million.

GILA RIVER AT SAFFORD, ARIZ.

[Composites of daily samples collected at gaging station at bridge in Safford, 4½ miles downstream from San Simon Creek. Drainage area, 10,460 square miles. Analyses in parts per million]

Date of collection	Mean discharge (second-foot)	Specific conductance (K × 10 ³ at 25° C.)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Borate (BO ₃)	Dissolved solids			Hardness as CaCO ₃		Percent sodium
															Parts per million	Tons per acre-foot	Tons per day	Total	Non-carbonate	
Oct. 1-10, 1941.....	2,579	45.1	.....	0.16	41	10	.....	42	160	37	43	1.1	2.5	.....	256	0.35	1,780	144	12	39
Oct. 11-20.....	568	68.2	.....	.16	56	14	.....	72	214	51	85	1.4	2.5	.....	387	.63	594	198	22	44
Oct. 21-31.....	465	71.5	.....	.16	56	14	.....	78	215	50	83	1.4	2.5	.....	307	.63	505	198	22	46
Nov. 1-10.....	388	77.9	.....	.16	60	14	.....	86	225	54	106	1.4	1.0	.....	402	.69	454	207	22	48
Nov. 11-15, 17-20.....	395	78.8	.....	.20	59	14	.....	93	227	55	113	1.1	1.0	.....	448	.61	478	204	18	50
Nov. 21-30.....	426	69.3	.....	.16	54	14	.....	74	207	48	91	1.2	2.5	.....	387	.63	445	192	23	45
Dec. 1-10.....	342	78.8	.....	.08	58	14	.....	92	225	54	111	1.1	2.0	.....	443	.60	409	202	18	50
Dec. 11-13, 15-20.....	1,580	49.4	.....	.16	43	11	.....	44	168	38	48	1.0	1.5	.....	269	.37	1,150	152	15	39
Dec. 22-31.....	511	67.5	.....	.12	52	14	.....	75	208	48	89	1.3	1.5	.....	383	.62	528	188	17	47
Jan. 2-10, 1942.....	445	71.0	.....	.08	54	14	.....	79	214	50	95	1.0	1.0	.....	399	.64	479	192	17	47
Jan. 11-20.....	603	60.2	.....	.12	49	13	.....	63	199	42	73	1.1	1.5	.....	341	.46	555	176	13	44
Jan. 21-31.....	469	61.9	.....	.12	49	13	.....	67	205	43	74	1.3	1.0	.....	349	.47	442	176	8	45
Feb. 1-10.....	380	66.9	.....	.12	51	13	.....	71	206	47	80	1.1	1.0	.....	366	.50	376	181	12	46
Feb. 11-19.....	371	69.8	.....	.12	52	14	.....	79	216	50	90	1.1	1.0	.....	393	.53	394	188	10	48
Feb. 20-28.....	334	78.5	.....	.16	56	14	.....	93	215	57	113	1.3	.5	.....	441	.60	398	198	22	51
Mar. 1-10.....	342	69.8	.....	.20	52	13	.....	80	211	50	92	.8	.5	.....	392	.53	362	184	10	49
Mar. 11-20.....	478	64.8	.....	.08	49	14	.....	72	204	51	82	1.0	1.0	.....	370	.50	278	180	12	47
Mar. 21-31.....	245	64.5	.....	.12	48	13	.....	73	195	53	83	.....	1.0	.....	367	.50	243	174	14	48
Apr. 1-10.....	229	75.1	.....	.12	50	14	.....	94	200	68	107	.....	1.0	.....	433	.59	268	182	18	53
Apr. 11-20.....	243	72.3	.....	.16	50	14	.....	85	196	62	101	.....	.5	.....	409	.56	268	182	22	50
Apr. 21-30.....	277	71.2	.....	.35	50	14	.....	80	184	64	98	.....	.5	.....	397	.54	297	182	32	49
May 1-10.....	143	102	.....	.43	67	18	.....	125	224	91	160	.....	.5	.....	577	.78	223	241	50	53
May 11-20.....	38.6	141	.....	.34	.06	74	.....	180	239	117	246	1.6	2.0	.....	802	1.09	84	266	70	60
May 21-31.....	14.9	186	.....	.37	.06	93	.....	265	302	170	350	1.7	5.3	1.2	1,109	1.51	45	335	87	64
June 1-10.....	11.9	197	.....	.38	.06	92	.....	284	287	178	378	1.9	4.4	.....	1,146	1.56	37	344	109	64
June 11-13, 15-20.....	6.3	220	.....	.36	.05	100	.....	326	312	209	428	1.9	4.4	.....	1,290	1.75	22	377	121	65
June 21-30.....	6.7	210	.....	.36	.08	100	.....	303	526	188	394	1.9	4.7	.....	1,217	1.66	22	398	101	64

July 1-10.....	5.7	196	37	.05	96	24	281	313	168	362	1.7	2.5	1.126	1.53	17	338	81	64
July 11-14, 17-20.....	3.6	199	37	.07	88	27	295	296	177	332	1.7	2.0	1.156	1.57	111	330	88	66
July 15-16.....	12.0	122	22	.14	43	12	189	228	105	198	1.6	1.0	1.689	.94	22	170	0	71
July 22-31.....	5.9	164	42	.06	75	20	236	276	136	290	1.7	1.0	938	1.28	15	269	42	66
Aug. 1, 3-8.....	194	114	38	.11	50	10	175	227	110	172	1.2	2.0	670	.91	351	166	0	70
Aug. 10.....	369	53.2	---	---	---	---	---	176	44	65	---	---	358	.49	257	---	---	---
Aug. 11-16, 17-20.....	136	61.7	38	.22	41	9.8	78	208	31	75	.9	.5	377	.51	138	143	0	54
Aug. 21-22, 24-30.....	25.1	102	39	.08	65	15	132	239	77	162	1.6	3.9	613	.83	42	224	28	56
Aug. 31.....	9.0	204	---	---	116	28	293	371	189	375	2.5	4.2	1,190	1.62	29	404	100	61
Sept. 1-3, 9-10.....	19.2	118	42	.06	74	17	157	266	86	200	1.8	2.5	711	.97	37	254	36	57
Sept. 4-8.....	117	60.2	38	.08	41	11	75	198	43	71	1.0	2.2	379	.52	120	148	0	52
Sept. 11.....	20.0	109	---	---	72	19	129	266	76	170	---	---	600	.82	32	258	39	52
Sept. 12-19.....	815	46.8	36	.22	34	7.8	62	183	31	47	.8	4	309	.42	690	117	0	53
Sept. 21-24.....	187	67.2	34	.09	49	12	76	195	41	92	1.4	1.5	403	.55	171	172	12	49
Sept. 26, 28-30.....	32.5	98.8	42	.07	64	16	125	263	70	160	1.6	1.0	594	.81	52	226	18	55
Weighted average.....	368	62.8	37	.15	49	12	60	194	47	78	1.2	1.5	357	.49	345	172	13	47

COLORADO AND GUNNISON RIVERS IN COLORADO

[Composites of daily samples collected from (1) Colorado River at diversion dam about 1½ miles upstream from Cameo and 5 miles downstream from gaging station; and (2) Gunnison River half a mile upstream from point of diversion of Redlands power canal and 3 miles upstream from mouth and Grand Junction. Dissolved solids in parts per million and discharge in second-feet]

Date of collection	Colorado River near Cameo, Colo.		Gunnison River near Grand Junction, Colo.	
	Dissolved solids	Mean discharge	Dissolved solids	Mean discharge
Oct. 1-10, 1941.....	680	2,377	1,205	2,766
Oct. 11-20.....	636	3,104	939	3,349
Oct. 21-31.....	690	2,632	812	3,503
Nov. 1-10.....	648	2,281	859	2,513
Nov. 11-20.....	689	2,183	970	2,069
Nov. 21-30.....	802	1,775	1,187	1,536
Dec. 1-10.....	775	1,816	1,122	1,497
Dec. 11-20.....	813	1,660	1,149	1,385
Dec. 21-31.....	862	1,549	1,232	1,216
Jan. 1-10, 1942.....	1,043	1,357	1,250	1,010
Jan. 11-20.....	878	1,482	1,136	1,100
Jan. 21-31.....	846	1,528	1,157	1,322
Feb. 1-10.....	822	1,583	1,195	1,200
Feb. 11-20.....	904	1,528	1,261	975
Feb. 21-28.....	878	1,535	1,225	1,208
Mar. 1-10.....	826	1,635	1,215	1,298
Mar. 11-20.....	803	1,682	1,260	1,242
Mar. 21-31.....	852	1,700	1,155	1,169
Apr. 1-10.....	660	3,022	605	3,327
Apr. 11-20.....	413	6,584	319	11,650
Apr. 21-30.....	411	7,219	373	12,070
May 1-10.....	441	6,909	358	10,120
May 11-20.....	319	10,280	277	10,840
May 21-31.....	248	19,090	376	15,750
June 1-10.....	183	23,820	246	14,070
June 11-20.....	168	22,140	270	12,800
June 21-30.....	193	15,310	345	7,811
July 1-10.....	254	9,018	506	4,058
July 11-20.....	331	6,727	667	2,767
July 21-31.....	443	4,317	1,151	1,460
Aug. 1-10.....	527	3,014	1,415	1,255
Aug. 11-20.....	664	2,141	1,530	1,207
Aug. 21-31.....	738	1,665	1,982	861
Sept. 1-10.....	857	1,356	1,637	771
Sept. 11-20.....	841	1,481	1,696	1,086
Sept. 21-30.....	839	1,514	1,906	942
Average.....	637	4,986	1,000	4,000
Weighted average.....	391	-----	566	-----

COLORADO AND GREEN RIVERS IN UTAH

[Composites of daily samples collected from (1) Colorado River at highway bridge below gaging station, 1 mile downstream from Dolores River and 11 miles south of Cisco; and (2) Green River at gaging station, 1 mile southeast of town of Green River and 22 miles upstream from San Rafael River. Dissolved solids in parts per million and discharge in second-feet]

