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QUALITY OF WATER  
OF THE RIO GRANDE BASIN  
ABOVE FORT QUITMAN, TEXAS

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ANALYTICAL DATA

BY

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Prepared for the  
RIO GRANDE JOINT INVESTIGATION  
NATIONAL RESOURCES COMMITTEE



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# CONTENTS

	Page
Introduction.....	1
Methods of analysis.....	3
Computations and interpretations.....	4
Tables.....	8
Group 1, Stations on the main stream.....	8
Rio Grande at:	
Del Norte, Colorado.....	8
State Line, Lobatos, Colorado.....	9
Otown Bridge, New Mexico.....	10
San Marcial, New Mexico.....	11
Total dissolved solids.....	11
Detailed analyses.....	13
Elephant Butte Dam, New Mexico.....	18
Total dissolved solids.....	18
Detailed analyses.....	19
Leaburg Dam, New Mexico.....	24
Total dissolved solids.....	24
Detailed analyses.....	25
El Paso (Courchesne), Texas.....	29
Total dissolved solids.....	29
Detailed analyses.....	30
Fabens (Tornillo), Texas.....	35
Total dissolved solids.....	35
Detailed analyses.....	41
Port Quitman, Texas.....	47
Total dissolved solids.....	47
Detailed analyses.....	48
Group 2, Conductance determinations.....	53
San Luis Valley, Colorado.....	54
Surface waters.....	54
Ground waters.....	64
Middle Valley, New Mexico.....	98
Surface waters.....	98
Subsoil waters.....	144
Elephant Butte Project, New Mexico and Texas.....	166
Surface waters.....	166
Subsoil waters.....	174
Group 3, Detailed analyses.....	186
San Luis Valley, Colorado.....	186
Surface waters.....	186
Ground waters.....	196
San Juan River Basin, Colorado.....	218
Surface waters.....	218
Middle Valley, New Mexico.....	220
Surface waters.....	220
Subsoil waters.....	244
Underground waters.....	254
Elephant Butte Project, New Mexico and Texas.....	260
Surface waters.....	260
Subsoil waters.....	264
Drains of the Elephant Butte Project, New Mexico and Texas.....	268
Total dissolved solids.....	268
Detailed analyses.....	284

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ABOVE FORT QUITMAN, TEXAS

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By Carl S. Scofield

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INTRODUCTION

The analytical data of this report have been obtained in part from field investigations conducted in 1936 by the Geological Survey, of the United States Department of the Interior, and in 1935 and 1936 by the State of Texas in cooperation with the Rio Grande Joint Investigation sponsored by the National Resources Committee, and in part from an investigation conducted since 1930 by the Bureau of Plant Industry, of the United States Department of Agriculture, in cooperation with the State Engineer of Colorado, the Geological Survey, the United States section of the International Boundary Commission, United States and Mexico, and the Bureau of Reclamation, of the United States Department of the Interior. In addition to the analytical data here presented there has been prepared an interpretative report on the same subject, published by the National Resources Committee as Part IV of the Report of the Rio Grande Joint Investigation, 1937.

The analyses here reported were made in laboratories of the Geological Survey at Washington, D. C., at Alamosa, Colo., and at Albuquerque, N. Mex.; in the laboratory of the Salt River Valley Water Users Association, Phoenix, Ariz.; in the Rubidoux Laboratory of the Bureau of Plant Industry at Riverside, Calif.; and in the laboratory of the Bureau of Reclamation at El Paso, Tex. In general the authority for the data is shown in the table headings or with the descriptive statements.

The locations from which the water samples have been obtained are described in the text that accompanies the tables of analyses. For the most part these descriptions are based on surveys of the type used by the General Land Office. For areas that have not been surveyed by the General Land Office, a similar net of sections and townships is superimposed on the maps that accompany the report of the Rio Grande Joint Investigation mentioned above. For convenience of cross reference between this section of the report and the maps, the descriptive list includes an index number for each location. In this hyphenated index number the first number refers to the section, the second to the township, and the third to the range.

The tables of analytical data fall into three major groups as follows:

- Group 1. Tables that relate to conditions along the main stream of the Rio Grande as it has been sampled at nine gaging stations from Del Norte, Colo., to Fort Quitman, Tex., for several years past.
- Group 2. Tables that relate to conductance determinations on series of samples from a large number of stations representing both surface and ground waters. Samples mostly collected in 1936.

Group 3. Tables that report the detailed analyses of samples from a smaller number of stations selected from among those for which conductance determinations have been made but including also some stations for which no additional conductance determinations have been made.

The tables of groups 2 and 3 are further subdivided so as to conform to the natural subdivisions of the drainage basin as follows:

1. The San Luis Valley comprises that portion of the drainage basin tributary to the main stream above the southern boundary of the State of Colorado.
2. The Middle Valley comprises that portion of the drainage basin tributary to the main stream between the southern boundary of the State of Colorado and the San Marcial gaging station, New Mexico.
3. The Elephant Butte Project is the designation used for that portion of the drainage basin between the San Marcial gaging station and the Fort Quitman gaging station, Texas.

It should be noted that certain surface water stations in the San Juan drainage basin, and some stations on tributaries of the Rio Grande that enter the main stream below San Marcial, have been included in the tables for the Middle Valley.

For each of the subdivisions of the drainage basin there are tables for surface waters and for ground waters. The demarcation between these two sources is not always clear. Surface waters include not only all natural streams and irrigation canals diverted from them but also drains that are largely fed by ground water. Ground waters include samples from wells whether shallow (subsoil waters) or deep (underground waters). With ground waters have been included samples from springs when taken at the spring and samples from certain small ponds in the San Luis Valley where the water appears to be derived, at least in part, from artesian wells.

## METHODS OF ANALYSIS

In general the methods of analysis used in this investigation have been those adopted for use with irrigation waters by the Rubidoux Laboratory of the Bureau of Plant Industry. 1/

The tabulated analyses include some or all of the following determinations:

1. Specific electrical conductance, expressed as  $K \times 10^5$  at  $25^\circ C$ .
2. Total dissolved solids, expressed as tons per acre-foot of water.
3. Hydrogen-ion concentration, expressed as pH.
4. Calcium (Ca), expressed as milligram equivalents per liter.
5. Magnesium (Mg), expressed as milligram equivalents per liter.
6. Sodium (Na), expressed as milligram equivalents per liter.

Note: In some of the analyses the values reported for sodium are the results of the direct determination of that constituent, in other analyses the values have been obtained by difference, i.e., by subtracting the sum of the calcium and magnesium from the sum of the anions, bicarbonate, sulphate, chloride, and nitrate, all these constituents being expressed as milligram equivalents per liter.

7. Potassium (K), expressed as milligram equivalents per liter.
8. Carbonate ( $CO_3$ ), expressed as milligram equivalents per liter.
9. Bicarbonate ( $HCO_3$ ), expressed as milligram equivalents per liter.

Note: Because the normal carbonate ( $CO_3$ ) occurs infrequently in irrigation water it is not reported separately in most of the tables. Where it is reported by the analyst the values are added to the values for the bicarbonate in the tables.

10. Sulphate ( $SO_4$ ), expressed as milligram equivalents per liter.
11. Chloride (Cl), expressed as milligram equivalents per liter.
12. Nitrate ( $NO_3$ ), expressed as milligram equivalents per liter.
13. Silice ( $SiO_2$ ), expressed as parts per million.

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1/ Methods of analysis used in the Rubidoux Laboratory, Riverside, Calif., U.S. Dept. Agr., Bur. Plant Industry, 11 pp., revised March 20, 1933. (Mimeographed.)

14. Boron (B), expressed as parts per million.

Note: In general the boron values reported in the tables of group 1 were determined at the Rubidoux Laboratory by the method of electrometric titration, while those in the tables of group 3 were determined at the Water Resources Laboratory of the Geological Survey by the colorimetric (turmeric) method.

15. Fluoride (F), expressed as parts per million.

Note: In general the fluoride values, reported only in some of the tables of group 3, were determined at the Water Resources Laboratory of the Geological Survey by the ferric thiocyanate colorimetric method.

16. Silt (total suspended matter), expressed as tons per acre-foot of water.

Note: Since the chief objective of the investigations here reported has been to learn the conditions of salinity in the area, only incidental consideration has been given to the silt burden of the streams. In collecting the water samples no serious effort has been made to obtain samples that would adequately represent the silt conditions, and consequently the data on silt content here reported should not be taken as the best obtainable.

#### COMPUTATIONS AND INTERPRETATIONS

The tables of detailed analyses in groups 1 and 3 generally include one column headed "Percent sodium" and another headed "Percent chloride." The values reported in these columns are derived from the analytical data reported in the tables. The values for percent sodium are obtained by dividing the sum of the values for all the cations, calcium, magnesium, and sodium (including potassium if reported) into the values for sodium (and potassium) multiplied by 100.

That is, 
$$\frac{\text{Na (+K)} \times 100}{\text{Ca} + \text{Mg} + \text{Na (+K)}} = \text{Percent sodium}$$

Similarly the values for percent chloride are obtained by the formula

$$\frac{(\text{Cl} + \text{NO}_3) \times 100}{\text{HCO}_3 + \text{SO}_4 + \text{Cl} + \text{NO}_3} = \text{Percent chloride}$$

The significance of the derived value, percent sodium, is due to the role of the basic or cation constituents in the exchange reactions that occur when water containing dissolved salts comes in contact with the soil. The use in irrigation of waters containing high sodium percentages tends to impair the physical condition of the soil while the use of waters of low sodium percentages tends to maintain good physical condition or to improve poor physical condition where that condition has been caused by the deflocculation of the clay fraction.

The significance of the value, percent chloride, is less directly agricultural. It is probably true that with equal concentrations of total dissolved solids the water having the higher chloride percentage would be the less desirable because the chloride constituent is regarded as more toxic than the sulphate or bicarbonate. Probably the chief value of reporting the chloride percentage is that together with the percent sodium it indicates the general character of the water involved or the degree of relationship between waters from different sources.

The fact that the conductance (specific electrical conductance,  $K \times 10^5$  at  $25^\circ\text{C}.$ ) of water samples is extensively used in this report as a measure of the concentration of the dissolved salts warrants an explanation of the meaning of the term and of the significance of the measurement. Speaking technically, the conductance of a water sample is the reciprocal of its electrical resistance. The electrical resistance is what is actually measured. The resistance, measured in ohms, is determined by means of a Wheatstone bridge and a suitable vessel in which two platinum electrodes are immersed in the water to be tested. With suitable means of temperature control or of compensating for differences of temperature of the water, the electrical resistance may be measured, and the result of this measurement may be computed into the equivalent reciprocal of the resistance, which is the conductance, and the value stated as of a definite temperature. Because the measured resistance is more than 1 ohm and often several hundred ohms, the reciprocal is a decimal number. The letter K is the conventional symbol for electrical conductance; when it is followed by the symbol " $\times 10^5$ " it means that the decimal point has been moved 5 places to the right. The expression "at  $25^\circ\text{C}.$ " means that the resistance was determined with the solution at  $25^\circ$  Centigrade or that the resistance reading was compensated to its equivalent at that temperature.

Conductance is a relative measure of the concentration of total dissolved salts, or more specifically, of the total dissolved electrolytes in the water sample. It is a measure of the ionic concentration, and because the various ions have different weights when measured gravimetrically the results of a conductance determination may not be converted precisely into a gravimetric measure of concentration such as parts per million or tons per acre-foot. There is, however, an approximate relationship between the two measurements, when applied to the systems of mixed salts that occur in natural waters. This relationship is such that, in general, natural waters having a conductance of 100 have a concentration of total dissolved salts of 0.90 to 1.0 ton per acre-foot. With any group of water samples of the same type or from the same general source, it becomes possible to make a close approximation of the gravimetric equivalent of a conductance value by determining both values for a number of representative samples.

In this report conductance determinations have been given for a large number of samples in the tables of group 2. In the tables of groups 1 and 3 detailed analyses are reported. These detailed analyses include the values both for conductance and for total dissolved solids. When it is desired to convert the conductance values found in the tables of group 2 into gravimetric equivalents it is suggested that recourse be had to the tables of detailed analyses, where samples similar in source or type may be found, and a conversion factor obtained by taking the mean of the ratios between the conductance and gravimetric values for a number of such samples.

Water analysts usually report gravimetric concentrations of total salts or total dissolved solids as parts per million. In the present report such concentrations are reported as tons per acre-foot. The conversion from one scale to the other may be made by the factor 0.00136. In other words, parts per million is multiplied by 0.00136 or  $136 \times 10^{-5}$  to obtain the value, tons per acre-foot. Similarly the silt content of water samples is usually reported by analysts as percentage or parts per hundred. In the tables of this report, when the silt constituent is included, it is expressed as tons per acre-foot by using the conversion factor 13.6. These conversion factors are derived from the assumption that an acre-foot of water weighs 2.72 million pounds.



In case it is desired to convert the values here reported as milligram equivalents per liter into the scale of parts per million (milligrams per liter), that may be done by the use of appropriate factors. These factors are the combining weights of the several ions related to hydrogen as 1. The factors conventionally used to multiply the milligram equivalent values are: For calcium, 20.0; for magnesium, 12.15; for sodium, 23.0; for potassium, 39.0; for carbonate, 30.5; for bicarbonate, 61.0; for sulphate, 48.0; for chloride, 35.5, and for nitrate, 62.0. If it is desired to compute the "total hardness" of a water sample to be expressed as the equivalent of calcium carbonate in parts per million, this may be done by taking the sum of the milligram equivalents of calcium and magnesium multiplied by 50.

The Rio Grande at Del Norte Gaging Station, Colo.

Located in Sec. 30, T.40N., R.5E., N.M.P.M.; 6 miles west of Del Norte, Colo.  
Zero of gage is 7,982.21 feet above sea level. Samples and discharge data by  
Colorado State Engineer; analyses by U. S. Bureau of Plant Industry.

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance Ex10 <sup>3</sup> @25°C	TDS. Tons per acre foot	Bo-ron Ppm	Per-cent pH.	Per-cent Sodi-um	Chlo-ride	Milligram equivalents per liter							Silt, Tons per acre foot
										Calci-um (Ca)	Magne-sium (Mg)	Sodi-um (Na)	Carbon-ate & bi-carbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sul-phate (SO <sub>4</sub> )	Chlo-ride (Cl)	Ni-trate (NO <sub>3</sub> )	
1936																	
10550	Jan.	5	144	15.9	.15	.07	7.3	43	9	.92	.30	.92	1.24	.71	.18	.02	--
10810	Feb.	4	188	14.4	.17	.03	7.8	24	14	.81	.20	.32	1.14	.07	.19	tr	0
10812	Mar.	5	227	12.7	.16	.03	7.6	27	21	.76	.29	.39	.99	.10	.29	0	0
10814	April	4	1,213	7.79	.13	--	7.4	19	21	.53	.38	.21	.64	.09	.19	0	0
11018	May	5	2,274	6.42	.06	.05	7.4	20	14	.43	.17	.15	.49	.10	.10	0	.001
10999	June	4	1,444	12.3	.11	.04	7.3	21	4	.52	.32	.22	.74	.54	.05	tr	0
11000	July	3	764	9.28	.12	--	7.2	37	9	.58	.11	.40	.79	.46	.10	.02	0
11087	Aug.	5	525	11.3	.15	.04	7.3	44	12	.64	.25	.69	.64	.84	.20	.01	tr
11123	Sept.	3	452	11.7	.15	--	7.2	32	9	.76	.38	.54	.84	.54	.15	0	0
11232	Oct.	4	240	15.7	.14	.05	6.9	22	14	.73	.48	.34	1.00*	.18	.15	.05	.46
11309	Nov.	4	230	12.7	.13	.05	7.3	23	5	.71	.31	.30	1.00	.20	.05	.01	0
11308	Dec.	3	189	14.6	.15	.06	7.3	25	8	.77	.36	.37	1.05	.25	.10	.01	0

\*Includes carbonate (CO<sub>3</sub>)

The Rio Grande at State Line (Lobatos) Gaging Station, Colo.

Located in Sec. 22, T.33N., R.11E., N.M.P.M.; 6 miles north of Colorado-New Mexico line and 10 miles east of Lobatos, Colo. Zero of gage is 7,426.79 feet above sea level. Samples and discharge data by Colorado State Engineer; analyses by U. S. Bureau of Plant Industry.

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance Kilo $\Omega$ @25°C	TDS. Tons per acre foot	Bo-ron Ppm	pH.	Percent Sodi-um	Percent Chloride	Milligram equivalents per liter						Silt, Tons per acre foot	
										Calci-um (Ca)	Magne-sium (Mg)	Sodi-um (Na)	Carbon-ate & bi-carbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sul-phate (SO <sub>4</sub> )	Chlo-ride (Cl)		Mi-trate (NO <sub>3</sub> )
1934																	
8266	Jan. 9	1	350	30.6	--	--	--	27	11	1.65	1.08	1.00	2.16	1.17	.38	.02	--
8448	Feb. 2	2	362	30.7	.28	--	8.0	44	9	1.55	.42	1.45	1.77	1.40	.33	tr	--
8560	Mar. 28	1	175	48.3	.44	--	--	34	11	2.67	.77	1.66	2.55	2.10	.52	.05	.20
8561	Apr. 26	1	175	50.1	.48	--	--	33	11	2.68	.97	1.78	2.60	2.33	.47	.03	.04
9248	June 2	2	54	73.6	.69	--	--	7.6	51	2.35	1.20	3.75	2.07	4.75	.74	tr	.16
9293	July 23	1	15	46.3	.42	--	--	7.9	43	1.92	.84	2.06	2.56	1.81	.44	tr	.45
9070	Aug. 2	2	23.5	94.0	.47	.22	7.7	48	9	1.90	.87	2.56	2.95	1.81	.45	.04	--
9302	Oct. 2	2	48.6	41.3	.39	--	--	7.6	39	1.70	.73	1.55	2.41	1.30	.45	.01	.08
9344	Nov. 26	1	64.6	36.9	.37	.15	7.6	36	8	1.72	.70	1.34	2.21	1.25	.30	.01	.11
9450	Dec. 12	1	171	30.7	.26	.07	8.2	30	8	1.36	.55	.80	1.82	.71	.20	.01	.20
1935																	
9538	Jan. 2	2	179	25.8	.26	.07	7.4	31	8	1.36	.55	.85	1.72	.68	.20	.01	.11
9623	Feb. 2	2	158	26.9	.26	.05	7.6	31	10	1.51	.50	.89	1.67	.63	.25	.02	.14
9765	Mar. 2	2	115	43.8	.41	.09	8.4	38	9	2.16	.87	1.71	2.56	1.86	.44	.03	.24
9929	Apr. 18	1	15	46.4	.46	.14	7.3	41	8	2.27	.68	2.00	3.15	1.45	.40	tr	1.33
9930	May 29	1	1,700	14.7	.20	.06	7.3	33	13	.73	.39	.55	.93	.22	.22	.02	.54
10122	July 10	1	790	22.5	.22	.07	8.0	31	17	1.34	.53	.82	1.53	.84	.33	.01	.07
10195	Aug. 7	1	186	62.8	.57	.11	8.3	42	10	2.87	1.03	2.64	2.82	3.22	.67	0	--
10275	Sept. 25	1	97	56.9	.50	.11	8.3	37	9	2.53	1.04	1.94	2.28	2.90	.53	0	.15
10323	Oct. 25	1	190	51.5	.47	--	8.2	36	11	2.58	.85	1.93	2.28	2.55	.57	tr	0
10365	Nov. 27	1	383	34.1	.30	.14	7.6	39	6	1.25	.65	1.20	1.89	1.23	.19	tr	.11
10413	Dec. 16	1	256	32.6	.28	.06	7.4	32	6	1.48	.60	1.00	1.74	1.30	.18	0	0
1936																	
10551	Jan. 4	5	252	28.8	.26	.09	7.6	35	8	1.34	.31	.99	1.84	.90	.22	.02	--
10811	Feb. 4	4	316	27.1	.23	.05	7.7	35	14	1.43	.52	1.04	1.68	.76	.39	0	0
10813	Mar. 4	4	271	41.3	.38	.09	7.6	35	14	2.07	.70	1.49	2.18	1.54	.63	0	0
10824	Apr. 5	5	1,146	23.7	.24	.09	7.5	35	13	1.21	.55	.94	1.29	.94	.34	tr	.05
11019	May 4	5	1,557	16.7	.19	--	7.3	28	10	.95	.46	.54	1.09	.65	.19	0	0
11020	June 3	3	327	40.8	.40	--	7.6	31	8	1.99	1.06	1.37	1.78	2.30	.34	0	.10
11001	July 4	4	17	62.5	.48	.18	8.3	47	9	2.17	.78	2.81	2.47	3.20	.55	.01	0
11088	Aug. 3	3	124	41.6	.34	--	7.4	25	10	2.18	.82	1.83	2.52	1.74	.50	0	.26
11089	Sept. 5	5	154	44.4	.45	.11	7.5	38	11	2.18	.82	1.32	2.11	1.53	.25	0	.03
11173	Oct. 4	4	213	40.1	.40	.10	7.4	32	6	2.01	.83	1.32	2.11	1.53	.25	0	.30
11233	Nov. 4	4	420	30.0	.24	.08	8.9	30	8	1.30	.65	.82	1.60	.97	.20	.03	.05
11264	Dec. 5	5	401	28.6	.27	.05	7.2	27	6	1.54	.60	.78	1.75	.88	.15	.03	0

\* Includes carbonate (CO<sub>3</sub>)

The Rio Grande at Otowi Bridge Gaging Station, New Mex.

Located in San Ildefonso Pueblo Grant, at Denver and Rio Grande Western railroad bridge, 2 miles southwest of San Ildefonso, N. Mex., and 3 miles below Tesuque Creek. Zero of gage is 5,486.48 feet above sea level. Samples and discharge data by U. S. Geological Survey; analyses by U. S. Bureau of Plant Industry.

Laboratory No.	Date of Sample	No. of Samples	Dis-charge c.f.s.	Con-ductance Kx10 <sup>3</sup> @25°C	TDS. Tons per acre foot	Bo-ron Ppm	pH.	Percent Sodi-um	Percent Chloride	Milligram equivalents per liter							Silt, Tons per acre foot
										Calci-um (Ca)	Magne-sium (Mg)	Sodi-um (Na)	Carbon-ate & bi-carbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sul-phate (SO <sub>4</sub> )	Chlo-ride (Cl)	Ni-trate (NO <sub>3</sub> )	
1934																	
8265	Jan.	4	711	34.3	.37	.06	7.6	32	10	1.92	.85	1.35	2.60	1.08	.38	.02	--
8385	Feb.	3	873	35.6	--	.05	--	--	--	--	--	--	--	--	--	--	--
8464	Mar.	2	738	41.6	.45	--	8.0	46	10	2.23	.73	2.45	2.55	2.39	.53	tr	--
8559	Apr.	3	970	34.1	.30	--	--	27	10	1.93	.70	.73	2.21	1.01	.33	.04	1.41
8917	May 24	1	561	39.7	.38	--	--	29	8	2.08	1.06	1.34	2.64	1.43	.34	--	2.49
8880	June	2	162	55.9	.51	--	7.6	51	12	2.09	.97	3.10	3.46	2.02	.71	.01	--
9098	July	3	393	78.8	.78	.09	7.5	20	6	5.53	1.51	1.71	3.30	4.93	.49	.07	11.00
9121	Aug.	3	188	46.0	.42	.09	7.4	26	8	2.80	1.08	1.38	3.54	1.04	.34	.04	2.62
9199	Sept.	3	358	47.8	.47	.10	7.6	25	6	2.98	.93	1.29	3.25	1.81	.29	.03	6.01
9303	Oct.	2	298	39.7	.37	--	7.5	30	7	2.12	.80	1.24	2.90	1.08	.30	.01	.50
9379	Nov.	2	353	41.2	.38	--	7.4	29	10	2.21	.86	1.27	2.80	1.15	.40	.02	.15
9451	Dec.	2	411	40.2	.38	--	7.7	30	10	2.16	.84	1.29	2.71	1.23	.40	.03	.35
1935																	
9539	Jan.	3	563	37.1	.36	.16	7.4	32	9	1.79	.75	1.21	2.36	.94	.30	.03	.23
9653	Feb.	2	538	37.7	.36	--	7.4	29	10	2.29	.83	1.30	2.36	1.64	.40	.04	.58
9797	Mar.	3	468	44.6	.41	.08	8.3	32	7	2.39	.96	1.48	2.95	1.64	.31	.02	1.28
9803	Apr.	3	827	39.6	.37	--	8.2	20	5	2.44	1.00	.95	2.76	1.32	.22	.01	4.28
9998	May	4	4,399	39.3	.38	.05	7.5	23	4	2.84	.65	1.01	2.92	1.41	.19	tr	6.26
10065	June	3	6,100	22.9	.23	.05	8.0	21	6	1.98	.56	.44	1.78	.54	.14	tr	1.11
10119	July	3	1,460	35.9	.34	.05	8.1	30	13	2.25	.80	1.19	2.28	1.26	.48	.07	1.67
10194	Aug.	4	1,081	38.3	.30	.07	7.5	30	6	2.14	.78	1.67	2.97	2.27	.29	.05	17.25
10302	Sept.	2	813	39.2	.39	--	7.7	30	8	2.35	.39	1.28	1.98	1.65	.29	.02	4.05
10565	Oct.	2	785	41.4	.43	--	7.6	37	7	2.08	.65	1.57	2.29	1.54	.31	tr	.68
10566	Nov.	3	1,043	41.2	.42	--	7.6	28	7	2.35	.69	1.14	2.24	1.82	.31	0	.31
10567	Dec.	3	665	41.0	.42	--	7.2	30	10	2.28	.41	1.16	2.54	.72	.35	.03	.15
1936																	
10552	Jan.	2	592	35.9	.37	--	7.8	29	10	2.15	.65	1.13	2.39	1.07	.40	tr	.01
10605	Feb.	3	739	36.7	.34	--	7.8	27	9	2.23	.68	1.06	2.29	1.23	.31	.02	--
10676	Mar.	2	1,061	50.7	.47	--	7.7	25	6	2.78	1.11	1.31	2.81	2.28	.33	tr	1.39
10815	Apr.	2	5,590	33.9	.32	--	7.5	17	11	2.61	.94	.63	2.13	1.18	.39	tr	4.83
10825	May	7	3,942	29.1	.26	--	7.5	29	11	1.64	.61	.94	1.75	.98	.34	tr	4.41
10888	June	3	1,146	29.0	.31	--	7.7	23	5	1.81	.63	.71	1.83	1.18	.15	0	.22
11002	July	3	1,049	37.0	.34	--	8.0	21	5	2.34	1.17	.96	2.38*	1.94	.20	.04	.79
11003	Aug.	3	962	37.8	.35	--	7.4	23	7	2.54	.55	.90	2.34	1.30	.25	.01	1.17
11090	Sept.	2	913	35.4	.36	--	7.6	26	5	2.25	.67	1.00	2.13	1.56	.20	.01	.67
11147	Oct.	3	862	41.8	.40	--	--	27	8	2.40	.82	1.19	2.52	1.54	.30	.05	1.00
11197	Nov.	3	1,030	37.0	.34	--	8.3	24	7	1.97	.83	.89	1.95*	1.25	.20	.03	.16
11225	Dec.	4	680	35.9	.31	.08	8.5	29	7	1.75	.75	1.03	2.15*	1.13	.20	.03	.12

\* Includes carbonate (CO<sub>3</sub>)

RIO GRANDE, SAN MARCIAL GAGING STATION, NEW MEXICO

(Total Dissolved Solids in tons per acre foot)

Station located in Pedro Armendaris Grant No. 34, about one mile along the A. T. & S. F. Railroad below the town of San Marcial, in Sec. 19, T. 7S., R. 1W., N.M.P.M. Gage is located on steel railway bridge and metering cable is 1000 feet upstream. Water passing at this station is impounded in Elephant Butte Reservoir. Zero of gage is 4455.38 feet above sea level. Samples and analyses by United States Bureau of Reclamation.

Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.
4-22-20	1982	.54	9-19-20	22	.98	3-18-21	596	.41	8-21-21	2380	1.17
4-22-20	1982	.54	9-22-20	192	1.14	3-21-21	589	.41	9-2-21	2110	.68
4-25-20	1800	.51	9-25-20	209	.76	3-24-21	1990	.57	9-11-21	826	.54
4-25-20	1800	.76	9-28-20	129	.87	3-27-21	1288	.52	9-20-21	504	.71
4-30-20	1893	.73	9-30-20	111	.93	3-30-21	1427	.44	9-29-21	326	.54
5-4-20	5437	.81	10-3-20	124	.98	4-2-21	1032	.54	10-8-21	447	.63
5-8-20	5928	.46	10-3-20	124	.82	4-5-21	858	.41	10-20-21	404	.52
5-11-20	9180	.76	10-9-20	121	.82	4-8-21	972	.49	10-20-21	404	.71
5-14-20	10745	.52	10-12-20	128	.82	4-11-21	572	.46	11-7-21	474	.57
5-17-20	11528	.65	10-16-20	129	.93	4-15-21	282	.46	11-16-21	712	.54
5-20-20	7504	.41	10-19-20	179	1.01	4-18-21	736	.41	12-3-21	789	1.55
5-24-20	13425	.52	10-22-20	257	.71	4-21-21	784	.44	1-1-22	1411	.72
5-27-20	22465	.71	10-25-20	328	.68	4-24-21	400	.57	2-1-22	1017	.84
5-31-20	22500	.46	10-28-20	601	.95	4-28-21	1051	.44	4-18-22	1075	.49
6-3-20	19654	.49	10-31-20	629	.65	4-30-21	988	.30	5-3-22	3570	.60
6-7-20	12113	.71	11-4-20	709	.65	5-3-21	722	.38	5-25-22	5990	.48
6-10-20	19399	.24	11-8-20	699	.92	5-6-21	3700	.27	6-2-22	3940	.24
6-13-20	16750	.57	11-12-20	706	.79	5-9-21	5490	.35	6-8-22	4880	.30
6-17-20	12968	.38	11-15-20	975	.76	5-11-21	4570	.30	6-11-22	4686	.27
6-21-20	9986	.43	11-18-20	823	.49	5-15-21	3080	.24	6-15-22	5330	.35
6-26-20	6370	.38	11-21-20	830	.52	5-18-21	3769	.35	6-19-22	4250	.44
6-30-20	8167	1.14	11-24-20	790	.93	5-21-21	4224	.41	6-23-22	3700	.24
7-4-20	6919	1.06	11-27-20	781	.52	5-24-21	3224	.41	6-27-22	3033	.27
7-7-20	5932	.46	11-30-20	786	.60	5-27-21	3899	.27	7-1-24	950	.54
7-10-20	3371	.35	12-3-20	765	.84	5-30-21	4089	.33	7-24-24	1270	.54
7-13-20	2253	.57	12-6-20	696	.84	6-2-21	3870	.24	8-6-24	1450	.54
7-22-20	637	.54	12-9-20	648	.71	6-5-21	7438	.19	8-1-24	1180	.27
7-25-20	457	.68	12-12-20	610	.65	6-8-21	11512	.54	3-17-24	1010	.27
7-28-20	507	1.47	12-15-20	601	.63	6-11-21	11441	.33	4-1-24	2020	.27
7-31-20	390	1.14	12-19-20	606	.63	6-14-21	13421	.35	4-8-24	3940	.54
8-1-20	390	1.03	12-23-20	635	.65	6-17-21	16839	.44	4-26-24	10300	.27
8-2-20	390	1.17	12-27-20	641	.63	6-20-21	19360	.41	5-8-24	9640	..
8-4-20	1028	1.60	12-31-20	619	.68	6-23-21	12770	.33	5-9-24	9690	.14
8-5-20	940	1.77	1-3-21	624	.73	6-26-21	7415	.27	5-10-24	9680	..
8-6-20	1115	1.41	1-6-21	662	.68	6-29-21	4900	.19	5-11-24	9980	.27
8-7-20	607	1.99	1-9-21	664	.73	7-2-21	3061	.27	7-12-24	1480	1.45
8-8-20	575	1.44	6-15-21	678	.71	7-5-21	2644	.30	7-23-24	80	.54
8-9-20	575	1.29	6-18-21	762	.63	7-8-21	2006	.35	3-25-25	860	.41
8-10-20	350	1.28	2-4-21	806	.73	7-11-21	1238	.24	3-28-25	700	.41
8-13-20	839	.92	2-7-21	926	.65	7-14-21	1094	.41	3-31-25	1530	.54
8-16-20	723	1.14	2-10-21	892	.79	7-17-21	1262	.46	4-3-25	1010	.68
8-19-20	515	.98	2-13-21	725	.98	7-20-21	823	.38	4-6-25	910	.68
8-22-20	753	.87	2-16-21	819	.68	7-23-21	3530	1.28	4-9-25	1400	.41
8-24-20	1034	.82	2-19-21	990	.68	7-26-21	8650	.16	4-12-25	1230	.54
8-27-20	508	.98	2-22-21	644	.68	7-29-21	6205	1.28	4-15-25	1410	.41
8-31-20	223	.84	2-25-21	700	.60	8-1-21	9463	1.09	4-18-25	2180	.54
9-3-20	187	.87	2-28-21	765	.63	8-4-21	3808	.95	4-24-25	2800	.54
9-6-20	121	.82	3-3-21	1362	.60	8-6-21	1932	.75	5-3-25	1420	.54
9-9-20	39	.71	3-6-21	1696	.60	8-9-21	1392	.84	5-6-25	1020	.54
9-9-20	39	.87	3-9-21	1503	.60	8-12-21	1792	.90	5-9-25	1200	.68
9-16-20	16	.90	3-12-21	1510	.63	8-15-21	2121	1.44	5-12-25	1380	.54
9-19-20	22	1.01	3-15-21	950	.63	8-18-21	2100	1.17	5-15-25	1180	.54

RIO GRANDE, SAN MARCIAL GAGING STATION, NEW MEXICO - 2 -

(Total Dissolved Solids in tons per acre foot)

Date	Disch. c.f.s.	T.D.S.	Date	Disch. c.f.s.	T.D.S.	Date	Disch. c.f.s.	T.D.S.	Date	Disch. c.f.s.	T.D.S.
5-18-25	820	.54	5-27-26	10450	.82	2-8-29	507	1.09	4-12-31	529	.95
5-21-25	460	.27	5-31-26	7950	.41	2-12-29	122	.82	4-18-31	1450	.82
5-24-25	300	.41	6-6-26	7080	.54	2-19-29	679	.95	4-20-31	1470	1.22
5-27-25	325	.68	6-15-26	6200	.41	2-25-29	453	1.09	4-27-31	1520	.68
5-28-25	360	.41	7-13-26	1040	2.18	3-2-29	556	1.09	5-9-31	1710	.54
5-31-25	400	.82	7-31-26	647	3.00	3-14-29	333	.82	5-15-31	1370	.68
6-3-25	310	.14	8-14-26	175	2.72	3-20-29	617	.82	5-21-31	2000	.68
6-7-25	70	.68	8-16-26	50	3.00	3-25-29	480	.82	5-27-31	669	.82
6-10-25	20	.54	9-15-26	123	3.40	3-31-29	920	1.09	6-2-31	421	.54
7-26-25	70	1.77	9-20-26	490	2.72	4-10-29	1500	.68	6-8-31	156	.68
7-29-25	70	2.45	10-1-26	13	.82	4-14-29	870	.54	7-3-31	323	2.72
7-31-25	240	2.72	10-17-26	56	.54	4-16-29	596	1.90	7-8-31	829	2.31
8-1-25	1610	1.90	10-31-26	49	.82	4-20-29	1220	-	8-4-31	720	1.22
8-4-25	140	2.18	11-30-26	530	1.09	4-22-29	2100	.54	8-10-31	1210	2.86
8-8-25	420	2.04	12-17-26	557	.82	4-22-29	2100	.68	8-16-31	19	1.09
8-10-25	325	1.36	12-31-26	132	.82	4-24-29	1530	1.77	8-26-31	36	2.82
8-17-25	1670	1.90	1-14-27	682	.68	4-26-29	1810	.68	9-3-31	76	2.76
8-16-25	200	1.09	1-31-27	528	.54	4-28-29	1790	.54	9-17-31	709	2.04
8-22-25	90	1.36	2-14-27	556	.54	4-30-29	1620	.27	9-19-31	3839	1.90
8-25-25	200	1.09	2-27-27	638	.82	5-2-29	1520	.54	9-25-31	6737	2.04
8-26-25	220	2.45	3-15-27	740	.41	5-4-29	1560	1.09	9-29-31	3507	1.36
9-1-25	40	1.22	4-1-27	1508	1.36	5-6-29	1620	.54	10-2-31	752	3.81
9-2-25	970	1.77	4-16-27	1500	.54	5-6-29	2710	.54	10-5-31	1270	1.77
9-6-25	1060	2.72	4-30-27	3730	.82	5-10-29	3480	.68	10-11-31	72	.82
9-9-25	175	1.77	5-16-27	4610	.54	5-13-29	5520	.54	10-17-31	423	.82
9-12-25	125	1.36	7-2-27	163	.68	5-15-29	3960	.82	10-29-31	401	.95
9-15-25	2140	2.45	7-15-27	970	2.04	5-19-29	4960	.54	11-4-31	362	.95
9-16-25	830	2.04	7-26-27	965	1.50	5-21-29	5920	.82	11-10-31	307	.82
9-19-25	270	1.09	7-30-27	870	.41	5-23-29	7490	1.09	11-16-31	593	.68
9-21-25	570	1.50	7-31-27	630	1.36	5-25-29	7810	.68	11-23-31	450	1.22
9-24-25	270	1.36	8-25-27	4800	1.77	5-28-29	5790	.54	12-5-31	617	.68
10-3-25	182	.54	8-31-27	481	.95	6-1-29	4480	.68	12-11-31	631	.54
10-6-25	82	.82	9-9-27	3590	1.09	6-3-29	3930	.41	12-18-31	541	1.22
10-9-25	84	.82	9-15-27	7100	.95	6-5-29	3390	.54	12-24-31	1000	.95
10-13-25	300	.95	9-24-27	4450	.41	6-8-29	3920	.68	1-6-32	1008	.68
10-14-25	710	1.50	9-30-27	2500	.41	6-15-29	2810	.27	1-14-32	753	.82
10-19-25	1060	.95	10-14-27	1920	3.54	7-12-29	547	2.18	1-21-32	707	.82
10-28-25	642	.82	10-31-27	1092	.68	7-22-29	327	1.36	1-27-32	673	.82
11-4-25	529	.68	11-16-27	1024	.54	7-26-29	2810	1.36	2-2-32	701	.82
11-18-25	930	.82	11-30-27	762	.82	7-30-29	1660	.54	2-7-32	1024	.82
11-24-25	742	.82	12-16-27	1320	.54	8-1-29	1290	1.22	2-12-32	2183	1.36
11-30-25	820	1.09	1-6-28	960	.82	8-8-29	4860	1.09	2-18-32	1320	.54
12-20-25	725	.95	1-31-28	663	.82	8-16-29	5970	.54	2-25-32	1220	.82
12-23-25	853	.82	2-5-28	820	.54	8-25-29	1220	.54	3-2-32	1680	.68
12-29-25	580	.68	3-1-28	730	.68	8-31-29	2950	1.22	3-8-32	1620	.54
1-4-26	1000	1.09	3-16-28	887	.82	9-5-29	3180	1.09	3-14-32	1560	.95
1-7-26	775	.54	3-31-28	1200	.68	9-25-30	818	.95	3-21-32	1350	.82
1-10-26	75	.68	4-15-28	820	.68	9-30-30	3150	.54	3-27-32	1520	.95
1-22-26	651	.54	4-30-28	586	.82	6-8-30	1720	.68	4-4-32	1520	.82
1-25-26	663	.82	5-3-28	2350	.68	6-12-30	1180	1.36	4-11-32	3560	.68
2-16-26	663	.68	5-14-28	4980	.68	8-22-30	268	.68	4-15-32	3730	.82
2-26-26	505	.95	5-25-28	3925	.68	9-23-30	0	1.36	4-16-32	4440	.68
2-28-26	687	.54	5-31-28	4215	.82	12-15-30	645	.95	4-23-32	6260	.27
3-15-26	842	.95	7-31-28	200	3.40	12-31-30	417	1.36	4-30-32	3130	.54
4-1-26	977	.82	8-18-28	254	3.00	1-15-31	624	.95	5-7-32	4770	.41
4-11-26	1250	1.36	8-26-28	558	1.77	1-31-31	779	.95	5-12-32	6480	.54
4-14-26	1475	.82	9-1-28	1170	1.09	2-15-31	967	.95	5-18-32	7630	.41
4-30-26	7175	1.09	10-1-28	0	1.50	3-1-31	765	.95	5-24-32	11460	.82
5-8-26	8050	.54	12-31-28	711	.68	3-15-31	700	.82	5-31-32	7270	.54
5-16-26	3595	.27	1-31-29	605	.95	3-31-31	922	.82	6-6-32	4430	.41
5-21-26	6487	.27	2-6-29	479	.82	4-6-31	939	.82	6-12-32	2450	.41

The Rio Grande at San Marcial, N. Mex.