Date of collection	Colorado River near Cisco, Utah		Green River at Green River, Utah	
	Dissolved solids	Mean dis- charge	Dissolved solids	Mean dis- charge
Oct. 1-10, 1941	987	7,243	784	3,477
Oct. 11-20	780	11,120	717	5,642
Oct. 21-31	728	9,845	715	6,278
Nov. 1-10	748	6,436	670	4,889
Nov. 11-20	892	5,118	643	4,060
Nov. 21-30	1,029	4,141	681	3,137
Dec. 1-10	1,045	4,168	704	3,028
Dec. 11-20	1,114	3,791	729	2,888
Dec. 21-31	1,186	3,275	732	2,333
Jan. 1-10, 1942	1,389	2,328	793	1,102
Jan. 11-20	1,189	3,253	836	2,030
Jan. 21-31	1,168	3,210	694	2,291
Feb. 1-10	1,215	3,278	720	2,377
Feb. 11-20	1,359	3,113	709	2,310
Feb. 21-28	1,266	2,523	738	1,851
Mar. 1-10	1,172	3,197	717	2,366
Mar. 11-20	1,104	4,082	689	5,179
Mar. 21-31	1,107	3,854	681	5,254
Apr. 1-10	655	13,060	608	11,500
Apr. 11-20	386	29,880	453	16,510
Apr. 21-30	406	24,880	398	15,230
May 1-10	435	21,120	476	11,610
May 11-20	330	27,760	414	15,160
May 21-31	286	38,480	392	20,560
June 1-10	264	39,200	300	26,590
June 11-20	267	35,470	260	23,710
June 21-30	299	24,180	314	13,760
July 1-10	450	13,300	364	7,990
July 11-20	596	9,448	435	6,593
July 21-31	794	5,842	482	5,767
Aug. 1-10	1,144	3,889	565	3,293
Aug. 11-20	1,339	3,062	629	2,418
Aug. 21-31	1,687	2,140	711	1,778
Sept. 1-10	1,985	1,804	754	1,472
Sept. 11-20	1,785	2,507	837	1,532
Sept. 21-30	1,680	2,456	822	1,569
Average	952	10,640	616	6,893
Weighted average	551		480	

QUALITY OF SURFACE WATERS, 1942

LAKE MEAD, ARIZ.-NEV.

[Analyses in parts per million]

MILE 270.

Date of collection	Depth (feet)	Elevation above mean sea level (feet)	Temperature (° F.)	Specific conductance ($K \times 10^6$ at 25° C.)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na+K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Dissolved solids	Total hardness as $CaCO_3$
1942												
Apr. 23 ¹			60.3	70.7				168				
Do ²			60.3	71.4				155				

EMERY FALLS, MILE 275.8

1941												
Nov. 2			64	97.0				155				
Dec. 1			61	97.0				146				
1942												
Jan. 1				98.6				152				
Feb. 1			57	102				155				
Mar. 2				106				159				
Apr. 1		1,171	61.0	109				162				
Apr. 22	5	1,173	63.8	93.1	82	26	82	160	265	58	592	312
	50	1,128	59.1	77.4				156				
	100	1,078	58.8	72.9				157				
	150	1,028	58.6	66.1	66	20	44	169	155	30	398	246
	160	1,018	59.0	65.1				171				
	175	1,003	59.5	63.3				172				
	180	998	59.9	71.4				206				

PIERCE FERRY BAY, MILE 279

1941												
Nov. 2			66	97.0				150				
Dec. 1			62	95.4				148				
1942												
Jan. 1			57	98.3				154				
Feb. 1	5		58	102				153				
Mar. 3		64		106				160				
May 5			68.0	65.5				147				
June 1	5		76.0	54.5				138				
July 6	5		80.0	40.0	37	13	26	102	84	22	232	146
July 31	5			74.0	58	22	68	138	187	54	457	235
Sept. 1	5		80.0	91.1	66	29	83	141	242	68	560	284

VIRGIN CANYON, MILE 305.3

1941												
Oct. 26	Surface	1,211	67.6	80.5	82	19	64	135	233	49	514	282
	50	1,161	67.5	80.3				135				
	80	1,131	67.5	89.4				145				
	100	1,111	66.5	112				165				
	150	1,061	62.7	117	108	28	111	164	371	75	774	384
	200	1,011	59.8	117				166				
	250	961	59.0	118				166				
	300	911	58.9	119				166				
	356	861	58.6	119	113	25	109	165	367	83	781	397
	³ 381	830										
	385	826	62.3	107	104	26	95	184	326	59	701	366
	⁴ 390	821										
1942												
Apr. 23	5	1,174	59.0	100	88	27	90	164	289	65	640	330
	50	1,129	57.9	101				168				
	100	1,079	56.1	106				169				
	150	1,029	54.6	112				173				
	200	979	53.9	113				175				
	250	929	53.6	114				177				
	300	879	53.2	114				174				
	325	854	53.2	103				167				
	345	834	52.0	113				175				
	360	829	59.4	86.4	82	26	70	214	212	48	543	312
	365	824	60.2	103				346				

See footnotes at end of table.

COLORADO RIVER BASIN

51

LAKE MEAD, ARIZ.-NEV.—Continued

VIRGIN RIVER NARROWS, 9.3 MILES ABOVE MOUTH OF VIRGIN RIVER

Date of collection	Depth (feet)	Elevation above mean sea level (feet)	Temperature (° F.)	Specific conductance (K $\times 10^4$ at 25° C.)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na+K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Dissolved solids	Total hardness as CaCO ₃
Apr. 24, 1948	5	1,174	60.7	111	108	28	95	158	342	74	725	364
	50	1,120	58.4	111				155				
	70	1,109	56.0	111				159				
	100	1,079	54.2	111				160				
	150	1,020	54.0	112				165				
	200	979	53.3	112				165				
	250	929	53.3	112				165				
	280	899	53.2	112				165				
	281	898	53.2	117				191				

MILE 324

Oct. 25, 1941	Surface	1,211	69.3	80.6	86	20	58	133	238	47	515	296
	50	1,161	67.3	80.5				136				
	80	1,131	67.3	81.9				137				
	100	1,111	66.5					161				
	150	1,061	61.4	108				165				
	185	1,026	60.0	111	104	27	105	165	337	80	734	370
	200	1,011	58.7	113				162				
	250	961	58.4	117				165				
	300	911	58.3	119				167				
	350	861	58.3	119				168				
	400	811	58.5	118	112	29	109	166	366	84	782	398
	427	784										

BOULDER CANYON, MILE 334.9

Oct. 25, 1941	Surface	1,211	67.5	82.5	86	19	68	136	246	52	538	292
	50	1,161	67.3	82.3				137				
	80	1,131	67.3	81.9				135				
	100	1,111	66.8	85.9				139				
	125	1,086	63.2	98.6				150				
	150	1,061	60.9	108	102	26	99	156	326	77	707	362
	200	1,011	58.6	117				164				
	250	961	58.3	121	112	29	114	171	370	86	795	398
	300	911	57.7	120				169				
	350	861	57.6	120				167				
	400	811	57.5	119				168				
	430	781	57.6	119				169				
	432	779										
	450	761	63.2	119	117	28	112	174	398	66	807	407
	460	751	63.2	120	116	30	109	198	379	66	796	413
	470	741										
	484	727										
Apr. 21, 1948	5	1,173	61.7	110	108	27	95	158	340	73	721	380
	25	1,153	59.8	111				160				
	50	1,128	57.7	111				157				
	100	1,078	54.2	111				157				
	150	1,028	53.6	111				157				
	200	978	53.5	111				159				
	250	928	53.2	112	106	28	95	161	340	76	727	380
	300	878	53.2	113				168				
	350	828	52.9	115				175				
	400	778	52.9	115				177				
	425	753	57.4	151				460				

See footnotes at end of table.

LAKE MEAD, ARIZ.-NEV.—Continued

INTAKE TOWERS, MILE 354.7

Date of collection	Depth (feet)	Elevation above mean sea level (feet)	Temperature (° F.)	Specific conductance (K $\times 10^3$ at 25° C.)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na+K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Dissolved solids	Total hardness as CaCO ₃
Oct. 1, 1941	Surface	1,210	73.1	89.2	90	23	66	134	268	53	566	319
	50	1,160	72.8	89.0				134				
	100	1,110	67.7	107				149				
	150	1,060	62.9	110				154				
	200	1,010	57.8	119				159				
	250	960	56.8	119				162				
	300	910	56.2	121	113	31	105	165	365	87	782	410
	350	860	56.2	121				165				
	400	810	56.1	121				167				
	450	760	56.0	121				169				
	^a 451	759										
	460	750	57.0	123				175				
	475	735	58.4	122	113	31	109	180	361	87	790	410
	480	730	67.5	137	126	36	132	240	403	95	910	462
	485	725	58.1	137	138	43	117	426	301	80	889	522
	^b 510	700										
	^c 537	673										
	^d 570	640										
Nov. 3	Surface	1,211	67.3	92.5	94	24	70	139	280	57	593	333
	50	1,161	66.6	92.7				139				
	100	1,111	66.5	92.5				139				
	120	1,091	65.2	102				145				
	150	1,061	63.0	108	106	28	89	154	333	72	704	380
	200	1,011	58.8	117				160				
	250	961	57.6	119	102	30	119	166	367	84	784	378
	300	911	57.6	119				168				
	350	861	57.6	120				167				
	400	811	57.6	120				167				
	445	766	57.8	119	112	31	111	168	367	92	796	407
	^a 446	765										
	^b 494	717										
	^c 535	676										
	^d 575	636										
Dec. 1	5	1,200	61.9	95.2	96	24	77	142	290	61	618	338
	50	1,155	62.0	95.2				144				
	100	1,105	61.9	95.7				143				
	150	1,055	61.4	107				155				
	200	1,005	59.5	115				160				
	250	955	58.0	119	114	31	104	162	368	87	784	412
	300	905	57.7	119				162				
	350	855	57.7	119				168				
	400	805	57.7	119				166				
	^a 451	752										
	452	753	57.6	119	112	31	105	167	365	84	779	407
	460	745	62.2	128	124	36	115	256	370	80	851	458
	470	735	62.7	129				256				
	^b 490	715										
	^c 529	676										
	^d 570	635										
Dec. 31	5	1,191	57.9	104	102	27	84	150	317	67	671	366
	50	1,146	58.2	103				149				
	100	1,096	58.2	103				149				
	150	1,046	58.5	105				150				
	200	996	58.6	117				164				
	250	946	58.4	119	112	31	106	164	367	85	782	407
	300	896	58.0	119				166				
	350	846	58.0	120				168				
	400	796	58.0	120				170				
	447	749	57.3	119	114	31	104	168	367	84	783	412
	^a 449	747										
	455	741	59.9	135	138	39	118	312	376	81	906	505
	460	736	59.3	139				334				
	^b 480	716										
	^c 518	678										
	^d 563	633										

See footnotes at end of table.