Gaging station located at railroad bridge about 1 mile below San Marcial in Sec. 19, T. 7S., R. 1W., N. M. P. M. Zero of gage is 4,455.38 feet above sea level. Samples collected by International Boundary Commission; analyses by U. S. Bureau of Plant Industry.

Laboratory No.	Date of Sample	Dis-charge c.f.s.	Con-ductance per 10 <sup>5</sup> @25°C	TDS. Tons per acre foot	Bo-ron Ppm	pH.	Per- cent Sodi-um	Per- cent Chlo-ride	Milligram equivalents per liter					Silt, Tons per acre foot	
									Calcium (Ca)	Magne- sium (Mg)	Sodi-um (Na)*	Carbon- ate & bi- carbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )		Chlo- ride (Cl)
1932															
242	June 20	3,990	39.0	.34	—	—	41	20	1.90	.50	1.70	2.00	1.30	.80	12.85
243	" 28	3,960	42.0	.42	—	—	53	22	2.10	.50	2.90	2.80	1.50	1.20	11.58
244	July 5	4,570	71.0	.64	—	—	38	10	3.30	1.50	2.90	3.20	3.70	.80	22.60
245	" 11	2,290	58.0	.50	—	—	35	16	2.10	1.10	1.70	2.40	1.70	.80	9.62
273	" 18	1,870	58.0	.50	—	—	32	19	3.00	1.30	2.00	3.20	1.90	1.20	7.10
274	" 24	2,000	61.0	.58	—	—	30	12	3.30	1.30	2.00	2.80	3.00	.80	8.12
275	" 30	800	111.0	1.15	—	—	45	16	5.40	1.50	5.60	3.20	7.30	2.00	37.00
276	Aug. 13	865	99.0	.95	—	—	33	22	5.60	1.70	3.60	3.60	4.90	2.40	11.90
307	" 25	1,513	112.0	1.13	—	—	58	18	4.05	1.53	7.57	2.80	7.95	2.40	67.30
308	Sept. 1	1,269	127.0	1.29	—	—	53	16	4.95	1.79	7.85	2.40	9.79	2.40	52.60
309	" 5	513	87.0	.84	—	—	57	21	3.15	1.02	5.58	2.80	4.95	2.00	13.60
310	" 10	238	79.0	.77	—	—	53	18	3.15	1.02	4.67	2.80	4.44	1.60	4.83
311	" 16	20.8	101.0	1.02	—	—	55	28	3.75	1.41	6.27	3.20	5.03	3.20	1.29
312	" 27	82	136.0	1.29	—	—	43	22	6.00	2.18	6.26	2.80	8.44	3.20	26.11
313	" 30	103	123.0	1.06	—	—	39	20	5.70	1.79	4.72	2.40	7.41	2.40	13.06
314	Oct. 3	295	92.0	.89	—	—	50	25	4.05	1.41	5.94	3.20	5.00	2.80	8.98
335	" 13	294	90.0	.82	—	—	53	21	3.45	1.02	5.13	2.60	5.00	2.00	6.30
336	" 24	271	85.0	.77	—	—	53	19	3.45	1.15	5.12	4.00	3.92	1.80	6.48
337	" 28	752	83.0	.76	—	—	50	20	3.45	1.02	4.46	2.80	4.33	1.80	13.88
344	" 31	447	82.0	.72	—	—	47	29	3.30	1.28	4.09	2.40	4.27	2.00	7.94
356	Nov. 12	377	79.0	.75	—	—	43	17	3.90	1.41	3.94	3.40	4.25	1.60	5.36
357	" 13	612	79.0	.76	—	—	43	15	3.90	1.41	4.08	3.40	4.99	1.40	5.66
365	" 22	618	89.0	.69	—	—	43	19	3.90	1.40	4.03	3.70	3.83	1.80	—
366	" 23	671	85.0	.63	—	—	45	23	3.45	1.40	4.00	3.00	3.85	2.00	—
367	" 28	619	87.0	.77	—	—	46	23	3.75	1.40	4.35	3.40	3.90	2.20	—
1933															
454	Feb. 10	646	94.0	.86	—	—	45	27	4.35	1.28	4.64	3.60	3.87	2.80	13.92
455	" 13	519	91.0	.84	—	—	50	27	3.75	1.41	5.11	3.20	4.27	2.80	8.78
456	" 21	718	77.0	.71	—	—	48	23	3.45	1.15	4.27	4.00	2.87	2.00	9.11
466	" 28	928	96.0	.90	—	—	54	24	4.05	1.28	6.25	4.00	4.78	2.80	7.95
469	Mar. 24	669	75.0	.74	—	—	50	17	3.15	1.02	4.68	4.00	3.76	1.60	6.50
470	" 30	457	79.0	.78	—	—	52	16	3.15	1.53	5.05	4.00	4.13	1.60	3.73
471	Apr. 7	310	77.0	.76	—	—	46	17	3.45	1.94	4.21	3.20	4.40	1.60	1.97
496	" 23	1177	87.0	.83	—	—	47	24	3.90	1.41	4.78	3.60	4.09	2.40	1.89
517	" 29	171	89.0	.92	—	—	50	22	3.75	1.66	5.45	4.00	4.46	2.40	1.14
522	May 5	870	68.0	.64	—	—	45	25	3.15	1.28	3.64	2.80	3.27	2.00	7.88
544	" 9	1,252	66.0	.65	—	—	45	25	3.00	1.41	3.54	3.20	2.75	2.00	3.22
545	" 17	498	71.0	.71	—	—	50	18	3.15	1.41	4.57	3.60	3.93	1.60	7.75
546	" 23	3,150	55.6	.58	—	—	44	16	3.00	1.15	3.32	3.20	3.07	1.20	27.90
567	" 30	3,811	39.0	.43	—	—	48	22	2.25	.64	2.67	2.80	1.56	1.20	15.10
568	June 3	3,601	36.0	.35	—	—	40	18	2.10	.64	1.81	2.40	1.35	.80	16.60
579	" 5	4,349	36.0	.40	—	—	37	25	2.40	.64	1.77	2.40	1.22	1.20	11.42
583	" 15	3,240	141.0	1.54	—	—	42	24	7.05	2.56	7.03	2.40	10.24	4.00	42.90
584	" 17	2,755	67.0	.72	—	—	50	28	3.30	1.02	4.29	2.80	3.41	2.40	18.10
595	" 18	4,591	174.0	1.81	—	—	41	14	8.55	3.20	8.30	2.40	14.85	2.80	76.60
596	" 19	6,446	180.0	1.83	—	—	48	12	7.50	3.32	10.01	2.80	15.63	2.40	124.50
597	" 20	9,377	148.0	1.44	—	—	38	24	7.05	2.56	6.01	2.80	10.42	2.40	106.10
7456	" 25	11,246	151.0	1.61	—	—	35	11	4.40	2.56	5.97	2.50	13.00	1.88	.01 57.94
7457	" 26	4,882	107.0	.98	—	—	44	12	5.13	1.87	4.98	2.50	8.09	1.44	.01 48.55
7458	" 26	5,744	92.9	.92	—	—	39	11	4.43	1.74	3.90	2.75	6.25	1.11	.01 36.04
7459	" 28	2,722	64.1	.61	—	—	38	15	3.05	1.28	2.66	2.45	3.50	1.01	T. 12.38
7460	July 1	1,371	62.6	.60	—	—	40	16	2.80	1.20	2.52	2.55	2.99	1.06	.04 7.89
7495	" 5	710	80.6	.79	—	—	36	17	4.10	1.85	3.19	2.85	4.44	1.59	.04 10.47
7496	" 8	1,251	131.0	1.32	—	—	44	14	6.00	2.17	6.21	3.10	9.40	2.07	.01 54.00

\*For samples prior to No. 7456 the sodium was calculated; for the subsequent samples it was determined.

The Rio Grande at San Marcial, N. Mex.

- 2 -

Laboratory No.	Date of Sample	Discharge c.f.s.	Conductance at 65°C	TDS, Tons per acre foot	Bor- on Ppm	pH.	Per- cent Sodi- um	Per- cent Chlor- ide	Milligram equivalents per liter					Si- lit, Tons per acre foot		
									Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)*	Carbon- ate & bi- carbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )		Chlor- ide (Cl)	Ni- trate (NO <sub>3</sub> )
1933																
7497	July 10	784	163.0	1.67	—	—	47	12	7.20	2.69	8.20	3.25	13.04	2.26	2.	91.80
7498	" 11	461	147.0	1.48	—	—	47	16	5.95	2.60	7.34	3.15	10.39	2.55	.05	45.83
7499	" 13	312	129.0	1.24	—	—	52	23	5.00	1.63	6.75	3.30	7.38	3.08	.07	21.08
7517	" 15	170	117.0	1.12	—	—	50	26	4.53	1.76	6.08	3.05	6.19	3.27	.05	8.30
7518	" 17	526	179.0	1.89	—	—	43	13	8.27	2.89	8.70	2.75	14.86	2.65	.02	69.35
7519	" 18	2,626	184.0	1.91	—	—	46	17	8.27	3.05	8.92	2.90	14.50	3.51	.07	118.32
7541	" 19	1,605	199.0	1.67	—	—	41	11	7.65	2.95	7.24	2.85	13.13	1.97	.05	77.90
7542	" 21	580	124.0	1.25	—	—	43	14	5.78	2.30	5.65	2.90	9.34	1.88	.05	39.30
7543	" 26	1,339	177.0	1.94	—	—	40	11	9.33	2.80	7.88	2.60	15.25	2.21	.07	86.10
7544	" 27	1,200	175.0	1.65	—	—	44	10	7.25	2.46	7.33	2.95	12.66	1.68	.03	84.85
7649	Aug. 4	1,773	146.0	1.59	—	—	39	10	7.47	2.17	6.26	3.00	11.22	1.59	.02	105.94
7645	" 10	908	119.0	1.24	—	—	41	13	6.20	1.51	5.30	3.35	8.05	1.73	.01	40.50
7647	" 13	375	124.0	1.30	—	—	45	18	5.50	1.83	5.82	3.00	7.87	2.36	.01	31.28
7675	" 17	120	147.0	1.34	—	—	55	30	5.08	1.90	6.32	3.10	7.64	4.71	2.	13.60
7765	" 25	15	154.0	1.40	—	—	52	24	4.77	2.96	7.99	4.05	5.46	5.48	.02	3.81
7889	Sept. 3	76	136.0	1.33	—	—	54	24	5.75	1.24	7.96	3.95	7.71	3.62	.03	12.77
7890	" 9	2	194.0	1.99	—	—	65	33	4.95	.81	10.61	4.25	6.57	5.38	.01	2.99
7891	" 15	4,044	173.0	1.96	—	—	42	10	9.43	2.78	8.74	4.30	14.81	2.00	.02	147.70
7892	" 23	238	115.0	1.28	—	—	47	19	5.12	1.54	6.09	3.20	7.03	2.38	.04	12.38
7893	" 29	189	139.0	1.61	—	—	35	21	5.63	2.87	4.62	3.45	6.91	2.76	.05	73.44
7894	Oct. 7	231	164.0	1.77	—	—	51	20	6.92	1.87	8.55	3.05	11.18	3.62	.05	27.33
8072	" 13	307	122.0	1.16	—	—	48	22	5.22	1.53	5.90	3.80	6.34	2.78	.01	18.80
8073	" 20	354	121.0	1.20	—	—	49	20	5.18	1.62	6.45	3.75	6.97	2.63	.03	11.42
8074	" 28	193	127.0	1.22	—	—	43	23	5.50	2.05	5.16	3.25	6.84	3.06	2.	4.57
8075	Nov. 3	213	135.0	1.23	—	—	49	23	5.05	2.03	6.62	3.90	6.91	3.11	.04	4.73
8076	" 11	450	114.0	1.10	—	—	52	20	4.63	1.20	6.53	3.80	6.28	2.58	.01	12.00
8077	" 17	469	114.0	1.09	—	—	50	22	4.90	1.35	6.12	3.65	6.18	2.73	.01	9.70
8267	Dec. 1	501	114.0	1.03	—	—	47	22	4.68	1.81	5.46	3.68	5.90	2.68	.01	9.36
8268	" 9	671	108.0	1.03	—	—	49	21	4.47	1.72	5.95	3.73	5.78	2.53	.04	11.29
8269	" 19	1,010	93.9	.97	—	—	43	19	4.28	1.69	4.47	3.68	4.76	1.96	.02	13.08
8270	" 27	916	98.1	.98	—	—	46	20	4.20	1.71	4.68	3.73	4.98	2.20	.03	10.08
1934																
8271	Jan. 3	827	92.0	.86	—	7.7	41	22	4.07	1.71	4.11	3.43	4.17	2.10	.03	8.64
8195	" 10	—	81.5	.76	.16	7.9	52	22	3.18	1.04	4.34	2.55	4.22	1.96	2.	10.68
8206	" 17	—	92.0	.89	.16	7.8	49	21	3.82	1.24	4.66	3.24	4.63	2.01	.03	9.79
8214	" 24	—	92.9	.89	.20	7.7	48	23	3.96	1.27	4.37	3.48	4.21	2.30	.01	12.91
8250	" 31	—	88.9	.85	.16	7.6	51	22	3.66	1.06	4.97	3.34	4.14	2.06	2.	7.59
8261	Feb. 7	—	89.1	.86	.16	7.8	49	22	3.77	1.16	4.37	3.43	4.14	2.11	.02	7.33
8277	" 14	—	81.0	.78	.17	7.8	50	20	3.49	.93	3.92	3.24	3.78	1.72	.05	9.10
8319	" 20	—	84.6	.78	.15	7.9	47	21	3.85	1.01	4.33	3.29	3.89	1.87	.04	6.64
8359	Mar. 2	—	85.9	.80	.14	7.8	52	24	3.32	1.11	4.61	3.09	3.93	2.15	.02	7.56
8371	" 6	—	84.3	.83	.16	7.8	51	23	3.67	1.02	5.02	3.04	4.25	2.20	.01	7.15
8388	" 14	—	96.7	.96	.20	7.7	50	23	4.06	1.19	4.75	3.38	4.69	2.34	.03	4.41
8407	" 22	368	106.0	.94	.20	7.8	47	24	4.42	1.49	5.18	3.53	5.00	2.68	.03	1.90
8444	" 28	203	103.0	.94	.16	7.7	47	24	4.25	1.57	5.13	3.58	4.80	2.63	.04	.84
8454	Apr. 3	156	131.0	1.20	.18	7.8	47	27	4.98	2.23	6.75	3.70	6.26	3.63	.05	1.69
8475	" 10	301	114.0	1.07	.18	7.7	48	25	4.48	1.62	5.68	3.37	5.41	2.92	.04	2.04
8502	" 17	1,530	103.0	.93	.20	7.8	44	20	4.37	1.62	4.96	3.32	5.22	2.12	.05	10.93
8538	" 23	653	90.7	.82	—	7.7	47	23	3.69	1.31	4.76	3.03	4.22	2.08	.04	3.47
8563	May 2	276	110.0	1.02	.17	7.9	48	25	4.47	1.42	5.35	3.24	5.23	2.76	1.	3.02
8579	" 8	159	118.0	1.09	.21	7.9	52	26	4.60	1.36	6.22	3.59	5.53	3.24	2.	.91
8622	" 14	12	146.0	1.32	.23	7.8	59	36	4.46	1.77	9.06	3.69	5.99	5.52	.04	.19
8697	" 23	9	166.0	1.48	.26	8.0	64	41	4.50	1.64	10.73	3.54	6.67	7.02	.05	.19
8734	" 29	4	181.0	1.57	.30	7.8	66	42	4.57	1.74	11.65	3.93	6.77	7.64	.06	.10



The Rio Grande at San Marcial, N. Mex.

- 3 -

Laboratory No.	Date of Sample	Dis-charge c.f.s.	Con-ductance $\times 10^5$ $25^{\circ}\text{C}$	TDS. Tons per acre foot	Bor-on Ppm	pH.	Per-cent Sodium	Per-cent Chloride	Milligram equivalents per liter						Silt, Tons per acre foot	
									Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Carbonate & bicarbonate $(\text{CO}_3 + \text{HCO}_3)$	Sulphate $(\text{SO}_4)$	Chloride $(\text{Cl})$		Nitrate $(\text{NO}_3)$
1934																
8746	June 4	39	308.0	—	—	—	49	17	12.45	5.94	17.83	5.12	24.90	6.19	.01	113.08
8747	" 7	13	175.0	1.64	.22	7.8	57	32	5.73	2.03	10.28	4.03	8.42	5.71	.07	—
9600	Aug. 28-Sept. 1	3,964	165.0	1.67	—	7.5	42	12	7.93	2.58	7.68	4.62	11.69	2.18	—	—
9541	" 4	88	235.0	2.65	.26	7.4	36	8	13.47	4.35	10.23	4.53	21.22	2.23	.01	107.43
9427	" 9	280	122.0	—	.11	7.5	41	18	5.61	2.04	5.29	3.94	7.03	2.28	.01	39.23
9428	" 18	42	199.0	2.07	.20	7.0	47	15	8.66	3.11	10.53	4.72	14.27	3.32	.01	66.68
9429	" 24	20	156.0	1.43	.20	7.9	53	31	5.30	2.09	8.45	3.15	7.86	4.96	.01	1.60
9601	" 25	6,756	169.0	—	—	7.5	50	15	6.78	2.17	8.88	1.82	13.56	2.72	—	—
9542	" 30	159	173.0	1.71	.32	7.4	47	17	7.70	2.16	8.75	4.23	11.29	3.25	—	35.28
9543	Oct. 9	2	240.0	2.10	.34	7.4	64	45	6.26	2.33	15.31	4.03	9.02	10.86	.03	.88
9430	" 15	27	187.0	1.73	.20	7.7	56	36	5.85	2.60	10.65	3.94	8.62	6.94	.01	.86
9431	" 24	9	204.0	1.80	.22	7.4	63	44	5.34	2.24	13.04	4.13	7.26	9.03	0	.20
9544	" 30	5	200.0	1.77	.34	7.9	63	41	5.42	2.00	12.67	4.08	7.57	8.25	.01	.04
9432	Nov. 5	9	199.0	1.77	.22	7.9	61	41	5.50	2.30	12.13	4.03	7.94	8.23	.01	.23
9433	" 13	31	162.0	1.47	.21	7.8	54	34	5.20	2.36	6.97	3.46	7.24	5.60	.01	1.50
9545	" 19	33	166.0	1.56	.30	7.7	51	29	5.93	2.45	8.82	3.46	8.63	5.04	—	1.99
9546	" 28	122	125.0	1.18	.24	7.7	49	22	5.03	1.64	6.39	3.79	6.33	2.76	.02	9.59
9547	Dec. 4	219	120.0	1.13	.22	7.6	46	20	5.13	1.73	5.83	3.79	6.22	2.47	.03	11.06
9548	" 10	303	120.0	1.12	.22	7.6	46	21	5.07	1.76	5.87	3.79	6.10	2.57	.03	8.30
9549	" 19	586	108.0	1.00	.20	7.4	49	20	4.63	1.61	5.12	3.64	5.36	2.18	.03	11.70
9550	" 27	606	107.0	.99	.20	7.3	45	19	4.61	1.49	5.01	3.54	5.43	2.13	.04	10.35
1935																
9551	Jan. 2	724	105.0	.97	.18	7.7	46	22	4.41	1.50	5.07	3.39	5.16	2.34	.03	10.58
9710	" 8	996	135.0	1.24	.24	7.5	52	32	5.07	1.67	6.91	3.10	6.41	4.37	.04	15.74
9711	" 14	729	112.0	1.02	.21	7.4	49	23	4.40	1.52	5.52	3.64	5.28	2.58	.05	12.95
9712	" 23	644	131.0	1.21	.28	7.9	46	26	4.90	2.72	6.20	4.03	6.41	3.63	.03	10.50
9719	" 29	556	104.0	.93	.20	7.4	46	21	4.45	1.47	4.96	3.88	4.80	2.29	.04	8.95
9656	Feb. 7	977	105.0	.96	.16	7.4	46	21	4.31	1.59	5.06	3.44	5.10	2.29	.04	9.30
9657	" 14	661	123.0	1.07	.18	7.8	51	29	4.65	1.65	6.43	3.24	5.71	3.68	.03	9.57
9658	" 20	550	112.0	1.05	.18	7.5	50	25	4.26	1.49	5.65	3.49	5.14	2.88	.03	7.24
9659	" 26	633	116.0	1.15	.14	7.5	46	19	5.12	1.77	5.67	3.59	6.66	2.44	.04	15.35
9660	Mar. 4	516	108.0	1.01	.17	7.5	47	23	4.45	1.39	5.16	3.44	4.96	2.53	.03	8.08
9721	" 13	430	119.0	1.10	.19	7.6	50	25	4.56	1.66	6.22	3.98	5.36	3.13	.06	3.44
9916	" 19	841	148.0	1.39	.26	7.2	47	19	6.34	2.18	7.20	4.28	8.63	3.07	.04	26.34
9917	" 25	244	129.0	1.21	.23	7.8	52	26	4.89	1.69	7.36	3.69	6.37	3.51	.02	5.78
9918	" 31	85	138.0	1.28	.24	7.6	53	29	4.89	1.82	7.67	3.78	6.43	4.18	—	1.71
9919	Apr. 6	94	140.0	1.31	.26	7.6	54	28	4.98	1.81	7.61	3.88	6.67	4.18	.02	1.62
9920	" 12	167	125.0	1.18	.24	7.9	50	26	4.76	1.95	6.94	3.64	6.18	3.47	.01	.19
9921	" 18	61	140.0	1.30	.22	7.8	54	29	5.04	1.79	7.63	4.03	6.53	4.31	—	3.45
9922	" 27	739	87.8	.89	.19	7.6	47	20	3.62	1.24	4.18	3.15	4.22	1.78	.04	12.50
9923	May 4	468	103.0	.99	.20	7.5	47	22	4.38	1.51	4.90	3.59	5.12	2.40	.03	7.74
9924	" 9	511	99.6	.97	.20	7.6	49	23	4.03	1.36	4.96	3.24	4.80	2.44	.02	4.03
9925	" 15	1,516	84.5	.80	.18	7.4	45	20	3.56	1.44	3.97	3.15	4.06	1.78	.04	12.24
9926	" 20	5,003	82.9	.75	—	7.5	43	19	3.56	—	3.88	3.94	3.74	1.67	.04	24.28
9927	" 22	5,624	70.3	.64	.15	7.6	46	16	3.16	.89	3.17	3.19	3.09	1.20	.03	22.55
9928	" 24	6,882	71.9	.69	—	7.5	38	17	3.26	1.22	2.61	2.80	3.19	1.16	.03	17.79
9927	" 26	4,612	67.0	.57	—	7.4	40	17	3.23	1.06	2.79	2.75	3.20	1.16	.04	17.52
10026	" 29	6,108	59.9	.58	.06	7.4	32	11	3.43	.84	2.11	2.90	2.73	.67	.04	18.06
10027	June 4	7,382	51.2	.48	.09	7.6	31	9	2.68	1.03	1.57	2.87	2.08	.43	.03	10.93
9928	" 7	4,996	49.2	.49	—	7.5	38	14	2.46	.81	1.95	2.36	2.21	.71	.01	10.46
10028	" 10	7,239	47.6	.42	.09	7.4	33	8	2.58	.77	1.45	2.67	1.90	.38	.02	15.57
10029	" 13	7,550	43.7	.38	—	7.4	31	12	2.22	1.04	1.35	2.51	1.62	.53	.04	7.34
10030	" 16	6,932	38.6	.51	—	7.1	28	25	3.05	1.33	1.60	2.80	1.80	1.48	.03	10.25

82343 O-38—2

(15)

The Rio Grande at San Marcial, N. Mex.

- 4 -

Laboratory No.	Date of Sample	Dis-charge c.f.s.	Con-ductance Kx10 <sup>5</sup> @25°C	TDS. Tons per acre foot	Bo-ron Ppm	pH	Per-cent Sodi-um	Per-cent Chlo-ride	Milligram equivalents per liter						Silt, Tons per acre foot	
									Calci-um (Ca)	Magne-sium (Mg)	Sodi-um (Na)	Carbon-ate & bi-carbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sul-phate (SO <sub>4</sub> )	Chlo-ride (Cl)		Ni-trate (NO <sub>3</sub> )
1935																
10106	June 19	6,785	41.0	.42	.09	7.5	34	11	2.18	.67	1.32	2.52	1.29	.48	.01	6.45
10107	" 22	5,672	40.2	.38	—	7.5	32	14	2.03	.77	1.36	2.21	1.34	.57	.01	5.25
10108	" 25	4,487	41.1	.39	—	7.5	34	14	2.10	.84	1.36	2.36	1.47	.57	.03	7.63
10109	" 28	4,680	40.3	.37	.11	7.6	34	12	2.13	.67	1.44	2.33	1.51	.53	.02	6.57
10110	July 1	2,704	48.1	.48	—	7.6	45	13	2.26	.74	2.49	2.33	2.41	.67	.04	8.76
10111	" 4	1,547	55.0	.55	—	7.6	42	16	2.58	.79	2.33	2.48	2.35	.91	.03	5.98
10223	" 7	1,157	63.9	.56	—	7.5	47	16	3.11	.36	3.07	2.72	2.76	1.05	.01	2.33
10224	" 13	306	80.4	.73	.11	7.9	47	21	3.41	.95	3.70	2.72	3.77	1.72	.02	2.31
10225	" 19	126	95.2	.88	.14	7.6	49	23	3.78	1.12	4.90	3.07	4.35	2.85	.03	1.14
10226	" 28	50	106.0	.96	.11	7.4	51	25	4.08	1.21	5.20	3.07	5.03	2.72	.04	1.55
10473	Aug. 5	5,700	198.0	2.15	—	7.8	36	11	11.12	4.04	8.45	3.49	17.46	2.62	.04	72.26
10474	" 6	11,500	204.0	2.23	—	7.4	35	9	11.72	4.11	8.43	5.38	16.64	2.24	T.	96.33
10475	" 12	508	111.0	1.10	—	7.9	44	16	5.14	1.59	5.23	3.54	6.35	1.81	.04	15.16
10276	" 18	884	110.0	1.13	.11	7.1	23	7	7.17	2.51	2.60	3.56	8.17	.86	0	27.64
10476	" 22	18,061	196.0	2.14	—	8.1	37	8	10.95	3.48	8.49	5.58	15.42	1.91	.01	170.86
10277	" 28	788	117.0	1.12	.24	7.3	43	14	5.42	1.61	5.15	3.17	7.44	1.72	.03	24.63
10481	" 31	9,350	187.0	1.85	—	7.6	25	4	10.29	3.77	4.63	2.24	15.75	.76	T.	130.21
10278	Sept. 10	834	101.0	.96	.30	7.6	47	18	4.40	1.32	4.84	2.72	6.12	1.86	.04	18.62
10353	" 12	352	124.0	1.17	.17	7.5	43	15	5.66	2.17	5.85	3.56	8.13	1.91	.11	28.76
10354	" 18	34	123.0	1.17	.23	7.6	51	27	4.74	1.65	6.78	3.22	6.59	1.58	.01	4.61
10355	" 24	678	86.4	.79	.15	7.8	40	17	4.08	1.34	3.68	3.61	4.22	1.58	T.	16.25
10479	" 27	1,636	152.0	1.61	—	7.6	37	11	8.24	2.59	6.37	4.38	11.21	1.86	.04	63.42
10480	" 30	3,525	145.0	1.47	—	7.6	40	11	7.19	2.56	6.38	3.83	10.74	1.72	.01	75.32
10368	Oct. 9	246	93.3	.82	.20	7.5	43	18	4.02	1.49	4.24	3.32	4.88	1.72	.03	1.77
10386	" 15	348	98.8	.95	.22	7.7	44	20	4.39	1.37	4.53	3.29	4.93	2.05	0	5.18
10462	" 21	297	96.2	.89	.24	8.1	42	20	4.31	1.56	4.29	3.29	4.86	1.96	.03	3.75
10463	" 27	562	80.5	.83	.22	8.2	40	17	3.78	1.37	3.40	3.24	3.96	1.38	.06	5.68
—	Nov. 5	2,065	broken in transit													
10464	" 11	1,509	75.1	.71	.13	7.8	38	15	3.59	1.31	3.00	2.84	3.80	1.14	.05	8.51
10465	" 17	396	109.0	.97	.18	7.8	47	24	4.56	1.39	5.23	3.39	5.12	2.67	.04	3.09
10466	" 26	826	122.0	1.13	.20	7.9	52	30	4.41	1.54	6.38	3.24	5.52	3.72	.05	13.20
10467	Dec. 2	888	102.0	.94	.17	7.9	48	22	4.20	1.25	5.05	3.19	5.20	2.29	.04	9.45
10468	" 8	1,046	95.0	1.01	.16	7.7	47	22	3.66	1.33	4.45	3.14	4.52	2.15	.02	8.50
10568	" 17	866	96.6	.91	.13	7.5	48	23	3.89	1.31	4.68	3.29	4.46	2.37	0	6.28
10569	" 23	780	113.0	1.02	.18	7.7	50	27	4.32	1.46	5.85	3.44	5.00	3.16	.01	4.49
10570	" 29	732	102.0	.96	.17	7.8	49	24	3.98	1.37	5.08	3.34	4.56	2.55	0	6.80
1936																
—	Jan. 7	908	broken in transit													
10571	" 13	927	96.8	.88	.17	7.6	48	24	3.78	1.37	4.76	3.29	4.21	2.41	.01	7.60
10572	" 19	950	101.0	.92	.17	7.8	50	25	3.98	1.21	5.23	3.34	4.49	2.59	.04	5.81
10589	" 28	734	84.0	.78	.15	8.0	42	21	3.55	1.49	3.59	3.23**	3.69	1.80	T.	5.26
10659	Feb. 2	883	96.0	.87	.31	8.1	50	25	3.67	1.24	4.30	3.23**	4.33	2.49	T.	4.18
10660	" 12	844	89.0	.89	.16	7.9	48	23	3.60	1.18	4.30	3.23**	4.33	2.49	T.	7.70
10661	" 18	1,662	99.3	.93	.22	7.7	49	19	3.92	1.29	5.01	2.94	5.04	1.91	.01	20.20
10662	" 24	846	88.0	.83	.15	7.7	49	22	3.64	1.19	4.63	3.23	4.07	2.05	.01	6.87
10663	Mar. 4	855	82.5	.76	.20	7.8	48	24	3.27	1.13	4.07	2.89	3.47	2.00	.02	8.60
10664	" 10	1,177	90.1	.78	.15	7.6	48	17	3.63	1.24	4.48	2.79	5.22	1.60	.03	8.60
10748	" 16	887	86.4	.80	.17	8.0	46	20	3.40	1.34	4.06	2.79**	4.43	1.78	.01	11.03
10749	" 25	1,241	75.5	.68	.13	8.0	42	18	3.14	1.34	3.30	2.74**	3.67	1.38	.04	11.26
10750	" 31	987	88.8	.81	.15	7.9	45	21	3.69	1.37	4.06	3.08**	4.18	1.96	.02	7.90
10751	Apr. 6	123	100.0	.90	.17	8.1	47	22	4.17	1.32	4.79	3.28**	4.85	2.27	.02	2.67
10805	" 15	1,415	70.9	.69	.16	7.8	40	16	3.32	1.06	2.88	2.94	3.04	1.11	T.	10.36
10806	" 21	6,837	66.2	.61	.14	7.7	37	15	3.25	1.06	2.55	2.89	2.81	1.02	T.	15.46
10807	" 27	8,326	49.3	.44	.13	7.6	34	15	2.61	.83	1.74	2.39	1.91	.76	.02	9.66

\*\*Carbonate (CO<sub>3</sub>) present.

The Rio Grande at San Marcial, N. Mex.