LAKE MEAD, ARIZ.-NEV.—Continued

INTAKE TOWERS, MILE 354.7—Continued

Date of collection	Depth (feet)	Elevation above mean sea level (feet)	Temperature (° F.)	Specific conductance (K $\times 10^5$ at 25° C.)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na+K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Dissolved solids	Total hardness as CaCO ₃
Jan. 30, 1942	5	1,181	56.3	109	108	28	89	157	335	72	709	384
	50	1,136	56.3	109				158				
	100	1,086	56.2	109				157				
	150	1,036	56.2	109				159				
	200	986	56.2	108				157				
	250	936	56.1	108				158				
	300	886	55.9	108				158				
	350	836	55.4	110	102	29	96	169	326	74	710	374
	400	786	55.0	109				170				
	437	749	54.9	109				171				
	450	736	62.7	144				352				
	455	731	62.4	147				374				
Mar. 2	5	1,171	55.0	108	108	28	90	159	333	73	710	384
	50	1,126	54.8	108				159				
	100	1,076	54.5	108				159				
	150	1,026	54.5	109				158				
	200	976	54.3	109				160				
	250	926	54.2	108				159				
	300	876	53.4	110				170				
	350	826	53.3	110				172				
	400	776	53.3	110	104	30	94	170	328	76	716	383
	433	743	53.4	111				172				
	440	736	60.5	144				373				
	445	731	61.1	144				363				
Apr. 1	5	1,166	56.1	110	104	28	94	158	333	73	710	374
	50	1,121	55.2	110				160				
	100	1,071	54.6	110				160				
	150	1,021	54.1	110				162				
	200	971	53.6	111				166				
	250	921	53.2	112				177				
	300	871	53.2	112	103	34	91	174	329	78	721	397
	350	821	53.2	113				173				
	400	771	53.0	113				174				
	425	746	53.0	114				174				
	435	736	60.7	148				382				
	440	731	61.0	150				396				
May 1	5	1,178	58.6	110	104	28	98	161	335	76	720	374
	50	1,133	56.8	110				161				
	100	1,083	55.8	111				163				
	150	1,033	54.7	111				163				
	200	983	53.5	112				167				
	250	933	53.5	112				171				
	300	883	53.5	113				169				
	350	833	53.5	113				170				
	400	783	53.5	113				171				
	439	744	53.2	113				172				
	445	738	56.6	138				338				
	455	728	60.6	151				402				
June 5	5	1,194	70.7	112	106	28	97	159	341	74	724	380
	50	1,149	66.2	112				160				
	100	1,099		112				160				
	150	1,049	57.4	111				161				
	200	999	55.0	111				161				
	250	949	53.9	112				165				
	300	899	53.8	112	104	29	99	169	333	77	725	378
	350	849	53.6	112				168				
	400	799	53.5	112				170				
	455	744	53.5	114				182				
	460	739	55.4	156				466				
	465	734	58.2	156				448				

See footnotes at end of table.

LAKE MEAD, ARIZ.-NEV.—Continued

INTAKE TOWERS, MILE 354.7—Continued

Date of collection	Depth (feet)	Elevation above mean sea level (feet)	Temperature (° F.)	Specific conductance (K X 10 ³ at 25° C.)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na+K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Dissolved solids	Total hardness as CaCO ₃
July 6.....	5	1,208	79.2	102	96	27	91	162	309	66	669	350
	50	1,163	72.6	105	—	—	—	161	—	—	—	—
	100	1,113	65.7	106	—	—	—	162	—	—	—	—
	150	1,063	60.9	109	—	—	—	162	—	—	—	—
	200	1,013	56.8	109	—	—	—	160	—	—	—	—
	250	963	54.4	110	—	—	—	168	—	—	—	—
	300	913	54.3	112	—	—	—	174	—	—	—	—
	350	863	53.8	112	102	29	104	179	331	77	731	374
	400	813	54.4	111	—	—	—	175	—	—	—	—
	450	763	53.6	112	—	—	—	171	—	—	—	—
	470	743	53.6	116	—	—	—	211	—	—	—	—
	¹ 472	741	—	—	—	—	—	—	—	—	—	—
	475	738	55.8	149	150	48	131	422	378	83	998	572
	480	733	—	145	—	—	—	390	—	—	—	—
	² 512	701	—	—	—	—	—	—	—	—	—	—
July 31.....	5	1,208	79.8	91.1	87	24	78	150	271	56	590	316
	50	1,163	75.4	93.8	—	—	—	154	—	—	—	—
	100	1,113	67.8	101	94	23	93	160	299	63	651	329
	150	1,063	61.8	107	—	—	—	160	—	—	—	—
	200	1,013	54.9	110	—	—	—	163	—	—	—	—
	250	963	54.2	110	—	—	—	165	—	—	—	—
	300	913	54.0	111	103	28	100	169	331	75	720	372
	350	863	53.7	110	—	—	—	170	—	—	—	—
	400	813	53.7	112	—	—	—	171	—	—	—	—
	450	763	53.7	112	—	—	—	178	—	—	—	—
	471	742	54.2	135	129	44	117	347	347	79	887	503
	³ 474	739	—	—	—	—	—	—	—	—	—	—
	475	738	55.3	147	138	49	132	410	365	83	969	546
	480	733	—	161	164	54	137	500	384	85	1,070	632
	⁴ 524	689	—	—	—	—	—	—	—	—	—	—
Sept. 1.....	5	1,205	79.6	88.2	82	26	69	139	259	54	560	312
	50	1,160	78.0	87.5	—	—	—	129	—	—	—	—
	100	1,110	68.2	98.9	94	28	80	157	298	60	639	350
	150	1,060	60.3	107	—	—	—	160	—	—	—	—
	200	1,010	55.5	111	—	—	—	163	—	—	—	—
	250	960	53.9	111	103	30	96	165	334	74	721	380
	300	910	53.0	111	—	—	—	169	—	—	—	—
	350	860	53.0	112	—	—	—	166	—	—	—	—
	400	810	52.8	112	—	—	—	172	—	—	—	—
	450	760	52.7	112	—	—	—	168	—	—	—	—
	⁵ 472	738	—	113	—	—	—	182	—	—	—	—
	476	734	55.5	144	144	45	120	380	365	80	943	544
	480	730	57.0	156	—	—	—	488	—	—	—	—
	⁶ 488	722	—	—	—	—	—	—	—	—	—	—
	⁶ 520	690	—	—	—	—	—	—	—	—	—	—

¹ Sample collected just above Mile 270.² Sample collected just below Mile 270.³ Top of silt layer.⁴ Depth to which 10-pound weight sank in 10 minutes.⁵ Depth to which conductance cell sank.⁶ Depth to which thermometer sank.

SUSPENDED SEDIMENT

In addition to chemical analyses, records of daily, monthly, and annual loads of suspended sediment are given for several stations on streams in the Colorado River Basin. The daily loads are calculated from the mean daily discharge and the mean concentration of suspended sediment determined in daily samples collected from three or more verticals in the cross section. The samples were collected in such a way as to include water and sediment from all points in the vertical. At some stations samples were collected only two or three

times a week. Loads of suspended sediment were estimated for the days on which no samples were collected.

Mechanical analyses are reported for samples of suspended sediment collected several times each month at stations on two rivers. The analyses were made by standard sieves for sediment coarser than 0.074 millimeter and by decantation from sedimentation cylinders for the finer sediment. The results are reported in percent for several size ranges expressed in millimeters.

TABLES OF SUSPENDED SEDIMENT LOADS AND MECHANICAL ANALYSES

COLORADO RIVER BASIN

COLORADO RIVER NEAR CISCO, UTAH

[Samples of suspended sediment collected on many days in each month from cableway at gaging station 1 mile downstream from Dolores River and 11 miles south of Cisco]

Daily samples of suspended sediment loads, 1941-42

Day	October			November			December		
	Mean discharge (second-foot)	Suspended sediment		Mean discharge (second-foot)	Suspended sediment		Mean discharge (second-foot)	Suspended sediment	
		Mean percent	Tons per day		Mean percent	Tons per day		Mean percent	Tons per day
1	5,300	0.14	20,000				4,410	0.03	3,570
2				7,130	0.16	30,800			
3	6,500	.21	36,900				4,450	.04	4,810
4	9,190	.58	144,000	6,760	.14	25,600			
5							4,510	.04	4,870
6	9,300	.73	183,000	6,360	.11	18,900			
7							3,970	.04	4,290
8	7,460	.34	68,500	5,850	.12	19,000	3,620	.03	2,930
9							3,600	.03	2,920
10	6,060	.14	22,900	5,320	.10	14,400			
11							3,830	.04	4,140
12	5,990	.08	12,900						
13	11,000	2.95	876,000	4,930	.08	10,600	4,070	.04	4,400
14	22,600	4.58	2,790,000						
15	16,700	1.25	564,000	5,080	.06	8,230			
16	11,500	.50	155,000				3,790	.04	4,090
17				5,140	.06	8,330			
18	9,570	.32	82,700				3,570	.02	1,930
19				5,360	.11	15,900			
20	8,840	.32	76,400				3,600	.03	2,920
21	10,500	2.93	831,000	5,000	.07	9,450			
22	10,500	.66	187,000				3,510	.02	1,900
23				4,050	.05	5,470			
24	8,720	.30	70,600				3,380	.02	1,830
25				3,450	.04	3,730			
26							3,160	.03	2,580
27	11,100	.61	153,000	3,930	.04	4,240	3,210	.03	2,600
28							3,080	.02	1,660
29	9,690	.68	178,000	4,410	.04	4,760			
30							3,140	.02	1,700
31	8,110	.21	46,000						
Total load (tons)			110,100,000			1381,000			193,600

See footnote at end of table.