- 5 -

Laboratory No.	Date of Sample	Dis-charge c.f.s.	Con-ductance X10 <sup>5</sup> @25°C	TDS, Tons per acre foot	Bo-ron ppm	pH.	Per-cent Sodi-um	Per-cent Chloride	Milligram equivalents per liter					Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Silt, Tons per acre foot
									Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Carbonate & bicarbonate (CO <sub>3</sub> +HCO <sub>3</sub> )					
1936																	
10886	Apr. 18	3,274	66.8													16.70	
10886	" 24	7,277	59.6	.49	--	7.7	22	15	2.84	1.15	1.40	2.47	2.16	.82	tr	12.15	
10886	" 30	7,075	43.9													11.64	
10808	May 6	4,490	47.2	.43	.14	7.5	31	11	2.65	.81	1.58	2.54	1.77	.53	.01	8.38	
10861	" 12	4,640	47.9	.42	.09	8.0	35	18	2.51	.88	1.81	2.47**	1.81	.92	tr	6.52	
10862	" 18	2,580	54.3	.48	.09	8.0	35	20	2.53	.91	2.04	2.72**	2.15	1.21	.02	1.88	
10863	" 24	1,960	50.5	.45	.15	8.2	36	19	2.58	.88	1.98	2.37	2.14	1.06	.01	1.60	
10864	" 30	1,260	57.8	.56	.09	7.6	40	21	2.71	1.01	2.48	2.52	2.46	1.31	tr	1.17	
10938	June 5	923	65.8	.60	.22	7.9	39	19	3.01	1.09	2.66	2.42	2.97	1.26	tr	2.20	
10939	" 11	171	79.8	.75	.16	7.8	47	25	3.05	1.21	3.76	2.42	3.56	1.98	.01	.65	
10940	" 17	645	70.6	.66	.15	7.8	45	21	2.84	1.17	3.25	2.47	3.37	1.55	tr	2.42	
10941	" 26	37.1	105	.95	.20	7.6	53	29	3.48	1.41	5.62	2.42	4.92	3.05	tr	1.55	
10942	July 2	1,461	131	1.17	.24	8.0	58	34	3.99	1.62	7.75	3.21**	5.59	4.45	o	.07	
10943	" 5	17.2	125	1.11	.22	8.1	56	31	3.99	1.59	7.16	3.26**	5.66	3.92	o	tr	
10944	" 11	1,208							laboratory								
10945	" 12	5,000	114	1.18	--	7.6	22	8	8.45	2.46	3.13	4.05	8.90	1.11	o	22.37	
10946	" 17	407	106	1.01	.14	7.8	45	18	4.92	1.35	5.16	3.46	5.78	2.03	o	tr	
10953	" 23	101	113	1.05	.17	8.2	52	25	4.36	1.34	6.11	3.31	5.40	2.90	tr	1.36	
10954	Aug. 4	597	118	1.57	.21	7.8	38	15	8.39	2.56	6.73	5.09	9.91	2.57	tr	50.08	
10955	" 5	1,388	162	1.55	--	8.0	39	10	8.67	3.47	7.89	4.75**	13.48	2.08	tr	84.20	
10956	" 5	--	190	1.90	--	7.6	39	11	11.17	3.29	9.26	5.54	15.77	2.52	tr	153.00	
10957	" 5	--	201	1.92	--	7.5	38	9	11.71	4.04	9.66	5.49	17.57	2.32	tr	163.40	
10958	" 10	421	155	1.60	.12	7.9	51	10	6.74	1.43	8.64	3.46	12.06	1.69	tr	72.20	
11074	" 17	135	115	.96	.13	7.7	48	21	4.55	1.53	5.65	3.27	6.12	2.43	o	12.3	
11075	" 23	1,680	127	1.27	.15	7.2	40	19	6.46	2.15	5.62	2.97	8.69	2.64	o	71.0	
11076	" 28	73.8	116	1.95	.14	7.7	50	18	4.24	1.60	5.35	3.96	5.77	2.19	tr	6.16	
11077	Sept. 1	960	101	1.01	--	7.0	42	15	5.07	1.90	3.86	6.13	1.75	o	46.0		
11078	" 4	243	113	1.04	.14	7.1	42	15	5.44	1.75	5.23	3.81	6.63	1.90	.01	37.8	
11079	" 10	105	97.6	.86	.15	7.3	46	20	4.16	1.37	4.63	3.12	5.06	2.04	tr	6.1	
11080	" 14	1,540	131	1.35	--	7.2	39	12	6.78	2.34	5.89	4.26	8.80	1.84	o	67.2	
11081	" 16	511	102	.95	.17	7.4	50	16	4.58	1.06	5.94	3.22	6.07	1.80	.01	17.8	
11082	" 22	771	93.5	.86	.14	7.3	41	16	4.74	1.45	4.25	3.71	5.08	1.65	.02	28.1	
11083	" 27	5,880	172	1.77	.17	7.2	37	12	9.50	3.24	7.59	3.86	14.12	2.34	o	111.0	
11084	" 28	5,880	173	1.97	--	7.6	38	12	9.46	2.95	7.75	3.66	14.31	2.49	o	119.0	
11085	" 29	4,010	147	1.45	--	7.2	38	12	7.98	2.78	6.47	3.61	11.49	2.09	o	49.0	
11086	Oct. 1	1,240	115	1.28	--	7.4	41	14	5.70	1.78	5.26	3.41	7.45	1.70	o	28.9	
11175	" 2	373	105	1.01	.16	7.8	43	17	4.80	1.71	4.67	2.97	6.45	1.99	tr	18.1	
11176	" 7	640	93.1	.85	.19	7.7	42	20	4.24	1.58	4.19	2.92	4.93	1.94	.01	8.9	
11177	" 13	555	89.0	.82	.17	7.6	44	19	4.06	1.18	4.05	3.02	4.45	1.73	.01	5.7	
11178	" 20	489	89.7	.74	.15	7.6	44	19	4.11	1.28	4.26	2.87	4.86	1.79	.02	5.7	
11179	" 28	910	82.5	.73	.17	7.4	43	17	3.69	1.39	3.80	2.97	4.41	1.49	.02	8.6	
11180	Nov. 3	2,620	78.2	.70	.17	7.3	39	16	3.88	1.10	3.17	3.16	3.81	1.25	.03	20.37	
11181	" 9	1,010	76.0	.67	.16	7.5	41	18	3.02	1.69	3.25	2.97	3.50	1.39	.04	7.75	
11182	" 15	516	92.8	.85	.18	7.6	44	21	4.41	1.25	4.45	3.31	4.78	2.14	.01	4.09	
11183	" 21	873	81.4	.74	.14	7.5	42	16	4.00	1.15	3.70	3.41	3.79	1.39	tr	7.34	
11184	" 27	433	97.8	.93	.15	7.8	46	22	4.10	1.29	4.58	3.21	4.52	2.19	o	3.58	
11185	Dec. 3	1,110	94.1	.88	.17	7.9	45	20	4.41	1.31	4.67	3.31	4.87	2.09	o	9.44	
11210	" 9	714	89.0	.82	.15	7.5	46	22	3.70	1.23	4.24	3.12	4.00	1.97	o	6.39	
11256	" 15	715	89.8	.81	.17	8.2	45	22	3.56	1.41	4.14	2.94	4.06	1.92	.03	6.20	
11257	" 21	817	85.8	.73	.14	8.4	49	23	2.84	1.24	3.93	2.35	3.83	1.82	.01	7.08	
11258	" 27	780	89.8	.80	.16	8.4	46	18	3.63	1.27	4.14	3.14	3.95	1.52	.03	6.47	

\*\* Carbonate (CO<sub>3</sub>) present

RIO GRANDE AT ELEPHANT BUTTE DAM, NEW MEXICO

(Total Dissolved Solids in tons per acre foot)

Located in Pedro Armendariz Grant, Sec. 25, T. 13S., R. 4 W., N.M.P.M. Samples from pool 300 feet below the dam. Zero of gage in pool is 4255.24 feet above sea level. Samples and analyses by United States Bureau of Reclamation.

Date	Disch. c.f.s.	T.D.S.	Date	Disch. c.f.s.	T.D.S.	Date	Disch. c.f.s.	T.D.S.	Date	Disch. c.f.s.	T.D.S.
2- 1-20	2	0.58	9-23-23	1400	3.95	6- 1-27	2219	0.68	7-31-29	0	0.54
3- 1-20	855	.67	9-24-23	1400	.68	7- 1-27	1575	.68	8-13-29	675	.95
4- 1-20	965	.79	9-25-23	1400	.82	8- 1-27	1355	.68	8-14-29	675	1.09
8- 1-20	2030	.68	9-26-23	1400	.82	9- 1-27	2162	.68	8-15-29	675	.54
10-11-20	1917	.58	6- 1-25	1970	.54	9-19-27	1050	1.22	8-16-29	675	.82
11- 9-20	1085	.92	7- 6-25	2200	.54	9-20-27	1050	1.22	8-17-29	740	.95
11-10-20	1095	.46	9- 1-25	0	.54	9-21-27	1050	1.77	8-19-29	935	.95
11-10-20	1095	.68	12- 1-25	0	.54	10-11-27	0	.68	8-21-29	1094	.95
2-28-21	1440	.38	1- 1-26	0	.54	11- 1-27	512	.68	8-23-29	1283	.68
3- 1-21	1453	.44	1-31-26	194	.41	12- 1-27	406	.41	8-25-29	1283	.68
4- 1-21	1457	.41	4- 1-26	957	.54	1- 1-28	3	.54	8-27-29	1700	.82
5- 1-21	1510	.60	5- 1-26	1571	.41	2- 1-28	352	.54	8-29-29	1700	.82
6- 1-21	1980	.52	6-30-26	1697	.68	3- 1-28	849	.54	8-31-29	1700	.54
7- 1-21	2090	.49	7-31-26	970	.54	4- 5-28	2044	.68	9-26-29	574	1.09
8- 1-21	2121	.60	8-31-26	1723	.54	5- 1-28	1988	.54	9-28-29	574	1.22
8- 2-21	2121	.41	9-30-26	6	.54	1-31-29	3	.54	10- 1-29	482	1.50
8- 3-21	2020	.54	10-31-26	480	.68	1-31-29	3	.49	10- 4-29	482	1.36
9- 1-21	2082	.49	12- 1-26	260	.41	4- 1-29	1735	.54	10- 7-29	15	.68
10- 1-21	2078	.46	1-31-27	415	.41	4-30-29	1970	.54	6- -30	1906	.75
4- 1-22	1340	.63	3- 1-27	870	.54	5-31-29	1360	.68	7-29-30	1463	.76
9-22-23	1400	1.09	5- 1-27	2206	.54	6-30-29	1859	.63			

The Rio Grande at Elephant Butte Dam, N. Mex.

Located in Pedro Arrendaris grant, sec.25, T.13S., R.4W., N. M. P. M. The samples for which discharge values are reported, were taken from the pool 300 feet below the dam at 4,255 feet above sea level; the samples for which the letter S occurs in the discharge column, were taken from the surface of the reservoir above the dam. Samples collected by U. S. Bureau of Reclamation; analyses by U. S. Bureau of Plant Industry.

Laboratory No.	Date of Sample	Discharge c.f.s.	Conductance per cent	TDS. Tons per acre foot	Bo- m Fm	pH	Per cent Sodium	Per cent Chloride	Milligram equivalents per liter					Silt, Tons per acre foot		
									Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Carbonate & bicarbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )		Chloride (Cl)	Nitrate (NO <sub>3</sub> )
1931																
--	Mar. 12	1,085	77	.72	--	--	38	15	3.90	1.07	3.04	2.36	4.47	1.18	--	clear
--	Apr. 9	1,900	88	.77	--	--	43	13	3.90	1.32	3.87	3.15	4.76	1.18	--	"
--	June 5	2,162	77	.77	--	--	30	18	4.95	1.15	2.60	2.75	4.37	1.58	--	"
--	" 30	2,142	82	.85	--	--	54	19	3.45	1.15	5.51	3.15	4.99	1.97	--	"
--	Aug. 9	1,300	81	.90	--	--	52	19	3.75	1.23	5.48	3.54	4.95	1.97	--	"
--	Sept. 13	1,575	82	.73	--	--	48	8	4.05	.99	4.55	3.93	4.87	.79	--	trace
--	" 22	644	142	1.59	--	--	47	16	6.75	2.47	8.11	3.93	10.64	2.76	--	40.50
--	" 23	699	126	1.24	--	--	53	21	5.10	1.73	7.60	2.75	8.72	2.36	--	70.85
--	Oct. 5	570	97	.98	--	--	51	14	4.50	1.20	6.00	3.60	6.50	1.60	--	trace
--	Nov. 9	3	87	.88	--	--	19	16	6.00	2.30	2.00	3.20	5.50	1.60	--	clear
--	Dec. 16	540	91	.88	--	--	49	16	3.80	1.30	4.80	2.80	5.50	1.60	--	"
1932																
103	Feb. 9	292	87	.91	--	--	53	15	3.80	1.30	5.80	3.60	5.70	1.60	--	"
113	Mar. 2	809	89	.89	--	--	50	19	3.00	1.30	5.30	2.80	5.80	2.00	--	"
146	Apr. 2	1,950	87	.80	--	--	43	13	3.80	1.40	4.00	2.80	5.20	1.20	--	"
172	May 2	1,510	86	.85	--	--	46	17	3.80	1.30	4.40	2.80	5.10	1.60	--	"
252	June 6	1,809	89	.78	--	--	33	18	4.20	1.90	3.00	2.40	5.10	1.60	--	"
253	" 30	1,977	82	.69	--	--	28	10	4.10	1.70	2.30	2.40	4.90	.80	--	"
284	Aug. 1	2,272	87	.84	--	--	41	16	4.00	1.80	4.10	4.00	4.30	1.60	--	trace
287	Sept. 5	1,800	77	.77	--	--	49	23	3.30	1.15	4.32	2.40	4.37	2.00	--	clear
345	Oct. 16	877	75	.66	--	--	48	15	3.00	1.28	4.00	2.80	4.28	1.20	--	"
368	Nov. 20	735	65	.60	--	--	32	15	2.70	1.15	2.75	2.00	3.60	1.00	--	trace
1933																
431	Jan. 16	10	59	.60	--	--	52	22	3.00	.51	3.87	2.00	3.78	1.60	--	trace
476	Feb. 1	247	56	.59	--	--	43	22	3.00	1.28	3.09	2.40	3.37	1.60	--	"
477	Mar. 1	522	57	.60	--	--	41	17	3.00	1.28	2.97	2.40	3.65	1.20	--	"
478	Apr. 4	2,030	56	.58	--	--	42	17	3.00	1.15	2.97	2.40	3.52	1.20	--	"
525	May 2	1,406	64	.65	--	--	44	26	3.00	1.28	3.36	2.40	3.24	2.00	--	clear
524	" 2	surface	65	--	--	--	46	25	3.00	1.28	3.52	2.80	3.10	2.00	--	"
586	" 31	1,865	66	.64	--	--	38	16	3.45	1.15	2.79	2.80	3.39	1.20	--	"
585	" 31	surface	66	.66	--	--	41	21	3.45	1.15	3.20	2.80	3.40	1.60	--	"
7589	June 20	1,401	68.3	.69	--	--	37	16	3.10	1.37	2.78	2.55	3.44	1.11	T.	"
7588	" 20	surface	74.8	.69	--	--	41	19	3.12	1.44	3.14	2.80	3.50	1.44	T.	"
7590	" 23	95	92.6	.85	--	--	34	13	4.92	1.98	3.93	4.60	4.50	1.35	T.	36.43
7591	" 24	1,007	101	.97	--	--	36	12	5.23	2.08	4.03	8.00	2.06	1.35	T.	33.85
7592	" 25	1,299	113	1.01	--	--	41	12	5.60	1.62	4.72	4.00	6.72	1.43	T.	56.60
7593	" 26	1,597	114	1.38	--	--	37	12	5.78	2.16	4.68	4.25	7.21	1.43	T.	52.60
7594	" 27	1,698	127	1.10	--	--	22	10	8.35	3.38	4.62	13.50	T.	1.59	T.	66.62
7595	" 28	1,791	127	--	--	--	36	10	6.53	2.30	4.27	10.75	1.57	1.39	T.	36.43
7596	" 29	1,791	102	.98	--	--	36	13	5.25	2.10	4.13	5.00	5.06	1.35	T.	56.45
7597	" 30	1,791	93.3	.73	--	--	27	2	6.45	1.63	3.30	10.90	T.	.19	T.	2.72
7598	July 1	1,791	71.8	.79	--	--	34	16	3.45	1.65	2.89	3.40	3.07	1.20	T.	clear
7599	" 2	1,578	78.9	.69	--	--	34	13	3.45	1.89	2.89	3.30	3.70	1.06	T.	.41
7600	" 3	1,958	75.8	.98	--	--	41	16	3.48	1.53	3.28	6.40	1.35	1.35	T.	.41
7601	" 3	surface	69.5	.82	--	--	45	12	3.40	1.53	--	4.50	3.43	1.06	T.	.14
7659	Aug. 2	2,171	74.4	1.00	--	--	40	16	3.56	.93	--	4.20	2.18	1.25	--	"
7658	" 2	surface	72.2	.60	--	--	45	20	3.27	.81	--	2.65	3.31	1.49	--	"
7914	Sept. 2	1,892	74.2	.73	--	--	48	15	3.35	.84	--	2.80	4.04	1.13	--	clear
7916	" 2	surface	70.6	.78	--	--	54	16	2.92	.61	--	2.85	3.62	1.24	--	"
7915	Oct. 6	11	77.1	.79	--	--	50	14	3.60	.79	4.18	3.00	4.48	1.24	T.	"
7917	" 6	surface	77.7	.79	--	--	40	15	3.35	1.63	3.35	2.65	4.40	1.24	T.	"

\*For samples prior to No. 7589 the sodium was calculated; for subsequent samples it was determined.

1Contained dissolved organic matter.

The Rio Grande at Elephant Butte Dam, N. Mex.

- 2 -

Laboratory No.	Date of Sample	Discharge c.f.s.	Conductance Kx10 <sup>5</sup> @25°C	TDS. Tons per acre foot	Bo-ron Ppm	pH.	Per-cent Sodium	Per-cent Chloride	Milligram equivalents per liter				Silt, Tons per acre foot			
									Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Carbonate & bicarbonate (CO <sub>3</sub> HCO <sub>3</sub> )				
1933																
8013	Nov. 3	900	77.9	.74	--	--	40	16	3.50	1.40	3.59	2.70	4.22	1.29	.01	clear
8012	" 3	surface	75.6	.76	--	--	42	16	3.50	1.37	3.96	2.60	4.48	1.33	.01	"
8188	Dec. 6	852	83.7	.80	--	--	43	15	3.75	1.37	3.64	2.70	4.89	1.34	.03	"
8189	" 6	surface	83.4	.77	--	--	42	15	3.72	1.42	3.91	2.75	4.75	1.34	.03	"
1934																
8254	Feb. 5	1,325	86.8	.83	.14	7.9	46	15	3.77	1.49	4.03	2.95	5.26	1.45	0	"
8255	" 5	surface	85.9	.85	.14	7.9	47	17	3.72	1.39	4.05	2.80	5.17	1.64	0	"
8321	" 17	959	85.4	.83	--	7.7	45	16	3.79	1.31	3.80	2.55	5.25	1.48	.01	"
8320	" 17	surface	87.7	.85	--	--	45	15	3.75	1.29	3.76	2.60	5.15	1.39	--	"
8354	" 24	746	87.6	.84	.12	8.0	41	16	3.83	1.63	3.73	2.65	5.08	1.48	T.	"
8323	" 24	surface	87.0	.90	--	8.0	40	16	3.85	1.68	3.44	2.65	4.91	1.43	T.	"
8361	Mar. 3	860	86.5	.79	.14	7.9	43	16	3.61	1.42	3.86	2.65	5.12	1.48	T.	"
8360	" 3	surface	85.8	.80	--	8.0	39	16	3.78	1.69	3.62	2.60	4.90	1.48	T.	"
8382	" 10	1,079	86.2	.83	.13	8.2	45	17	3.75	1.32	3.87	2.55	5.12	1.53	T.	"
8383	" 10	surface	85.9	.79	--	8.2	43	17	3.82	1.26	3.69	2.60	4.82	1.48	T.	"
8394	" 17	1,344	--	--	.14	sample lost										"
8393	" 17	surface	87.2	.79	--	--	51	16	3.57	1.15	5.00	2.70	5.39	1.53	.04	"
8409	" 24	1,496	86.3	.74	.14	7.9	47	17	3.78	1.12	4.20	2.70	5.02	1.53	T.	"
8408	" 24	surface	86.9	.77	--	--	52	14	3.85	1.11	5.26	2.80	6.15	1.48	T.	"
8446	" 31	1,628	86.8	.76	.14	8.1	45	16	3.86	1.29	3.82	2.65	5.12	1.53	.04	"
8445	" 31	surface	86.0	.74	--	--	41	16	3.90	1.47	3.76	2.55	5.10	1.48	T.	"
8458	Apr. 7	1,974	87.3	.79	.16	8.0	52	16	3.80	1.11	4.90	2.60	5.31	1.63	T.	"
8457	" 7	surface	87.6	.80	--	7.7	46	16	3.98	1.26	4.35	2.65	5.51	1.58	T.	"
8487	" 14	2,073	87.7	.82	.15	8.2	50	16	3.87	1.17	4.69	2.74	5.78	1.58	T.	"
8488	" 14	surface	88.0	.83	--	8.0	48	15	3.90	1.31	4.61	2.75	5.77	1.53	T.	"
8508	" 21	1,793	88.1	.85	.13	7.7	46	16	3.83	1.21	4.42	2.55	5.24	1.53	.01	"
8507	" 21	surface	88.5	.88	--	--	47	15	3.92	1.31	4.49	2.65	5.78	1.53	T.	"
8546	" 28	1,586	88.9	.86	.12	--	46	16	3.84	1.35	4.69	2.89	5.15	1.53	.01	"
8544	" 28	surface	89.2	.86	--	--	50	15	3.95	1.31	4.93	2.65	6.28	1.53	T.	"
8566	May 5	1,443	88.0	.78	.16	8.1	44	16	3.81	1.39	4.48	2.85	5.26	1.53	T.	"
8565	" 5	surface	89.6	.83	--	--	48	16	4.08	1.38	4.75	2.85	5.90	1.72	T.	"
8582	" 12	1,701	87.7	.80	.14	7.7	43	16	3.83	1.41	3.89	2.60	5.14	1.46	T.	"
8581	" 12	surface	88.0	.78	--	--	41	16	3.70	1.74	3.89	2.65	5.10	1.46	T.	"
8627	" 19	1,689	87.8	.77	.18	7.7	42	16	3.80	1.47	3.84	2.41	5.24	1.46	T.	"
8626	" 19	surface	88.6	.75	--	--	41	16	3.77	1.67	3.84	2.41	5.36	1.51	T.	"
8703	" 26	1,793	88.8	.78	.14	7.8	44	17	3.79	1.37	4.19	2.60	5.09	1.55	T.	"
8702	" 26	surface	89.2	.80	--	--	47	19	3.72	1.29	4.12	2.41	5.25	1.78	T.	"
8736	June 2	1,738	88.2	.76	.14	7.8	45	16	3.82	1.30	4.19	2.65	5.13	1.50	T.	"
8735	" 2	surface	88.5	.78	--	--	48	17	3.77	1.08	4.30	2.60	5.14	1.55	T.	"
8787	" 9	1,796	88.3	.77	.16	7.7	45	17	3.80	1.38	4.00	2.55	5.22	1.59	T.	"
8748	" 9	surface	88.4	.79	--	--	45	17	3.92	1.20	4.27	2.55	5.24	1.55	T.	"
8804	" 16	2,120	88.5	.78	.15	7.8	46	17	3.58	1.51	4.21	2.65	5.21	1.55	T.	"
8803	" 16	surface	88.7	.78	--	--	46	17	3.80	1.24	4.28	2.50	5.24	1.64	T.	"
8846	" 23	2,080	88.1	.83	.17	7.9	47	16	3.80	1.28	3.89	2.62	5.36	1.52	T.	"
8845	" 23	surface	89.1	.83	--	--	45	17	3.65	1.49	4.17	2.62	5.12	1.57	T.	"
8867	" 30	2,300	88.4	.85	.14	7.7	45	14	3.81	1.72	4.09	2.57	5.99	1.47	T.	"
8866	" 30	surface	89.4	.84	--	--	46	17	3.70	1.38	4.12	2.57	5.27	1.62	T.	"
8890	July 7	1,822	88.6	.88	.14	7.7	42	17	3.84	1.56	3.89	2.64	5.09	1.55	T.	"
8889	" 7	surface	89.6	.84	--	--	42	17	3.67	1.67	4.07	2.49	5.18	1.55	.01	"
8925	" 14	2,598	88.7	.84	.19	7.6	43	16	3.84	1.42	3.91	2.69	5.09	1.50	T.	"
8924	" 14	surface	90.0	.86	--	--	43	18	3.75	1.71	4.03	2.59	5.29	1.74	T.	"
8930	" 21	2,405	89.4	.84	.17	7.9	42	17	4.06	1.35	3.99	2.57	5.15	1.60	.01	"
8929	" 21	surface	91.7	.85	--	--	44	18	3.78	1.53	4.10	2.62	5.11	1.65	.01	"
8965	" 28	1,913	91.2	.85	--	--	42	17	3.68	1.51	3.77	2.59	4.79	1.55	.03	"
8962	" 28	surface	90.0	.85	.17	7.5	40	17	4.00	1.53	3.72	2.67	5.35	1.60	.01	"

The Rio Grande at Elephant Butte Dam, N. Mex.

- 3 -

Laboratory No.	Date of Sample	Dis-charge c.f.s.	Con-ductance @25°C	TDS. Tons per acre foot	Bo-ron Ppm	pH.	Per-cent Sodi-um	Per-cent Chlo-ride	Milligram equivalents per liter						Silt, Tons per acre foot	
									Calci-um (Ca)	Magne-sium (Mg)	Sodi-um (Na)	Carbon-ate & bi-carbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sul-phate (SO <sub>4</sub> )	Chlo-ride (Cl)		Ni-trate (NO <sub>3</sub> )
1934																
8982	Aug. 4	2,369	89.7	.85	.18	7.6	44	17	3.72	1.39	3.94	2.41	5.16	1.50	.01	clear
8981	" 4	surface	90.9	.83	—	7.5	42	18	3.70	1.68	3.94	2.36	5.30	1.65	.01	"
9003	" 11	2,484	90.1	.83	.16	7.6	46	19	3.67	1.32	4.13	2.95	4.88	1.70	.01	"
9002	" 11	surface	90.8	.85	—	7.8	46	20	3.58	1.44	4.31	2.76	4.88	1.80	.01	"
9012	" 18	2,370	90.2	.85	.18	—	45	18	3.71	1.29	4.16	2.85	5.06	1.70	.01	"
9011	" 18	surface	91.0	.86	—	—	46	20	3.62	1.49	4.29	2.71	4.81	1.85	.01	"
9048	" 25	2,013	90.6	.76	.18	—	42	18	3.67	1.37	3.81	2.76	4.99	1.70	.01	"
9047	" 25	surface	92.0	.86	—	—	45	19	3.68	1.56	4.31	2.71	5.07	1.80	.01	"
9056	Sept. 1	1,470	90.4	.85	.18	7.4	44	17	3.73	1.44	4.13	2.80	5.16	1.60	.01	"
9055	" 1	surface	91.0	.89	—	7.7	45	18	3.57	1.72	4.32	2.46	5.24	1.65	T.	"
9083	" 8	1,402	91.0	.92	.21	7.4	47	18	3.74	1.37	4.52	2.66	5.42	1.75	.03	"
9082	" 8	surface	93.2	.85	—	7.7	44	19	3.70	1.63	4.22	2.56	5.40	1.90	.01	"
9092	" 15	1,191	91.2	.83	.15	7.5	44	18	3.72	1.45	4.02	2.76	5.24	1.70	.01	"
9091	" 15	surface	93.4	.85	—	7.6	46	18	3.75	1.28	4.20	2.66	5.23	1.70	.01	"
9151	" 22	1,165	91.7	.84	.19	7.7	44	17	3.73	1.46	4.08	2.61	5.15	1.62	.01	"
9150	" 22	surface	93.2	.86	—	7.8	45	18	3.67	1.46	4.35	2.41	5.37	1.67	.01	"
9161	" 29	1,100	91.5	.84	.21	7.4	43	17	3.68	1.53	3.93	2.51	5.39	1.67	.01	"
9160	" 29	surface	92.1	.87	—	7.7	43	20	3.71	1.63	4.19	2.51	5.31	1.91	.01	"
9185	Oct. 6	"	92.4	.86	—	7.9	45	18	3.61	1.49	4.34	2.46	5.36	1.67	.02	"
9192	" 13	"	92.6	.85	—	7.9	43	17	3.79	1.80	4.18	2.41	5.44	1.57	.01	"
9206	" 20	"	93.8	.87	—	7.9	43	17	3.79	1.69	4.28	2.56	5.34	1.67	.01	"
9238	" 27	"	94.7	.89	—	7.9	44	17	3.84	1.62	4.21	2.51	5.66	1.67	.01	"
9279	Nov. 3	"	95.6	.90	—	7.9	44	17	3.84	1.53	4.26	2.56	5.46	1.67	.01	"
9295	" 10	150	95.6	.93	.18	7.7	45	17	3.81	1.47	4.34	2.51	5.75	1.67	.01	"
9294	" 10	surface	95.9	.93	—	7.9	44	17	3.89	1.56	4.35	2.61	5.58	1.67	.01	"
9300	" 17	52	94.8	.88	.18	7.7	45	17	3.81	1.50	4.26	2.46	5.56	1.62	.01	"
9299	" 17	surface	95.9	.88	—	7.5	43	17	3.97	1.67	4.24	2.56	5.45	1.67	.01	"
9309	" 24	"	89.1	.90	—	7.6	45	17	3.91	1.60	4.19	2.56	5.55	1.72	.01	"
9317	Dec. 1	"	96.0	.91	—	7.6	44	17	3.94	1.47	4.18	2.56	5.69	1.67	.01	"
9352	" 8	"	95.8	.90	—	7.7	44	17	3.90	1.49	4.23	2.66	5.67	1.72	.01	"
9374	" 15	"	96.3	.92	—	7.8	44	17	3.88	1.53	4.28	2.61	5.64	1.67	.01	"
9410	" 22	"	97.0	.93	—	7.7	44	17	3.88	1.74	4.35	2.66	5.74	1.74	T.	"
9411	" 29	"	96.0	.91	.19	7.8	44	17	3.82	1.55	4.30	2.56	5.73	1.69	T.	"
1935																
9425	Jan. 5	surface	97.3	.94	—	7.8	44	17	3.88	1.62	4.24	2.66	5.67	1.74	T.	"
9453	" 12	"	97.5	.94	—	7.8	44	17	3.93	1.87	4.49	3.15	5.49	1.74	.01	"
9482	" 18	"	97.6	.91	—	7.7	43	17	3.91	1.87	4.39	2.61	5.74	1.74	.01	"
9515	" 26	"	97.2	.91	—	7.7	45	17	3.86	1.67	4.55	2.61	5.77	1.74	T.	"
9527	Feb. 3	"	98.4	.90	—	7.8	44	17	4.03	1.85	4.54	2.95	5.66	1.79	.01	"
9552	" 9	"	98.3	.92	—	7.7	45	17	4.01	1.60	4.57	2.56	5.75	1.74	.01	"
9566	" 16	425	97.7	.91	.18	7.3	47	17	3.94	1.21	4.56	2.61	5.74	1.74	.01	"
9565	" 16	surface	98.1	.93	—	7.6	47	17	4.07	1.10	4.51	2.56	5.82	1.74	.01	"
9572	" 23	405	98.0	.91	.18	7.8	46	17	3.97	1.30	4.51	2.61	5.77	1.74	.01	"
9571	" 23	surface	98.2	.92	—	7.8	45	17	4.07	1.29	4.42	2.66	5.77	1.74	.01	"
9614	Mar. 2	"	98.7	.90	—	7.6	44	17	4.10	1.67	4.55	2.66	5.72	1.79	.06	"
9631	" 9	"	98.5	.95	—	7.7	45	17	4.13	1.60	4.62	2.65	5.78	1.69	.02	"
9645	" 16	665	98.7	.88	.16	7.5	45	17	3.97	1.57	4.54	2.65	5.69	1.74	T.	"
9644	" 16	surface	98.6	.82	—	7.7	44	17	4.16	1.60	4.56	2.60	5.86	1.74	.01	"
9652	" 23	1,242	98.6	.92	.21	7.9	44	18	4.01	1.59	4.47	2.60	5.71	1.79	.01	"
9651	" 23	surface	99.0	.86	—	7.8	46	17	4.35	1.08	4.63	2.60	5.73	1.74	.01	"
9700	" 30	1,386	98.8	.91	.16	7.8	44	17	4.14	1.58	4.45	2.65	5.80	1.69	.02	"
9699	" 30	surface	98.9	.94	—	—	45	17	4.03	1.65	4.56	2.60	5.83	1.79	.02	"
9718	Apr. 6	1,600	98.9	.91	.23	7.6	47	17	3.96	1.57	4.82	2.90	5.81	1.79	.01	"
9717	" 6	surface	99.5	.96	—	—	44	18	4.08	1.80	4.67	2.75	5.89	1.84	.02	"
9743	" 13	1,309	99.7	.99	.17	7.5	48	19	3.96	1.58	5.00	2.90	5.74	2.09	T.	"
9742	" 13	surface	99.7	.95	—	—	47	16	4.07	1.72	4.84	2.90	6.20	1.78	T.	"

The Rio Grande at Elephant Butte Dam, N. Mex.