COLORADO RIVER NEAR CISCO, UTAH—Continued

January				February				March			
Day	Mean discharge (second-foot)	Suspended sediment		Mean discharge (second-foot)	Suspended sediment		Mean discharge (second-foot)	Suspended sediment			
		Mean percent	Tons per day		Mean percent	Tons per day		Mean percent	Tons per day		
1	3,360	0.02	1,810	3,210	0.05	4,330	2,980	0.04	3,120		
2				3,010	.04	3,250					
3	2,390	.02	1,290				3,010	.04	3,250		
4				3,050	.03	2,470					
5	1,750	.03	1,420				3,320	.07	6,270		
6											
7	1,200	.02	648	3,450	.05	4,660	3,680	.08	7,950		
8				3,410	.05	4,600					
9	2,500	.03	2,020				2,980	.06	4,830		
10	3,360	.08	7,260	3,410	.05	4,600					
11							3,950	.11	11,700		
12	3,250	.05	4,390	2,940	.03	2,380					
13							4,890	.54	71,300		
14	3,160	.04	3,410	2,980	.03	2,410	6,040	.59	96,200		
15											
16				2,900	.02	1,570	3,810	.32	32,900		
17	3,120	.03	2,530								
18				2,650	.02	1,430	3,120	.09	7,580		
19	3,340	.04	3,610								
20				2,400	.01	648	3,620	.07	6,840		
21	3,160	.02	1,710	2,320	.02	1,250	3,410	.12	11,000		
22											
23	2,870	.02	1,550	3,170	.08	6,850	3,230	.06	5,230		
24	3,120	.03	2,530								
25				3,010	.05	4,060	4,720	.54	68,800		
26	3,160	.03	2,560				4,450	.24	28,800		
27				2,710	.04	2,930					
28	3,320	.02	1,790	2,830	.02	1,530	3,570	.14	13,500		
29											
30	3,400	.03	2,750				3,810	.08	8,230		
31							4,170	.13	14,600		
Total load (tons).....			173,800								

COLORADO RIVER NEAR CISCÖ, UTAH—Continued

July				August				September			
Day	Mean discharge (second-foot)	Suspended sediment		Mean discharge (second-foot)	Suspended sediment		Mean discharge (second-foot)	Suspended sediment			
		Mean percent	Tons per day		Mean percent	Tons per day		Mean percent	Tons per day		
1				4, 210	0. 02	2, 270					
2	14, 600	0. 07	27, 600	4, 030	. 01	1, 090	1, 840	0. 01	497		
3											
4	13, 800	. 06	22, 400	4, 370	. 03	3, 540	1, 650	. 01	446		
5							1, 640	. 01	443		
6	12, 900	. 05	17, 400	3, 830	. 02	2, 070	1, 800	. 02	972		
7	12, 900	. 05	17, 400								
8				3, 360	. 01	907	2, 030	. 01	548		
9	12, 000	. 04	13, 000								
10				2, 960	. 01	799	1, 920	. 01	518		
11	11, 400	. 04	12, 300				2, 280	. 22	13, 500		
12				3, 170	. 04	3, 420					
13	9, 720	. 04	10, 500				2, 760	. 03	2, 240		
14	9, 040	. 04	9, 760	3, 640	. 03	2, 950	2, 800	. 02	1, 510		
15											
16	8, 250	. 04	8, 910	3, 140	. 03	2, 540					
17											
18	9, 270	. 18	45, 100	2, 610	. 02	1, 410	2, 440	. 01	659		
19											
20	10, 100	. 15	40, 900	2, 230	. 02	1, 200	2, 350	. 01	634		
21											
22	8, 060	. 06	13, 100	2, 070	. 01	559	2, 450	. 04	2, 650		
23											
24	6, 310	. 03	5, 110	2, 030	. 01	548	2, 470	. 02	1, 330		
25											
26	5, 230	. 02	2, 820				2, 470	. 03	2, 000		
27											
28	4, 600	. 01	1, 240	2, 280	. 01	616	2, 470	. 03	2, 000		
29				2, 170	. 01	586	2, 470	. 03	2, 000		
30	4, 390	. 02	2, 370								
31				1, 960	. 01	529					
Total load (tons)-----			1 473, 000				1 50, 200			1 54, 800	

COLORADO RIVER AT BRIGHT ANGEL CREEK, NEAR GRAND CANYON, ARIZ.

[Daily samples of suspended sediment collected from cableway at gaging station a quarter of a mile upstream from Bright Angel Creek, 11 miles by trail northeast of Grand Canyon Village and 267 miles upstream from Boulder Dam]

Daily samples of suspended sediment loads, 1941-42

October				November				December			
Day	Mean discharge (second-foot)	Suspended sediment		Mean discharge (second-foot)	Suspended sediment		Mean discharge (second-foot)	Suspended sediment			
		Mean percent	Tons per day		Mean percent	Tons per day		Mean percent	Tons per day		
1-----	21,300	5.08	2,920,000	27,300	0.94	693,000	9,980	1 0.10	26,900		
2-----	21,200	2.32	1,330,000	25,000	.82	554,000	10,100	.09	24,500		
3-----	19,600	1.72	910,000	24,200	.66	431,000	10,200	.10	27,500		
4-----	22,500	3.52	2,140,000	21,900	.64	378,000	10,200	.12	33,000		
5-----	26,300	5.43	3,860,000	19,900	1.52	279,000	10,200	.10	27,500		
6-----	33,600	4.66	4,230,000	19,000	.39	200,000	10,300	.09	25,000		
7-----	28,400	3.18	2,440,000	18,200	.36	177,000	10,400	.11	30,900		
8-----	23,700	3.13	2,000,000	17,800	.36	173,000	10,500	.10	28,400		
9-----	21,700	1 2.20	1,290,000	17,600	.27	128,000	10,700	.11	31,800		
10-----	20,200	1.27	693,000	17,100	.27	125,000	10,500	.10	28,400		
11-----	18,200	1 1.09	536,000	16,500	1.26	116,000	10,400	.09	25,300		
12-----	17,400	.91	428,000	16,000	.24	104,000	10,100	.09	24,500		
13-----	16,600	.71	318,000	15,800	.22	93,900	9,740	.12	31,600		
14-----	26,700	2.58	1,860,000	15,300	.21	86,800	9,690	.08	20,900		
15-----	64,600	6.10	10,600,000	15,200	-----	-----	9,650	.08	20,800		
16-----	82,000	6.36	14,100,000	14,700	-----	-----	9,530	.07	18,000		
17-----	52,400	5.59	7,910,000	14,500	-----	-----	9,450	.09	23,000		
18-----	35,800	3.96	3,830,000	14,000	-----	-----	9,580	.08	20,700		
19-----	28,700	2.76	2,140,000	14,000	-----	-----	9,640	.08	20,800		
20-----	25,000	1.75	1,180,000	14,000	-----	-----	9,640	.08	20,800		
21-----	22,700	1.08	662,000	13,900	-----	-----	9,690	1 0.08	20,900		
22-----	26,000	.93	653,000	13,800	-----	-----	9,580	.09	23,300		
23-----	35,000	1.24	1,170,000	13,700	-----	-----	9,670	.07	18,300		
24-----	36,000	1 1.52	1,480,000	13,600	-----	-----	9,600	.07	18,100		
25-----	35,500	1.80	1,730,000	13,000	-----	-----	9,230	1 0.06	15,000		
26-----	34,500	1.67	1,560,000	12,200	-----	-----	8,990	.06	14,600		
27-----	34,800	1.61	1,510,000	11,400	-----	-----	9,030	.06	14,600		
28-----	39,200	2.17	2,300,000	10,800	-----	-----	8,750	1 0.06	14,200		
29-----	33,600	1 1.76	1,600,000	10,200	-----	-----	8,510	.06	13,800		
30-----	29,400	1.34	1,060,000	9,920	-----	-----	8,200	.06	13,300		
31-----	27,200	1.28	940,000	-----	-----	-----	8,000	.05	11,200		
Total load (tons)			79,380,000	24,310,000			687,600				

January				February				March			
1-----	8,180	0.06	13,300	8,740	0.09	21,200	7,240	0.07	13,700		
2-----	8,230	.05	11,100	8,590	.09	20,900	7,260	.06	11,800		
3-----	8,020	.05	10,800	8,610	1 0.09	20,900	7,160	.05	9,670		
4-----	7,880	1 0.05	10,600	8,720	.09	21,200	7,100	.05	9,590		
5-----	7,850	1 0.05	10,600	8,660	.10	23,400	7,190	.05	9,710		
6-----	7,440	.05	10,000	8,500	.09	20,700	7,360	.06	11,900		
7-----	6,450	.04	6,970	8,210	.09	20,000	7,280	.08	15,700		
8-----	5,350	.04	5,780	8,140	.08	17,600	7,600	1 0.08	16,400		
9-----	4,430	.03	3,590	8,180	.09	19,900	7,910	.09	19,200		
10-----	3,540	.02	1,910	8,340	.08	18,000	8,350	.11	24,800		
11-----	3,160	1 0.02	2,340	8,530	.08	18,400	8,500	.12	27,500		
12-----	3,170	.02	1,710	8,610	.08	18,600	8,550	.13	30,100		
13-----	4,240	.02	2,290	8,690	.08	18,800	8,280	.14	31,300		
14-----	5,080	.03	4,110	8,720	.12	28,300	9,160	.16	39,600		
15-----	6,600	.05	8,910	8,550	.08	18,500	10,800	.30	87,500		
16-----	7,070	.06	11,500	8,120	.08	17,500	11,900	1 0.50	161,000		
17-----	7,620	.06	12,300	7,900	.07	14,900	13,500	.66	241,000		
18-----	7,580	1 0.08	16,400	7,560	.07	14,300	15,100	.76	310,000		
19-----	7,740	.11	23,000	7,500	.07	14,200	14,900	.76	306,000		
20-----	8,060	.09	19,600	7,310	.06	11,800	15,300	.86	355,000		
21-----	8,310	.09	20,200	7,100	.05	9,580	14,100	.60	228,000		
22-----	8,160	.09	19,800	6,600	.04	7,130	13,700	.55	203,000		
23-----	7,900	.08	17,100	6,420	.04	6,930	12,500	.49	165,000		
24-----	7,820	.06	12,700	6,170	.04	6,660	12,100	1 0.48	167,000		
25-----	7,720	.06	12,500	6,410	.04	6,920	11,100	.47	141,000		
26-----	7,680	.06	12,400	6,520	.04	7,040	10,600	.36	103,000		
27-----	7,880	1 0.06	12,800	6,870	.04	7,420	11,300	.38	116,000		
28-----	8,000	.07	15,100	7,100	.06	11,500	12,600	.56	191,000		
29-----	8,240	.08	17,800	-----	-----	-----	14,000	.84	318,000		
30-----	8,390	.08	18,100	-----	-----	-----	13,500	.66	241,000		
31-----	8,740	.08	18,900	-----	-----	-----	13,400	.63	228,000		
Total load (tons)			364,200	442,300			3,822,000				

See footnotes at end of table.

COLORADO RIVER AT BRIGHT ANGEL CREEK, NEAR GRAND CANYON
 ARIZ.—Continued

April				May				June			
Day	Mean discharge (second-feet)	Suspended sediment		Mean discharge (second-feet)	Suspended sediment		Mean discharge (second-feet)	Suspended sediment		Mean discharge (second-feet)	Suspended sediment
		Mean percent	Tons per day		Mean percent	Tons per day		Mean percent	Tons per day		
1	13,300	0.59	212,000	46,900	0.88	1,110,000	89,900	1.06	2,570,000		
2	13,000	1.70	246,000	43,700	.90	1,060,000	88,400	.92	2,200,000		
3	14,500	.82	321,000	41,600	.88	988,000	85,800	.81	1,880,000		
4	16,200	1.25	541,000	40,200	.80	868,000	83,200	.78	1,750,000		
5	18,600	1.57	788,000	39,400	.70	745,000	81,600	.81	1,780,000		
6	23,400	2.03	1,280,000	39,200	1.68	720,000	79,800	.72	1,550,000		
7	36,200	2.68	2,620,000	38,000	.65	667,000	78,400	.77	1,630,000		
8	49,000	3.16	4,180,000	37,500	.65	658,000	77,400	.64	1,340,000		
9	51,200	2.95	4,080,000	37,500	.62	628,000	77,900	.61	1,280,000		
10	44,900	2.45	2,970,000	38,400	.67	695,000	80,000	.55	1,190,000		
11	40,500	2.11	2,310,000	41,900	.74	837,000	82,400	.60	1,330,000		
12	41,200	2.03	2,260,000	46,000	.90	1,120,000	81,600	.55	1,210,000		
13	44,600	1.95	2,350,000	52,900	.92	1,310,000	78,300	.55	1,160,000		
14	48,100	1.71	2,220,000	58,900	1.08	1,720,000	78,500	.62	1,100,000		
15	55,000	2.08	3,090,000	62,500	1.20	2,020,000	81,800	.53	1,170,000		
16	60,000	2.15	3,480,000	58,800	1.09	1,730,000	81,000	.60	1,310,000		
17	63,300	2.12	3,620,000	54,200	.86	1,260,000	77,800	1.52	1,090,000		
18	66,000	2.00	3,560,000	49,600	.77	1,030,000	72,900	.45	886,000		
19	63,400	1.81	3,100,000	46,100	.78	971,000	66,800	.46	830,000		
20	63,200	1.78	3,040,000	44,000	.66	784,000	64,700	.42	734,000		
21	61,800	1.71	2,850,000	42,400	.53	607,000	66,000	.43	766,000		
22	53,300	1.34	1,930,000	41,500	.46	515,000	66,800	.48	866,000		
23	49,000	1.11	1,470,000	42,500	.44	505,000	66,200	.46	822,000		
24	49,800	1.32	1,770,000	45,700	.56	691,000	62,800	.40	678,000		
25	55,300	1.28	1,910,000	51,700	.58	810,000	58,100	.35	549,000		
26	68,700	1.49	2,760,000	57,400	.55	852,000	53,100	.29	416,000		
27	64,400	1.56	2,710,000	64,900	.96	1,680,000	49,100	.32	424,000		
28	60,000	1.34	2,170,000	72,400	.93	1,820,000	45,800	.27	334,000		
29	55,400	1.23	1,840,000	79,800	1.02	2,200,000	42,500	.26	298,000		
30	49,900	.94	1,270,000	88,600	1.21	2,890,000	39,700	.24	257,000		
31				90,500	1.14	2,790,000					
Total load (tons)-----			66,950,000				36,280,000				33,400,000

July				August				September			
Day	Mean discharge (second-feet)	Suspended sediment		Mean discharge (second-feet)	Suspended sediment		Mean discharge (second-feet)	Suspended sediment		Mean discharge (second-feet)	Suspended sediment
		Mean percent	Tons per day		Mean percent	Tons per day		Mean percent	Tons per day		
1	36,900	0.18	179,000	12,100	0.13	42,500	4,790	0.06	7,760		
2	33,500	.17	154,000	11,300	.11	33,600	4,920	.04	5,310		
3	30,900	.16	133,000	10,900	.09	26,500	5,010	1.03	4,060		
4	29,800	.14	113,000	10,300	.08	22,200	4,920	.02	2,660		
5	29,100	.14	110,000	9,900	.11	29,400	4,950	.02	2,670		
6	28,400	.14	107,000	9,510	.09	23,100	5,080	.02	2,740		
7	27,300	1.10	73,700	9,510	.12	30,800	4,720	.07	8,820		
8	25,900	.10	69,900	9,350	.10	25,200	4,680	.18	22,800		
9	24,600	.10	66,400	9,350	.14	35,300	4,400	.08	9,500		
10	23,900	.11	71,000	9,380	.14	35,500	4,290	.05	5,790		
11	23,000	.11	68,300	9,090	.13	31,900	4,150	.06	6,720		
12	22,200	.09	53,900	8,660	.30	70,100	4,030	.09	9,790		
13	21,500	.09	52,200	8,380	.18	40,700	4,150	.06	6,720		
14	20,900	.09	50,800	8,260	.11	24,500	4,460	.04	4,820		
15	20,000	.08	43,200	7,770	.18	37,800	5,340	.06	8,650		
16	19,100	.07	36,100	7,500	.18	36,400	4,880	.10	13,200		
17	19,100	.08	41,300	7,310	.09	17,500	4,610	.08	9,960		
18	20,000	.09	48,600	7,450	.06	12,100	5,260	.15	21,300		
19	19,500	.24	126,000	7,410	.06	12,000	5,860	.11	17,400		
20	18,700	.27	136,000	7,470	.04	8,070	5,800	.12	18,800		
21	18,500	.27	135,000	7,240	.05	9,770	5,660	.20	30,600		
22	19,900	.19	102,000	7,040	.04	7,600	5,620	.12	18,200		
23	19,900	.16	85,000	6,540	.06	10,600	5,480	.08	11,500		
24	19,100	.28	144,000	6,160	.31	51,600	5,180	.07	9,790		
25	17,600	.24	114,000	6,050	.10	16,300	5,050	.07	9,540		
26	16,200	.23	101,000	5,780	.07	10,900	4,950	.06	8,020		
27	16,000	.19	82,100	5,310	.49	70,300	4,890	.04	5,280		
28	15,300	.13	53,700	5,210	.35	49,200	4,950	.04	5,350		
29	14,500	.14	54,800	4,960	.33	44,400	5,000	.03	4,050		
30	13,700	.22	51,400	4,960	.09	12,100	4,960	.03	4,020		
31	13,000	.25	87,800	4,820	.07	9,110					
Total load (tons)-----			2,775,000				887,400				296,200

Total load for year ----- tons.. 229,600,000

1 Estimated.

2 Load for period November 16-30 estimated.

COLORADO RIVER AT BRIGHT ANGEL CREEK, NEAR GRAND CANYON,
ARIZ.—Continued*Mechanical analyses of suspended sediment, 1941-42*

Date of collection	Mean daily discharge (second-foot)	Mean daily concentration (per-cent)	Tons per day	Suspended sediment					
				Percent in indicated size range					
				<0.005 mm.	0.005-0.020 mm.	0.020-0.050 mm.	0.050-0.074 mm.	0.074-0.149 mm.	>0.149 mm.
1941									
Oct. 7.....	28,400	3.18	2,440,000	1.4	57.3	16.1	12.0	9.9	3.3
Oct. 12.....	17,400	.91	428,000	1.4	62.1	13.8	11.5	10.1	1.1
Oct. 14.....	26,700	2.58	1,860,000	1.2	42.0	17.8	19.4	16.7	2.9
Oct. 16.....	82,000	6.36	14,100,000	1.1	52.1	20.2	15.3	10.4	.9
Oct. 17.....	52,400	5.59	7,910,000	1.1	44.1	18.4	13.5	15.7	7.2
Oct. 20.....	25,000	1.75	1,180,000	1.4	63.6	17.9	9.7	6.0	1.4
Oct. 28.....	39,200	2.17	2,300,000	1.6	51.0	14.2	16.0	13.3	3.9
Nov. 4.....	21,900	.64	378,000	1.3	43.8	17.0	15.7	18.1	4.1
Nov. 8.....	17,800	.36	173,000	3.3	43.5	13.0	12.6	18.8	8.8
Nov. 12.....	16,000	.24	104,000	6.5	54.1	25.6	10.5	3.0	.3
Dec. 5, 13, 16, 19, 23, 26, 30.....	19,420	1.08	120,600	11.1	47.9	20.1	11.8	7.4	1.7
1942									
Jan. 2, 6, 9, 13, 16, 20, 28.....	16,780	1.09	116,500	13.0	56.9	16.1	7.6	4.7	1.7
Feb. 4, 6, 10, 13, 17, 20, 24, 27.....	17,810	4.07	114,900	8.6	57.5	18.8	8.7	5.1	1.3
Mar. 3, 6, 10, 13.....	17,790	1.09	119,400	4.2	43.0	21.8	16.7	11.3	3.0
Mar. 18.....	15,100	.76	310,000	.....	50.9	13.8	19.8	12.7	2.8
Mar. 25.....	11,100	.47	141,000	2.2	64.3	10.3	10.7	7.4	5.1
Mar. 28.....	12,600	.56	191,000	1.3	53.7	11.3	11.2	17.8	4.7
Mar. 31.....	13,400	.63	228,000	1.5	56.9	7.3	8.3	20.6	5.4
Apr. 3.....	14,500	.82	321,000	1.0	57.7	9.3	10.0	18.7	3.3
Apr. 8.....	49,000	3.16	4,180,000	.1	19.5	9.2	9.0	42.6	19.6
Apr. 11.....	40,500	2.11	2,310,000	.4	39.5	11.2	10.1	21.8	17.0
Apr. 14.....	48,100	1.71	2,220,000	.5	35.4	14.1	11.2	21.9	16.9
Apr. 18.....	66,000	2.00	3,560,000	.5	22.2	10.4	6.9	28.7	31.3
Apr. 21.....	61,800	1.71	2,850,000	.6	19.2	10.9	12.2	24.5	32.6
Apr. 24.....	49,800	1.32	1,770,000	1.5	18.2	11.6	12.0	29.9	26.8
Apr. 28.....	60,000	1.34	2,170,000	1.1	24.2	9.9	15.5	19.6	29.7
May 1.....	46,900	.88	1,110,000	1.7	21.5	11.0	19.7	17.9	28.2
May 5.....	39,400	.70	745,000	1.9	26.0	10.4	23.5	22.9	15.3
May 8.....	37,500	.65	658,000	2.4	25.1	9.7	23.2	25.6	14.0
May 12.....	46,000	.90	1,120,000	1.3	13.1	8.2	22.8	33.7	20.9
May 15.....	62,500	1.20	2,020,000	2.3	12.6	8.5	19.4	29.8	27.4
May 19.....	46,100	.78	971,000	2.4	19.3	10.9	20.4	26.3	20.7
May 22.....	41,500	.46	515,000	4.9	23.0	14.1	26.7	23.4	7.9
May 26.....	57,400	.55	852,000	3.8	12.9	11.4	25.2	32.0	14.7
May 29.....	79,800	1.02	2,200,000	1.6	12.7	9.2	16.5	29.0	31.0
June 2.....	88,400	.92	2,200,000	1.1	8.9	7.3	11.6	29.9	41.2
June 5.....	81,600	.81	1,780,000	2.0	10.4	7.6	14.5	30.3	35.2
June 9.....	77,900	.61	1,290,000	2.8	10.1	10.2	16.6	31.8	28.5
June 12.....	81,600	.55	1,210,000	2.8	9.4	9.0	12.9	29.1	36.8
June 19.....	66,800	.46	830,000	2.5	7.9	9.8	15.5	30.4	33.9
June 23.....	66,200	.46	822,000	2.9	8.3	10.1	18.4	29.2	31.1
June 26.....	53,100	.29	416,000	5.2	10.6	13.3	19.2	22.9	28.8
June 29.....	42,500	.26	298,000	5.4	10.1	13.9	21.6	30.8	18.2
July 3.....	30,900	.16	133,000	8.2	15.1	19.4	23.2	22.1	12.0
July 8.....	25,900	.10	69,900	10.3	19.8	21.3	22.5	17.0	9.1
July 10.....	23,900	.11	71,000	11.1	20.5	22.0	24.5	16.4	5.5
July 15.....	20,000	.08	43,200	15.0	21.2	19.9	20.2	15.9	7.8
July 17.....	19,100	.08	41,300	18.0	19.1	19.1	26.2	17.6	.....
July 22.....	19,900	.19	102,000	9.7	45.1	14.9	17.5	12.8	.....
July 25.....	17,600	.24	114,000	8.8	65.5	10.2	10.2	5.3	.....
July 29.....	14,500	.14	54,800	13.9	60.2	13.3	9.0	3.6	.....
Aug. 1.....	12,100	.13	42,500	14.9	62.7	11.4	8.2	2.8	.....
Aug. 4.....	10,300	.08	22,200	21.8	57.6	12.3	8.3	.....	.....
Aug. 7.....	9,510	.12	30,800	14.5	65.6	19.9	.....	.....	.....
Aug. 12.....	8,660	.30	70,100	5.5	78.9	15.6	.....	.....	.....
Aug. 15.....	7,770	.18	37,800	10.0	78.0	12.0	.....	.....	.....
Aug. 18.....	7,480	.06	12,100	18.6	73.6	7.8	.....	.....	.....
Aug. 21.....	7,240	.05	9,770	22.3	67.7	10.0	.....	.....	.....
Aug. 25.....	6,050	.10	16,300	12.3	78.7	9.0	.....	.....	.....
Aug. 27.....	5,310	.49	70,300	3.1	89.4	7.5	.....	.....	.....
Sept. 1.....	4,790	.06	7,760	24.4	68.0	7.6	.....	.....	.....
Sept. 8.....	4,690	.18	22,800	6.1	88.0	5.9	.....	.....	.....
Sept. 12.....	4,030	.09	9,790	13.0	79.5	7.5	.....	.....	.....
Sept. 15.....	5,340	.06	8,650	18.9	71.2	9.9	.....	.....	.....
Sept. 18.....	5,260	.15	21,300	9.4	84.2	6.4	.....	.....	.....
Sept. 22.....	5,620	.12	18,200	10.3	81.5	8.2	.....	.....	.....
Sept. 25.....	5,050	.07	9,540	20.8	72.6	6.6	.....	.....	.....
Sept. 29.....	5,000	.03	4,050	38.4	52.4	9.2	.....	.....	.....