- 4 -

Laboratory No.	Date of Sample	Dis-charge c.f.s.	Conductance, Kd105 25°C	TDS. Tons per acre foot	Bor-on Ppm	pH.	Per-cent Soda-um	Per-cent Chlor-ide	Milligram equivalents per liter						Silt, Tons per acre foot	
									Calci-um (Ca)	Magne-sium (Mg)	Sodi-um (Na)*	Carbon-ate & bi-carbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sul-phate (SO <sub>4</sub> )	Chlor-ide (Cl)		Si-li-cate (HCO <sub>3</sub> )
1935																
9771	Apr. 20	1,375	99.8	.99	.20	8.2	50	18	4.00	1.37	5.09	2.85	5.90	1.96	.01	clear
9770	" 20	surface	99.8	.97	—	—	48	18	4.03	1.78	5.09	2.90	6.32	2.00	"	"
9781	" 27	1,538	101.0	.93	.16	7.5	49	18	3.99	1.44	4.96	2.90	5.80	1.91	.01	"
9780	" 27	surface	101.0	.97	—	—	46	17	4.05	1.71	4.79	2.70	6.19	1.86	"	"
9792	May 4	881	101.0	1.00	.19	7.9	49	18	4.00	1.54	5.44	3.10	6.07	1.96	.01	"
9791	" 4	surface	99.9	.95	—	—	48	17	4.01	1.72	5.13	2.85	6.31	1.91	.01	"
9809	" 11	1,369	101.0	.97	.17	7.7	49	17	4.00	1.54	4.90	3.15	5.84	1.86	"	"
9808	" 11	surface	100.0	.86	—	—	47	18	4.07	1.71	4.89	2.90	6.05	1.91	.01	"
9843	" 18	1,093	101.0	.95	.20	7.9	47	18	4.03	1.69	4.74	2.95	5.88	1.91	.01	"
9842	" 18	surface	101.0	.92	—	—	48	18	4.01	1.54	4.82	2.85	5.77	1.91	.02	"
9858	" 25	1,568	101.0	.95	.18	7.9	48	18	4.01	1.72	4.90	3.05	5.97	1.96	.02	"
9857	" 25	surface	102.0	.95	—	7.9	47	19	4.18	1.49	4.86	3.05	5.65	2.00	"	"
9873	June 1	1,518	102.0	.95	.16	7.8	48	18	4.03	1.70	4.90	3.15	5.78	2.00	"	"
9872	" 1	surface	102.0	.95	—	7.7	48	18	4.11	1.58	4.90	3.19	5.79	1.96	"	"
9911	" 8	1,900	102.0	1.04	.16	7.9	49	18	4.05	1.55	4.98	3.10	5.86	2.00	"	"
9910	" 8	surface	103.0	.97	—	7.8	49	19	4.06	1.49	4.92	3.05	5.78	2.04	"	"
9948	" 15	1,620	103.0	.97	.18	7.5	50	18	4.11	1.49	5.19	2.95	6.11	2.06	.03	"
9947	" 15	surface	93.4	.93	—	7.9	52	19	3.71	1.19	5.02	2.95	5.29	1.91	"	"
9951	" 22	2,083	102.0	.94	.17	7.5	50	19	3.98	1.42	5.18	3.00	5.76	2.06	.01	"
9950	" 22	surface	91.3	.89	—	7.8	50	18	3.63	1.10	4.68	2.75	5.04	1.72	"	"
10009	" 29	2,093	101.0	.92	.14	7.9	47	18	3.98	1.63	4.62	3.05	5.58	1.91	0	"
10008	" 29	surface	88.0	.82	—	7.8	47	18	3.59	1.19	4.04	2.70	4.70	1.67	0	"
10012	July 6	1,854	98.2	.91	.14	7.9	48	18	3.91	1.51	4.50	3.00	5.43	1.91	"	"
10011	" 6	surface	83.9	.77	—	8.0	48	17	3.57	1.29	3.88	2.90	4.52	1.53	"	"
10042	" 13	2,118	96.2	.94	.12	7.9	47	18	3.64	1.47	4.52	2.90	5.33	1.86	"	"
10041	" 13	surface	78.1	.77	—	7.8	41	18	3.19	1.53	3.54	2.60	3.99	1.43	"	"
10043	" 20	2,136	95.1	.92	.15	7.8	48	19	3.79	1.42	4.60	2.80	5.22	1.91	"	"
10061	" 27	2,177	92.7	.89	.16	7.5	51	18	3.71	1.16	4.62	2.92	5.12	1.82	.02	"
10060	" 27	surface	73.1	.81	—	8.2	49	17	3.08	.90	3.41	2.63	3.89	1.29	"	"
10103	Aug. 3	2,310	89.6	.80	.15	7.8	44	18	3.78	1.54	4.01	2.82	4.94	1.72	"	"
10102	" 3	surface	70.2	.69	—	8.2	46	17	3.11	.84	3.13	2.43	3.62	1.24	"	"
10469	" 9	2,122	180.0	1.99	—	7.4	35	10	4.13	2.96	7.30	4.13	14.34	2.12	.11	77.47
10470	" 10	1,950	123.0	1.22	—	7.7	37	14	6.25	2.15	4.95	3.44	8.22	1.72	.11	31.23
10471	" 10	2,122	129.0	1.38	—	7.6	37	13	6.66	2.32	5.20	3.73	8.63	1.76	.04	34.26
10118	" 10	surface	69.7	.75	—	8.1	43	17	2.83	1.31	2.92	2.67	3.31	1.24	0	clear
10472	" 11	1,951	96.2	.90	—	7.7	44	16	4.23	1.33	4.39	2.84	5.47	1.62	.02	.52
10147	" 17	1,803	90.8	.86	.16	7.8	45	18	3.76	1.38	4.06	2.77	4.85	1.53	.01	clear
10149	" 17	surface	68.1	.64	—	8.2	43	19	2.72	.65	3.90	2.43	3.42	1.34	"	"
10152	" 24	1,900	87.8	.82	.15	8.0	45	17	3.97	1.31	3.85	2.62	4.81	1.53	.02	"
10151	" 24	surface	67.7	.61	—	8.2	48	17	2.71	1.06	3.06	2.43	3.55	1.24	"	"
10477	" 25	1,900	113.0	1.11	—	7.3	37	13	5.92	1.85	4.55	3.83	6.87	1.57	.05	24.75
10478	" 26	1,900	109.0	1.03	—	7.7	37	15	5.64	1.49	4.25	3.69	5.94	1.57	.18	17.03
10157	" 31	811	89.4	.79	.16	7.9	47	17	3.71	1.29	4.02	2.72	5.09	1.58	.01	clear
10163	" 31	surface	67.0	.65	—	7.9	42	18	2.76	1.11	2.88	2.28	3.23	1.20	0	"
10187	Sept. 7	"	67.7	.64	.12	—	42	17	3.03	—	2.81	2.18	3.36	1.15	.01	"
10200	" 14	1,210	88.0	.80	.14	7.8	45	15	3.73	1.26	3.91	2.67	5.06	1.39	"	"
10199	" 14	surface	73.0	.72	—	8.0	48	16	3.16	1.02	3.73	2.48	4.28	1.29	.01	"
10210	" 21	1,390	88.2	.84	.16	7.5	40	15	3.81	1.49	3.68	2.48	5.23	1.39	0	"
10209	" 21	surface	72.7	.70	—	7.8	41	16	3.16	1.15	3.16	2.38	3.76	1.20	0	"
10232	" 28	700	86.5	.80	.10	7.9	40	18	3.75	1.60	3.53	2.43	5.06	1.48	.01	"
10258	Oct. 5	1,146.0	1.51	—	7.5	27	9	7.80	2.37	6.09	4.13	10.54	1.43	.05	106.03	
10257	" 5	surface	78.7	.78	—	7.6	43	15	3.40	1.20	3.41	2.43	4.42	1.24	.03	clear
10268	" 12	575	91.1	.86	.16	7.7	45	15	3.89	1.47	4.17	2.52	5.77	1.43	.03	"
10287	" 12	surface	83.4	.78	—	7.7	40	15	3.68	1.74	3.64	2.48	5.17	1.39	.01	"
10297	" 19	12	91.9	.89	.12	7.8	44	14	4.00	1.35	4.04	2.28	5.90	1.34	.01	"
10296	" 19	surface	84.9	.82	—	7.6	40	14	3.83	1.42	3.75	2.43	5.12	1.24	.02	"
10311	" 26	8	87.2	.85	—	8.1	42	15	3.90	1.44	3.75	2.53	5.27	1.34	"	"
10310	" 26	surface	86.3	.84	—	7.7	42	15	3.80	1.36	3.75	2.47	5.08	1.34	.02	"



The Rio Grande at Elephant Butte Dam, N. Mex.

- 5 -

Laboratory No.	Date of Sample	Dis-charge c.f.s.	Con-ductance Kx10 <sup>3</sup> @25°C	TDS. Tons per acre foot	Bo-ron Ppm	pH.	Per-cent Sodi-um	Per-cent Chlo-ride	Milligram equivalents per liter					Sul-phate (SO <sub>4</sub> )	Chlo-ride (Cl)	Ni-trate (NO <sub>3</sub> )	Silt, Tons per acre foot
									Calci-um (Ca)	Magne-sium (Mg)	Sodi-um (Na)	Carbon-ate & bi-carbonate (CO <sub>3</sub> +HCO <sub>3</sub> )					
1935																	
10335	Nov. 2	350	85.2	.83	.19	7.8	44	14	3.63	1.19	3.73	2.47	5.16	1.29	0	clear	
10334	" 2	surface	85.5	.82	--	7.8	42	15	3.73	1.53	3.67	2.43	5.16	1.34	tr	"	
10346	" 9	190	85.1	.83	.14	7.9	42	15	3.76	1.44	3.77	2.57	5.16	1.34	tr	"	
10347	" 9	surface	85.5	.83	--	7.7	41	14	3.70	1.86	3.59	2.48	5.18	1.29	.02	"	
10360	" 16	1	85.9	.80	.09	7.8	41	15	3.60	1.50	3.75	2.52	5.31	1.34	.01	"	
10359	" 16	surface	86.8	.80	--	7.6	43	15	3.63	1.33	3.62	2.57	5.33	1.34	tr	"	
10367	" 23	1	85.9	.76	.11	7.8	42	14	3.60	1.33	3.79	2.52	5.35	1.29	.01	"	
10366	" 23	surface	86.9	.81	--	7.7	41	14	3.63	1.47	3.75	2.47	5.47	1.34	tr	"	
10381	" 30	11	86.4	.79	.19	7.9	43	15	3.79	1.32	3.87	2.62	5.25	1.34	.02	"	
10380	" 30	surface	86.1	.78	--	7.6	42	15	3.78	1.33	3.65	2.67	5.12	1.34	tr	"	
10404	Dec. 7	11	84.9	.81	.16	7.9	43	15	3.76	1.34	3.77	2.62	5.12	1.34	tr	"	
10403	" 7	surface	85.1	.80	--	8.0	43	15	3.65	1.10	3.79	2.47	4.94	1.34	tr	"	
10411	" 14	575	86.0	.81	.16	7.9	42	14	3.62	1.21	3.65	2.49	5.23	1.24	.01	"	
10410	" 14	surface	86.7	.84	--	7.7	40	15	3.71	1.44	3.44	2.49	4.85	1.34	0	"	
10417	" 21	12	86.3	.82	.26	7.8	42	15	3.78	1.21	3.59	2.44	5.17	1.34	.01	"	
10416	" 21	surface	87.7	.84	--	7.3	42	15	3.84	1.24	3.65	2.54	5.04	1.24	tr	"	
10423	" 28	12	86.6	.84	.02	7.8	41	15	3.65	1.26	3.59	2.54	5.07	1.34	tr	"	
10422	" 28	surface	86.5	.83	--	7.9	41	15	4.01	1.44	3.71	2.64	5.06	1.34	0	"	
1936																	
10444	Jan. 4	12	87.7	.83	.16	8.0	44	15	3.69	1.24	4.08	2.59*	5.24	1.34	0	"	
10443	" 4	surface	87.5	.83	--	7.8	42	15	3.62	1.35	3.79	2.54*	4.99	1.34	tr	"	
10449	" 11	12	87.0	.82	.12	7.6	42	15	3.88	1.30	3.79	2.54*	5.16	1.34	.01	"	
10448	" 11	surface	88.2	.84	--	7.9	39	15	3.90	1.78	3.65	2.69	5.10	1.34	tr	"	
10451	" 18	12	87.0	.82	.15	7.8	43	15	3.90	1.08	3.61	2.64*	5.15	1.34	tr	"	
10450	" 18	surface	87.5	.83	--	7.7	41	15	3.90	1.40	3.68	2.94	5.18	1.34	tr	"	
10459	" 25	11	88.4	.85	.13	7.9	40	15	3.79	1.58	3.62	2.64	5.17	1.34	.01	"	
10490	" 25	surface	86.1	.85	--	7.9	40	15	3.98	1.47	3.60	2.59*	5.12	1.34	tr	"	
10603	Feb. (5)	290	89.1	.84	.12	7.6	42	15	4.24	1.21	3.96	2.79	5.18	1.45	0	"	
10604	" (5)	surface	88.9	.83	.12	7.8	42	16	4.21	1.15	3.65	2.64	5.19	1.45	tr	"	
10677	Mar. (4)	953	87.9	.85	.13	7.7	42	17	3.90	1.39	3.88	2.69	4.80	1.56	0	"	
10678	" (4)	surface	87.3	.85	.15	7.5	42	16	3.84	1.40	3.66	2.74	5.05	1.51	0	"	
10616	Apr. (4)	1,707	91.7	.80	.14	7.5	42	16	3.94	1.43	3.96	2.44*	5.33	1.51	0	"	
10817	" (4)	surface	92.5	.82	.13	7.7	43	16	3.97	1.37	4.11	2.69	5.24	1.47	0	"	
10826	May (5)	1,631	91.5	.85	.14	7.8	46	16	3.88	1.32	4.50	2.69	5.33	1.56	tr	"	
10827	" 1-8	surface	92.4	.82	--	8.1	43	17	3.94	1.55	4.08	2.64*	5.18	1.65	0	"	
10828	" 7-22-28	"	83.6	.76	.15	7.9	38	18	3.75	1.42	3.14	2.49	4.36	1.51	tr	"	
10889	June (4)	2,094	89.6	.80	.15	7.5	43	18	3.55	1.28	3.88	2.72	4.79	1.65	0	"	
10890	" (4)	surface	77.5	.69	.13	7.6	42	18	3.44	1.20	3.32	2.52	4.08	1.40	0	"	
10918	July (5)	2,034	85.1	.79	.15	7.6	43	19	3.64	1.31	3.74	2.67	4.46	1.65	.01	"	
10919	" (4)	surface	72.8	.70	.13	7.8	52	19	2.80	.84	3.69	2.42	3.63	1.45	tr	"	
11004	Aug. (4)	2,186	79.5	.72	.10	7.5	44	17	3.47	1.13	3.68	2.72	4.29	1.40	0	"	
11005	" (3)	surface	72.2	.65	.12	7.6	49	19	2.87	.92	3.71	2.37	3.83	1.50	0	"	
11051	Sept. (4)	994	79.8	.71	.13	7.9	43	17	3.43	1.18	3.50	2.67	4.13	1.39	tr	"	
11052	" (4)	surface	75.8	.69	.15	7.6	44	19	3.19	1.03	3.36	2.32	3.74	1.39	0	"	
11125	Oct. 2	300	78.8	.75	.15	7.6	46	17	3.45	1.14	3.89	2.57	4.25	1.40	.01	"	
11126	" 4	134	92.8	.88	.15	7.6	43	16	4.00	1.39	4.26	2.52	5.74	1.55	0	"	
11127	" (5)	surface	82.5	.83	.23	7.0	42	17	3.58	1.46	3.64	2.38	4.55	1.45	0	"	
11171	Nov. (4)	134	86.1	.81	.14	7.8	45	16	3.66	1.27	4.02	2.47	5.10	1.39	0	"	
11172	" (4)	surface	86.2	.76	.16	7.6	46	16	3.68	1.19	4.16	2.47	5.22	1.49	0	"	
11212	Dec. (4)	90	86.0	.80	.15	7.5	44	16	3.62	1.26	3.83	2.46	4.83	1.42	0	"	
11213	" (4)	surface	85.5	.80	.17	7.5	43	16	3.66	1.24	3.77	2.46	4.84	1.42	0	"	

\*Includes carbonate (CO<sub>3</sub>)

RIO GRANDE AT LEASBURG DAM, NEW MEXICO

Total Dissolved Solids, February 1920 to January 1930

Located in NE1/4 Sec. 10, T.21S., R.1W., N.M.P.M., about 12 miles upstream from Las Cruces, New Mexico. The crest of the dam is 3,963.05 feet above sea level. The discharges represent the total flow at the dam before diversion into the Leasburg Canal. Samples and analyses by United States Bureau of Reclamation.

Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.	Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.	Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.
1920			1922			1926		
Feb. 10	65	.56	Oct. 9	1512	.68	July 1	1639	1.09
			14	1157	.90	26	1743	.82
July 29	1297	.76	14	1157	.93			
			14	1157	.60	Aug. 1	835	.68
1921						Sept. 3	1214	1.22
Feb. 1	10	.61	1923					
Mar. 8	1381	.54	Jan. 5	60	.82	1927		
Apr. 1	1393	.46	Apr. 11	1542	.82	Jan. 3	150	.68
May 6	1551	.79	July 1	2061	.27	Mar. 1	553	.68
			22	2210	.60			
June 8	1959	.76	Oct. 1	1399	.68	June 13	1598	.68
July 5	2368	.54				1928		
Aug. 8	2507	.46	1924			July 3	2090	.68
18	5003	.69	Jan. 8	105	.68			
20	3131	.58	Mar. 13	1033	.68	1929		
			13	1033	.54	Jan. 2	80	.82
Sept. 6	1913	.68				Feb. 15	493	.68
16	3087	.52	Apr. 1	1577	1.36	Feb. 27	715	.68
24	2107	.57	July 3	3400	.68	Mar. 15	980	.68
25	2439	.46				Apr. 1	1598	.68
Oct. 6	2004	.46	Oct. 2	261	.54	May 1	1960	.54
9	1330	.24	Nov. 20	354	.54	15	1855	.54
14	770	.57						
Nov. 20	1140	.54	Dec. 29	414	.41	June 1	1340	.68
21	761	.54				19	2128	.68
24	1368	.68						
1922			1925			July 1	2068	.68
Jan. 1	190	.95	Mar. 12	597	.54	14	1882	.68
1	190	.92	Apr. 1	1260	.95	Aug. 2	2078	.54
Mar. 23	1669	.84	May 1	1178	.41	15	1765	.95
Apr. 10	1610	.1.30	June 1	1171	.68	Sept. 30	655	.54
			July 7	1369	.82	Oct. 12	135	1.36
July 1	2530	.76				15	72	.82
1	2530	.52	Oct. 1	1399	.68	31	78	1.09
2	2461	.76	Dec. 1	198	1.09			
12	1706	.68				Dec. 1	77	1.22
13	2130	.76				15	69	.95
Aug. 8	2546	.41	1926					
8	2546	.63	Jan. 5	123	.82	1930		
8	2546	2.36				Jan. 4	75	1.09
12	1912	.52	Mar. 1	89	.82			
12	1912	.95						
12	1912	.65	Apr. 1	632	.82			
20	2087	.68						
22	2118	.73						

The Rio Grande at Leesburg Dam, near Las Cruces, N. Mex.

Gaging station at Leesburg dam in the SE cor. of NE1/4, sec.10, T.21S, R.1W, N. M. P. M.; about 12 miles upstream from Las Cruces. Elevation of crest of dam is 3,963.05 feet above sea level. Samples collected by U. S. Bureau of Reclamation; analyses by U. S. Bureau of Plant Industry.

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance Kx10 <sup>5</sup> @25°C	TDS. Tons per acre foot	Boron Ppm	pH.	Percent Sodium	Percent Chloride	Milligram equivalents per liter						
										Calcium (Ca)	Magnesium (Mg)	Sodium (Na)*	Carbonate & bicarbonate (CO <sub>3</sub> HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )
1930																
--	Feb. 14	1	238	101	.99	--	--	53	22	4.50	1.48	6.74	5.90	4.06	2.76	--
--	" 28	1	932	95	1.11	--	--	52	22	4.50	1.48	6.58	3.93	5.87	2.76	--
--	Mar. 15	1	850	94	1.10	--	--	54	18	4.65	1.48	7.16	3.93	6.99	2.37	--
--	Apr. 15	1	2,205	97	.91	--	--	45	20	4.50	.91	4.35	2.36	5.43	1.97	--
--	May 1	1	1,400	90	1.00	--	--	50	17	4.80	.91	5.64	3.93	5.45	1.97	--
--	" 15	1	1,100	89	.85	--	--	45	19	4.50	1.23	4.67	2.75	5.68	1.97	--
--	" 31	1	1,000	92	.88	--	--	41	15	5.10	1.23	4.38	3.93	5.20	1.58	--
--	June 30	1	2,200	106	.92	--	--	32	20	5.10	1.56	3.10	1.97	5.82	1.97	--
--	July 7	1	2,200	107	.92	--	--	29	20	5.55	1.56	2.88	1.97	6.05	1.97	--
1931																
--	Jan. 31	1	54	165	1.37	--	--	60	52	5.40	1.56	10.29	3.54	4.64	9.07	--
--	Feb. 14	1	250	92	.86	--	--	51	22	3.30	1.73	5.15	3.15	4.66	2.37	--
--	" 22	1	300	82	.80	--	--	38	20	4.20	1.61	3.75	3.15	4.64	1.97	--
--	" 28	1	600	90	.80	--	--	44	20	4.35	1.23	4.34	3.15	4.80	1.97	--
--	Mar. 7	1	585	91	.78	--	--	38	20	4.05	1.98	3.62	3.15	4.53	1.97	--
--	" 14	1	1,046	88	.86	--	--	43	21	4.35	1.56	4.43	3.15	5.22	1.97	--
--	" 21	1	1,058	87	.83	--	--	45	19	4.35	1.32	4.57	3.15	5.12	1.97	--
--	" 28	1	1,602	81	.78	--	--	43	9	3.75	1.48	4.01	3.54	4.91	.79	--
--	Apr. 4	1	1,721	85	.87	--	--	50	15	3.90	1.48	5.37	3.93	5.24	1.58	--
--	" 11	1	1,781	87	.89	--	--	55	14	3.75	1.32	6.35	3.54	6.30	1.58	--
--	" 18	1	1,933	87	.78	--	--	48	12	3.75	1.23	4.61	3.15	5.26	1.18	--
--	" 25	1	1,097	92	.84	--	--	43	16	4.50	1.32	4.29	3.93	4.60	1.58	--
--	May 2	1	789	98	.96	--	--	43	28	4.65	1.73	4.94	3.54	4.63	3.15	--
--	" 8	1	862	91	.94	--	--	52	25	4.05	1.23	5.79	3.54	4.77	2.76	--
--	" 14	1	1,870	86	.79	--	--	46	30	4.05	.99	4.24	2.75	4.27	2.76	--
--	" 21	1	1,500	87	.87	--	--	53	22	4.05	.99	5.86	3.93	4.60	2.37	--
--	" 25	1	1,526	83	.77	--	--	44	13	4.05	.99	3.89	2.75	5.00	1.18	--
--	June 2	1	1,846	82	.81	--	--	47	21	4.05	1.07	4.47	2.75	4.87	1.97	--
--	" 11	1	1,764	84	.89	--	--	54	20	3.75	.90	5.38	3.54	4.52	1.97	--
--	" 16	1	1,768	86	.84	--	--	45	13	4.05	1.07	4.21	2.36	5.78	1.18	--
--	" 22	1	1,946	89	.76	--	--	49	13	3.45	1.07	4.36	2.75	4.95	1.18	--
--	July 1	1	1,950	89	.78	--	--	54	17	3.60	.74	5.11	2.75	5.12	1.58	--
--	" 6	1	1,654	89	.78	--	--	46	21	4.05	1.15	4.25	2.36	5.12	1.97	--
--	" 16	1	1,635	85	.73	--	--	43	14	3.90	.99	3.68	2.75	4.64	1.18	--
--	" 20	1	2,182	86	.82	--	--	49	15	3.75	1.15	4.70	3.15	4.87	1.58	--
--	" 27	1	2,015	87	.90	--	--	49	16	3.90	1.23	5.00	3.54	5.01	1.58	--
--	Aug. 5	1	1,657	80	.79	--	--	49	21	3.60	1.23	4.55	3.15	4.26	1.97	--
--	" 7	1	1,352	101	.90	--	--	44	23	4.65	1.23	4.63	3.54	4.60	2.37	--
--	" 11	1	1,870	82	.72	--	--	41	13	4.05	1.15	3.62	3.54	4.10	1.18	--
--	" 17	1	1,741	85	.86	--	--	47	16	4.05	1.15	4.60	3.54	4.68	1.58	--
--	" 24	1	2,363	85	.77	--	--	45	17	4.05	1.15	4.29	3.15	4.76	1.58	--
--	" 31	1	1,897	85	.83	--	--	52	16	3.60	1.23	5.16	3.54	4.87	1.58	--
--	Sept. 19	1	1,167	92	.85	--	--	45	23	4.05	1.56	4.61	3.15	4.70	2.37	--
--	" 26	1	667	119	1.20	--	--	54	19	4.80	1.73	7.72	4.33	7.16	2.76	--
--	Oct. 2	1	668	104	1.03	--	--	44	23	4.80	1.97	5.36	4.33	5.04	2.76	--
--	" 7	1	303	107	1.01	--	--	24	18	6.30	2.30	2.70	3.60	5.70	2.00	--
--	" 12	1	113	247	1.89	--	--	8	31	8.70	5.60	1.20	4.00	6.60	4.80	--
--	" 18	1	75	128	1.07	--	--	41	30	5.60	2.20	5.50	4.00	5.30	2.40	--
--	" 25	1	850	92	.95	--	--	44	22	4.50	1.70	4.80	3.60	5.00	2.40	--
--	" 31	1	151	109	1.02	--	--	49	25	4.50	2.00	6.20	4.40	5.10	3.20	--
--	Nov. 6	1	925	91	.83	--	--	44	13	3.80	1.20	4.00	2.40	5.40	1.20	--
--	" 12	1	187	113	1.11	--	--	52	30	4.50	1.90	6.90	4.40	4.90	4.00	--
--	" 18	1	631	96	.96	--	--	55	21	3.90	1.20	6.20	3.60	5.30	2.40	--
--	" 25	1	113	108	1.04	--	--	52	28	4.40	1.70	6.60	4.00	5.10	3.60	--

\*For samples prior to No. 7818 the sodium was calculated; for subsequent samples it was determined

The Rio Grande at Leasburg Dam, near Las Cruces, N. Mex.

- 2 -

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance Kx10 <sup>3</sup> @25°C	TDS. Tons per acre foot	Boron Ppm	pH.	Percent Sodium	Percent Chloride	Milligram equivalents per liter						
										Calcium (Ca)	Magnesium (Mg)	Sodium (Na)*	Carbonate & bicarbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sulphate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )
1931																
--	Dec. 2	1	97	120	1.05	--	--	42	34	5.70	1.90	5.40	4.00	4.60	4.40	--
--	" 8	1	80	125	1.16	--	--	46	37	5.30	2.20	6.50	4.00	4.80	5.20	--
--	" 13	1	73	129	1.16	--	--	46	37	5.40	2.20	6.50	4.00	4.90	5.20	--
--	" 18	1	490	101	.98	--	--	48	30	4.40	1.70	5.70	2.80	5.40	3.20	--
76	" 23	1	148	114	1.07	--	--	53	26	4.50	1.30	6.50	4.00	5.10	3.20	--
77	" 28	1	79	122	1.10	--	--	51	32	4.80	1.90	7.00	4.40	4.90	4.40	--
1932																
78	Jan. 8	1	77	129	1.19	--	--	52	36	5.30	1.70	7.50	4.40	4.90	5.20	--
104	" 17	1	70	132	1.26	--	--	55	36	5.10	1.80	8.60	4.80	5.10	5.60	--
105	" 26	1	56	131	1.28	--	--	50	33	5.30	2.60	7.90	5.60	5.00	5.20	--
114	Feb. 2	1	56	132	1.24	--	--	52	33	5.10	1.50	8.30	4.80	4.90	5.20	--
115	" 8	1	584	96	.96	--	--	54	20	4.00	1.40	6.40	3.60	5.80	2.40	--
116	" 15	1	192	104	.90	--	--	49	33	4.20	1.40	5.30	3.20	4.10	3.60	--
147	" 22	1	491	99	.89	--	--	48	25	4.10	1.70	5.40	3.20	5.20	2.80	--
148	" 29	1	533	99	.88	--	--	49	23	3.90	1.50	5.10	2.80	5.30	2.40	--
149	Mar. 7	1	718	98	.88	--	--	47	23	3.90	1.70	5.90	2.80	5.30	2.40	--
150	" 13	1	819	95	.89	--	--	49	22	3.90	1.60	5.30	3.20	5.20	2.40	--
151	" 19	1	948	95	.88	--	--	47	19	3.90	1.70	5.00	3.20	5.40	2.00	--
152	" 28	1	1,592	94	.88	--	--	45	20	3.90	1.70	4.50	2.80	5.30	2.00	--
153	Apr. 2	1	1,762	94	.88	--	--	45	20	3.90	1.70	4.50	2.80	5.30	2.00	--
154	" 8	1	1,861	95	.89	--	--	46	19	3.90	1.70	4.70	2.80	5.50	2.00	--
187	" 14	1	1,905	100	.86	--	--	42	16	3.80	1.90	4.20	2.80	5.50	1.60	--
188	" 19	1	1,751	97	.90	--	--	41	20	4.00	1.80	4.10	2.80	5.10	2.00	--
189	" 24	1	1,684	97	.90	--	--	49	20	3.90	1.80	4.50	2.80	5.40	2.00	--
190	" 29	1	1,566	98	.88	--	--	--	--	3.90	1.70	4.60	2.80	5.40	2.00	--
191	May 6	1	1,605	97	.94	--	--	46	19	3.80	1.90	4.90	2.80	5.80	2.00	--
192	" 12	1	1,566	97	.86	--	--	45	19	4.00	1.80	4.80	3.20	5.40	2.00	--
193	" 20	1	1,362	96	.86	--	--	46	19	3.80	1.80	4.70	2.80	5.50	2.00	--
194	" 25	1	1,828	99	.93	--	--	48	23	3.80	1.70	5.10	2.80	5.40	2.40	--
195	June 1	1	1,891	96	.87	--	--	44	19	3.80	1.50	5.10	2.80	5.60	2.00	--
196	" 6	1	1,895	97	.87	--	--	46	20	3.80	1.50	4.70	2.80	5.20	2.00	--
288	" 13	1	1,920	89	.79	--	--	50	16	3.30	1.28	4.67	2.80	4.85	1.60	--
289	" 20	1	2,049	91	.79	--	--	50	16	3.30	1.28	4.67	2.80	4.85	1.60	--
290	" 24	1	2,215	89	.80	--	--	54	21	3.30	1.15	5.15	2.80	4.80	2.00	--
291	July 5	1	1,862	88	.78	--	--	48	21	3.75	1.15	4.60	2.80	4.70	2.00	--
292	" 12	1	2,350	85	.79	--	--	52	17	3.45	1.15	4.91	3.20	4.71	1.60	--
293	" 18	1	2,023	86	.78	--	--	48	21	3.75	1.28	4.57	2.80	4.80	2.00	--
294	" 27	1	2,323	83	.76	--	--	48	18	3.45	1.28	4.38	2.80	4.71	1.60	--
295	Aug. 1	1	2,253	84	.76	--	--	49	21	3.45	1.28	4.60	2.80	4.53	2.00	--
296	" 4	1	1,914	78	.73	--	--	51	19	3.15	.89	4.28	2.80	3.92	1.60	--
297	" 16	1	2,112	81	.75	--	--	48	18	3.30	1.28	4.19	2.80	4.37	1.60	--
298	" 22	1	2,083	82	.77	--	--	42	23	3.75	1.28	3.71	2.80	3.94	2.00	--
315	" 30	1	3,392	77	.79	--	--	53	22	3.00	1.28	4.82	2.80	4.30	2.00	--
316	Sept. 6	1	1,696	82	.80	--	--	49	22	3.15	1.54	4.55	2.80	4.44	2.00	--
317	" 14	1	1,817	79	.74	--	--	42	22	3.75	1.54	3.75	2.80	4.24	2.00	--
318	" 22	1	1,606	79	.78	--	--	41	22	3.90	1.54	3.73	2.80	4.37	2.00	--
319	" 26	1	2,012	76	.72	--	--	37	19	3.75	1.54	3.13	2.80	4.02	1.60	--
369	Oct. 5	1	587	90	.87	--	--	42	25	4.20	1.28	4.03	2.40	4.71	2.40	--
370	" 11	1	108	108	1.05	--	--	43	25	4.65	1.66	4.71	3.20	5.02	2.80	--
371	" 18	1	745	88	.83	--	--	46	21	4.20	.90	3.36	3.00	4.46	2.00	--
372	" 25	1	177	110	1.02	--	--	38	20	5.25	1.66	4.17	4.20	4.68	2.20	--
373	" 31	1	112	123	1.12	--	--	45	36	5.40	1.54	5.78	3.00	5.12	4.60	--
374	Nov. 3	1	692	83	.76	--	--	43	24	3.90	.90	3.67	2.40	4.07	2.00	--
375	" 13	1	107	115	1.09	--	--	37	27	5.40	1.54	4.03	3.00	4.97	3.00	--
376	" 21	1	798	79	.71	--	--	49	21	3.60	.77	4.25	2.80	4.02	1.80	--
388	" 28	1	145	113	1.09	--	--	48	29	4.95	1.54	5.92	4.00	4.81	3.60	--

The Rio Grande at Leasburg Dam, near Las Cruces, N. Mex.

- 3 -

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance Kx10 <sup>5</sup> @25°C	TDS. Tons per acre foot	Bo-ron Ppm	pH	Per-cent Sodium	Per-cent Chloride	Milligram equivalents per liter						
										Calcium (Ca)	Magnesium (Mg)	Sodium (Na)*	Carbonate & bicarbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )
1932																
389	Dec. 4	1	720	77.0	.70	—	—	50	30	3.15	1.15	4.28	3.00	3.78	1.80	—
390	" 12	1	110	110.0	1.01	—	—	48	30	4.65	1.54	5.82	3.80	4.61	3.60	—
391	" 18	1	714	85.0	.96	—	—	48	24	3.15	1.28	4.05	2.60	3.88	2.00	—
392	" 27	1	109	113.0	1.05	—	—	45	19	4.20	1.54	4.74	3.80	4.68	2.00	—
1933																
393	Jan. 2	1	77	132.0	1.16	—	—	46	34	5.70	1.92	6.61	4.60	4.83	4.80	—
394	" 9	1	69	135.0	1.12	—	—	49	37	5.25	1.92	6.98	4.00	4.95	5.20	—
479	" 23	1	49	111.0	1.02	—	—	53	40	4.65	1.53	6.89	3.60	4.27	5.20	—
480	" 31	1	62	77.0	.78	—	—	36	26	4.20	1.79	3.40	3.20	3.79	2.40	—
481	Feb. 6	1	699	67.0	.62	—	—	48	22	3.60	1.15	4.34	3.20	3.89	2.00	—
482	" 13	1	407	70.0	.71	—	—	52	18	3.00	1.28	4.58	3.40	3.86	1.60	—
483	" 20	1	771	72.0	.77	—	—	49	22	3.15	1.41	4.39	3.60	3.35	2.00	—
484	" 27	1	636	69.0	.72	—	—	52	23	3.00	1.15	4.58	2.80	3.93	2.00	—
485	Mar. 6	1	767	70.0	.74	—	—	53	22	3.15	1.15	4.78	3.60	3.48	2.00	—
526	" 13	1	855	73.0	.75	—	—	51	23	3.00	1.28	4.50	3.20	3.98	2.00	—
527	" 20	1	1,524	70.0	.76	—	—	48	23	3.15	1.28	4.16	2.80	3.62	2.00	—
528	" 27	1	1,686	71.0	.75	—	—	46	22	3.45	1.41	4.09	3.20	3.75	2.00	—
529	Apr. 3	1	1,901	69.0	.76	—	—	45	23	3.15	1.66	3.91	2.80	3.92	2.00	—
530	" 11	1	1,966	68.0	.71	—	—	49	24	3.00	1.28	4.10	2.80	3.98	2.00	—
7500	" 25	1	1,613	74.8	.73	—	—	35	18	3.40	1.65	2.74	2.70	3.65	1.44	—
7501	May 9	1	1,246	79.3	.78	—	—	40	19	3.50	1.37	3.30	3.05	3.98	1.54	—
7502	" 15	1	1,731	75.1	.67	—	—	37	20	3.35	1.40	2.76	2.80	3.22	1.49	—
7503	" 25	1	1,866	75.8	.72	—	—	29	19	3.35	2.30	2.32	3.00	3.48	1.49	—
7504	" 29	1	1,794	75.8	.78	—	—	43	18	3.25	1.40	3.47	3.10	3.98	1.44	—
7505	June 5	1	1,760	74.9	.73	—	—	38	19	3.35	1.44	2.89	2.85	3.59	1.44	—
7506	" 13	1	1,738	75.0	.73	—	—	40	19	3.30	1.37	3.06	2.90	3.39	1.44	—
7507	" 20	1	1,933	76.3	.67	—	—	49	18	3.50	1.47	3.85	3.35	3.08	1.39	—
7812	" 26	1	1,097	102.0	.93	—	—	37	16	4.87	1.81	3.93	3.90	5.00	1.71	—
7813	" 28	1	1,572	116.0	1.08	—	—	39	14	5.78	1.96	4.93	4.45	6.46	1.76	—
7814	July 4	1	1,410	88.2	.74	—	—	41	16	4.42	1.31	4.03	3.85	4.34	1.57	—
7815	" 10	1	1,892	80.1	.70	—	—	42	16	3.67	1.20	3.53	3.30	3.72	1.38	—
7816	" 17	1	9,125	61.3	.59	—	—	35	16	3.10	.99	2.22	3.25	2.06	1.00	—
7817	" 24	1	1,644	83.5	.80	—	—	40	16	4.03	1.42	3.68	3.40	4.30	1.43	—
7818	" 31	1	1,770	64.8	.87	—	—	40	15	4.07	1.61	3.80	3.80	4.25	1.43	—
7819	Aug. 6	1	2,095	90.3	.76	—	—	40	14	4.22	1.67	3.98	4.15	4.34	1.38	—
7820	" 15	1	2,142	81.5	.84	—	—	41	16	3.92	1.62	3.99	4.45	3.43	1.48	T.
7821	" 21	1	2,028	80.1	.75	—	—	38	17	3.65	1.60	3.35	2.90	4.13	1.48	.01
7822	" 29	1	2,105	78.6	.75	—	—	35	17	3.65	1.71	2.98	2.85	3.98	1.43	.03
7823	Sept. 4	1	1,939	80.1	.74	—	—	38	18	3.65	1.62	3.23	2.80	4.19	1.52	.01
7933	" 11	1	1,732	81.1	1.02	—	—	45	19	3.67	.99	3.98	2.60	4.27	1.62	T.
7934	" 18	1	1,398	82.1	.94	—	—	45	17	3.68	1.15	3.94	3.15	4.34	1.57	.05
7935	" 25	1	1,068	83.5	.83	—	—	44	18	3.75	1.35	4.09	3.15	4.29	1.67	.02
7936	Oct. 2	1	1,034	84.5	.82	—	—	45	18	3.57	1.22	3.94	3.35	4.33	1.71	T.
7937	" 9	1	985	92.9	.86	—	—	44	21	4.38	1.20	4.01	3.65	4.14	2.14	.02
7938	" 18	1	926	83.7	.76	—	—	45	18	3.87	1.28	4.25	3.15	4.44	1.71	.03
8198	" 24	1	155	120.0	1.16	-8.1	—	44	28	5.27	2.19	5.99	4.25	5.35	3.78	.01
8199	" 30	1	110	121.0	1.11	-8.0	—	43	28	5.23	2.41	5.63	4.30	5.31	3.73	.04
8213	November	4	409	93.3	.85	.16	7.9	44	20	4.25	1.49	4.03	3.35	5.73	2.06	.03
8312	December	4	450	96.3	.98	.12	7.8	42	20	4.15	1.81	4.22	3.14	5.08	2.10	T.
1934																
8372	January	5	81	129.0	1.30	.16	7.8	43	31	5.80	1.88	5.72	4.12	5.16	4.21	.01
8373	February	4	907	93.6	.89	.16	7.7	44	19	4.08	1.45	4.22	2.75	5.15	1.91	.04
8463	March	4	1,102	94.3	.89	.14	6.2	48	19	4.14	1.16	4.72	2.80	5.39	1.91	.02

The Rio Grande at Leesburg Dam, near Las Cruces, N. Mex.