¹ Mean for days on which samples were collected for mechanical analysis.

GREEN RIVER AT GREEN RIVER, UTAH

[Daily samples of suspended sediment collected from cableway at gaging station, 1 mile south of town of Green River and 22 miles upstream from San Rafael River]

Daily samples of suspended sediment loads, 1941-42

October				November				December			
Day	Mean discharge (second-feet)	Suspended sediment		Mean discharge (second-feet)	Suspended sediment		Mean discharge (second-feet)	Suspended sediment			
		Mean percent	Tons per day		Mean percent	Tons per day		Mean percent	Tons per day		
1	2,810	0.14	10,800	6,010	0.68	110,000	2,700	0.04	2,920		
2	2,770	.14	10,500	5,270	.47	66,900	2,750	.04	2,970		
3	2,990	.19	15,300	4,900	.35	46,300	2,900	.05	3,920		
4	3,240	.28	24,500	4,900	.20	26,500	3,170	.05	4,280		
5	3,390	.17	15,600	4,940	.21	28,000	3,270	.06	5,300		
6	3,360	.17	15,400	4,840	.18	28,500	3,320	.08	7,170		
7	3,640	.14	13,800	4,620	.15	18,700	3,220	.06	5,220		
8	3,930	.15	15,900	4,500	.14	17,000	3,010	.05	4,060		
9	4,230	.20	22,800	4,470	.13	15,700	3,040	.04	3,280		
10	4,410	.25	29,800	4,440	.11	13,200	2,900	.04	3,130		
11	4,530	.39	47,700	4,440	.12	14,400	2,590	.04	2,800		
12	4,260	.31	35,700	4,350	.16	18,800	2,420	.05	3,270		
13	4,590	.64	79,300	4,260	.19	21,900	2,680	.05	3,620		
14	6,940	1.80	337,000	4,120	.16	17,800	2,810	.04	3,090		
15	5,580	.62	93,400	4,010	.16	17,300	2,990	.04	3,230		
16	6,930	.92	172,000	3,900	.16	16,800	3,080	.04	3,330		
17	5,610	1.45	220,000	3,870	.17	17,800	3,150	.06	5,100		
18	5,340	.62	89,400	3,820	.12	12,400	3,200	.05	4,320		
19	6,280	.55	98,300	3,820	.10	10,300	3,080	.05	4,160		
20	6,360	.40	68,700	4,010	.08	8,660	2,880	.06	4,670		
21	6,200	.67	112,000	3,930	.08	8,490	2,680	.03	2,170		
22	7,410	.79	158,000	3,740	.06	6,060	2,680	.03	2,170		
23	6,760	.87	159,000	3,640	.06	5,900	2,750	.03	2,230		
24	5,790	.91	142,000	3,510	.06	5,690	2,470	.02	1,530		
25	6,640	1.91	342,000	3,130	.05	4,230	2,590	.02	1,400		
26	5,400	.66	96,200	2,880	.05	3,890	2,490	.03	2,020		
27	5,130	.52	72,000	2,860	.04	3,090	2,510	.03	2,030		
28	5,510	.29	43,100	2,650	.05	3,620	1,980	.02	1,070		
29	6,240	1.20	202,000	2,510	.05	3,390	1,790	.03	1,450		
30	6,480	.68	119,000	2,490	.04	2,660	1,860	.03	1,510		
31	7,500	.64	130,000				1,860	.04	2,010		
Total load (tons)-----			2,986,000	569,000			99,170				

January				February				March			
Day	Mean discharge (second-feet)	Suspended sediment		Mean discharge (second-feet)	Suspended sediment		Mean discharge (second-feet)	Suspended sediment			
		Mean percent	Tons per day		Mean percent	Tons per day		Mean percent	Tons per day		
1	1,700	0.04	1,840	2,420	0.03	1,960	2,060	0.02	1,110		
2	1,500	.04	1,620	2,380	.03	1,930	2,060	.02	1,110		
3	1,300	.03	1,050	2,470	.03	2,000	2,140	.02	1,160		
4	1,100	.05	1,480	2,380	.02	1,290	2,180	.02	1,180		
5	878	.03	711	2,360	.03	1,910	2,300	.02	1,240		
6	720	.03	583	2,300	.03	1,860	2,420	.03	1,960		
7	808	.03	654	2,280	.03	1,850	2,440	.04	2,640		
8	866	.03	701	2,420	.04	2,610	2,570	.04	2,780		
9	950	.04	1,030	2,380	.03	1,930	2,790	.06	4,520		
10	1,200	.02	648	2,380	.03	1,930	2,700	.07	5,100		
11	1,270	.05	1,710	2,380	.03	1,930	2,880	.06	4,670		
12	1,400	.06	2,270	2,360	.02	1,270	3,240	.16	14,000		
13	1,790	.06	2,900	2,320	.02	1,250	3,640	.18	17,700		
14	2,160	.08	4,670	2,400	.02	1,300	4,230	.26	29,700		
15	2,280	.09	5,540	2,420	.01	653	5,130	.33	45,700		
16	2,440	.08	5,270	2,300	.02	1,240	5,860	.42	66,500		
17	2,360	.04	2,550	2,240	.02	1,210	7,320	.65	128,000		
18	2,260	.04	2,440	2,260	.02	1,220	7,280	.50	98,300		
19	2,220	.06	3,600	2,300	.02	1,240	6,660	.37	65,600		
20	2,120	.07	4,010	2,120	.01	572	5,650	.34	51,900		
21	2,160	.08	4,670	1,920	.01	518	5,040	.28	38,100		
22	2,160	.07	4,080	1,710	.02	923	4,410	.24	28,600		
23	2,040	.06	3,300	1,750	.02	945	3,870	.20	20,900		
24	2,140	.03	1,730	1,660	.01	448	3,930	.19	20,200		
25	2,180	.05	2,940	1,830	.01	494	5,040	.39	53,100		
26	2,220	.02	1,200	1,980	.02	1,070	5,760	.60	93,300		
27	2,380	.09	5,780	2,000	.01	540	6,010	.98	159,000		
28	2,530	.05	3,420	2,060	.03	1,670	6,720	.69	125,000		
29	2,550	.16	11,000				6,050	.58	94,700		
30	2,420	.07	4,670				5,580	.63	94,900		
31	2,420	.04	2,610				5,400	.62	90,400		
Total load (tons)-----			90,580	37,760			1,363,000				