- 4 -

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance Kx10 <sup>3</sup> @25°C	TDS. Tons per acre foot	Boron Ppm	pH.	Percent Sodium	Percent Chloride	Milligram equivalents per liter						
										Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Carbonate & bicarbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )
1934																
8558	April	5	1,678	96.5	.84	.16	7.8	47	20	4.17	1.29	4.84	2.75	5.44	2.01	.00
8865	May	4	1,556	95.9	.94	.15	7.6	45	19	4.15	1.47	4.52	2.92	5.38	1.90	.02
8855	June	4	1,750	98.1	.91	.17	7.8	46	11	4.15	1.42	4.45	2.99	6.10	1.11	.03
9007	July	5	2,198	95.4	.97	.19	—	43	20	4.97	1.54	4.26	3.05	5.01	2.00	.03
9097	August	4	2,510	93.4	.86	.19	7.7	44	19	3.89	1.45	4.12	3.15	5.01	1.90	.03
9200	Sept.	4	1,233	96.3	.91	.18	7.6	44	19	4.17	1.37	4.27	2.90	5.22	1.96	.01
9304	Oct.	5	264	111	1.01	—	7.8	44	27	4.62	1.62	4.97	3.20	5.33	2.75	.01
9446	Nov.	5	145	123	1.14	.18	8.1	45	28	4.87	1.98	5.61	5.45	5.68	3.57	.01
9534	Dec.	3	55	141	1.30	.30	7.9	44	33	6.02	2.05	6.44	3.84	5.90	4.87	.01
1935																
9622	Jan.	5	63	140	1.32	.18	7.6	46	29	5.82	1.78	7.10	3.83	5.69	4.92	.07
9794	Feb.	4	191	123	1.21	—	7.7	51	28	4.97	1.60	6.69	3.44	6.15	3.73	.03
9758	March	4	460	108	1.06	—	7.9	45	21	4.77	1.71	5.30	3.10	6.15	2.40	.04
9956	April	5	1,302	105	1.39	.20	8.2	47	19	4.52	1.61	4.88	3.00	5.93	2.15	.01
9999	May	4	1,187	106	1.03	.21	8.1	46	20	4.25	1.70	5.04	3.10	5.72	2.29	tr
10044	June	4	1,550	106	1.02	.16	7.8	46	19	4.21	1.53	4.90	3.00	6.13	2.20	tr
10135	July	5	1,869	101	.90	.18	8.0	47	20	3.98	1.61	4.69	2.97	5.50	2.06	.02
10233	August	4	1,923	100	.94	.19	7.8	45	16	4.37	1.47	4.51	3.07	5.77	1.67	.04
10305	Sept.	5	947	90.6	.84	.18	7.8	40	20	3.90	1.76	3.83	2.87	4.61	1.91	.03
10409	Oct.	4	263	113	1.04	—	7.9	42	23	4.98	1.83	4.99	3.14	5.92	2.67	.05
10433	Nov.	4	145	137	1.25	.11	7.8	47	32	5.61	1.69	6.57	3.74	5.85	4.53	.02
10496	Dec.	5	145	112	1.03	.12	7.7	43	27	4.98	1.65	4.93	3.34	5.16	3.20	.02
1936																
10537	Jan.	4	56	141	1.21	.20	7.6	45	38	5.89	1.97	6.44	3.78	5.10	5.49	0
10606	Feb.	4	162	109	1.01	—	8.1	42	27	5.01	1.54	4.78	3.04*	5.21	2.99	.02
10679	March	5	843	98.8	.98	.16	7.6	43	21	4.20	1.54	4.54	2.94	5.07	2.05	.02
10818	April	4	1,657	96.4	.87	.14	7.7	43	18	4.14	1.39	4.13	2.74	5.21	1.78	.02
10829	May	3	1,425	96.5	.88	—	7.9	43	19	4.24	1.50	4.33	2.79	5.16	1.87	.02
10892	June	5	1,748	92.4	.86	.16	7.9	45	20	4.05	1.46	4.59	2.82	5.20	1.98	.05
10920	July	4	1,962	89.3	.87	.13	7.9	44	20	3.91	1.23	4.08	2.82*	4.70	1.84	.03
11006	August	5	1,828	83.7	.75	.13	7.7	43	20	3.71	1.21	3.72	2.72	4.29	1.74	.02
11053	Sept.	4	1,039	78.3	.77	.13	8.0	43	17	3.72	1.11	3.65	2.72*	4.45	1.44	.01
11128	Oct.	4	196	114	1.05	—	7.9	47	27	4.74	1.52	4.49	3.27	5.46	3.19	tr
11174	Nov.	5	159	111	1.01	—	7.8	46	27	4.70	1.44	4.45	3.02	5.55	3.09	.03
11226	Dec.	4	89	131	1.17	—	7.8	47	34	5.48	1.70	6.28	3.66	5.13	4.58	.02

\* Includes carbonate (CO<sub>3</sub>)

# RIO GRANDE AT EL PASO GAGING STATION, TEXAS

(Total Dissolved Solids in tons per acre foot)

Station located 4 miles upstream, northwest of El Paso and 0.8 mile above the intersection of the International Boundary with the river at SE cor. sec. 9, T.29S., R. 4E., N.M.P.M. Zero of gage is 3720.65 feet above sea level. Samples and analyses by United States Bureau of Reclamation.

Date	Disch.	T.D.S.	Date	Disch.	T.D.S.	Date	Disch.	T.D.S.	Date	Disch.	T.D.S.
G.f.s.			G.f.s.			G.f.s.			G.f.s.		
6-24-18	1150	0.74	5-10-20	970	0.82	2-23-24	960	0.95	7-21-27	1060	1.09
10-23-18	1103	.92	5-17-20	1190	.80	2-29-24	920	.95	8-4-27	1348	2.18
6-13-19	1195	1.00	5-24-20	1390	.83	3-7-24	920	.95	9-27-27	850	3.13
6-19-19	1335	1.01	6-1-20	1260	.91	3-14-24	870	1.09	10-5-27	943	1.36
6-27-19	1255	.85	6-7-20	1820	.71	3-21-24	950	1.09	10-24-27	243	1.22
7-2-19	1015	.75	6-14-20	1520	.72	3-28-24	780	1.63	12-5-27	545	1.63
7-13-19	1560	.80	6-21-20	1290	.86	4-4-24	1270	.95	1-20-28	263	1.36
7-15-19	1600	.73	6-29-20	1505	.62	4-12-24	1669	.95	2-1-28	258	1.63
7-23-19	680	1.11	7-5-20	1940	.65	4-18-24	1510	.68	3-1-28	605	1.09
7-30-19	720	1.23	7-12-20	1240	.63	4-26-24	1600	.94	4-2-28	1050	1.09
8-13-19	1080	.76	7-19-20	965	1.02	5-9-24	1730	1.09	5-2-28	1172	.82
8-18-19	695	.77	7-26-20	1690	.80	5-23-24	2106	.94	6-1-28	1132	1.09
8-25-19	630	.81	7-29-20	1080	.92	7-1-24	1932	.82	8-16-28	2947	1.09
9-1-19	810	.83	8-6-20	2760	.72	7-7-24	1866	.94	9-18-28	1470	.82
9-6-19	800	.89	8-9-20	1770	.69	8-7-24	949	1.09	10-15-28	479	.95
9-15-19	1190	.91	8-16-20	2175	.68	9-26-24	810	.95	10-30-28	456	1.22
9-22-19	890	.97	8-24-20	1020	.65	10-31-24	350	.82	1-2-29	167	2.04
9-26-19	930	.89	8-30-20	790	.82	11-3-24	471	1.36	1-16-29	142	2.31
9-29-19	440	.94	9-6-20	1240	.72	11-11-24	355	1.36	2-2-29	156	2.04
10-6-19	580	1.10	9-13-20	1050	.80	11-12-24	360	1.22	2-16-29	420	1.36
11-10-19	530	1.02	9-20-20	1220	.57	12-29-24	510	.95	3-1-29	468	1.36
12-3-19	135	1.49	9-27-20	1570	.56	1-20-25	150	1.90	5-4-29	1040	1.09
12-11-19	100	2.30	10-4-20	1770	.64	4-15-25	1170	1.09	6-6-29	838	.82
12-22-19	135	1.69	10-11-20	1910	.64	5-7-25	1219	.95	6-28-29	977	.95
12-29-19	110	2.45	10-18-20	800	.63	6-8-25	1206	.82	7-11-29	3780	.95
1-5-20	700	.81	10-26-20	655	1.21	7-3-25	680	1.22	8-1-29	3190	.95
1-12-20	860	.82	11-1-20	140	1.60	7-27-25	1900	.95	8-11-29	5830	.94
1-19-20	240	1.52	3-20-21	1043	.90	8-6-25	3770	.82	8-24-29	2840	.62
1-28-20	175	1.82	4-6-21	900	.92	9-16-25	719	1.09	9-27-29	1810	1.09
2-9-20	60	1.96	4-22-21	600	.82	9-30-25	645	1.36	9-30-29	644	1.50
2-16-20	50	2.16	5-11-21	1025	.76	10-5-25	750	1.50	10-8-29	431	1.77
2-20-20	115	1.81	5-21-21	1730	.92	10-9-25	245	1.77	10-19-29	352	1.90
2-23-20	555	.61	5-30-21	1215	1.01	1-13-26	174	-	10-28-29	257	1.77
3-1-20	555	.79	6-8-21	1290	.84	2-23-26	397	1.63	11-7-29	540	1.77
3-8-20	805	.58	7-6-21	1586	.63	4-24-26	937	1.09	11-15-29	222	1.90
3-15-20	795	.70	7-27-21	2463	.60	5-1-26	1162	1.22	12-4-29	162	1.90
3-22-20	960	.72	11-8-22	579	1.09	7-10-26	1419	1.22	12-12-29	174	1.90
3-30-20	820	.77	11-14-22	673	.84	8-29-26	1250	.95	12-19-29	145	1.63
4-5-20	794	.68	11-14-22	673	1.03	10-11-26	323	1.90	12-29-29	330	1.63
4-5-20	794	.74	1-30-24	170	1.77	2-24-27	208	.82	1-9-30	146	1.77
4-26-20	880	.71	2-12-24	920	1.36	3-17-27	461	1.90	1-16-30	126	1.77
5-3-20	1247	.71	2-16-24	1069	.41	3-24-27	670	1.22	1-23-30	122	2.04

The Rio Grande at El Paso, Texas

Gaging station located 4 miles upstream, northwest of El Paso and 0.8 mile above the intersection of the International Boundary with the River. The zero of the gage is 3,720.65 feet above sea level. Samples collected by U. S. Bureau of Reclamation; analyzed by U. S. Bureau of Plant Industry.

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance Kx10 <sup>5</sup> @25°C	TDS. Tons per acre foot	Boiron Ppm	pH.	Percent Sodium	Percent Chloride	Milligram equivalents per liter						
										Calcium (Ca)	Magnesium (Mg)	Sodium (Na)*	Carbonate & bicarbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )
1930																
--	Feb. 3	1	123	231	2.19	--	--	61	45	6.30	3.70	15.52	5.51	8.57	11.44	--
--	" 6	1	325	188	1.65	--	--	64	51	5.55	1.48	12.35	2.36	7.16	9.86	--
--	" 15	1	220	169	1.63	--	--	70	41	4.50	1.23	13.32	3.15	8.01	7.89	--
--	" 19	1	250	178	1.66	--	--	60	34	6.15	2.47	12.16	5.90	7.78	7.10	--
--	Mar. 1	1	630	129	1.35	--	--	59	28	4.95	1.48	9.29	4.33	7.05	4.34	--
--	" 11	1	369	168	1.54	--	--	69	34	4.20	1.48	12.70	4.33	7.74	6.31	--
--	" 25	1	1,100	123	1.21	--	--	59	27	4.50	1.48	8.63	3.93	6.74	3.94	--
--	Apr. 1	1	910	131	1.35	--	--	63	30	4.50	1.32	9.94	3.54	7.49	4.73	--
--	" 5	1	768	135	1.31	--	--	64	28	4.20	1.32	9.93	3.93	7.18	4.34	--
--	" 12	1	962	140	1.37	--	--	50	23	6.00	2.47	8.44	5.90	7.07	3.94	--
--	May 3	1	623	154	1.59	--	--	59	32	5.70	1.98	10.91	5.51	7.16	5.92	--
--	" 14	1	691	158	1.39	--	--	65	34	3.75	1.89	10.51	4.33	6.30	5.52	--
--	July 2	1	1,090	158	1.33	--	--	63	31	3.75	1.73	9.55	4.33	5.97	4.73	--
--	" 8	1	1,330	123	1.14	--	--	63	32	3.50	1.48	8.61	3.15	6.20	4.34	--
--	" 16	1	1,250	127	1.25	--	--	51	28	4.50	2.47	7.12	4.33	5.82	3.94	--
--	" 23	1	1,200	133	1.28	--	--	51	30	4.50	2.47	7.27	3.93	5.97	4.34	--
--	" 26	1	2,340	110	1.09	--	--	43	31	5.10	2.14	5.46	3.33	4.43	3.94	--
--	Aug. 6	1	931	137	1.34	--	--	55	29	5.25	2.14	9.07	5.51	6.22	4.73	--
--	" 15	1	1,520	106	1.01	--	--	36	32	4.50	3.29	4.47	3.54	4.78	3.94	--
--	Sept. 4	1	1,140	121	1.01	--	--	55	31	4.50	1.23	6.97	4.33	4.43	3.94	--
--	" 22	1	974	123	1.30	--	--	58	24	4.50	2.47	9.72	9.84	2.91	3.94	--
--	" 28	1	1,070	123	1.24	--	--	28	19	6.75	3.62	4.04	4.33	7.32	2.76	--
--	Oct. 1	1	657	148	1.37	--	--	32	33	6.90	3.79	5.07	4.33	6.30	5.13	--
--	" 11	1	465	157	1.42	--	--	58	39	5.25	1.48	9.30	4.33	5.39	6.31	--
--	" 20	1	418	187	1.68	--	--	60	39	5.85	2.63	12.88	5.51	7.57	8.28	--
--	" 27	1	294	187	1.64	--	--	53	43	6.75	2.63	10.71	5.90	5.51	8.68	--
--	Nov. 10	1	237	193	1.86	--	--	59	42	6.75	2.96	13.79	5.90	7.74	9.86	--
--	" 17	1	212	207	1.96	--	--	62	41	6.00	3.13	14.68	5.90	8.05	9.86	--
--	" 19	1	190	370	3.26	--	--	61	64	10.60	4.77	24.32	5.11	9.34	25.24	--
--	" 25	1	280	339	3.19	--	--	62	60	17.00	4.44	25.64	5.90	10.73	24.45	--
--	Dec. 3	1	210	199	1.70	--	--	68	42	5.10	1.81	14.70	4.72	7.82	9.07	--
--	" 13	1	240	189	1.64	--	--	60	39	5.55	2.47	11.99	4.72	7.40	7.89	--
--	" 19	1	166	222	1.98	--	--	35	58	7.05	3.21	5.64	5.90	9.93	9.07	--
--	" 26	1	200	170	1.53	--	--	64	43	4.50	2.06	11.57	3.15	7.09	7.89	--
1931																
--	Jan. 2	1	154	199	1.91	--	--	75	47	4.05	1.65	17.03	3.93	8.15	10.69	--
--	" 9	1	154	211	2.00	--	--	63	42	5.40	3.29	14.71	5.51	8.03	9.86	--
--	" 16	1	154	211	2.04	--	--	63	43	5.40	3.29	15.08	5.51	8.01	10.25	--
--	" 24	1	136	217	2.02	--	--	65	45	5.55	3.54	17.23	6.29	8.20	11.83	--
--	" 30	1	143	217	2.05	--	--	64	47	5.85	3.21	15.89	5.11	8.01	11.83	--
--	Feb. 6	1	133	215	1.99	--	--	62	44	6.00	2.55	14.00	4.33	8.36	9.86	--
--	" 13	1	276	148	1.34	--	--	56	34	5.55	1.73	9.10	4.72	6.14	5.52	--
--	" 20	1	269	169	1.49	--	--	51	33	6.15	1.98	8.54	4.33	6.82	5.52	--
--	Mar. 1	1	426	151	1.37	--	--	55	31	5.55	1.73	8.98	4.33	6.41	5.52	--
--	" 9	1	414	158	1.37	--	--	56	33	5.55	1.73	9.33	3.93	7.16	5.52	--
--	" 16	1	969	125	1.19	--	--	48	29	5.55	1.65	6.56	3.54	6.28	3.94	--
--	" 20	1	800	130	1.17	--	--	48	28	5.55	1.65	6.73	3.54	6.45	3.94	--
--	" 27	1	1,430	115	1.12	--	--	46	27	5.55	1.56	6.12	3.54	6.14	3.55	--

\*For samples prior to No. 7761 the sodium was calculated, for subsequent samples it was determined.

\*\* Carbonate (CO<sub>3</sub>) present.



The Rio Grande at El Paso, Texas

- 2 -

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance $\times 10^5$ @ 25°C	TDS. Ppm	Boron Ppm	pH	Percent Sodium	Percent Chloride	Milligram equivalents per liter						
										Calcium (Ca)	Magnesium (Mg)	Sodium (Na)*	Carbonate & bicarbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )
1931																
—	Apr. 6	1	1,260	123	1.12	—	—	51	27	5.40	1.07	6.76	3.54	6.14	3.55	—
—	" 13	1	1,130	138	1.25	—	—	59	28	4.80	1.96	9.08	4.33	6.66	4.34	—
—	" 17	1	1,880	128	1.15	—	—	55	31	4.80	1.96	7.82	3.54	6.30	4.34	—
—	" 24	1	1,050	135	1.45	—	—	61	27	4.80	1.56	9.96	3.93	8.05	4.34	—
—	May 1	1	964	139	1.32	—	—	54	40	5.55	1.23	8.05	3.15	5.77	5.91	—
—	" 11	1	638	171	1.56	—	—	61	41	6.00	1.48	11.58	3.93	7.24	7.89	—
—	" 18	1	518	128	1.20	—	—	52	36	5.55	1.23	7.47	3.15	5.97	5.13	—
—	" 25	1	959	138	1.33	—	—	59	32	5.40	1.23	9.50	3.15	7.85	5.13	—
—	June 1	1	1,410	115	1.09	—	—	51	29	5.25	1.48	6.93	3.54	6.18	3.94	—
—	" 8	1	1,360	123	1.28	—	—	47	33	5.55	2.14	6.90	3.93	5.79	4.87	—
—	" 15	1	1,052	135	1.11	—	—	49	19	4.95	1.56	6.15	3.93	6.36	2.37	—
—	" 22	1	1,423	123	1.10	—	—	50	27	5.25	1.23	6.58	3.54	5.97	3.55	—
—	" 29	1	968	142	1.24	—	—	55	28	4.80	1.48	7.84	3.54	6.64	3.94	—
—	July 3	1	2,220	106	.91	—	—	50	21	4.50	1.23	5.63	3.54	5.45	2.37	—
—	" 10	1	1,099	139	1.24	—	—	57	28	4.80	1.81	8.65	3.93	6.99	4.34	—
—	" 17	1	957	148	1.34	—	—	61	29	4.80	1.96	9.94	4.33	7.24	4.73	—
—	" 27	1	1,370	121	1.16	—	—	55	28	4.65	1.73	7.73	3.93	6.24	3.94	—
—	" 31	1	1,480	121	1.07	—	—	54	24	5.10	1.48	7.62	3.54	7.28	3.98	—
—	Aug. 3	1	4,429	92	.78	—	—	48	27	4.05	1.23	4.83	3.15	4.20	2.76	—
—	" 8	1	1,320	128	1.25	—	—	58	35	4.65	1.48	8.45	3.15	6.30	5.13	—
—	" 17	1	1,040	134	1.25	—	—	49	23	6.00	1.48	7.11	4.72	6.49	3.38	—
—	" 24	1	1,440	129	1.18	—	—	49	29	5.55	1.48	6.71	3.93	5.87	3.94	—
—	" 31	1	1,060	126	1.18	—	—	50	28	5.55	1.48	6.92	3.54	6.47	3.94	—
—	Sept. 8	1	967	134	1.26	—	—	56	30	5.40	1.48	8.65	4.33	6.47	4.73	—
—	" 14	1	963	125	1.20	—	—	54	25	4.95	1.23	8.35	3.93	6.66	3.94	—
—	" 21	1	1,030	127	1.19	—	—	56	30	4.95	1.23	8.03	3.54	6.34	4.33	—
—	" 28	1	544	160	1.50	—	—	55	33	6.00	2.22	9.93	4.72	7.52	5.91	—
—	Oct. 5	1	533	160	1.56	—	—	54	35	6.75	2.22	10.46	5.90	6.83	6.70	—
—	" 14	1	502	188	1.75	—	—	72	38	4.80	1.40	15.80	5.60	8.00	8.40	—
—	" 19	1	251	186	1.92	—	—	72	43	4.70	1.70	16.80	4.80	8.40	10.00	—
—	" 26	1	1,040	123	1.26	—	—	60	30	4.40	1.40	8.70	4.00	6.10	4.40	—
21	Nov. 4	1	275	196	1.94	—	—	69	42	5.60	1.80	16.40	5.60	8.20	10.00	—
22	" 11	1	374	164	1.60	—	—	63	35	5.30	1.80	12.30	5.60	7.00	6.80	—
23	" 18	1	218	189	1.86	—	—	59	43	6.30	3.20	13.60	5.20	7.90	10.00	—
61	" 25	1	281	190	1.74	—	—	56	39	6.00	2.60	11.10	4.40	7.70	7.60	—
24	Dec. 4	1	230	187	1.81	—	—	52	39	6.60	3.50	10.70	5.20	7.60	8.00	—
62	" 9	1	192	223	2.06	—	—	58	41	6.30	3.50	14.20	5.60	9.00	10.00	—
63	" 16	1	192	214	1.96	—	—	60	39	6.30	2.70	13.70	4.80	9.10	8.80	—
64	" 23	1	256	177	1.68	—	—	61	38	5.30	2.20	11.70	4.40	7.60	7.20	—
1932																
79	Jan. 2	1	170	212	1.94	—	—	59	42	6.60	2.80	13.60	5.60	7.80	9.60	—
80	" 6	1	173	214	1.90	—	—	63	42	6.30	2.20	14.40	5.20	8.10	9.60	—
81	" 13	1	157	214	1.97	—	—	66	43	5.40	2.40	15.30	5.20	7.90	10.00	—
82	" 20	1	143	219	2.02	—	—	66	45	6.00	1.90	15.40	4.80	8.10	10.40	—
83	" 27	1	114	243	2.18	—	—	65	44	6.50	2.40	16.50	6.00	8.20	11.20	—
106	Feb. 3	1	118	225	2.13	—	—	63	39	6.30	2.80	15.30	5.60	9.20	9.60	—
107	" 10	1	529	139	1.26	—	—	52	27	5.30	1.90	7.90	4.00	7.10	4.00	—
108	" 19	1	254	174	1.62	—	—	60	41	5.40	2.40	11.60	4.40	7.00	8.00	—
109	" 26	1	328	145	1.34	—	—	55	31	4.90	2.20	8.60	4.40	6.50	4.80	—
117	Mar. 4	1	430	141	1.40	—	—	58	31	5.30	1.70	9.60	4.80	6.60	5.20	—
118	" 11	1	601	135	1.26	—	—	55	36	5.30	1.70	8.50	3.60	6.30	5.60	—
195	" 18	1	537	136	1.23	—	—	53	32	4.50	2.60	7.90	4.00	6.20	4.80	—
196	" 25	1	637	137	1.27	—	—	53	32	4.40	2.70	8.00	3.60	6.70	4.80	—
157	Apr. 1	1	874	126	1.16	—	—	50	31	4.40	2.70	7.20	3.60	6.30	4.40	—
158	" 8	1	1,042	125	1.15	—	—	48	29	4.50	2.70	6.60	3.60	6.20	4.00	—
173	" 15	1	1,030	125	1.15	—	—	53	28	4.70	1.90	7.50	4.00	6.10	4.00	—

The Rio Grande at El Paso, Texas

- 3 -

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance Kx10 <sup>3</sup> @25°C	TDS. Tons per acre foot Ppm	Boron Ppm	pH.	Percent Sodium	Percent Chloride	Milligram equivalents per liter						
										Calcium (Ca)	Magnesium (Mg)	Sodium (Na)*	Carbonate & bicarbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )
1932																
174	Apr. 22	1	973	124	1.15	--	--	53	28	4.80	1.90	7.50	4.40	5.80	4.00	--
175	" 29	1	980	132	1.16	--	--	51	32	4.80	2.00	7.10	4.00	5.50	4.40	--
197	May 6	1	829	134	1.24	--	--	53	30	5.10	1.80	7.90	3.20	7.20	4.40	--
198	" 13	1	1,191	127	1.03	--	--	51	32	4.50	1.70	6.50	3.20	5.50	4.00	--
199	" 20	1	1,035	129	1.15	--	--	52	33	4.80	1.70	7.00	3.20	5.90	4.40	--
200	" 27	1	1,064	130	1.16	--	--	49	31	4.80	1.80	6.40	3.20	5.80	4.00	--
201	June 3	1	1,240	130	1.15	--	--	51	33	4.80	1.80	6.80	3.20	5.80	4.40	--
255	" 10	1	1,036	129	1.16	--	--	49	29	4.70	2.30	6.80	4.00	5.80	4.00	--
256	" 17	1	1,266	130	1.18	--	--	50	26	4.70	2.30	6.90	4.40	5.90	3.60	--
257	" 24	1	1,475	112	1.01	--	--	50	29	3.90	1.70	5.60	2.40	5.60	3.20	--
258	July 6	1	984	145	1.20	--	--	47	30	5.40	2.40	6.80	3.60	6.60	4.40	--
259	" 13	1	1,535	115	1.03	--	--	38	27	5.10	2.30	4.60	3.20	5.60	3.20	--
260	" 22	1	1,152	121	1.09	--	--	49	27	5.40	1.30	6.90	3.60	6.00	3.60	--
261	" 29	1	1,376	121	1.06	--	--	50	29	4.50	1.70	6.30	3.20	5.70	3.60	--
263	Aug. 5	1	1,179	121	1.08	--	--	52	29	4.50	1.50	6.50	3.60	5.30	3.60	--
304	" 19	1	1,411	112	1.00	--	--	65	32	3.15	1.28	8.18	3.60	5.01	4.00	--
305	" 26	1	1,305	114	1.05	--	--	57	32	3.75	1.66	7.25	3.20	5.46	4.00	--
320	Sept. 2	1	1,424	112	1.09	--	--	54	31	4.05	1.92	6.89	3.20	5.66	4.00	--
321	" 9	1	927	123	1.17	--	--	48	30	4.65	2.30	6.45	3.60	5.80	4.00	--
322	" 16	1	1,136	112	1.04	--	--	47	31	4.65	2.05	6.03	3.20	5.53	4.00	--
323	" 21	1	1,039	116	1.10	--	--	48	28	4.65	2.05	6.10	3.60	5.60	3.60	--
324	" 30	1	1,422	119	1.07	--	--	50	30	4.65	2.05	6.60	3.60	5.70	4.00	--
325	Oct. 7	1	663	141	1.26	--	--	53	31	5.10	2.18	8.26	4.80	5.94	4.80	--
346	" 14	1	394	177	1.67	--	--	59	35	5.25	2.68	11.48	5.20	7.41	6.80	--
347	" 21	1	625	140	1.28	--	--	57	32	4.65	1.92	8.88	4.20	6.25	5.00	--
348	" 28	1	731	166	1.54	--	--	63	37	4.95	1.79	11.39	4.20	7.13	6.80	--
377	Nov. 4	1	243	198	1.81	--	--	59	39	6.45	2.18	12.51	4.60	8.34	8.20	--
378	" 11	1	346	171	1.51	--	--	56	37	6.00	1.92	10.00	4.00	7.32	6.60	--
379	" 19	1	543	188	1.67	--	--	58	21	6.30	2.18	11.67	4.20	7.95	4.20	--
380	" 25	1	362	154	1.41	--	--	54	38	5.70	1.54	8.50	3.20	6.54	6.00	--
381	Dec. 2	1	208	201	1.82	--	--	57	40	6.45	2.56	11.78	4.00	8.39	8.40	--
382	" 9	1	480	142	1.27	--	--	53	36	5.10	1.54	7.62	2.80	6.26	5.20	--
383	" 16	1	263	179	1.66	--	--	51	39	6.45	1.92	8.58	3.20	7.15	6.60	--
384	" 23	1	345	154	1.37	--	--	52	36	5.70	1.79	8.23	3.80	6.32	5.60	--
395	" 30	1	344	198	1.71	--	--	60	39	6.45	1.92	12.68	5.00	7.89	8.20	--
1933																
396	Jan. 6	1	230	201	1.74	--	--	62	41	6.30	2.18	13.81	5.00	8.09	9.20	--
397	" 13	1	194	216	1.87	--	--	61	40	6.30	2.56	13.77	5.20	8.43	9.00	--
426	" 20	1	156	220	1.94	--	--	64	42	6.30	1.92	14.84	4.80	8.71	9.60	--
427	" 30	1	152	220	2.11	--	--	59	43	6.45	2.30	12.46	3.20	8.81	9.20	--
486	Feb. 6	1	679	110	1.12	--	--	57	29	4.05	1.79	7.84	4.00	4.88	4.00	--
487	" 13	1	562	100	1.07	--	--	58	35	3.45	1.79	7.23	3.60	4.47	4.40	--
488	" 20	1	262	142	1.47	--	--	69	44	3.30	1.54	10.67	4.00	4.71	6.80	--
489	" 27	1	604	105	.97	--	--	52	34	3.75	1.79	6.06	3.60	4.00	4.00	--
490	Mar. 6	1	484	129	1.34	--	--	59	38	4.05	2.30	9.33	4.00	5.68	6.00	--
491	" 13	1	544	123	1.26	--	--	57	32	4.05	2.30	8.55	4.80	5.30	4.80	--
492	" 20	1	767	106	1.02	--	--	52	32	4.20	1.79	6.56	3.60	4.95	4.00	--
493	" 27	1	840	104	1.03	--	--	50	32	4.05	2.18	6.27	3.60	4.90	4.00	--
531	Apr. 1	1	1,036	103	.97	--	--	48	30	4.05	2.18	5.76	3.20	5.19	3.60	--
532	" 7	1	1,098	110	1.08	--	--	47	30	4.35	2.43	6.33	4.00	5.11	4.00	--
535	" 10	1	1,435	105	1.03	--	--	47	24	4.50	2.43	6.19	5.20	4.72	3.20	--
532	" 17	1	1,299	110	1.04	--	--	46	29	4.35	2.43	5.77	4.00	4.95	3.60	--
533	" 24	1	1,089	113	1.13	--	--	49	29	5.10	2.05	6.86	6.00	4.01	4.00	--

The Rio Grande at El Paso, Texas

- 4 -

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance Kilo $\Omega$ @25°C	TDS. Tons per acre foot	Bo-ron Ppm	pH.	Per-cent Sodi-um	Per-cent Chlo-ride	Milligram equivalents per liter						Ni- trate
										Calci-um (Ca)	Magne- sium (Mg)	Sodi-um (Na)	Carbon- ate & bi- carbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	
1933																
534	May 1	1	983	119	1.13	--	--	65	32	3.45	1.41	6.99	4.00	5.45	4.40	--
587	" 8	1	1,090	127	1.12	--	--	51	30	4.50	1.92	6.71	4.00	5.13	4.00	--
588	" 15	1	1,248	112	.98	--	--	51	30	4.20	1.54	6.06	3.20	5.00	3.60	--
589	" 22	1	1,208	112	1.06	--	--	53	34	4.50	1.54	6.75	3.60	4.79	4.40	--
590	" 29	1	1,242	--	broken in transit											
591	June 5	1	1,068	115	1.11	--	--	51	32	4.50	1.66	6.52	3.60	5.08	4.00	--
7443	" 12	1	1,259	112	1.05	--	--	44	29	4.05	2.37	5.07	3.40	4.80	3.27	.02
7444	" 19	1	1,530	104	1.00	--	--	43	26	4.05	2.12	4.69	3.30	4.73	2.79	.04
7602	" 26	1	971	120	1.16	--	--	55	30	4.43	1.19	6.90	3.85	4.82	3.85	--
7603	July 3	1	1,210	121	1.23	--	--	46	22	5.55	1.54	6.06	4.05	6.17	2.93	--
7604	" 10	1	1,177	118	1.20	--	--	54	28	4.38	1.47	6.79	3.70	5.38	3.56	--
7605	" 17	1	1,301	117	1.10	--	--	51	27	4.45	1.47	6.27	3.70	5.12	3.37	--
7606	" 18	1	4,880	88.7	.96	--	--	49	23	3.90	1.04	4.68	3.45	3.91	2.26	--
7607	" 20	1	1,292	108	1.03	--	--	50	29	4.17	1.22	5.50	3.40	4.32	3.17	--
7608	" 24	1	1,583	113	.98	--	--	48	28	4.35	1.54	5.49	3.25	5.00	3.13	--
7654	Aug. 2	1	1,096	125	1.13	--	--	55	30	4.60	1.37	7.22	3.75	5.45	3.99	--
7609	" 5	1	4,100	75.4	.69	--	--	50	23	3.18	.81	4.09	3.05	3.15	1.88	--
7655	" 9	1	4,823	89.8	.77	--	--	52	28	5.53	.79	4.77	2.70	3.89	2.90	--
7656	" 9	1	1,275	111	1.01	--	--	49	29	4.53	1.38	5.64	3.55	4.68	3.32	--
7760	" 16	1	1,573	115	1.04	--	--	50	28	4.45	1.67	6.00	3.40	5.36	3.32	.04
7761	" 21	1	1,562	114	1.04	--	--	53	28	4.50	1.15	6.07	3.35	5.33	3.32	.05
7762	" 28	1	2,220	94.6	.87	--	--	48	26	3.78	1.26	4.54	3.15	4.00	2.45	.04
7827	Sept. 6	1	1,174	122	1.15	--	--	49	29	4.63	2.07	6.62	3.60	5.85	3.81	tr
7828	" 11	1	1,352	114	1.05	--	--	47	28	4.37	1.96	5.51	3.55	5.08	3.24	.01
7829	" 18	1	1,105	116	1.06	--	--	48	28	4.45	1.94	5.83	3.50	5.36	3.38	.01
7920	" 25	1	1,044	119	1.35	--	--	52	28	4.67	1.54	6.76	3.75	5.50	3.52	.05
7921	Oct. 2	1	819	126	1.48	--	--	51	28	4.83	1.89	6.92	4.15	5.77	3.86	.01
7922	" 9	1	470	134	1.53	--	--	49	30	5.02	2.19	7.26	4.00	5.94	4.28	.01
8002	" 16	1	295	190	1.74	--	--	56	38	6.20	2.99	11.40	4.90	7.55	7.62	0
8003	" 23	1	658	137	1.33	--	--	54	31	5.13	1.63	7.81	4.10	6.06	4.92	.03
8004	" 30	1	283	204	1.93	--	--	51	38	6.22	2.26	12.89	5.35	8.14	8.33	0
8174	Nov.	4	378	173	1.54	.20	7.7	55	35	5.84	2.45	9.66	4.75	7.25	6.36	.02
8192	Dec.	4	373	175	1.62	--	8.2	57	36	5.94	2.08	9.64	4.70	7.18	6.65	tr
1934																
8314	Jan.	5	201	206	1.96	.21	7.9	59	38	6.46	2.59	13.05	5.40	8.29	8.51	tr
8375	Feb.	4	694	125	1.22	.18	8.1	51	28	4.77	1.67	6.66	3.48	6.02	3.68	tr
8462	March	4	782	129	1.26	.20	7.9	55	29	4.72	1.58	7.86	3.58	6.31	3.97	.04
8580	April	5	1,007	131	1.19	.18	7.8	50	28	4.90	1.85	7.09	3.82	6.26	3.82	tr
8864	May	4	1,074	130	1.23	.19	7.6	50	29	4.77	1.85	6.47	3.36	6.01	3.75	.04
8832	June	4	1,130	138	1.16	.48	7.7	48	33	5.20	1.61	6.45	3.29	5.39	4.36	tr
9008	July	5	1,342	128	1.19	.34	--	50	29	4.74	1.70	6.51	3.69	5.95	3.84	.02
9153	August	4	1,333	126	1.14	.23	7.7	51	27	4.62	1.64	6.50	3.34	6.03	3.54	.01
9201	Sept.	4	889	137	1.29	.18	7.9	51	29	5.12	1.81	7.20	3.59	6.47	4.08	.01
9305	Oct.	5	346	167	1.68	.30	7.9	56	36	6.11	2.23	10.52	4.38	7.86	6.92	.01
9447	Nov.	4	184	219	1.98	.28	7.7	59	39	6.49	2.72	13.35	5.02	8.87	8.78	.01
9535	Dec.	5	161	221	1.98	.31	7.8	59	40	6.58	2.73	13.57	4.87	8.87	9.31	.01
1935																
9603	Jan.	4	137	224	2.02	.30	7.8	59	40	6.55	2.89	13.81	4.82	9.04	9.24	.01
9624	Feb.	4	154	203	1.92	.30	7.9	57	39	6.37	2.96	12.17	4.52	8.57	8.00	.50
9799	March	4	231	170	1.60	--	7.8	58	34	5.64	2.03	10.14	4.18	7.79	6.08	.02
9804	April	5	840	138	1.24	.24	7.8	52	28	4.94	1.90	7.22	3.74	6.89	3.96	.04
10000	May	4	897	134	1.26	.25	8.1	51	29	4.96	1.92	7.01	3.69	6.23	3.97	tr

The Rio Grande at El Paso, Texas

- 5 -

Laboratory No.	Date of Sample	No. of Samples	Dis-charge c.f.s.	Conductance $\times 10^5$ @25°C	TDS. Tons per acre foot	Bo-ron Ppm	Per-cent Sodi-um pH.	Per-cent Chlo-ride	Milligram equivalents per liter							
									Calci-um (Ca)	Magne-sium (Mg)	Sodi-um (Na) *	Carbon-ate & bi-carbonate ( $\text{CO}_3 + \text{HCO}_3$ )	Sul-phate ( $\text{SO}_4$ )	Chlo-ride (Cl)	Ni-trate ( $\text{NO}_3$ )	
1935																
10045	June	4	974	134	1.25	.26	7.6	52	27	4.89	1.98	7.00	3.69	6.68	3.78	.01
10126	July	5	1,139	131	1.19	.20	8.2	52	27	4.73	1.79	6.71	3.57	6.31	3.73	.02
10234	August	5	3,926	99.4	.90	--	7.8	48	25	3.98	1.38	4.77	2.92	4.82	2.53	.04
10317	Sept.	4	829	127	1.17	.20	7.9	50	29	4.94	1.53	6.41	3.46	5.76	3.82	.02
10430	Oct.	2	271	177	1.58	--	8.2	57	36	5.31	2.44	10.33	3.74	7.85	6.65	.01
10434	Nov.	5	192	202	1.81	.22	8.0	56	37	6.34	2.33	12.21	4.73	8.36	7.82	.01
10510	Dec.	4	190	191	1.71	.26	7.9	56	38	6.10	2.53	11.16	4.73	7.45	7.42	0
1936																
10553	Jan.	4	134	214	1.92	.36	8.3	59	39	6.49	2.58	13.18	4.93**	8.71	8.65	tr
10607	Feb.	4	206	184	1.68	--	8.1	55	36	6.60	2.14	10.55	4.63**	7.96	6.85	.07
10680	March	5	512	136	1.33	.19	7.7	52	30	5.01	1.66	7.09	3.58	6.18	4.09	.05
10819	April	4	907	130	1.16	.19	7.6	50	27	4.93	1.73	6.70	3.38	6.51	3.52	.05
10830	May	4	1,135	127	1.16	.21	8.0	49	28	4.85	1.62	6.19	3.33**	6.03	3.56	.07
10853	June	5	1,155	123	1.03	.26	7.9	48	25	4.71	1.73	6.06	3.31	5.85	3.05	.07
10921	July	4	1,221	120	1.11	.17	7.6	50	27	4.67	1.47	6.05	3.41	5.63	3.24	.05
11007	August	4	1,468	110	--	.18	7.9	49	27	4.46	1.58	5.74	3.26	5.42	3.15	.07
11054	Sept.	4	840	128	1.11	.14	8.1	51	33	4.82	1.62	6.69	3.66**	5.13	4.28	.02
11129	Oct.	4	309	183	1.52	--	7.6	57	36	6.24	2.00	10.69	4.50	7.66	6.82	.03
11198	Nov.	5	204	200	1.79	.27	7.9	57	37	6.31	2.39	11.67	4.73**	8.33	7.74	.02
11217	Dec.	4	218	187	1.72	--	7.8	55	36	6.35	2.60	11.05	4.70	8.26	7.22	.05

\*Includes carbonate ( $\text{CO}_3$ )

# RIO GRANDE AT FABENS, TEXAS

Total Dissolved Solids, June 1918 to January 1930.