April				May				June			
Day	Mean discharge (second-feet)	Suspended sediment		Mean discharge (second-feet)	Suspended sediment		Mean discharge (second-feet)	Suspended sediment			
		Mean percent	Tons per day		Mean percent	Tons per day		Mean percent	Tons per day		
1	5,610	0.65	83,300	13,800	0.62	194,000	31,000	0.40	410,000		
2	5,860	.61	96,500	12,900	.48	167,000	29,100	.48	364,000		
3	9,560	.64	166,000	12,000	.37	120,000	17,600	.46	343,000		
4	9,540	1.61	415,900	11,800	.40	127,000	36,400	.44	314,000		
5	13,100	1.99	704,000	11,400	.36	111,000	25,800	.42	293,000		
6	14,800	2.32	927,000	11,100	.42	126,000	25,500	.41	282,000		
7	16,000	2.43	1,050,000	10,800	.36	105,000	24,300	.35	230,000		
8	14,900	2.10	845,000	10,400	.32	89,000	24,600	.38	252,000		
9	14,300	1.67	645,000	10,700	.36	104,000	25,500	.34	234,000		
10	14,300	1.63	629,000	11,200	.37	112,000	26,100	.32	226,000		
11	13,100	1.38	488,000	11,800	.48	163,000	25,800	.32	228,000		
12	12,900	1.08	376,000	13,800	.66	216,000	25,800	.33	226,000		
13	13,700	.92	340,000	16,100	.70	204,000	26,400	.29	207,000		
14	15,600	1.00	421,000	17,800	.76	268,000	26,400	.28	206,000		
15	17,200	1.06	492,000	18,700	.71	268,000	26,300	.33	224,000		
16	18,000	.99	481,000	17,200	.68	216,000	26,100	.31	218,000		
17	18,600	.88	442,000	15,400	.55	229,000	22,900	.33	204,000		
18	19,700	.88	488,000	14,200	.48	164,000	20,300	.29	159,000		
19	19,000	.78	490,000	13,500	.43	157,000	18,800	.27	137,000		
20	17,300	.71	332,000	13,100	.40	141,000	18,800	.26	128,000		
21	17,000	.61	260,000	12,700	.36	122,000	18,300	.24	119,000		
22	15,300	.58	240,000	12,400	.35	117,000	17,700	.24	115,000		
23	13,400	.55	199,000	12,700	.41	141,000	16,300	.23	101,000		
24	13,500	.53	193,000	13,600	.45	168,000	14,700	.21	83,000		
25	14,900	.58	263,000	15,900	.64	276,000	13,900	.20	75,100		
26	16,600	.66	296,000	19,200	.67	247,000	12,900	.21	73,100		
27	16,800	.60	272,000	22,200	.66	296,000	12,000	.18	58,300		
28	15,500	.58	243,000	26,100	.62	427,000	11,200	.15	45,400		
29	15,000	.54	219,000	28,800	.56	425,000	10,500	.13	36,900		
30	14,300	.50	193,000	30,600	.56	453,000	10,100	.12	32,700		
31				32,000	.50	432,000					
Total load (tons).....			12,170,000	7,043,060			5,618,000				

July				August				September			
Day	Mean discharge (second-feet)	Suspended sediment		Mean discharge (second-feet)	Suspended sediment		Mean discharge (second-feet)	Suspended sediment			
		Mean percent	Tons per day		Mean percent	Tons per day		Mean percent	Tons per day		
1	10,000	0.11	29,700	3,790	0.09	9,210	1,550	0.06	2,510		
2	9,880	.12	32,000	3,690	.09	8,890	1,550	.07	2,930		
3	9,640	.11	28,000	3,540	.05	4,780	1,450	.07	2,910		
4	8,760	.10	23,700	3,360	.04	3,630	1,520	.04	1,640		
5	8,090	.11	24,000	3,270	.04	3,630	1,480	.03			

SAN JUAN RIVER NEAR BLUFF, UTAH

[Daily samples of suspended sediment collected from highway bridge, 2,000 feet downstream from gaging station and 22 miles southwest of Bluff]

Daily samples of suspended sediment loads, 1941-42

October				November				December			
Day	Mean discharge (second-foot)	Suspended sediment		Mean discharge (second-foot)	Suspended sediment		Mean discharge (second-foot)	Suspended sediment			
		Mean percent	Tons per day		Mean percent	Tons per day		Mean percent	Tons per day		
1	8,190	4.47	988,000	6,040	0.80	130,000	2,000	0.30	16,200		
2	4,770	1.82	224,000	5,510	.67	99,790	1,950	.29	15,300		
3	6,130	1.81	300,000	4,850	.62	81,260	1,910	.30	15,500		
4	15,600	10.3	4,240,000	4,610	.61	75,960	1,860	.22	16,100		
5	16,600	6.02	3,100,000	4,160	.57	64,060	1,810	.26	12,700		
6	9,880	3.42	912,000	4,050	.51	55,800	1,810	.26	12,700		
7	6,660	1.50	266,000	3,900	.44	46,300	1,680	.27	12,200		
8	5,660	1.05	160,000	3,870	.51	53,300	1,600	.23	9,940		
9	4,940	.82	106,000	3,690	.44	46,800	1,710	.24	11,100		
10	4,670	.73	92,000	3,540	.43	41,100	1,810	.30	14,700		
11	4,340	.61	71,500	3,400	.43	39,560	1,930	.35	18,200		
12	4,040	.57	62,300	3,110	.35	29,400	1,830	.22	11,400		
13	11,300	4.17	1,270,000	3,120	.38	32,000	1,830	.25	12,400		
14	42,500	10.5	12,000,000	3,130	.42	36,560	1,870	.31	15,700		
15	36,200	7.29	5,940,000	3,110	.47	39,560	1,760	.28	13,300		
16	13,600	3.04	1,120,000	2,860	.47	36,360	1,710	.23	10,600		
17	9,110	1.41	347,000	2,700	.36	26,200	1,650	.19	8,460		
18	7,440	.93	157,000	2,910	.48	37,700	1,590	.17	7,300		
19	6,600	.73	130,000	2,850	.55	42,300	1,560	.18	7,580		
20	6,960	.66	124,000	2,910	.38	29,960	1,560	.18	7,580		
21	9,980	3.01	811,000	2,810	.42	31,960	1,520	.16	6,570		
22	9,610	2.89	756,000	2,500	.38	25,700	1,490	.16	6,440		
23	10,200	1.83	594,000	2,270	.25	15,300	1,400	.17	6,890		
24	8,970	1.09	264,000	2,190	.32	18,960	1,560	.24	10,100		
25	9,320	1.82	488,000	2,080	.32	18,000	1,460	.20	7,880		
26	12,900	5.05	2,446,000	1,940	.28	14,700	1,510	.13	7,340		
27	12,700	2.66	932,000	1,960	.28	14,860	1,460	.22	8,670		
28	8,990	1.19	289,000	2,060	.32	17,960	1,400	.14	5,290		
29	7,720	.86	179,000	2,100	.34	19,360	1,500	.21	8,500		
30	8,610	1.35	314,000	2,070	.36	20,100	1,800	.28	13,600		
31	7,000	1.14	215,000				2,050	.25	13,800		
Total load (tons)-----			38,920,000	-----			1,226,000	-----		344,000	

January				February				March			
1	1,990	0.26	14,000	1,480	0.34	13,600	1,170	0.24	7,580		
2	1,740	.29	13,600	1,420	.29	11,100	1,120	.25	7,560		
3	1,500	.21	8,500	1,400	.23	8,690	1,080	.18	5,260		
4	800	.33	7,130	1,380	.25	9,320	1,060	.18	5,160		
5	400	.06	648	1,390	.23	8,630	1,140	.23	7,080		
6	193	.02	104	1,370	.24	8,880	1,350	.35	12,800		
7	157	.01	42	1,430	.23	8,880	1,550	.50	20,900		
8	296	.07	559	1,370	.24	8,880	1,790	.63	30,400		
9	494	.09	1,200	1,400	.26	9,830	1,540	.60	21,700		
10	706	.11	2,100	1,450	.26	10,200	1,130	.43	13,100		
11	1,130	.23	7,020	1,400	.22	8,320	1,340	.70	25,300		
12	1,530	.19	7,850	1,270	.18	6,170	3,040	1.26	103,000		
13	1,450	.23	9,000	1,220	.20	5,590	2,890	1.22	95,200		
14	1,630	.23	10,100	1,280	.21	7,260	3,260	1.57	138,000		
15	1,540	.19	7,900	1,250	.20	6,750	3,810	1.61	166,000		
16	1,580	.23	9,810	1,180	.23	7,330	3,330	1.70	153,000		
17	1,500	.21	8,500	1,100	.21	6,240	2,340	1.40	88,500		
18	1,600	.21	9,070	964	.16	4,160	1,810	.91	44,500		
19	1,450	.19	7,440	929	.07	1,760	1,630	.67	29,500		
20	1,400	.18	6,800	859	.13	3,020	2,150	1.12	65,000		
21	1,460	.23	9,070	824	.17	3,780	1,960	.75	39,700		
22	1,400	.25	9,450	1,020	.20	5,510	1,830	.72	35,600		
23	1,400	.23	8,690	1,210	.22	7,190	1,650	.64	28,500		
24	1,610	.33	14,300	1,200	.24	7,780	2,390	.98	63,200		
25	1,650	.35	15,600	1,110	.20	5,990	3,340	1.53	138,000		
26	1,720	.37	17,200	1,010	.18	4,910	3,040	1.69	139,000		
27	1,790	.35	16,900	1,080	.18	5,250	2,270	1.48	90,700		
28	1,700	.36	16,500	1,140	.15	4,620	1,960	1.01	53,400		
29	1,810	.48	28,500				1,750	.74	35,000		
30	1,670	.35	15,800				2,090	.94	53,000		
31	1,590	.34	14,600				2,980	1.86	150,000		
Total load (tons)-----			293,000	-----			200,600	-----		1,868,000	

SAN JUAN RIVER NEAR BLUFF, UTAH—Continued

April				May				June			
Day	Mean discharge (second-foot)	Suspended sediment		Mean discharge (second-foot)	Suspended sediment		Mean discharge (second-foot)	Suspended sediment			
		Mean percent	Tons per day		Mean percent	Tons per day		Mean percent	Tons per day		
1	4,060	2.98*	317,000	7,570	1.42	290,000	10,300	0.84	234,000		
2	5,010	2.60	352,000	7,550	.93	190,000	9,940	.89	239,000		
3	6,290	4.07	688,000	6,690	1.26	228,000	10,200	.69	190,000		
4	7,250	3.80	744,000	6,650	.89	160,000	10,500	.76	215,000		
5	8,610	3.58	832,000	5,720	.63	97,300	10,500	.61	173,000		
6	11,000	2.56	760,000	5,380	.56	81,300	9,880	.67	179,000		
7	14,400	3.21	1,250,000	5,540	.69	103,000	9,780	.54	143,000		
8	10,000	1.83	494,000	5,770	.72	112,000	10,400	.70	197,000		
9	11,100	2.00	599,000	6,370	.65	112,000	10,500	.66	187,000		
10	8,810	1.75	416,000	6,800	.76	140,000	10,600	.53	152,000		
11	9,630	1.40	364,000	7,670	.76	157,000	9,920	.68	182,000		
12	10,200	1.60	441,000	8,850	.98	234,000	9,170	.54	134,000		
13	12,500	1.97	665,000	9,150	.86	212,000	10,200	.69	190,000		
14	13,400	2.00	724,000	8,630	.85	198,000	10,300	.53	147,000		
15	11,700	2.28	720,000	7,040	.56	106,000	9,760	.66	174,000		
16	11,900	2.15	691,000	5,990	.51	82,500	9,320	.57	143,000		
17	11,400	1.54	474,000	5,660	.45	68,800	8,210	.50	111,000		
18	10,400	1.38	388,000	5,730	.52	80,400	8,510	.43	98,800		
19	10,800	1.61	440,000	5,830	.60	94,400	9,420	.55	140,000		
20	9,320	1.37	345,000	5,600	.54	81,600	9,940	.76	204,000		
21	7,400	1.02	204,000	5,630	.55	83,600	10,200	.56	154,000		
22	7,210	1.02	199,000	6,370	.66	114,000	9,520	.58	149,000		
23	8,750	1.55	366,000	7,880	.66	140,000	8,430	.60	137,000		
24	14,400	2.15	836,000	8,650	.72	168,000	7,860	.45	95,800		
25	14,800	1.97	787,000	10,200	.70	193,000	7,290	.39	76,800		
26	14,600	1.58	623,000	10,900	.84	247,000	6,930	.46	86,100		
27	11,600	1.35	423,000	11,400	.73	225,000	6,280	.39	66,100		
28	9,480	1.30	333,000	12,300	.85	282,000	5,580	.34	51,200		
29	8,970	1.14	276,000	12,200	.76	250,000	5,140	.29	40,200		
30	8,530	1.33	306,000	11,000	.88	261,000	4,260	.29	33,400		
31				10,800	.85	248,000					
Total load (tons)			16,060,000				5,040,000	4,322,000			