The samples were taken from Tornillo Canal where it diverts from the Rio Grande in the SE1/4 sec. 4, T.34S., R.8E., N.M.P.M. The discharges reported include the flow into Tornillo Canal and the flow of the river as measured at Tornillo Gaging Station, located at the highway bridge, 2 miles west of Tornillo, Texas, in NE1/4 sec. 26, T.34S., R.8E., where the zero of the gage is 3,578.63 feet above sea level. Samples and analyses by United States Bureau of Reclamation.

Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.	Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.	Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.
1918			1921			1924		
June 21	430	4.34	Aug. 26	1134	.90	May 10	200	1.36
			Sept. 22	1640	.82			
1919			26	1500	.84	1925		
Oct. 1	490	1.04	26	1500	.87	Feb. 7	330	1.50
Dec. 4	108	2.82	30	1420	.92	8	315	1.36
			Dec. 2	950	.98	9	350	1.77
1920						10	375	1.50
Jan. 19	185	1.77	1922			11	500	1.36
Feb. 3	107	2.00	Mar. 24	650	1.03	12	407	1.63
10	96	1.27	17	700	1.17	13	420	1.50
			17	700	1.36	14	385	1.50
Mar. 8	155	1.50	July 5	1230	1.25	15	350	1.22
17	257	1.15	5	1230	1.17	16	315	1.50
24	292	1.53				17	312	1.50
29	502	.99	Aug. 3	1160	1.25	18	287	1.77
			3	1129	1.25	19	325	1.63
Apr. 6	225	1.31				20	397	1.22
20	420	1.44	Oct. 17	863	1.36	21	435	1.36
			17	863	1.44	22	415	1.63
May 11	350	1.41				23	399	1.77
19	450	1.03				24	341	1.09
			1923			25	429	1.09
July 28	770	1.45	Jan. 20	142	2.45	26	295	1.50
						27	235	1.63
Nov. 2	120	.87	Feb. 10	330	1.28	Mar. 1	320	1.50
9	400	.87	10	330	1.69	2	355	1.36
						3	306	1.09
Dec. 24	340	1.20	Mar. 17	398	1.41	4	270	1.36
24	340	1.25	17	398	1.25	5	395	1.50
24	340	1.22				12	458	1.77
			June 1	430	1.41	13	455	1.50
1921			1	430	1.50	14	458	1.77
Jan. 20	133	2.65	Sept. 7	400	1.63	15	505	1.63
						16	510	1.36
Feb. 12	35	2.57				17	364	1.36
18	570	1.03	1924			18	322	.82
			Feb. 12	720	1.36	19	340	.68
Mar. 25	610	1.01	16	750	1.09	20	363	1.09
			23	725	1.22	21	392	1.36
Apr. 8	350	1.36	29	750	.95	22	448	1.36
27	400	1.88				23	485	1.36
			Mar. 7	600	1.22	24	341	1.36
May 27	475	1.30	15	550	1.09	25	309	1.09
			21	540	1.63	26	272	2.31
June 24	462	1.36	28	260	1.63	27	120	2.31
						28	70	2.04
July 23	685	1.71	Apr. 4	450	1.09	29	101	2.31
26	1005	.87	12	720	1.22	30	270	2.18
29	1527	1.03	18	650	1.16	31	405	1.36
			26	740	.82			

RIO GRANDE AT FARENS, TEXAS

Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.	Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.	Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.
1925			1925			1925		
Apr. 1	435	1.63	June 19	485	1.63	Sept. 26	355	1.63
2	445	1.36	20	665	1.63	27	385	1.90
3	500	1.22	21	775	1.36	28	435	1.63
4	485	1.50	22	815	1.63	29	405	1.63
5	465	1.36	23	745	1.50	30	300	1.90
6	494	1.50	24	715	1.50			
7	504	1.36	25	805	1.50	Oct. 1	480	1.63
8	420	1.36	26	770	1.50	2	402	1.63
9	390	1.50	27	770	2.72	3	475	1.36
10	385	1.36	28	570	3.13	4	480	1.77
11	390	1.77	29	435	3.13	5	766	1.77
12	285	1.63	30			6	754	2.04
13	370	1.36	July 1	290	2.99	7	717	1.90
14	373	1.63	2	400	2.45	8	285	2.18
15	503	1.50	3	640	2.31	9	254	2.31
16	510	1.36	4	710	2.58	10	244	2.31
17	570	1.36	5	430	2.31	11	217	2.45
18	490	1.50	6	600	2.31	12	302	2.31
19	570	1.50	7	435	2.31	13	292	2.45
20	634	1.36	8	435	2.45	14	256	2.45
21	590	1.50	9	555	1.90	15	372	2.72
			10	560	2.58	16	249	1.90
May 1	536	1.50	11	721	2.45	17	217	1.90
2	523	1.63	12	630	2.31	18	217	1.77
3	540	1.36	13	375	3.13	19	237	1.77
4	602	1.50	14	90	2.86	20	764	1.90
5	562	1.77	15	190	2.99	21	249	1.90
6	505	1.50	16	290	2.99	22	259	1.90
7	515	1.63	17	280	3.40	23	254	2.04
8	511	1.63	18	284	2.45	24	265	2.04
9	525	1.50	19	240	3.27	25	256	1.90
10	525	1.36	20	260	3.40	26	230	2.18
11	520	1.50	21	460	1.50			
12	502	1.63	22	730	1.50	Nov. 1	117	2.58
13	427	1.77	23	775	1.63	2	224	2.18
14	320	1.90	31			3	253	2.04
15	285	1.63	Aug. 1	1400	1.50	4	240	2.04
16	305	1.63	2	1640	1.50	5	169	1.77
17	290	1.63	3	1800	1.50	6	176	2.45
18	295	1.63	4	4750	1.50	7	170	2.45
19	355	2.86	5	3250	1.36	8	170	2.45
20	310	2.72	6	1770	1.36	9	164	2.72
21	190	2.99	7	1670	1.50	10	152	2.58
22	130	2.99	8	1690	1.50	11	151	2.72
23	110	3.13	9	1760	1.77	12	195	2.58
24	750	2.04	10	1800	1.63	13	237	2.58
			11	1860	1.63	14	187	2.58
June 2	973	1.50	12	1680	1.63	15	222	2.99
3	755	1.50	13	970	1.63	16	140	2.72
4	690	1.22	14	700	1.63	17	190	2.58
5	495	1.50	15	620	1.50	18	215	2.04
6	360	1.50	16	510	1.63	19	188	2.04
7	165	1.36	17	430	1.63	20	154	2.04
8	335	1.50	18	480	1.50			
9	365	1.50	19	630	1.77	Dec. 17	150	2.86
10	160	3.27	20	660	1.77	18	145	2.45
11	80	1.67	21	830	1.50	19	123	2.31
12	105	3.67	22					
13	455	1.63	23					
14	370	1.50	Sept. 21	385	1.90			
15	365	1.90	22	490	1.90			
16	515	1.50	23	500	1.90			
17	535	1.50	24	470	1.77			
18	535	1.50	25	375	1.90			

RIO GRANDE AT FARENS, TEXAS

Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.	Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.	Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.
1926			1926			1926		
Jan. 7	254	2.04	July 1	492	1.50	Sept. 12	1235	1.50
26	150	2.45	2	436	1.90	13	1230	1.50
Mar. 21	288	1.36	3	463	1.63	14	1075	1.36
25	293	1.50	4	650	1.63	15	870	2.04
26	510	1.63	5	890	1.63	16	690	1.63
28	775	1.50	6	850	1.36	17	493	1.36
29	896	1.22	7	614	1.36	18	432	1.77
30	779	1.70	8	545	1.36	19	481	1.63
31	644	1.63	9	840	1.36	20	477	1.63
			10	765	1.22	21	438	1.36
Apr. 1	550	1.77	12	1132	1.22	22	352	1.63
4	749	2.04	13	1800	1.22	23	350	2.18
9	761	1.50	14	2165	1.22	25	280	2.18
10	568	1.50	16	2355	1.36	26	415	1.77
13	777	1.22	17	1685	1.63	27	1040	1.50
23	489	1.63	18	1310	1.77	28	1640	1.63
24	278	1.90	23	291	2.58	29	1787	1.63
26	430	1.77	24	148	2.72	30	1570	1.36
			25	575	2.18			
May 1	926	1.77	26	915	1.50	Oct. 1	1112	1.36
2	810	1.63	29	1415	1.36	28	193	2.58
4	671	1.36	31	722	1.63	29	244	2.31
5	1094	1.36						
7	755	1.36	Aug. 1	325	1.90	Nov. 1	309	2.04
9	855	1.36	2	286	2.04	2	378	1.90
10	609	1.63	3	225	1.90	3	505	1.63
11	597	1.63	4	140	1.50	4	488	1.77
13	525	1.63	5	93	3.26	5	450	1.63
14	242	2.45	7	228	2.31			
15	236	2.18	8	320	1.90	1927		
17	135	2.58	9	329	2.04	Feb. 25	195	2.58
18	353	2.45	10	284	1.90	27	168	2.31
19	341	2.04	11	256	1.77			
20	186	2.72	12	288	2.45	Mar. 2	300	2.04
22	201	2.18	13	306	2.45	4	187	2.18
23	313	2.18	14	480	2.18	6	308	2.72
25	945	1.63	15	1350	1.77	8	540	1.50
28	1210	1.50	16	1090	1.50	10	490	1.50
29	1320	1.36	17	705	1.50	12	635	2.18
30	1450	1.50	18	530	1.36	14	720	1.90
31	1590	1.36	19	343	1.63	16	269	2.31
			22	310	1.63	20	192	1.90
June 1	1570	1.36	23	359	1.90	22	281	1.77
2	1080	1.50	24	423	2.18	24	262	1.90
3	875	1.22	25	480	2.45	26	209	2.04
5	875	1.50	26	422	1.63	28	254	1.90
7	950	1.36	28	318	1.63	30	245	2.04
8	855	1.50	29	295	2.45			
9	670	1.50	30	300	2.45	Apr. 1	361	1.77
9	670	2.04	31	313	2.04	3	467	1.50
12	545	1.77				5	390	2.04
13	485	1.63	Sept. 1	232	3.40	7	335	1.77
14	740	1.36	2	210	2.72	9	182	2.18
15	700	1.90	3	219	2.72	11	172	2.58
16	527	1.63	4	321	2.18	13	429	1.90
17	331	1.90	5	416	2.58	15	647	1.50
18	339	2.04	6	407	1.63	17	900	1.50
25	393	1.90	7	425	1.63	19	550	1.50
26	402	1.90	8	450	1.90	21	407	2.04
28	715	1.63	9	525	1.63	23	340	1.50
			10	703	1.63	25	540	1.63
			11	1095	1.63	27	297	2.18
						29	260	2.45

- 4 -

RIO GRANDE AT FARENS, TEXAS

Date	Dis- charge CFS	Total dissolved solids, tons per acre foot.	Date	Dis- charge CFS	Total dissolved solids, tons per acre foot.	Date	Dis- charge CFS	Total dissolved solids, tons per acre foot.
1927			1927			1928		
May 1	529	2.18	Sept. 12	1128	1.36	Apr. 2	312	1.90
3	739	1.77	14	1300	1.36	4	551	1.63
5	542	1.63	18	1660	1.50	6	628	1.63
7	567	1.77	20	1555	2.58	8	790	1.63
9	780	1.50	22	1033	4.22	10	1192	1.50
11	567	1.77	24	756	2.86	12	792	1.50
19	415	1.90	26	733	1.77	14	857	1.50
21	366	2.31	30	506	1.77	16	1018	1.22
23	538	1.77				18	573	1.50
25	455	1.63	Oct. 4	352	1.90	20	405	1.63
31	507	1.63	6	282	1.63	22	573	1.63
			8	302	1.90	24	776	1.36
June 2	285	1.90	10	435	1.90	26	512	1.63
4	428	1.90	11	546	1.22	28	572	1.50
6	550	1.50	14	658	2.72	30	830	1.50
8	532	1.09	28	215	2.18			
10	460	1.50	30	225	2.31	May 4	1167	1.22
12	725	1.90				6	1070	1.50
14	1045	1.36	Nov. 4	662	1.36	8	700	1.50
15	960	1.63	17	252	2.86	10	717	1.22
16	900	1.09	19	731	2.86	12	656	1.22
18	880	1.50	21	557	1.90	14	940	1.36
21	838	1.90	23	400	1.50	16	501	1.50
22	652	1.63	25	296	1.90	18	333	2.31
26	555	1.63				20	372	2.31
28	602	1.63				24	257	2.18
30	458	1.77	1928			26	581	1.50
			Jan. 19	248	1.63	28	630	1.63
July 2	390	1.90	22	231	1.90	30	524	2.04
4	432	1.77	26	175	2.04			
6	338	2.18		85	2.31	June 1	345	1.88
8	217	2.45	Feb. 3	125	2.18	3	534	1.50
10	285	2.99	5	182	2.04	5	620	1.77
12	675	1.50	7	195	1.90	7	304	1.77
14	605	1.50	9	309	1.63	9	253	2.04
18	360	1.77	11	255	1.63	11	313	2.18
20	340	1.90	13	361	1.63	13	535	1.77
22	295	2.31	15	434	1.63	15	395	2.31
26	1330	1.09	17	446	1.90	17	423	1.90
28	1980	1.09	19	438	1.63	19	600	1.63
30	2050	1.36	21	364	1.90	21	468	1.77
			25	334	1.77	23	437	2.18
Aug. 1	2040	1.22				25	625	1.77
5	865	1.50	Mar. 2	333	1.90	27	602	2.04
7	1388	1.09	4	348	1.77	29	456	2.31
9	905	1.22	6	347	1.77			
13	736	1.90	8	252	1.63	July 1	435	1.90
15	864	1.36	10	232	1.77	3	380	2.18
17	982	1.36	12	225	2.04	5	743	1.90
19	1235	1.36	14	210	2.04	7	338	2.58
21	1910	1.63	16	322	2.04	9	354	2.58
23	1700	1.09	17	394	1.36	11	340	1.90
25	1325	1.63	21	438	1.50	13	331	2.18
27	679	1.22	23	394	1.50	15	395	1.63
29	618	1.22	27	163	2.04	17	406	2.18
31	471	1.77	29	202	2.04	19	336	1.63
			31	292	1.90	21	897	1.63
Sept. 2	690	1.36				23	1286	1.22
6	645	1.36				25	1026	1.36
10	1195	1.09				27	895	1.50
11	1203	1.77				29	960	1.50
						31	584	1.63



RIO GRANDE AT FABENS, TEXAS

Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.	Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.	Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.
1928			1928			1929		
Aug. 2	473	1.90	Dec. 1	227	1.90	Apr. 2	415	1.77
4	1550	1.36	3	190	1.63	6	170	2.31
6	1512	1.22	5	198	2.45	8	300	2.18
8	2562	1.50	7	208	1.90	11	216	2.45
10	1274	1.36	9	310	2.18	12	200	2.45
12	1060	1.36	11	380	1.90	14	362	1.63
14	1690	1.36	13	319	1.63	16	553	1.63
16	1591	1.22	15	298	1.90	18	618	1.63
18	1491	1.77	17	194	2.18	20	482	1.90
20	858	1.63	19	156	2.18	22	531	1.63
22	623	1.50	21	164	2.86	24	413	1.63
24	781	1.36	23	166	2.31	26	436	1.77
26	1101	1.50	25	171	2.18	28	673	1.77
28	1272	1.36	27	142	2.31	29	792	1.90
30	1451	1.36	29	156	2.86			
			31	147	2.72	May 4	597	1.63
Sept. 1	1273	1.90				8	306	2.04
3	1322	1.22				10	238	2.31
5	635	1.90	1929			12	285	1.90
7	396	2.31	Jan. 2	135	2.72	14	574	1.90
9	387	2.31	4	135	2.58	16	643	1.63
11	306	2.31	6	111	2.58	18	1015	1.36
13	170	2.45	8	133	2.45	20	764	1.36
15	194	2.58	12	133	2.58	21	907	2.04
17	750	1.22	14	130	2.45	22	910	1.22
18	781	1.09	16	122	2.72	24	1356	1.50
20	697	1.36	18	115	2.72	26	1342	1.36
23	945	1.22	20	169	2.45	28	664	1.90
25	653	1.50	22	232	1.77	30	411	2.04
27	981	1.22	24	224	1.77			
29	996	1.22	26	294	1.63	June 1	408	1.77
			28	209	1.77	3	277	2.31
Oct. 1	661	1.63	30	120	2.04	5	187	2.86
3	480	2.04				7	247	2.58
5	334	1.77	Feb. 3	142	2.31	8	232	2.58
7	296	1.90	4	140	2.58	9	365	1.77
9	279	1.90	7	98	2.58	12	273	2.31
11	358	1.90	9	118	2.58	13	260	2.58
13	774	1.09	11	234	1.90	15	238	2.72
15	476	1.36	13	262	1.63	16	383	2.66
26	311	2.18	15	166	2.04	17	492	1.90
28	287	1.90	17	163	2.18	19	498	1.77
30	316	1.90	19	171	2.04	21	422	1.77
			21	160	2.31	23	392	1.90
Nov. 1	541	1.50	23	228	2.04	27	378	2.04
3	573	1.36	25	253	1.90	29	314	2.18
5	434	2.45						
7	313	2.04	Mar. 1	245	1.77	July 1	510	1.63
9	274	2.31	2	284	1.90	3	353	1.77
11	249	2.31	5	257	1.90	5	343	1.90
13	253	2.31	7	342	1.90	7	328	2.18
17	262	2.04	9	268	2.31	11	769	2.04
19	328	1.63	11	258	1.90	13	1332	1.36
21	350	1.63	13	237	2.18	15	1242	1.36
23	396	1.90	15	167	1.77	17	588	1.90
25	308	1.63	17	215	1.63	19	357	2.18
27	235	1.90	19	276	1.77	21	592	1.77
29	235	1.36	21	381	1.50	23	657	1.63
			23	342	1.50	25	407	1.90
			25	350	1.77	27	351	2.18
			29	327	1.50	29	787	1.22
			31	356	1.63			

RIO GRANDE AT FARMERS, TEXAS.

Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.	Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.	Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.
1929			1929			1929		
Aug. 2	1559	.95	Oct. 1	231	2.45	Dec. 5	167	2.72
4	1027	1.90	2	214	1.77	11	209	1.30
6	723	1.50	3	197	2.45	18	156	2.45
8	664	1.50	4	207	1.22	26	295	2.18
10	1249	1.22	5	213	2.72	28	208	2.45
12	1858	1.09	6	248	1.90			
15	3441	.95	7	211	2.99			
17	1991	1.22	9	271	2.45			
18	1067	1.09	11	260	2.58	1930		
23	796	1.77	13	246	2.45	Jan. 1	159	2.31
25	1075	2.18	15	258	2.58	10	144	2.18
27	675	1.90	17	854	2.18	14	144	2.31
29	304	2.58	19	687	1.36			
31	271	2.45	21	697	1.77			
			23	359	2.18			
Sept. 8	369	1.90						
10	498	2.04	Nov. 7	- -	2.04			
12	569	1.77	9	333	1.77			
14	415	1.90	13	221	2.18			
16	485	1.90	16	293	2.31			
18	379	1.63	19	215	2.45			
20	365	1.63	21	215	2.58			
22	378	2.04	29	154	2.45			
24	793	1.50						
26	430	1.90						
28	316	2.04						

. The Rio Grande at Fabens, Tex.

The water samples are taken from the Tornillo Canal where it is diverted from the Rio Grande in the southeast corner of the town of Fabens, SE1/4, sec.4, T.34S., R.8E., N. M. P. M. The total passing the sampling station is arrived at by adding together the flow of Tornillo Canal, and the flow of the Rio Grande at Tornillo gaging station which is located at the highway bridge, 2 miles west of Tornillo, Tex., NW1/4, sec.26, T.34S., R.8E., at 3,578.63 feet above sea level. Samples collected by U. S. Bureau of Reclamation; analyses by U. S. Bureau of Plant Industry.

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance Kx10 <sup>5</sup> @25°C	TDS Tons per acre foot	Bo-ron Ppm	pH.	Per-cent Sodium	Per-cent Chloride	Milligram equivalents per liter							
										Calcium (Ca)	Magnesium (Mg)	Sodium (Na)*	Carbonate & bicarbonate (CO <sub>3</sub> HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	
1929																	
--	Feb. 4	1	140	263	2.40	--	--	62	52	7.05	3.71	17.19	4.70	8.65	14.60	--	
--	July 9	1	3,356	252	2.28	--	--	53	52	9.00	3.70	14.22	4.72	8.26	13.94	--	
--	Nov. 23	1	202	286	2.34	--	--	59	52	9.15	3.21	17.79	5.34	9.04	15.77	--	
1930																	
--	Jan. 25	1	128	279	2.60	--	--	63	52	8.70	2.47	18.95	5.11	9.24	15.77	--	
--	" 29	1	130	279	2.66	--	--	59	53	9.15	2.96	17.53	5.11	8.76	15.77	--	
--	Feb. 2	1	124	279	2.66	--	--	58	54	8.70	3.46	17.09	4.72	8.76	15.77	--	
--	" 9	1	253	206	1.87	--	--	46	46	8.70	3.29	10.34	4.72	7.36	10.25	--	
--	" 19	1	274	264	2.44	--	--	51	51	10.05	3.79	14.23	5.11	8.76	14.20	--	
--	" 25	1	267	224	2.07	--	--	51	47	8.70	3.05	12.40	4.72	7.99	11.44	--	
--	Mar. 3	1	441	187	1.70	--	--	46	41	8.70	2.06	9.29	4.72	7.05	8.28	--	
--	" 9	1	351	190	1.88	--	--	59	45	6.90	2.22	12.97	4.72	7.51	9.86	--	
--	" 15	1	150	286	2.63	--	--	66	57	7.80	2.80	20.55	3.15	10.25	17.75	--	
--	" 21	1	499	200	1.83	--	--	42	27	7.50	2.80	7.40	7.48	5.49	4.73	--	
--	" 27	1	461	185	1.82	--	--	59	50	7.05	2.06	13.11	3.54	7.59	11.09	--	
--	Apr. 5	1	339	231	2.09	--	--	60	52	7.20	2.80	15.19	3.15	9.03	13.01	--	
--	" 11	1	337	224	2.11	--	--	54	47	8.40	3.05	13.63	4.72	8.53	11.83	--	
--	" 17	1	573	189	1.81	--	--	53	39	7.80	2.22	11.21	5.11	7.84	8.28	--	
--	" 23	1	411	217	1.85	--	--	56	46	7.50	2.72	12.94	5.11	7.40	10.65	--	
--	" 29	1	547	247	2.22	--	--	59	47	7.95	2.72	15.43	5.11	8.76	12.23	--	
--	May 5	1	355	281	2.53	--	--	57	51	10.35	2.55	17.39	5.51	9.40	15.38	--	
--	" 11	1	584	192	1.66	--	--	54	47	7.35	1.98	10.83	3.54	7.16	9.46	--	
--	" 17	1	172	328	2.94	--	--	61	58	10.50	2.63	20.92	3.93	10.40	19.72	--	
--	" 26	1	664	198	1.83	--	--	53	45	7.50	2.47	11.20	3.93	7.78	9.46	--	
--	June 3	1	577	218	2.01	--	--	53	47	8.40	1.73	11.45	4.26	7.26	10.06	--	
--	" 10	1	934	185	1.67	--	--	54	41	7.35	1.40	10.33	3.93	7.26	7.89	--	
--	July 1	1	339	214	2.01	--	--	58	42	7.50	2.47	13.60	5.51	8.20	9.86	--	
--	" 7	1	558	214	1.97	--	--	57	43	7.80	2.14	13.25	5.51	7.82	9.86	--	
--	" 18	1	493	205	1.89	--	--	54	45	7.65	2.47	11.83	4.33	7.76	9.86	--	
--	" 24	1	989	151	1.41	--	--	43	26	7.50	2.14	7.30	4.72	6.30	5.92	--	
--	" 30	1	649	194	1.90	--	--	57	44	7.35	1.98	12.38	4.72	7.53	9.46	--	
--	Aug. 2	1	320	264	2.20	--	--	59	52	8.40	2.39	15.45	5.51	6.93	13.80	--	
--	" 8	1	833	142	1.25	--	--	44	32	6.30	1.98	6.52	3.54	6.53	4.73	--	
--	" 17	1	558	247	2.08	--	--	55	49	7.95	3.37	13.83	4.72	8.20	12.23	--	
--	" 26	1	599	190	1.69	--	--	56	40	6.60	2.14	11.19	4.72	7.32	7.89	--	
--	Sept. 1	1	946	212	1.97	--	--	45	45	7.05	1.65	13.95	4.33	8.07	10.25	--	
--	" 7	1	597	214	1.96	--	--	64	49	6.60	2.22	15.47	3.93	8.53	11.83	--	
--	" 14	1	249	276	2.57	--	--	60	52	8.55	3.05	17.29	4.73	9.57	14.29	--	
--	" 22	1	379	221	2.03	--	--	64	43	7.05	2.22	16.39	4.72	9.90	11.04	--	
--	Oct. 1	1	391	216	1.90	--	--	60	44	7.05	2.14	14.06	4.72	8.28	10.25	--	
--	" 7	1	342	212	1.98	--	--	65	50	6.00	2.39	15.39	3.15	8.80	11.83	--	
--	" 13	1	296	229	2.18	--	--	59	46	8.10	2.47	15.07	4.72	9.09	11.83	--	
--	" 19	1	196	280	2.35	--	--	58	48	8.55	3.46	16.68	5.51	9.38	13.80	--	
--	" 25	1	369	214	2.01	--	--	45	51	8.55	2.22	8.73	4.72	4.92	9.86	--	
--	" 31	1	184	268	2.50	--	--	63	52	7.80	2.80	18.22	3.93	9.90	14.99	--	

\*For samples prior to No. 7918 the sodium was calculated; for subsequent samples it was determined.

The Rio Grande at Fabens, Tex.

- 2 -

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance @ 25°C	TDS. Tons per acre foot	Boron Ppm	pH.	Percent Sodium	Percent Chloride	Milligram equivalents per liter							
										Calcium (Ca)	Magnesium (Mg)	Sodium (Na)*	Carbonate & bicarbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	
1930																	
--	Nov. 3	1	170	278	2.45	--	--	59	54	8.55	3.46	17.06	5.90	7.40	15.77	--	
--	" 9	1	225	240	2.35	--	--	65	45	7.50	2.22	18.98	6.29	9.40	13.01	--	
--	" 12	1	189	276	2.45	--	--	62	49	8.25	3.05	18.45	5.11	10.05	14.59	--	
--	Dec. 5	1	170	264	2.11	--	--	63	48	6.75	2.96	16.39	5.11	8.37	12.62	--	
--	" 13	1	221	255	2.35	--	--	62	49	8.25	3.05	18.43	5.11	10.05	14.59	--	
--	" 17	1	170	216	1.78	--	--	64	54	4.95	2.80	14.08	2.36	7.64	11.83	--	
--	" 24	1	333	199	1.92	--	--	61	38	7.05	2.47	15.09	6.29	8.86	9.46	--	
--	" 29	1	154	274	2.23	--	--	62	54	7.50	3.03	17.08	3.15	9.49	14.99	--	
1931																	
--	Jan. 4	1	124	247	2.22	--	--	66	51	6.45	3.29	19.07	5.18	9.04	14.59	--	
--	" 5	1	152	241	2.22	--	--	73	56	5.70	1.31	18.84	2.36	8.90	14.59	--	
--	" 10	1	132	274	2.19	--	--	63	50	8.25	2.47	17.98	5.11	9.39	14.20	--	
--	" 16	1	151	254	2.40	--	--	61	53	7.80	3.05	17.27	3.93	9.20	14.99	--	
--	" 22	1	135	247	2.16	--	--	74	56	5.25	2.22	18.75	3.15	8.87	14.20	--	
--	" 31	1	147	274	2.47	--	--	58	54	7.95	3.05	15.47	5.11	7.16	14.20	--	
--	Feb. 14	1	235	209	1.94	--	--	59	44	7.05	2.22	13.26	5.51	7.16	9.86	--	
--	" 20	1	267	205	1.70	--	--	64	47	5.25	2.22	13.51	3.54	7.58	9.86	--	
--	" 26	1	212	224	1.98	--	--	62	50	6.45	2.39	14.77	3.93	7.85	11.83	--	
--	Mar. 1	1	237	224	2.12	--	--	67	48	6.00	2.14	16.28	3.93	8.66	11.83	--	
--	" 7	1	176	259	2.15	--	--	61	51	8.10	2.55	16.62	4.33	9.14	13.80	--	
--	" 13	1	210	274	2.20	--	--	60	47	8.25	3.70	17.83	10.23	5.75	13.80	--	
--	" 19	1	447	166	1.52	--	--	60	43	5.55	1.21	11.07	3.54	7.00	7.89	--	
--	" 25	1	210	263	2.12	--	--	54	47	7.65	3.62	13.14	4.33	8.70	11.38	--	
--	" 31	1	464	169	1.52	--	--	56	45	6.15	1.56	9.70	2.36	7.16	7.89	--	
--	Apr. 6	1	419	185	1.58	--	--	57	50	5.55	2.14	10.24	2.36	7.68	7.89	--	
--	" 12	1	365	205	2.06	--	--	60	46	7.05	2.39	14.38	4.72	8.06	11.04	--	
--	" 18	1	849	175	1.67	--	--	62	43	7.30	1.23	13.78	7.08	5.77	9.46	--	
--	" 24	1	759	178	1.46	--	--	59	41	6.00	1.89	11.15	4.33	6.83	7.89	--	
--	" 30	1	959	180	1.76	--	--	60	44	6.00	1.89	12.03	3.93	7.31	8.68	--	
--	May 3	1	607	208	1.93	--	--	64	45	6.15	1.98	14.57	4.33	8.12	10.25	--	
--	" 6	1	381	228	2.00	--	--	58	45	6.60	2.80	13.24	4.33	8.06	10.25	--	
--	" 10	1	131	270	2.53	--	--	67	49	7.50	3.29	21.52	5.11	11.43	15.77	--	
--	" 18	1	822	179	1.60	--	--	56	39	6.75	1.56	10.73	4.72	6.83	7.49	--	
--	" 24	1	324	247	2.21	--	--	60	51	8.25	2.63	16.20	4.72	8.56	13.80	--	
--	" 27	1	207	332	2.94	--	--	64	59	10.50	3.29	24.08	5.11	10.68	22.08	--	
--	June 2	1	710	179	1.60	--	--	54	40	6.75	1.73	10.16	4.33	6.82	7.49	--	
--	" 8	1	494	214	1.75	--	--	57	46	7.05	2.22	12.13	4.72	6.82	9.86	--	
--	" 14	1	389	269	2.60	--	--	64	49	7.80	2.96	18.88	5.11	9.94	14.59	--	
--	" 20	1	226	318	2.63	--	--	61	54	9.60	2.88	19.69	5.11	9.71	17.35	--	
--	" 26	1	247	296	2.58	--	--	65	55	8.25	3.29	21.03	6.29	8.53	17.75	--	
--	July 1	1	474	199	1.87	--	--	61	48	6.60	2.22	13.99	3.93	7.84	11.04	--	
--	" 7	1	508	161	1.58	--	--	61	43	6.00	1.73	12.23	4.72	6.57	8.67	--	
--	" 13	1	336	211	1.84	--	--	64	41	6.30	1.73	13.94	4.72	8.24	9.01	--	
--	" 19	1	345	206	1.92	--	--	68	46	6.00	1.56	16.40	4.72	8.20	11.04	--	
--	" 25	1	308	246	2.05	--	--	57	51	7.65	3.37	14.61	3.93	8.69	13.01	--	
--	" 31	1	246	274	2.53	--	--	63	55	7.65	4.20	20.58	5.11	9.57	17.75	--	
--	Aug. 6	1	3,117	161	1.58	--	--	61	40	5.40	1.98	11.36	4.72	6.53	7.49	--	
--	" 12	1	1,144	151	1.35	--	--	51	36	5.55	2.47	8.34	3.93	6.51	5.92	--	
--	" 18	1	292	294	2.46	--	--	65	52	6.90	3.21	18.88	4.72	9.28	14.99	--	
--	" 21	1	320	266	2.41	--	--	62	51	7.80	3.29	18.17	4.72	9.55	14.99	--	
--	" 27	1	409	211	2.03	--	--	62	49	6.30	2.70	14.80	4.00	8.20	11.60	--	

## The Rio Grande at Fabens, Tex.

- 3 -

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance Kx10 <sup>5</sup> @25°C	TDS. Tons per acre foot	Boron Ppm	pH.	Percent Sodium	Percent Chloride	Milligram equivalents per liter						
										Calcium (Ca)	Magnesium (Mg)	Sodium (Na)*	Carbonate & bicarbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )
1931																
--	Sept. 2	1	461	211	2.00	--	--	60	45	6.40	2.80	13.70	4.40	8.10	10.40	--
--	" 8	1	347	224	2.02	--	--	57	47	7.80	2.80	14.00	4.80	8.20	11.60	--
--	" 14	1	244	253	2.27	--	--	63	59	7.10	2.30	16.40	2.80	9.00	14.00	--
--	" 21	1	1,110	160	1.42	--	--	58	39	5.40	2.00	10.20	4.00	6.80	6.80	--
--	" 27	1	422	214	2.09	--	--	61	43	6.60	2.60	14.40	5.20	8.20	10.20	--
--	Oct. 3	1	414	220	1.97	--	--	58	44	7.10	2.80	13.50	4.40	8.60	10.40	--
--	" 9	1	179	319	2.91	--	--	65	53	8.30	3.50	21.80	5.20	10.40	18.00	--
--	" 12	1	270	264	2.42	--	--	63	50	8.10	2.70	18.00	5.60	8.80	14.40	--
--	" 22	1	132	339	3.14	--	--	61	56	9.80	4.40	22.20	5.20	10.80	20.40	--
--	" 29	1	375	240	2.13	--	--	61	47	7.20	2.70	15.50	4.40	9.00	12.00	--
--	Nov. 4	1	181	225	1.92	--	--	58	51	7.10	2.70	13.80	4.00	7.60	12.00	--
--	" 10	1	436	180	1.62	--	--	52	41	6.60	2.70	10.20	4.00	7.50	8.00	--
--	" 13	1	273	231	2.11	--	--	57	47	7.80	2.90	14.20	4.80	8.50	11.60	--
--	" 16	1	278	247	2.15	--	--	60	47	7.20	3.10	15.80	4.80	8.90	12.40	--
--	" 22	1	518	252	2.34	--	--	62	46	7.20	3.10	16.70	5.20	9.40	12.40	--
--	" 28	1	252	249	2.23	--	--	51	47	8.40	4.10	13.10	4.80	8.80	12.00	--
--	Dec. 4	1	214	261	2.11	--	--	63	48	7.50	2.90	17.70	5.60	8.90	13.60	--
--	" 7	1	186	264	2.37	--	--	62	50	7.40	3.10	17.50	4.40	9.60	14.00	--
--	" 11	1	216	271	2.40	--	--	63	49	7.30	3.10	18.00	4.80	9.60	14.00	--
--	" 15	1	158	290	2.67	--	--	58	51	9.00	3.80	18.00	5.20	10.00	15.60	--
--	" 21	1	249	250	2.18	--	--	59	46	8.70	2.90	15.20	6.40	8.40	12.00	--
84	" 27	1	152	283	2.37	--	--	59	46	7.10	4.10	16.30	13.20	1.50	12.80	--
85	" 30	1	115	312	2.85	--	--	66	53	6.90	4.40	21.70	5.20	10.20	17.60	--
1932																
86	Jan. 1	1	123	306	2.77	--	--	66	51	6.90	4.20	21.50	6.00	9.80	16.80	--
87	" 6	1	114	289	2.58	--	--	63	52	7.10	4.20	19.20	5.20	9.30	16.00	--
88	" 15	1	130	277	2.50	--	--	63	50	7.10	3.50	18.10	5.60	9.00	14.40	--
89	" 22	1	123	275	2.44	--	--	66	50	6.90	2.80	19.10	5.60	8.80	14.40	--
90	" 29	1	106	290	2.60	--	--	65	50	7.20	3.70	20.10	5.60	9.80	15.60	--
159	Feb. 5	1	108	272	2.49	--	--	61	51	7.70	3.70	17.80	5.20	9.20	14.80	--
160	" 10	1	282	191	1.67	--	--	60	43	4.90	2.90	11.70	4.00	7.10	8.40	--
161	" 17	1	168	253	2.34	--	--	61	49	7.50	3.20	17.00	5.20	8.90	13.60	--
162	" 24	1	330	189	1.67	--	--	53	42	6.30	2.60	10.20	4.00	7.10	8.00	--
163	" 29	1	234	214	1.97	--	--	57	46	6.90	2.80	13.00	4.40	7.90	10.40	--
164	Mar. 2	1	490	222	1.97	--	--	59	49	6.60	2.80	13.40	4.40	7.20	11.20	--
165	" 8	1	367	191	1.75	--	--	57	44	6.00	2.60	11.60	4.40	7.00	8.80	--
207	" 17	1	269	199	1.78	--	--	58	42	6.30	2.60	12.10	4.40	7.80	8.80	--
208	" 24	1	204	234	2.08	--	--	55	43	7.50	3.60	13.40	4.40	8.50	11.60	--
209	" 28	1	142	247	2.25	--	--	64	51	6.90	2.70	17.10	4.80	8.30	13.60	--
210	Apr. 3	1	272	184	1.64	--	--	52	40	6.30	2.30	11.50	4.40	7.70	8.00	--
211	" 10	1	803	208	1.82	--	--	58	41	6.60	2.60	12.50	4.40	8.50	8.80	--
212	" 19	1	239	259	2.38	--	--	63	47	7.20	2.70	17.20	4.80	9.50	12.80	--
213	" 25	1	536	200	1.81	--	--	51	41	6.80	3.20	10.40	4.00	8.00	8.40	--
214	May 1	1	399	201	1.81	--	--	53	41	6.80	2.80	10.90	4.00	8.10	8.40	--
215	" 6	1	226	322	2.81	--	--	64	53	8.50	3.60	22.00	5.60	10.50	18.00	--
216	" 12	1	703	175	1.56	--	--	55	39	6.00	2.20	10.20	4.00	7.20	7.20	--
277	" 18	1	568	202	1.77	--	--	60	45	7.20	1.80	13.30	4.00	8.30	10.00	--
278	" 25	1	202	302	2.73	--	--	59	51	9.45	3.97	19.48	5.60	10.50	16.80	--
279	" 31	1	660	185	1.74	--	--	55	40	6.30	2.82	11.10	4.80	7.40	8.00	--

The Rio Grande at Fabens, Tex.

- 4 -

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance @ 25°C	TDS. Tons per acre foot	Boron Ppm	pH.	Percent Sodium	Percent Chloride	Milligram equivalents per liter						
										Calcium (Ca)	Magnesium (Mg)	Sodium (Na)*	Carbonate & bicarbonate (CO <sub>3</sub> + HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )
1932																
280	June 6	1	395	171	1.69	--	--	60	38	5.55	2.05	11.56	3.60	8.36	7.20	--
281	" 13	1	450	203	1.92	--	--	54	44	7.35	3.07	12.11	4.40	8.13	10.00	--
282	" 22	1	419	191	1.79	--	--	61	40	5.85	2.43	12.66	4.00	8.54	8.40	--
283	" 29	1	604	159	1.53	--	--	52	37	6.30	2.43	9.45	4.00	7.38	6.80	--
284	July 6	1	290	246	2.25	--	--	60	49	8.40	3.07	16.88	5.20	9.15	14.00	--
285	" 10	1	520	165	1.73	--	--	51	41	6.90	3.07	10.44	4.40	7.61	8.40	--
286	" 18	1	583	169	1.89	--	--	58	48	6.90	2.69	13.03	4.00	7.82	10.80	--
299	" 24	1	353	205	1.72	--	--	59	46	5.55	3.20	12.76	4.00	7.51	10.00	--
300	" 31	1	856	157	1.42	--	--	57	38	4.65	2.56	9.48	4.00	6.29	6.40	--
301	Aug. 8	1	722	168	1.42	--	--	53	38	5.45	2.56	9.05	4.00	6.66	6.40	--
302	" 16	1	787	160	1.39	--	--	55	41	4.95	2.56	9.18	3.60	6.29	6.80	--
303	" 20	1	717	166	1.49	--	--	54	40	5.40	2.56	9.21	3.60	6.77	6.80	--
326	" 30	1	1,086	154	1.45	--	--	56	37	5.25	2.18	9.63	4.00	6.66	6.40	--
327	Sept. 3	1	647	154	1.46	--	--	52	40	5.40	2.82	8.93	4.00	6.35	6.80	--
328	" 11	1	294	210	1.94	--	--	59	45	6.60	2.82	13.70	4.80	7.92	10.40	--
329	" 15	1	276	231	2.15	--	--	60	50	7.05	3.07	15.57	4.80	8.09	12.80	--
330	" 23	1	479	185	1.71	--	--	56	44	6.15	2.68	11.17	4.00	7.20	8.80	--
405	Oct. 7	1	607	196	1.76	--	--	56	44	6.90	2.30	11.57	4.20	7.37	9.20	--
406	" 15	1	766	246	2.09	--	--	59	46	6.75	2.56	13.70	3.60	8.81	10.60	--
407	" 25	1	489	207	1.79	--	--	58	44	6.75	2.56	13.17	5.00	7.45	10.00	--
412	" 29	1	266	242	2.22	--	--	59	46	8.10	2.56	15.14	4.80	9.00	12.00	--
413	Nov. 3	1	232	267	2.43	--	--	58	45	8.55	2.82	15.96	5.20	9.73	12.40	--
414	" 9	1	572	185	1.67	--	--	56	41	6.75	1.92	11.01	4.00	7.68	8.00	--
415	" 12	1	225	232	2.13	--	--	58	46	7.50	2.68	13.99	4.40	8.57	11.20	--
416	" 18	1	184	274	2.50	--	--	61	51	8.25	3.20	18.26	4.00	10.51	15.20	--
417	" 24	1	297	187	1.68	--	--	58	42	6.45	1.92	11.71	4.00	7.68	8.40	--
418	" 30	1	225	252	2.30	--	--	57	47	8.40	3.07	15.55	4.80	9.42	12.80	--
419	Dec. 6	1	362	236	2.14	--	--	55	44	7.95	2.94	13.59	4.80	8.88	10.80	--
420	" 13	1	266	222	1.99	--	--	57	45	7.95	2.05	13.02	4.40	8.22	10.40	--
421	" 23	1	436	181	1.60	--	--	58	42	6.15	1.79	11.09	4.00	7.03	8.00	--
422	" 27	1	304	232	2.15	--	--	57	43	7.80	2.30	14.71	4.80	8.81	11.20	--
423	" 30	1	155	270	2.46	--	--	61	49	8.10	2.94	17.44	4.80	9.68	14.00	--
1933																
424	Jan. 5	1	218	262	2.50	--	--	60	46	8.10	2.82	16.72	4.80	10.04	12.80	--
425	" 12	1	178	254	2.31	--	--	61	48	8.10	2.30	16.09	4.40	9.29	12.80	--
497	" 19	1	184	256	2.44	--	--	61	49	7.50	3.46	17.34	4.40	9.90	14.00	--
498	" 29	1	155	255	2.47	--	--	64	47	7.50	3.46	19.32	5.60	10.28	14.40	--
499	Feb. 8	1	451	145	1.40	--	--	56	41	5.10	2.30	9.38	4.00	5.98	6.80	--
500	" 14	1	416	152	1.46	--	--	56	40	5.10	2.30	9.61	4.00	6.21	6.80	--
501	" 20	1	264	197	1.90	--	--	57	44	6.30	3.46	12.84	4.40	8.20	10.00	--
502	" 27	1	488	148	1.43	--	--	59	43	5.10	2.05	10.32	4.00	5.87	7.60	--
503	Mar. 9	1	291	163	1.62	--	--	58	42	5.40	2.69	10.91	4.40	6.60	8.00	--
504	" 16	1	148	234	2.25	--	--	62	51	6.60	3.71	16.59	4.80	8.50	13.60	--
505	" 20	1	285	179	1.73	--	--	58	44	6.00	2.69	12.13	4.20	6.82	9.20	--
535	Apr. 2	1	542	161	1.52	--	--	59	41	5.25	2.18	10.90	4.40	6.33	7.60	--
536	" 9	1	510	174	1.67	--	--	58	41	5.40	2.82	11.38	5.00	6.60	8.00	--
537	" 13	1	524	157	1.58	--	--	57	43	5.25	2.82	10.62	4.00	6.69	8.00	--
538	" 17	1	420	144	1.37	--	--	57	41	4.95	2.30	9.44	4.00	5.49	6.80	--
539	" 24	1	670	160	1.46	--	--	60	42	5.10	2.25	10.79	4.00	6.34	7.60	--
577	" 27	1	622	broken in transit												

(44)

The Rio Grande at Fabens, Tex.

- 5 -

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance Kilo $\Omega$ s @ 65°F	TDS. Tons per acre foot	Boron Ppm	pH.	Percent Sodium	Percent Chloride	Milligram equivalents per liter						Nitrate (NO <sub>3</sub> )
										Calcium (Ca)	Magnesium (Mg)	Sodium (Na)*	Carbonate & bicarbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	
1933																
578	May 5	1	564	176	1.69	--	--	94	44	6.75	2.82	11.40	4.80	6.97	9.20	--
7477	" 11	1	186	313	2.82	--	--	60	50	9.35	4.13	20.15	5.40	11.46	16.74	.03
7478	" 16	1	596	181	1.67	--	--	55	42	5.90	2.62	10.32	4.20	6.82	7.79	.03
7479	" 25	1	444	196	1.81	--	--	55	43	6.35	2.84	11.05	4.30	7.15	8.75	.04
7480	June 3	1	369	220	1.91	--	--	94	46	7.15	2.98	12.12	4.50	7.42	10.29	.04
7481	" 9	1	402	224	2.02	--	--	94	46	7.20	3.34	12.48	4.40	8.00	10.58	.04
7482	" 15	1	892	159	1.45	--	--	51	40	5.30	2.69	8.37	3.70	6.17	6.45	.04
7717	" 27	1	848	175	1.59	--	--	57	42	5.85	1.76	10.08	4.40	5.93	7.36	--
7718	July 3	1	899	181	1.68	--	--	51	36	6.97	2.48	9.83	4.45	7.90	6.93	--
7719	" 11	1	412	225	2.02	--	--	50	47	8.45	3.04	11.68	4.50	7.85	10.82	--
7720	" 18	1	628	180	1.62	--	--	52	42	6.10	2.69	9.56	4.15	6.55	7.65	--
7721	" 26	1	893	162	1.48	--	--	55	40	5.48	1.90	9.14	3.90	6.08	6.54	--
7722	Aug. 3	1	377	210	1.90	--	--	57	46	6.72	2.71	12.27	4.35	7.44	9.91	--
7723	" 10	1	632	195	1.80	--	--	54	44	6.40	2.77	10.61	4.15	6.92	8.71	--
7724	" 13	1	808	171	1.58	--	--	51	40	5.73	2.73	8.85	3.95	6.34	7.02	--
7725	" 16	1	795	169	1.57	--	--	56	41	5.58	1.94	9.72	3.90	6.32	7.02	--
7918	" 22	1	708	167	1.94	--	--	56	37	5.88	1.87	9.27	4.10	6.85	6.38	8.
7919	" 28	1	964	141	1.58	--	--	51	34	5.25	2.10	7.36	3.80	6.06	5.05	.04
7939	Sept. 4	1	1,160	136	1.20	--	--	53	33	4.95	1.83	7.16	3.90	5.73	4.81	7.
7940	" 10	1	898	152	1.35	--	--	53	38	5.35	2.14	8.15	3.90	5.89	6.09	.04
7941	" 16	1	569	181	1.54	--	--	59	38	6.08	2.28	11.95	4.50	8.03	7.62	.04
7942	" 22	1	393	223	1.98	--	--	57	44	7.45	2.78	12.93	5.05	8.28	10.28	.04
7943	" 28	1	401	220	1.99	--	--	59	42	7.37	2.75	14.20	5.05	9.35	10.33	.02
7944	Oct. 3	1	448	213	1.88	--	--	59	41	7.03	2.75	13.88	4.55	9.70	9.71	.02
8008	" 9	1	574	197	1.83	--	--	58	40	6.53	2.32	11.71	4.50	7.99	8.47	.03
8009	" 19	1	383	238	2.18	--	--	60	47	6.77	2.96	14.85	4.25	8.71	11.42	.05
8010	" 25	1	289	240	2.17	--	--	59	46	7.62	2.41	14.58	4.95	8.33	11.42	.03
8011	" 31	1	209	280	2.94	--	--	61	48	8.63	3.02	17.52	6.15	9.60	14.23	0
8191	November	5	194	253	2.32	--	8.1	59	48	7.93	2.95	15.16	5.15	8.51	12.68	.03
8313	December	5	270	215	1.92	.24	7.8	58	44	6.86	2.59	12.53	4.61	8.06	9.85	.05
1934																
8315	January	4	142	267	2.35	.29	7.8	59	47	8.16	3.23	16.34	5.40	9.57	13.10	.02
8376	February	5	512	172	1.59	.13	8.1	55	37	5.91	2.18	9.57	4.07	7.16	6.69	.05
8461	March	5	371	190	1.70	.26	7.8	58	40	6.13	2.15	11.15	4.12	7.78	7.85	.01
8556	April	6	324	223	1.91	.24	7.7	58	44	7.16	2.52	13.25	4.37	8.56	10.00	.05
8923	May	5	353	234	2.09	.29	7.9	58	45	7.64	2.54	13.27	4.48	8.80	10.84	.01
8920	June	4	363	229	2.08	--	7.7	58	45	7.36	2.78	13.20	4.53	8.70	10.84	.01
9009	July	6	515	212	1.91	.32	--	56	45	6.97	2.54	12.05	4.28	8.02	9.88	.03
9154	August	5	421	220	1.96	.27	7.7	57	46	7.08	2.55	12.57	4.13	8.30	9.92	.03
9280	September	4	302	245	2.19	.31	7.7	57	46	7.79	2.93	14.01	4.43	9.17	11.99	.02
9306	October	4	194	269	2.37	.30	7.9	60	49	7.70	3.22	16.18	4.13	9.71	13.36	.01
9448	November	5	131	324	2.89	.31	7.6	60	48	9.46	3.97	20.09	5.07	11.04	17.51	.02
9536	December	4	100	318	2.83	.24	7.8	59	51	9.47	3.97	19.34	5.22	10.90	16.62	.03
1935																
9632	January	5	136	284	2.57	.34	7.7	58	48	9.21	3.17	17.45	4.96	10.49	13.97	.07
9795	February	4	111	286	2.61	.31	8.3	59	48	8.72	3.43	17.61	5.30	10.18	14.25	.03
9800	March	4	67	327	3.06	.36	7.9	60	52	9.79	3.97	20.13	5.50	11.04	17.67	.03

The Rio Grande at Fabens, Tex.

- 6 -

Laboratory No.	Date of Sample	No. of Samp-les	Dis-charge c.f.s.	Con-ductance Ex10 <sup>3</sup> @25°C	TDS. Tons per acre foot	Bo-ron Ppm	pH.	Per-cent Sodi-um	Per-cent Chlo-ride	Milligram equivalents per liter							
										Calci-um	Magne-sium	Sodi-um	Carbon-ate & bi-carbonate	Sul-phate	Chlo-ride	Ni-trate	
										(Ca)	(Mg)	(Na)	(CO <sub>3</sub> +HCO <sub>3</sub> )	(SO <sub>4</sub> )	(Cl)	(NO <sub>3</sub> )	
1935																	
9997	April	5	137	282	2.52	.26	8.2	59	48	8.61	3.38	16.94	5.02	10.23	13.96	.05	
10001	May	5	129	318	2.85	.31	8.2	59	51	9.60	3.72	19.18	5.11	11.10	16.49	.04	
10125	June	3	286	229	2.03	.31	7.8	57	44	7.19	2.97	12.88	4.26	8.97	10.23	.04	
10127	July	5	239	258	2.16	.26	8.0	55	47	7.97	3.16	13.45	4.41	8.92	11.62	.04	
10262	August	5	628	197	1.79	.28	8.0	57	41	6.56	2.17	11.37	3.96	7.87	8.22	.04	
10318	Sept.	2	1,248	138	1.25	--	7.8	52	38	4.88	1.85	7.29	3.37	5.25	5.31	.04	
10431	Oct.	4	174	270	2.42	.15	8.3	56	48	8.59	3.73	15.71	4.73	9.84	13.36	.07	
10495	Nov.	4	166	282	2.54	.26	7.9	60	50	8.39	3.35	17.76	4.88	10.08	14.66	.02	
10511	Dec.	5	186	306	2.64	.27	7.8	59	53	9.33	3.48	18.24	4.88	9.83	16.42	tr	
1936																	
10602	Jan.	6	151	271	2.41	.25	7.9	58	47	8.79	2.93	16.07	5.03*	9.76	12.95	.21	
10675	Feb.	5	146	258	2.31	.28	7.9	59	47	7.91	3.09	15.59	4.73*	9.20	12.64	.03	
10681	March	5	180	236	2.14	.23	7.9	57	45	7.39	2.90	13.38	4.33*	8.74	10.86	.04	
10820	April	5	270	216	1.92	.22	8.2	53	43	7.23	2.95	11.65	4.13*	8.46	9.43	.01	
10887	May	5	281	243	2.03	--	7.9	56	46	7.81	2.92	14.08	4.20	9.23	11.62	.03	
10917	June	5	376	227	2.08	.29	7.8	56	46	7.53	3.03	13.09	4.25	8.65	10.74	.05	
11049	July	3	353	224	1.85	.82	8.2	56	46	7.09	2.92	12.54	4.10*	7.89	10.21	.02	
11050	August	5	820	163	1.50	--	8.2	54	38	5.42	1.95	8.74	3.71*	6.31	6.13	tr	
11124	Sept.	4	717	173	1.55	--	8.0	53	36	5.67	2.39	9.19	3.68*	7.16	6.18	.04	
11263	Oct.	5	338	270	2.29	.31	8.0	61	50	6.83	3.25	15.84	3.34*	9.80	13.11	.01	
11288	Nov.	8	200	267	2.39	.30	7.7	58	47	8.21	3.24	15.97	4.84	9.78	12.85	.11	
11294	Dec.	5	203	249	2.23	.30	7.7	58	46	7.72	3.01	14.76	4.74	9.25	11.64	.07	

\* Includes carbonate (CO<sub>3</sub>)



# RIO GRANDE AT FORT QUITMAN GAGING STATION, TEXAS

Total Dissolved Solids, September 1927 to January 1930

Located at lower end of El Paso Valley, 1.5 miles below old Fort Quitman and 11.5 miles south of Finlay, Texas. Zero of gage is 3,454.06 feet above sea level. Samples and analyses by United States Bureau of Reclamation.

Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.	Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.	Date	Dis-charge CFS	Total dissolved solids, tons per acre foot.
1927			1929			1930		
Sept. 18	1300	2.99	Jan. 4	151	3.13	Jan. 2	190	3.95
27	699	5.31	11	154	3.13	9	199	3.67
			24	242	2.99	16	191	3.81
Oct. 25	190	4.35	30	220	2.72	23	174	4.08
Nov. 1	156	3.54	Feb. 6	158	3.81			
8	408	2.04	6	158	3.67			
15	202	4.35	13	141	3.81			
29	221	2.86						
			Mar. 5	180	3.81			
Dec. 6	195	3.54	13	141	4.22			
13	472	2.18	22	127	3.95			
27	210	3.27						
			Apr. 13	444	4.63			
1928			22	212	2.86			
Jan. 3	180	3.40	29	150	3.95			
10	164	3.50						
17	191	3.67	May 6	226	3.13			
24	211	3.13	13	87.4	3.54			
31	183	3.95						
			June 10	120	5.17			
Feb. 7	175	3.40	19	115	4.49			
14	224	2.72						
21	277	2.31	July 16	646	1.90			
28	212	2.72	23	336	4.49			
Mar. 5	139	2.99	Aug. 1	795	2.04			
15	44	3.13	7	462	2.31			
20	219	3.13	19	2100	1.63			
27	90	3.67	20	2460	1.36			
			21	1110	1.90			
Apr. 3	74	4.22	27	888	1.90			
10	518	2.18						
24	424	3.13	Sept. 4	328	3.95			
30	295	3.13	9	209	3.81			
			16	241	3.27			
May 15	672	1.90	17	262	2.18			
18	425	2.31	26	456	2.72			
22	233	3.27						
			Oct. 2	186	4.76			
June 5	284	3.27	7	168	3.90			
26	179	3.54	30	392	3.13			
29	187	2.86						
			Nov. 12	339	2.72			
July 3	106	3.81	19	284	3.54			
10	68	3.27						
			Dec. 4	180	3.81			
Aug. 7		1.90	11	288	3.40			
			18	197	3.95			
Dec. 5	208	3.13	25	243	3.40			
11	250	2.99						

The Rio Grande at Fort Quitman, Tex.

Gaging station located at the lower end of El Paso Valley, 1.5 miles below old Fort Quitman and 11.5 miles south of Winlay, Tex. Zero of gage is 3,454.06 feet above sea level. Samples collected by U. S. Bureau of Reclamation; analyses by U. S. Bureau of Plant Industry.

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance Kx10 <sup>5</sup> @25°C	TDS. Ppm per acre foot	Bo-ron Ppm	pH.	Percent Sodium	Percent Chloride	Milligram equivalents per liter						Nitrate
										Calcium (Ca)	Magnesium (Mg)	Sodium (Na)*	Carbonate & bicarbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	
1930																
--	Feb. 6	1	172	436	3.85	--	--	60	62	10.95	5.84	25.02	5.90	9.93	25.98	--
--	" 13	1	223	351	3.23	--	--	58	60	10.95	5.84	21.65	5.90	10.06	22.48	--
--	Mar. 6	1	249	322	2.82	--	--	63	61	9.45	2.63	20.77	2.75	9.99	20.11	--
--	" 13	1	162	350	2.95	--	--	57	59	11.85	3.29	20.39	4.33	10.30	20.90	--
--	" 20	1	130	413	4.17	--	--	64	66	15.30	3.04	32.19	4.33	13.07	33.13	--
--	" 23	1	215	322	2.69	--	--	50	58	11.25	5.68	16.63	4.33	9.91	19.32	--
--	" 27	1	207	328	2.91	--	--	58	61	11.53	3.29	20.82	3.54	10.41	21.69	--
--	" 31	1	301	308	2.61	--	--	54	56	10.95	3.95	17.50	4.33	9.93	18.14	--
--	Apr. 3	1	248	280	2.35	--	--	57	61	9.15	3.70	17.04	2.36	9.99	18.14	--
--	" 9	1	166	368	3.17	--	--	62	67	10.05	4.53	23.43	1.97	10.41	25.63	--
--	" 17	1	216	370	3.00	--	--	62	65	10.05	4.28	23.33	2.36	10.85	24.45	--
--	" 23	1	315	296	2.62	--	--	62	62	7.80	3.95	19.35	2.75	9.03	19.32	--
--	May 7	1	185	436	3.73	--	--	68	68	11.25	3.95	31.24	2.36	12.53	31.55	--
--	" 14	1	288	336	2.92	--	--	56	58	12.30	3.95	20.31	5.11	10.16	21.29	--
--	" 19	1	109	569	4.78	--	--	63	72	14.55	7.57	38.13	2.36	14.51	43.38	--
--	" 26	1	125	617	5.24	--	--	64	72	15.75	7.57	40.68	3.93	13.93	46.14	--
--	June 2	1	265	336	2.81	--	--	47	59	12.45	6.58	16.83	4.33	10.24	21.29	--
--	" 11	1	706	370	2.78	--	--	50	60	12.30	5.92	18.12	4.72	9.93	21.69	--
--	" 18	1	922	219	1.86	--	--	54	47	7.50	3.29	12.49	4.33	7.91	11.04	--
--	July 2	1	121	528	4.57	--	--	69	70	11.25	7.24	40.38	3.93	13.93	41.01	--
--	" 9	1	209	308	2.77	--	--	62	58	8.70	3.46	20.26	3.93	9.56	18.93	--
--	" 23	1	412	336	3.06	--	--	58	64	11.10	3.70	20.65	3.93	8.65	22.87	--
--	" 27	1	828	218	1.97	--	--	53	51	8.55	2.47	12.35	3.93	7.61	11.83	--
--	Aug. 6	1	86	462	4.29	--	--	60	66	12.90	6.17	29.02	4.33	12.21	31.55	--
--	" 15	1	1,220	187	1.56	--	--	45	43	7.80	3.05	8.98	4.33	6.82	8.68	--
--	" 27	1	71	493	4.09	--	--	62	67	14.40	5.43	32.66	3.93	12.17	36.39	--
--	Sept. 3	1	338	231	2.08	--	--	53	53	9.00	2.47	13.07	3.94	7.99	13.01	--
--	" 12	1	221	264	2.47	--	--	63	53	8.10	2.72	16.64	3.93	9.76	15.77	--
--	" 15	1	18	321	3.01	--	--	58	59	10.50	3.87	20.16	3.93	10.09	20.51	--
--	" 22	1	173	411	3.92	--	--	62	65	12.60	4.69	28.18	3.93	11.96	29.58	--
--	Oct. 1	1	209	322	2.81	--	--	55	59	10.80	3.95	17.95	4.33	9.05	19.32	--
--	" 6	1	466	254	2.27	--	--	57	58	8.85	2.80	15.31	3.93	7.26	15.77	--
--	" 16	1	420	254	2.10	--	--	52	54	8.85	3.70	13.87	3.93	7.99	14.20	--
--	" 24	1	306	321	2.88	--	--	60	58	9.60	3.87	20.46	4.33	9.88	19.72	--
--	" 30	1	310	247	2.08	--	--	58	53	8.10	3.21	15.41	3.93	8.59	14.20	--
--	Nov. 6	1	199	336	3.11	--	--	59	60	11.10	4.03	21.90	3.93	11.02	22.08	--
--	" 13	1	196	328	2.93	--	--	55	58	12.30	3.87	19.90	4.33	10.84	20.90	--
--	Dec. 8	1	216	296	2.61	--	--	56	54	10.80	3.87	18.38	4.33	9.71	17.75	--
--	" 15	1	273	274	2.48	--	--	60	55	9.75	2.14	18.21	4.33	9.21	16.56	--
--	" 22	1	181	322	3.13	--	--	56	57	11.60	3.70	19.07	5.11	9.55	19.71	--
--	" 29	1	184	285	2.76	--	--	55	56	10.80	3.46	17.59	5.11	8.99	17.75	--

\*For samples prior to No. 7763 the sodium was calculated; for subsequent samples it was determined.

The Rio Grande at Fort Quitman, Tex.

- 2 -

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance	TDS.	Bo-ron ppm	pH.	Per-cent Sodium	Per-cent Chloride	Milligram equivalents per liter						Nitrate (NO <sub>3</sub> )
				Krlo <sup>2</sup> @25°C	Tons per acre foot					Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Carbonate & bicarbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	
1931																
--	Jan. 2	1	177	322	2.77	--	--	68	56	7.95	3.29	23.82	5.11	10.23	19.72	--
--	" 12	1	161	336	2.93	--	--	63	57	9.00	4.20	22.47	5.11	10.05	20.51	--
--	" 19	1	158	352	3.13	--	--	65	59	8.55	4.36	23.73	4.72	10.23	21.69	--
--	" 26	1	127	370	3.49	--	--	68	59	8.55	4.61	27.96	5.90	10.77	24.45	--
--	Feb. 1	1	182	351	3.14	--	--	68	62	8.55	4.03	27.03	5.11	10.05	24.45	--
--	" 9	1	148	354	3.32	--	--	67	63	9.00	4.44	27.46	4.33	10.94	25.63	--
--	" 16	1	208	321	2.76	--	--	65	58	8.55	3.46	22.20	5.11	9.38	19.72	--
--	" 23	1	215	284	2.52	--	--	62	55	7.50	3.95	19.19	5.11	8.57	16.96	--
--	Mar. 1	1	161	370	3.22	--	--	63	61	10.50	3.95	24.27	4.72	10.34	23.66	--
--	" 9	1	93	399	3.60	--	--	66	61	9.30	5.27	28.97	5.51	11.61	26.42	--
--	" 16	1	131	389	3.48	--	--	70	67	9.30	3.95	30.62	4.33	9.96	29.58	--
--	" 23	1	247	294	2.57	--	--	65	58	7.50	3.70	20.59	4.33	8.90	18.54	--
--	" 30	1	245	430	3.88	--	--	65	65	11.40	5.02	30.94	4.33	12.27	30.76	--
--	Apr. 6	1	157	296	2.54	--	--	59	55	9.90	2.96	18.37	4.33	9.55	17.35	--
--	" 13	1	144	370	3.14	--	--	64	78	5.10	1.56	35.07	3.93	5.26	32.54	--
--	May 2	1	1,360	239	1.99	--	--	58	50	7.50	2.55	13.70	3.93	7.99	11.83	--
--	" 9	1	281	336	2.75	--	--	63	59	8.55	4.28	21.75	3.93	10.14	20.51	--
--	" 18	1	186	464	4.63	--	--	66	62	13.50	5.18	36.55	3.93	16.99	34.31	--
--	" 25	1	104	390	3.52	--	--	62	65	12.00	4.28	26.40	3.93	11.14	27.61	--
--	June 1	1	95	476	4.46	--	--	64	66	13.65	5.18	33.95	3.93	12.74	36.11	--
--	" 8	1	190	319	2.87	--	--	64	64	9.75	3.70	23.63	3.93	9.49	23.66	--
--	" 15	1	167	370	3.41	--	--	68	64	9.30	3.95	28.20	3.93	11.10	26.42	--
--	" 23	1	65	504	4.37	--	--	73	71	11.55	2.80	38.79	1.97	13.31	37.86	--
--	July 1	1	172	336	2.91	--	--	68	59	8.25	3.46	24.83	3.93	10.92	21.69	--
--	" 6	1	580	248	2.21	--	--	65	50	6.60	2.80	17.38	3.93	9.44	13.41	--
--	" 10	1	320	267	2.51	--	--	65	50	7.80	2.80	19.74	3.93	11.37	15.04	--
--	" 17	1	143	390	3.29	--	--	67	60	9.75	3.29	26.58	3.48	12.48	23.66	--
--	" 24	1	353	233	2.12	--	--	62	54	7.05	2.47	15.78	3.93	7.57	13.80	--
--	" 31	1	54	528	5.23	--	--	72	73	13.50	4.61	46.01	3.54	14.04	46.54	--
--	Aug. 4	1	678	402	3.79	--	--	73	59	9.90	2.63	33.07	3.93	13.77	28.00	--
--	" 14	1	1,160	206	1.71	--	--	59	46	6.60	2.47	13.26	4.72	7.36	10.25	--
--	" 21	1	129	370	3.38	--	--	77	65	6.75	2.96	33.12	3.93	10.90	28.00	--
--	" 28	1	195	390	3.51	--	--	65	64	12.00	2.96	27.82	3.93	11.25	27.60	--
--	Sept. 3	1	140	206	1.85	--	--	63	44	5.70	2.47	14.11	4.72	7.70	9.86	--
--	" 11	1	106	344	3.07	--	--	65	64	9.00	4.28	23.03	3.93	9.90	22.48	--
--	" 18	1	100	471	4.22	--	--	66	68	12.30	5.10	34.34	3.93	12.71	35.10	--
--	" 25	1	580	253	2.30	--	--	67	53	6.00	3.29	18.49	5.11	8.08	14.59	--
--	Oct. 2	1	366	308	4.83	--	--	63	59	8.55	4.44	22.02	5.11	9.39	20.51	--
--	" 8	1	286	316	3.13	--	--	66	62	7.80	4.94	25.32	4.72	9.68	23.66	--
--	" 16	1	155	368	3.31	--	--	63	63	9.30	6.40	26.20	4.00	11.50	26.40	--
--	" 23	1	168	368	3.35	--	--	61	63	9.90	5.60	24.70	4.00	11.00	25.20	--
--	" 30	1	306	261	2.33	--	--	61	52	7.90	2.90	16.80	4.40	8.80	14.40	--
66	Nov. 6	1	200	333	2.92	--	--	65	57	8.40	3.90	22.80	4.80	10.30	20.00	--
67	" 13	1	346	247	2.11	--	--	59	51	7.80	2.80	15.10	4.00	8.50	13.20	--
68	" 20	1	209	318	2.81	--	--	66	58	8.40	3.50	22.70	4.40	10.20	20.00	--
69	" 27	1	280	271	2.37	--	--	62	54	7.50	3.30	17.40	4.00	9.00	15.20	--

The Rio Grande at Fort Quitman, Tex.