SAN JUAN RIVER NEAR BLUFF, UTAH—Continued

July				August				September			
Day	Mean discharge (second-foot)	Suspended sediment		Mean discharge (second-foot)	Suspended sediment		Mean discharge (second-foot)	Suspended sediment			
		Mean percent	Tons per day		Mean percent	Tons per day		Mean percent	Tons per day		
1	3,370	0.26	27,200	922	0.09	2,240	609	0.11	1,810		
2	3,800	.27	27,700	915	.14	3,460	581	.11	1,790		
3	3,720	.34	34,100	908	.08	1,960	553	.09	1,340		
4	3,720	.28	28,100	971	.10	2,620	537	.10	1,450		
5	3,610	.28	27,300	1,200	.18	5,330	581	.13	2,040		
6	3,590	.23	22,300	1,120	.25	7,560	484	.10	1,310		
7	3,310	.19	17,000	1,100	.11	3,270	448	.10	1,210		
8	3,360	.43	39,000	978	.14	3,700	453	.10	1,220		
9	3,270	.37	32,700	957	.11	2,840	443	.07	837		
10	3,130	.31	26,200	999	.15	4,050	438	.09	1,060		
11	3,060	.27	22,300	1,060	.38	10,900	758	1.66	34,000		
12	2,730	.25	18,400	1,010	.17	4,640	674	.61	11,100		
13	2,480	.21	14,100	1,030	.17	4,730	598	.24	3,880		
14	2,360	.23	14,700	880	.28	6,650	693	.24	4,490		
15	2,320	.24	15,000	971	.13	3,410	1,370	.33	12,200		
16	2,200	.21	12,500	838	.08	1,810	1,170	.29	9,160		
17	2,100	.61	34,600	764	.15	3,090	964	.16	4,160		
18	2,050	.92	73,300	738	.10	1,990	873	.16	3,770		
19	2,180	.40	23,500	706	.08	1,520	752	.15	3,050		
20	2,450	.40	26,600	662	.11	1,970	700	.13	2,460		
21	2,170	.33	19,300	620	.08	1,340	626	.13	2,200		
22	1,870	.23	11,600	575	.08	1,240	609	.09	1,430		
23	1,570	.19	8,050	537	.08	1,200	592	.13	2,030		
24	1,450	.12	4,700	542	1.10	1,520	542	.12	1,760		
25	1,470	.18	7,140	609	1.10	1,640	542	.15	2,200		
26	1,360	.14	5,140	732	.26	5,140	526	.13	1,850		
27	1,290	.18	6,270	668	.17	2,890	500	.08	1,080		
28	1,200	.15	4,860	662	.09	1,610	500	.10	1,350		
29	1,120	.13	3,930	644	.10	1,740	542	.16	2,340		
30	1,060	.15	4,290	656	.12	2,130	510	.06	826		
31	1,010	.10	2,730	609	.09	1,480					
Total load (tons)			614,600				119,500				

SAN JUAN RIVER NEAR BUTTE, UTAH—Continued

Mechanical analyses of suspended sediment, 1941-42

Date of collection	Mean daily discharge (second-feet)	Mean daily concentration (per-cent)	Tons per day	Suspended sediment					
				Percent in indicated size range					
				<0.005 mm.	0.005-0.020 mm.	0.020-0.050 mm.	0.050-0.074 mm.	0.074-0.149 mm.	>0.149 mm.
1941									
Oct. 10.....	4,670	0.73	92,000	1.0	17.3	8.9	12.4	21.4	39.0
Oct. 21.....	9,980	3.01	811,000	.7	42.0	16.0	15.8	18.1	7.4
Oct. 25, 28.....	9,160	1.50	374,000	.7	33.6	12.4	17.6	20.7	15.0
Nov. 1.....	6,040	.80	130,000	1.1	14.8	7.8	17.8	28.2	28.3
Nov. 4, 7, 10, 14.....	3,790	1.48	49,700	.5	10.7	6.8	15.8	35.6	30.5
Nov. 17, 21, 24, 28.....	2,440	1.36	23,700	.6	13.4	5.7	13.2	41.2	25.9
Dec. 1, 5, 8, 12, 15, 19, 23, 27, 30.....	1,700	1.24	11,100	.6	10.0	5.3	15.6	44.9	23.6
1942									
Jan. 2, 5, 9, 13, 16, 19, 23, 27, 30.....	1,330	1.22	9,230	.9	11.4	4.3	10.3	44.2	28.9
Feb. 2, 6, 9, 13, 16, 18, 21, 24, 27.....	1,180	1.22	7,170	.8	12.5	5.2	10.6	42.9	28.0
Mar. 2, 6.....	1,240	1.30	10,200	1.5	19.7	6.2	14.4	42.9	15.3
Mar. 9.....	1,340	.60	21,700	2.9	58.6	3.3	6.0	19.9	9.3
Mar. 13.....	2,890	1.22	95,200	.9	65.3	6.0	5.6	15.1	7.1
Mar. 16, 20.....	2,740	1.41	109,000	1.3	50.2	12.3	7.8	17.2	11.2
Mar. 23.....	1,660	.64	28,500	1.6	48.8	10.0	7.8	18.8	13.0
Mar. 27.....	2,270	1.48	90,700	1.7	65.3	8.1	6.0	11.4	7.5
Mar. 31.....	2,980	1.86	150,000	1.2	53.4	16.8	11.0	11.4	6.2
Apr. 3.....	6,260	4.07	688,000	1.2	43.1	15.8	19.0	11.6	10.3
Apr. 6, 10.....	9,900	12.16	588,000	2.9	38.6	12.4	15.3	19.7	14.4
Apr. 15, 22, 29.....	9,290	1.48	398,000	.9	28.6	11.9	17.9	24.0	16.7
May 2.....	7,550	.93	190,000	1.6	28.2	9.6	15.0	28.4	22.2
May 6.....	5,380	.56	81,300	6.5	13.5	6.2	13.4	27.5	32.9
May 9.....	6,370	.68	112,000	3.3	10.6	6.3	13.8	29.8	36.8
May 15, 16, 20, 23, 29.....	7,740	1.61	132,000	.8	9.0	7.1	12.0	30.5	40.6
June 2, 5, 9.....	10,300	1.72	120,000	.9	7.0	4.7	10.0	27.3	50.1
June 18.....	10,200	.69	190,000	1.3	1.6	2.3	3.9	15.4	75.5
June 17, 20, 24, 27.....	8,070	1.52	119,000	1.1	6.7	4.6	11.3	31.1	45.2
July 1.....	3,870	.26	27,200	1.1	8.4	2.0	11.9	35.3	42.4
July 3.....	3,720	.34	34,100	7.7	7.7	2.3	9.0	18.0	62.5
July 6.....	3,360	.43	39,000	5.2	5.2	2.0	9.1	31.6	52.1
July 12.....	2,730	.25	18,400	9.5	7.7	1.7	10.8	27.5	50.5
July 15.....	2,320	.24	15,000	7.7	1.3	1.3	8.9	41.6	40.5
July 18.....	2,950	.92	73,300	63.5	3.6	1.4	6.2	6.2	25.3
July 23.....	1,570	.19	8,650	37.5	3.9	9.1	35.4	14.1	14.1
July 26.....	1,360	.14	5,140	16.6	2.7	6.4	38.7	35.6	17.0
July 29.....	1,120	.13	3,930	22.5	4.0	7.9	48.6	17.0	17.0
Aug. 1.....	922	.09	2,240	17.8	3.2	10.6	53.3	15.1	15.1
Aug. 7.....	1,100	.11	3,370	33.3	5.3	8.7	42.1	10.6	10.6
Aug. 9.....	957	.11	2,840	35.0	4.3	7.3	40.6	12.3	12.3
Aug. 12.....	1,010	.17	4,640	25.0	6.4	14.4	42.1	12.1	12.1
Aug. 18.....	738	.10	1,990	36.7	4.0	9.1	40.5	9.7	9.7
Aug. 21.....	620	.08	1,340	17.3	3.2	9.7	44.2	25.6	25.6
Aug. 27.....	668	.16	2,890	77.4	2.9	5.7	12.4	1.6	1.6
Aug. 29.....	644	.10	1,740	28.9	2.4	5.8	44.9	18.0	18.0
Sept. 1.....	609	.11	1,810	22.0	2.1	5.8	45.5	24.6	24.6
Sept. 4.....	537	.10	1,450	25.0	1.8	8.8	51.1	13.3	13.3
Sept. 7.....	448	.10	1,210	15.0	1.1	5.0	44.6	34.3	34.3
Sept. 12.....	674	.61	11,100	65.5	9.5	7.7	12.3	5.0	5.0
Sept. 16.....	1,170	.29	9,160	28.7	5.5	17.7	36.1	12.0	12.0
Sept. 19.....	752	.15	3,050	40.8	3.8	15.9	29.7	9.8	9.8
Sept. 22.....	609	.09	1,480	28.0	5.3	15.0	42.0	9.7	9.7
Sept. 27.....	500	.08	1,080	25.7	2.7	9.3	37.0	25.3	25.3

¹ Mean for days on which samples were collected for mechanical analysis.

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