- 3 -

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance Kcl 100 @25°C	TDS. Ppm per acre foot	Bo-ron Ppm	pH.	Per-cent Sodium	Per-cent Chloride	Milligram equivalents per liter						
										Calci-um (Ca)	Magne-sium (Mg)	Sodi-um (Na)*	Carbon-ate & bi-carbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sul-phate (SO <sub>4</sub> )	Chlo-ride (Cl)	Ni-trate (NO <sub>3</sub> )
1931																
70	Dec. 4	1	266	302	2.65	—	—	65	56	8.10	2.60	20.20	4.00	9.70	17.20	—
71	" 11	1	224	323	2.69	—	—	65	56	8.60	2.90	21.30	4.40	10.00	18.40	—
72	" 18	1	211	347	3.01	—	—	59	59	9.60	4.60	20.80	3.60	10.60	20.80	—
73	" 24	1	280	326	2.73	—	—	62	57	9.00	3.70	20.30	4.40	9.80	18.80	—
1932																
91	Jan. 1	1	141	370	3.23	—	—	68	59	7.20	5.20	25.80	5.20	10.60	22.40	—
92	" 8	1	125	361	2.97	—	—	69	62	7.20	4.10	24.80	3.20	10.50	22.40	—
93	" 15	1	136	364	3.11	—	—	67	63	7.10	5.10	25.20	4.80	9.00	23.60	—
94	" 22	1	127	370	3.26	—	—	68	60	8.10	4.70	27.30	3.60	12.50	24.00	—
95	" 29	1	123	370	3.22	—	—	68	62	8.10	4.70	26.80	4.00	11.20	24.40	—
110	Feb. 5	1	148	348	3.24	—	—	71	57	7.80	3.30	27.60	5.60	11.10	22.00	—
111	" 12	1	223	294	2.34	—	—	60	52	8.70	2.60	17.10	4.80	8.80	14.80	—
112	" 15	1	227	261	2.40	—	—	62	52	7.80	2.90	17.80	4.80	8.90	14.80	—
119	" 23	1	390	296	2.73	—	—	62	58	9.00	3.60	20.60	4.80	9.20	19.20	—
120	" 29	1	258	274	2.48	—	—	58	54	9.00	3.30	17.20	4.40	8.90	16.00	—
121	Mar. 7	1	151	317	2.87	—	—	63	60	9.30	3.70	22.30	3.60	10.90	21.20	—
122	" 14	1	246	273	2.47	—	—	59	57	8.90	3.60	18.10	4.00	9.00	17.60	—
176	" 21	1	112	312	2.88	—	—	63	60	8.40	4.10	20.90	4.00	9.40	20.00	—
177	" 28	1	107	346	3.00	—	—	65	62	9.50	4.10	23.30	4.00	10.50	22.40	—
178	Apr. 4	1	102	368	3.33	—	—	64	64	9.90	4.20	24.90	4.00	10.20	24.80	—
179	" 11	1	134	354	3.05	—	—	64	63	9.30	4.10	23.90	4.00	9.70	23.60	—
180	" 18	1	146	349	3.19	—	—	64	62	9.90	4.10	24.50	4.00	10.50	24.00	—
181	" 25	1	78	427	4.00	—	—	67	67	11.10	4.90	31.80	4.00	11.80	32.00	—
202	May 2	1	79	503	4.32	—	—	76	69	8.40	4.10	39.80	3.60	12.70	36.00	—
203	" 9	1	85	541	4.79	—	—	74	70	10.20	5.10	38.90	3.60	10.20	38.00	—
204	" 16	1	325	299	2.49	—	—	65	59	6.80	3.10	18.50	4.00	7.60	16.80	—
205	" 23	1	127	389	3.34	—	—	72	65	8.10	2.80	27.80	3.60	9.90	25.20	—
206	" 31	1	69	493	4.22	—	—	66	68	11.30	5.80	33.80	3.60	12.50	34.80	—
263	June 6	1	135	413	3.36	—	—	60	63	11.70	4.40	24.10	4.00	11.00	25.20	—
264	" 13	1	126	385	3.18	—	—	60	61	10.50	5.40	23.40	4.00	11.30	24.00	—
265	" 20	1	72	487	3.95	—	—	67	67	11.90	4.90	33.60	3.60	13.20	33.60	—
266	" 28	1	262	315	2.49	—	—	62	58	8.60	3.20	19.20	3.60	9.40	18.00	—
267	July 11	1	163	415	3.55	—	—	60	67	12.00	5.10	26.10	4.00	10.40	28.80	—
268	" 18	1	238	290	2.31	—	—	59	57	8.30	3.70	17.30	3.60	8.90	16.80	—
269	" 25	1	145	425	3.44	—	—	58	64	12.00	5.50	24.30	3.20	11.80	26.80	—
270	Aug. 1	1	325	283	2.27	—	—	59	58	8.10	3.30	16.20	3.20	8.40	16.00	—
271	" 8	1	302	293	2.39	—	—	62	59	8.30	3.30	18.90	3.60	8.90	18.00	—
272	" 15	1	490	247	2.19	—	—	55	52	8.00	3.30	14.10	5.60	6.60	13.20	—
306	" 22	1	344	250	2.23	—	—	57	57	5.40	2.56	19.23	3.60	7.99	15.60	—
331	" 29	1	173	322	3.05	—	—	66	64	8.55	3.58	24.17	3.20	9.90	23.20	—
332	Sept. 2	1	687	225	2.05	—	—	50	54	8.55	3.33	11.77	3.20	7.65	12.80	—
333	" 9	1	285	288	2.71	—	—	64	55	8.55	3.58	20.32	5.20	9.25	18.00	—
334	" 16	1	172	370	3.36	—	—	69	64	8.70	3.46	27.38	4.00	10.34	25.20	—
349	" 23	1	201	broken in transit			—	—	—	—	—	—	—	—	—	—
350	" 30	1	1,517	166	1.48	—	—	63	45	4.65	1.92	11.06	4.00	5.65	8.00	—
351	Oct. 7	1	936	250	2.22	—	—	58	51	7.50	3.20	14.48	8.80	3.58	12.80	—
352	" 14	1	640	269	2.38	—	—	65	54	7.05	3.07	18.51	4.60	8.43	15.60	—
353	" 21	1	367	339	3.00	—	—	70	57	8.10	2.17	25.04	4.40	10.51	20.40	—
354	" 28	1	453	255	2.23	—	—	72	55	6.75	1.92	19.46	4.80	8.53	14.80	—

The Rio Grande at Fort Quitman, Tex.

- 4 -

Laboratory No.	Date of Sample	No. of Samples	Discharge c.f.s.	Conductance Kx10 <sup>5</sup> @25°C	TDS. Tons per acre foot	Boron Ppm	pH.	Percent Sodium	Percent Chloride	Milligram equivalents per liter						
										Calcium (Ca)	Magnesium (Mg)	Sodium (Na)*	Carbonate & bicarbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )
1932																
385	Nov. 4	1	325	327	2.94	—	—	61	58	9.90	3.46	21.08	4.00	10.44	20.00	—
386	" 11	1	423	272	2.46	—	—	55	56	9.00	3.46	15.02	3.20	8.88	15.40	—
387	" 18	1	300	332	2.97	—	—	57	61	10.35	3.46	18.20	2.00	10.41	19.60	—
398	" 25	1	381	312	2.58	—	—	62	55	8.40	3.33	19.38	4.60	9.51	17.00	—
399	Dec. 2	1	307	308	2.66	—	—	60	55	9.60	3.33	19.34	4.60	9.87	17.80	—
400	" 9	1	390	308	2.64	—	—	63	56	8.75	3.20	20.15	4.20	9.90	18.00	—
401	" 16	1	285	308	2.62	—	—	61	57	9.15	3.20	19.42	4.60	9.17	18.00	—
402	" 23	1	468	278	2.34	—	—	60	53	8.40	2.94	16.90	4.60	8.64	15.00	—
403	" 30	1	276	327	2.77	—	—	61	57	9.45	3.58	20.28	4.60	9.71	19.00	—
1933																
404	Jan. 6	1	234	365	3.07	—	—	62	58	10.95	3.58	23.25	5.20	10.78	21.80	—
428	" 13	1	214	338	2.99	—	—	67	58	9.75	2.05	23.51	4.40	10.51	20.40	—
429	" 20	1	205	353	3.07	—	—	69	59	9.30	2.18	25.08	3.60	11.36	21.60	—
430	" 27	1	176	377	3.26	—	—	67	60	10.65	2.56	27.43	4.80	10.99	24.20	—
507	Feb. 3	1	171	352	3.15	—	—	64	60	8.55	5.12	24.43	4.40	10.90	22.80	—
508	" 10	1	417	247	2.36	—	—	60	64	7.95	3.46	17.50	4.40	8.91	15.60	—
509	" 17	1	321	205	1.99	—	—	59	51	5.55	4.22	14.01	4.00	7.89	12.00	—
510	" 23	1	233	271	2.66	—	—	60	58	8.10	3.97	18.34	4.00	8.81	17.60	—
511	Mar. 3	1	352	218	2.07	—	—	60	53	6.30	3.58	15.03	4.00	7.71	13.20	—
512	" 10	1	163	290	2.61	—	—	60	57	8.55	4.22	18.80	4.00	9.57	18.00	—
513	" 17	1	138	329	3.13	—	—	62	60	9.30	4.74	23.17	4.40	10.41	22.40	—
514	" 24	1	177	370	3.57	—	—	62	62	10.50	4.74	26.62	4.40	11.06	26.40	—
515	" 31	1	110	410	3.95	—	—	62	65	12.15	5.50	28.89	4.40	11.74	30.40	—
516	Apr. 15	1	152	407	3.81	—	—	63	65	12.00	5.25	28.65	4.40	11.50	30.00	—
540	" 21	1	203	339	3.23	—	—	77	60	6.30	2.56	29.84	6.00	9.50	23.20	—
541	" 28	1	229	330	3.09	—	—	64	61	9.30	4.10	23.73	4.40	9.93	22.80	—
542	May 5	1	185	383	3.70	—	—	67	62	9.75	4.61	28.84	4.80	11.60	26.80	—
543	" 12	1	112	406	3.93	—	—	64	64	11.10	5.89	29.48	4.80	12.07	29.60	—
592	" 19	1	157	352	3.15	—	—	67	64	9.00	3.97	25.92	4.00	10.09	24.80	—
593	" 26	1	150	409	3.75	—	—	62	67	11.25	6.02	27.76	3.60	11.43	30.00	—
594	June 2	1	149	335	2.91	—	—	64	62	8.85	4.35	23.24	3.60	10.04	22.80	—
7485	" 9	1	109	428	3.87	—	—	59	65	11.65	6.00	25.17	3.30	11.79	27.71	.02
7486	" 16	1	335	374	3.30	—	—	59	63	10.75	4.74	22.12	3.50	10.35	23.76	T.
7508	" 23	1	873	213	1.86	—	—	58	50	6.25	2.73	12.50	3.90	6.85	10.73	—
7509	" 30	1	611	264	2.34	—	—	64	54	7.65	1.98	17.32	4.40	8.12	14.43	—
7656	July 7	1	300	301	2.79	—	—	60	55	9.15	3.16	18.68	3.90	10.16	16.93	—
7610	" 14	1	106	419	3.85	—	—	63	66	10.82	4.72	26.45	2.60	11.64	27.75	—
7611	" 21	1	574	249	2.21	—	—	60	53	7.65	2.44	14.90	4.00	7.71	13.28	—
7612	" 28	1	361	256	2.36	—	—	59	53	7.85	2.77	15.42	4.05	8.09	13.90	—
7657	Aug. 4	1	144	365	3.34	—	—	60	64	10.08	4.17	21.32	3.50	9.13	22.94	—
7727	" 9	1	916	190	1.86	—	—	59	46	6.00	1.99	11.33	3.65	6.72	8.95	—
7763	" 18	1	238	273	2.40	—	—	59	55	8.32	3.05	16.30	3.95	8.54	15.39	T.
7764	" 25	1	307	160	1.42	—	—	56	50	5.18	1.81	8.90	2.70	5.13	7.98	T.
7824	Sept. 1	1	754	172	1.57	—	—	54	46	6.10	2.01	9.69	3.45	6.07	7.95	.05
7825	" 8	1	458	241	2.14	—	—	57	52	7.43	3.22	13.89	3.85	7.23	12.80	.01
7826	" 15	1	474	240	2.15	—	—	57	51	7.42	3.14	14.98	3.95	8.13	12.71	.03
7923	" 22	1	258	287	2.71	—	—	59	55	8.65	3.25	17.69	3.95	9.12	16.33	.03
7924	" 29	1	208	316	3.14	—	—	62	57	9.07	3.14	19.66	3.85	9.88	18.56	T.

(51)

The Rio Grande at Fort Quitman, Tex.

- 5 -

Laboratory No.	Date of Sample	No. of Samples	Dis-charge c.f.s.	Conductance Kx10 <sup>6</sup> 625°C	TDS. Tons per acre foot	Bo-ron Ppm	pH.	Per-cent Sodi-um	Per-cent Chlo-ride	Milligram equivalents per liter						
										Calci-um (Ca)	Magne-sium (Mg)	Sodi-um (Na)	Carbon-ate & bi-carbonate (CO <sub>3</sub> +HCO <sub>3</sub> )	Sul-phate (SO <sub>4</sub> )	Chlo-ride (Cl)	Ni-trate (NO <sub>3</sub> )
1933																
7925	Oct. 6	1	300	320	2.90	--	--	62	58	9.28	3.22	19.66	3.70	10.20	18.94	tr
8005	" 13	1	1,463	132	1.20	--	--	61	44	4.43	1.08	7.79	3.50	4.31	6.19	tr
8006	" 20	1	295	313	2.79	--	--	62	56	8.75	3.27	19.51	4.00	10.02	17.80	.03
8007	" 27	1	301	281	2.49	--	--	61	54	8.07	3.15	17.36	3.85	9.36	15.33	.01
8173	Nov. 4	4	226	316	2.81	.30	7.8	62	55	8.65	3.71	19.76	4.20	10.89	18.09	0
8190	Dec. 5	5	249	284	2.48	.38	8.2	58	52	9.17	3.22	16.57	4.90	9.28	15.17	0
1934																
8316	Jan. 4	4	185	341	2.99	.30	7.7	61	60	9.07	3.86	20.91	4.81	8.14	19.79	.04
8374	Feb. 4	4	370	250	2.38	.28	7.8	53	49	7.71	4.38	13.26	4.22	8.86	12.62	tr
8473	March 5	4	246	270	2.50	.28	7.9	61	52	7.97	3.02	16.72	4.07	9.13	14.45	.07
8557	April 4	4	117	395	3.38	.39	7.9	62	62	11.18	4.45	25.14	3.68	11.79	25.55	.06
8582	May 4	4	109	421	3.69	--	7.7	64	65	12.17	3.75	27.38	4.90	11.83	27.45	.07
8538	June 5	5	78	406	3.65	--	7.8	62	63	10.67	4.73	25.09	3.29	11.69	25.94	.05
8958	July 4	4	90	375	2.91	--	8.2	60	61	9.34	3.29	20.02	2.95	10.38	20.41	--
9155	August 5	5	70	384	3.36	.31	8.1	62	63	10.21	4.36	23.92	2.95	11.23	23.96	.01
9202	Sept. 6	6	151	338	2.97	.30	7.8	60	59	9.75	3.82	20.68	3.64	10.47	19.89	.02
9307	Oct. 4	4	78	477	4.22	.45	7.9	63	65	12.32	5.21	29.69	3.29	13.89	30.93	.01
9449	Nov. 5	5	83	446	3.94	.39	7.6	63	63	11.28	5.22	27.94	3.69	12.83	28.27	.01
9537	Dec. 4	4	100	429	3.80	.43	7.8	62	62	11.89	4.81	26.90	4.23	12.57	26.94	.01
1935																
9604	Jan. 4	4	90	399	3.51	.38	7.9	63	60	10.65	4.35	25.05	4.03	12.18	24.45	.01
9796	Feb. 4	4	77	394	3.52	.41	7.8	63	60	10.43	4.56	25.17	4.08	12.24	24.24	.07
9801	March 5	5	20	488	4.49	.43	8.0	61	64	13.67	6.22	30.79	4.52	13.62	32.59	.05
9805	April 4	4	19	544	4.97	.45	8.0	64	66	14.03	6.48	35.40	4.08	14.91	37.47	.04
10002	May 5	5	10	582	5.23	.45	8.0	63	67	14.97	7.38	37.18	4.62	15.33	39.91	tr
10046	June 4	4	86	303	2.50	.33	7.5	63	60	8.22	2.96	18.43	2.65	9.33	17.88	.02
10128	July 4	4	50	327	2.78	.32	7.7	62	60	8.57	3.91	19.80	3.02	9.87	19.60	.09
10235	August 5	5	639	144	1.24	--	8.1	57	47	4.69	1.60	7.82	2.82	4.79	6.69	.05
10319	Sept. 4	4	1,081	204	1.79	--	7.7	58	50	6.40	2.33	11.64	3.42	6.91	10.28	.05
10432	Oct. 4	4	526	207	1.75	.27	7.7	56	56	5.24	1.75	13.42	1.99	6.95	11.40	tr
10435	Nov. 5	5	183	402	3.51	.35	8.2	62	61	11.14	4.25	25.36	4.03	11.97	24.90	tr
10512	Dec. 5	5	193	323	2.83	.32	7.9	60	56	9.15	3.84	19.59	4.33	10.14	18.17	.04
1936																
10554	Jan. 5	5	188	360	3.19	.36	8.0	60	57	10.50	4.05	22.16	4.63*	11.09	20.90	.05
10608	Feb. 4	4	136	362	3.16	.27	8.2	59	58	10.79	4.45	22.27	4.53*	11.19	21.60	.11
10682	March 4	4	98.7	366	3.13	.33	7.6	60	60	10.08	4.25	21.84	3.93	10.65	21.81	.05
10821	April 4	4	84.05	427	3.77	.41	8.1	60	62	11.99	5.35	26.45	4.18*	12.48	27.01	.02
10831	May 5	5	110.7	390	3.38	.34	7.6	60	61	10.85	4.56	23.58	3.58	11.56	23.05	.07
10894	June 4	4	112	365	3.13	.37	7.8	62	61	9.93	4.06	22.44	3.02	11.20	22.07	.11
10922	July 5	5	55.4	372	3.21	--	8.1	61	62	10.29	4.15	22.70	3.41	10.72	23.14	tr
11008	August 4	4	128	286	2.51	--	8.1	60	60	8.24	3.11	17.09	3.21*	8.32	17.04	.05
11055	Sept. 4	4	594	249	2.10	.20	8.0	57	52	7.66	2.87	14.17	3.81*	8.10	13.05	.05
11130	Oct. 5	5	317	334	2.87	--	7.8	60	57	9.77	3.84	20.48	4.16	10.68	19.42	.11
11199	Nov. 4	4	231	371	3.26	.31	7.7	61	58	10.60	4.26	22.84	4.38	11.34	21.96	.04
11227	Dec. 5	5	249	341	2.98	.27	7.9	60	55	10.37	3.78	21.32	4.75	11.28	19.27	.05

\* Includes carbonate (CO<sub>3</sub>)

#### CONDUOTANCE DETERMINATIONS

In the San Luis Valley, Colorado, the townships and ranges as surveyed by the General Land Office are not all numbered from the New Mexico principal meridian. There are 4 complete and 2 partial townships in the east side of the valley referred to a private survey of the Luis Maria Baca Grant No. 4. Other townships east of the Rio Grande and south of the Baca Grant are in ranges numbered west from the sixth principal meridian and townships numbered south from the 40th parallel of latitude. In order to avoid confusion from these various systems of township and range numbering, the Geological Survey, in describing the locations of the wells sampled in connection with the present investigation, adopted a coordinate system of numbering for townships and ranges, using the conventional numbers for sections and an arbitrary letter designation for each 40 acres within the section. (For a more complete description of this system see Regional Planning; part 6: The Rio Grande joint investigation in the upper Rio Grande Basin in Colorado, New Mexico, and Texas, 1936-37, by the National Resources Committee, vol. 1, p. 240.) The field designations used by the Geological Survey are shown in parentheses in the first line of the description of each location. Certain of the wells sampled in connection with the present investigation were established in 1931-32 by the State of New Mexico. These wells were established in lines designated by letters and each well included in the line was designated by a number. Where these wells of the New Mexico investigation have been included in the sampling program of the present investigation, the line letter and well number are included in the parentheses following the field number used by the Geological Survey.

San Luis Valley, Colorado, Surface Waters

(Conductance)

<u>Index No.</u>	<u>Location and Description</u>
<p>Note: In the following descriptions the discharges reported are based on measurements made at the time of sampling. Except as otherwise noted, the samples and analyses are by the Geological Survey.</p> <p><u>Streams:</u></p>	
5-43-12	<p>North Crestone Creek near Crestone, Colo. (429).            Sec. 5, T.43N., R.12E., N.M.P.M.; 1-1/2 miles above Crestone in canyon.            Discharges, c.f.s.: July 8, 8.67; July 29, 35.6.</p>
28-1-1	<p>Cottonwood Creek near Crestone, Colo. (430).            Sec. 28, T.1N., R.1E., (Beaumont Survey); at Cottonwood mining camp 6 miles south of Crestone. Discharges, c.f.s.: July 1, 4.36; July 8, 3.72; July 29, 18.1.</p>
23-30-72	<p>Sangre de Cristo Creek near Fort Garland, Colo. (420).            Sec. 23, T.30S., R.72W., Sixth Prin. Mer.; at highway bridge 1-1/2 miles east of Fort Garland. Discharges, c.f.s.: July 9, 3.18; July 15, 4.68.</p>
31-30-71	<p>Trinchera Creek above Mountain Home Reservoir near Fort Garland, Colo. (418).            Sec. 31, T.30S., R.71W., Sixth Prin. Mer.; 1,000 feet above Mountain Home Reservoir; 4 miles southeast of Fort Garland. Discharges, c.f.s.: June 24, 12.3; July 10, 17.0.</p>
5-31-73	<p>Trinchera Creek below Smith Reservoir near Blanca, Colo. (419).            Sec. 5, T.31S., R.73W., Sixth Prin. Mer.; 1 mile below Smith Reservoir in Rattlesnake Canyon 5 miles southwest of Blanca. Discharges, c.f.s.: June 24, 8.30; July 10, 6.66.</p>
35-3-72	<p>Culebra Creek at San Luis, Colo. (423).            Sec. 35, T.3N., R.72W., (Beaubien and Miranda Grant Survey); 1 mile above concrete bridge at San Luis. Discharges, c.f.s.: June 23, 13.9; July 16, 126; July 22, 120.</p>
7-46-8	<p>Kerber Creek near Villa Grove, Colo. (428).            Sec. 7, T.46N., R.6E., N.M.P.M.; at Ashley Ranch 10 miles west of Villa Grove.            Discharges, c.f.s.: June 29, 11.0; July 15, 8.49; July 20, 5.87.</p>
11-45-6	<p>Saguache Creek near Saguache, Colo. (427).            Sec. 11, T.45N., R.6E., N.M.P.M.; 10-1/2 miles northwest of Saguache.            Discharges, c.f.s.: July 13, 58.0; July 20, 42.8.</p>



San Luis Valley, Colorado, Surface Waters

(Conductance)

Date 1936	G.H.	Kx10 <sup>5</sup> @25°C	Date 1936	G.H.	Kx10 <sup>5</sup> @25°C	Date 1936	G.H.	Kx10 <sup>5</sup> @25°C	Date 1936	G.H.	Kx10 <sup>5</sup> @25°C	Index No.
7- 8	0.95	9.1	7-15	1.31	7.8	7-22	1.17	8.5	7-29	1.48	7.7	5-43-12
8- 5	2.21	6.9	8-12	1.28	8.0	8-19	1.04	8.5	8-26	1.01	8.6	
9- 2	1.10	8.3	9-12	1.04	8.8	9-16	0.93	9.1	9-23	0.84	9.9	
9-30	0.83	9.9	10- 7	0.80	9.8	10-14	0.83	10.0	10-21	0.85	9.3	
10-28	0.82	9.8	11- 4	0.87	10.0	11-11	0.73	7.4	11-18	0.74	10.4	
11-24	0.78	10.4	12- 2	0.78	10.1							
7- 1	1.12	6.0	7- 8	1.00	6.4	7-15	1.26	5.4	7-22	1.03	6.1	28-1-1
7-29	1.51	4.9	8- 5	1.76	4.6	8-12	1.43	5.4	8-19	1.35	5.8	
8-26	1.35	5.7	9- 2	1.41	5.4	9-12	1.29	5.8	9-16	1.15	6.2	
9-23	1.02	6.7	9-30	1.03	6.8	10- 7	1.01	6.7	10-14	1.02	6.8	
10-21	0.99	6.4	10-28	0.96	6.8	11- 4	1.01	7.0	11-11	0.90	7.3	
11-18	0.90	7.2	11-24	0.92	7.3	12- 2	0.85	7.3				
7- 9	0.87	31.8*	7-15	0.94	33.4	7-22	1.03	34.7	7-30	1.28	30.8	23-30-72
8- 5	2.21	23.6	8-12	1.32	30.9	8-19	1.20	30.5	8-26	1.04	34.8	
9- 2	1.64	37.1	9- 9	1.39	39.2	9-16	1.31	40.2	9-23	1.31	39.5	
9-30	1.90	34.6	10- 7	1.55	33.6	10-14	1.53	32.7	10-21	1.56	31.0	
10-28	1.55	30.3	11- 4	1.49	32.2	11-11	1.30	31.8	11-18	1.33	29.9	
11-25	1.51	32.8	12- 2	2.00	33.0							
6-24	0.47	15.9	7-10	0.45	15.6*	7-15	0.41	16.4	7-22	0.37	16.0	31-30-71
7-30	0.45	16.4	8- 5	0.86	14.0	8-12	0.74	14.3	8-19	0.60	14.5	
8-26	0.48	15.1	9- 2	0.49	15.1	9- 9	0.46	15.1	9-16	0.44	15.2	
9-23	0.47	16.5	9-30	0.51	16.6	10- 8	0.52	15.6	10-14	0.58	15.5	
10-21	0.63	14.1	10-28	0.59	14.1	11- 4	0.48	15.9	11-11	0.56	14.3*	
11-18	0.53	13.5	11-25	0.37	14.5	12- 2	0.43	13.9				
6-24	0.75	33.4	7-10	0.76	33.7*	7-15	0.41	35.3	7-22	0.37	36.1	5-31-73
7-30	0.63	31.2	8- 5	0.72	26.4	8-12	0.92	29.2	8-19	1.00	25.0	
8-26	1.12	24.8	9- 2	1.80	24.5	9- 9	0.93	24.5	9-16	0.42	32.7	
9-23	0.40	35.8	9-30	0.44	33.4	10- 8	0.64	28.5	10-14	0.57	29.8	
10-21	1.32	27.9	10-28	1.51	27.6	11- 4	1.45	28.1	11-11	1.50	28.5*	
11-18	1.52	28.2	11-25	1.23	28.2	12- 2	1.08	27.9				
6-23	0.42	22.4	7- 1		18.6	7-16	1.78	20.1*	7-21		20.8	35-3-72
7-22	1.69	21.5	7-27		23.6	8-16	2.01	25.3	8-12	0.78	13.3	
8-19	1.18	13.3	8-26	0.64	13.5	9- 2	1.01	14.8	9- 9		16.6	
9-16	0.76	15.9	9-23	0.85	14.2	9-30	0.86	17.1	10- 8	0.75	16.2	
10-14	0.84	17.3	10-21	0.72	18.3	10-28	0.76	18.1	11- 4	1.20	15.8	
11-11	1.13	15.4	11-18	0.71	19.2	11-25	0.73	19.3	12- 2	0.74	9.2	
6-29	1.70	20.3	7- 6	1.61	21.6	7-15		24.1	7-20	1.56	24.6	7-46-8
7-27	1.53	35.1	8- 3	1.97	20.2	8-10	2.03	20.2	8-17	1.86	64.1	
8-24	1.80	22.2	8-31	1.70	24.1	9- 8	1.66	22.5	9-14	1.61	25.3	
9-21	1.56	27.9	9-28	1.59	30.9	10- 5	1.56	28.9	10-12	1.53	29.6	
10-19	1.52	30.9	10-26	1.58	31.3	11- 9	1.69	33.7	11-16	1.49	33.8	
11-23	1.59	32.3	11-30	1.50	43.4							
6-29		12.2	7-13	0.80	12.8	7-20	0.66	12.6	7-27	0.53	12.9	11-45-6
8- 3	0.89	12.3	8-10	0.91	12.3	8-17	0.73	11.5	8-24	0.76	12.0	
8-31	0.83	11.9	9- 8	0.61	12.5	9-14	1.59	13.5	9-21	0.58	13.5	
9-28	0.75	13.2	10- 5	0.68	13.6	10-12	0.60	13.9	10-19	0.57	13.7	
10-26	0.71	14.6	11- 9	0.74	14.0	11-16	0.53	16.2	11-23	0.55	13.9	
11-30	0.50	15.4										

\* Detailed analysis

San Luis Valley, Colorado, Surface Waters - 2 -

(Conductance)

Index No.	Location and Description
26-42-6	Carnero Creek near La Garita, Colo. (426). Sec. 26, T.42N., R.6E., N.M.P.M.; at O'Dell Ranch 3 miles northwest of La Garita. Discharges, c.f.s.: June 29, 9.81; July 6, 4.35; July 13, 4.63; July 20, 10.25.
10-41-6	La Garita Creek near La Garita, Colo. (425). Sec. 10, T.41N., R.6E., N.M.P.M.; just below mouth of canyon, 4 miles southwest of La Garita. Discharges, c.f.s.: June 29, 10.8; July 6, 5.20; July 13, 5.78; July 20, 5.03.
8-41-1	Rio Grande at Wason, Colo. (401). NE 1/4 sec. 8, T.41N., R.1E., N.M.P.M.; at Wason siding 3 miles southeast of Creede.
30-40-5	Rio Grande near Del Norte, Colo. Sec. 30, T.40N., R.5E., N.M.P.M.; 6 miles west of Del Norte. Zero of gage is 7,982.21 feet above sea level. Samples by Colorado State Engineer; analyses by U.S.B.P.I. Discharges, c.f.s.: May 3, 2374; May 10, 1514.
24-39-7	Rio Grande near Monte Vista, Colo. (402). Sec. 24, T.39N., R.7E., N.M.P.M.; at highway bridge 2 miles north of Monte Vista. Zero of gage is 7,656.78 feet above sea level.
10-37-10	Rio Grande at Alamosa, Colo. (403). Sec. 10, T.37N., R.10E., N.M.P.M.; 1/4 mile northwest of city limits. Zero of gage is 7,533.66 feet above sea level.
35-36-11	Rio Grande above mouth of Trinchera Creek near La Sansas, Colo. (404). Sec. 35, T.36N., R.11E., N.M.P.M.; 1/4 mile above mouth of Trinchera Creek. Discharges, c.f.s.: July 13, 6.90; July 27, 13.14.
22-33-11	Rio Grande near Lobatos, Colo. Sec. 22, T.33N., R.11E., N.M.P.M.; 6 miles north of Colorado-New Mexico line and 10 miles east of Lobatos. Zero of gage is 7,426.79 feet above sea level. Samples by Colorado State Engineer; analyses by U.S.B.P.I. Discharges, c.f.s.: May 20, 1794; June 17, 117.
4-39-3	South Fork near South Fork, Colo. (405). Sec. 4, T.39N., R.3E., N.M.P.M.; 1-1/2 miles southwest of South Fork. Nearest tributary, Church Creek, enters 1/4 mile upstream. Zero of gage is 8,221.79 feet above sea level.
29-39-5	Pinos Creek near Del Norte, Colo. (406). Sec. 29, T.39N., R.5E., N.M.P.M.; below Bennett Creek, 8 miles southwest of Del Norte. Discharge, c.f.s.: July 16, 11.73.

San Luis Valley, Colorado, Surface Waters - 2 -

(Conductance)

Date 1936	G.H.	Kr105 @25°C	Date 1936	G.H.	Kr105 @25°C	Date 1936	G.H.	Kr105 @25°C	Date 1936	G.H.	Kr105 @25°C	Index No.
6-29	0.51	17.9	7-6	0.39	16.0	7-13	0.39	17.7	7-20	0.42	15.8	26-42-6
7-27	0.11	18.6	8-3	0.365	16.7	8-10	0.65	14.3	8-17	0.50	14.6	
8-24	0.80	12.9	8-31	0.76	13.8	9-14	0.40	14.0	9-8	0.47	13.6	
9-21	0.34	14.5	9-28		14.6	10-5	0.37	15.9	10-12	0.30	16.3	
10-19	0.29	16.3	10-26	0.34	16.9	11-9	0.26	20.1*	11-16	0.43	18.2	
11-23	0.14	20.5	11-30	0.29	19.1							
6-29	0.43	10.0	7-6	0.29	10.4	7-13	0.29	11.9	7-20	0.29	10.8	10-41-6
8-3	0.33	10.9	8-10	0.50	16.2	8-17	0.38	9.9	8-24	0.56	9.1	
8-31	0.77	17.8	9-8	0.40	9.4	9-14	0.365	9.6	9-21	0.34	9.9	
9-28	0.39	9.6	10-5	0.35	9.7	10-12	0.30	10.6	10-19	0.29	11.6	
10-26	0.30	12.1	11-9	0.66	13.3	11-16	0.36	11.6	11-23	0.43	13.0	
11-30	0.45	13.8										
6-23	1.74	7.2	7-9		7.9	7-17	1.42	10.3	7-24	1.09	10.5	8-41-1
8-7	1.36	9.1	8-14	1.34	8.3	8-21	1.45	7.9	8-28	0.97	8.7	
9-4	1.54	7.3	9-18	0.99	8.2	9-25	0.89	8.5	10-11	0.62	10.1	
9-26	0.90	9.2	10-4	0.55	10.1	10-13	0.52	10.4	10-18	0.48	10.5	
10-26	0.52	10.4	11-2	0.46	10.3	11-9	0.24	11.4	11-16	0.40	10.5	
11-30	0.36	11.5										
5-3	3.03	6.54	5-10	2.48	7.27	5-17	3.04	5.99	5-24	3.12	5.59	30-40-5
5-21	3.13	5.99	6-7	2.58	6.40	6-14	2.65	7.74	6-21	2.26	10.1	
6-28	2.04	9.13	7-5	1.60	8.76	7-12	2.26	7.90	7-26	1.03	10.9	
6-30	0.72	11.9	7-7	0.72	11.7	7-22	0.98	11.8	8-1	0.75	13.4	24-39-7
8-6	1.80	13.4	8-12	0.77	12.7	8-20	0.62	13.6	8-27	0.64	14.7	
9-4	1.23	13.1	9-11	0.58	13.4	9-18	0.44	13.7	9-26	0.51	15.8	
10-9	0.76	16.6	10-17	0.83	16.4	10-24	0.75	16.6	10-29	0.64	16.4	
11-6	1.29	15.0	11-13	1.23	14.8	11-20	1.27	13.8	11-28	1.39	15.4	
12-4	1.12	16.5*										
7-24	0.83	22.3	8-1		24.3	8-8	2.08	19.3	8-15	0.61	36.0	10-37-10
9-1	0.53	40.4	9-4	0.55	38.2	9-11	0.51	36.5	9-18	0.43	39.2	
9-26	0.43	40.2	10-6	0.71	33.1	10-17	0.52	35.2	10-31	0.40	40.2	
11-6	1.30	18.6	11-13	1.79	17.7	11-20	1.95	16.6	11-28	2.02	17.4	
12-4	1.87	18.7										
7-6		85.3	7-13	0.86	86.3	7-20	0.87	93.0	7-27	0.86	76.0	35-36-11
8-3	0.87	66.0	8-8	1.66	49.9	8-10	2.23	39.3	8-17	1.46	57.8	
8-24	1.76	51.6	8-31	1.49	63.5	9-14	1.44	61.3	9-21	1.41	62.6	
9-28	1.59	56.5	10-5	1.82	53.3	10-12	1.77	57.4	10-19	1.71	59.2	
10-26	1.77	59.2	11-2	1.45	63.1	11-9	2.62	33.7	11-16	1.74	30.6	
11-23	2.72	31.0	11-30	1.67	32.1							
5-6		13.8	5-14	2.45	24.3	5-20	3.08	16.3	6-3	1.95	28.9	22-33-11
6-10	1.51	56.4	6-17	1.06	64.7	7-2	0.64	70.9	7-8	0.56	61.6	
7-16	0.60	57.3	7-29	0.55	54.5	7-27	2.17	23.8				
6-25	2.25	5.8	7-23	1.42	7.6	8-7	2.13	6.6	8-13	1.74	6.6	4-39-3
8-28	1.57	7.2	9-3	2.48	5.5	9-18	1.47	6.9	9-25	1.35	7.8	
10-1	1.55	7.7	10-8	1.50	7.5	10-15	1.36	8.2	10-22	1.45	8.2	
10-29		7.8	11-5	1.75	7.4	11-12	1.64	7.5	11-19	1.58	7.3	
11-27	1.39	8.2	12-3	1.84	7.7							
6-29		10.6	7-16	0.34	11.4	7-23	0.32	11.7	8-7	0.61	10.9	29-39-5
8-13	0.52	10.4	8-20	0.67	10.7	8-28	0.78	9.0	9-3	0.70	10.8	
9-17	0.38	11.0	9-25	0.32	Broken	10-1	0.37	11.4	10-8	0.31	11.5	
10-15	0.33	11.5	10-22	0.22	12.2	10-29	0.25	10.4	11-6	0.32	10.1	
11-13	0.72	12.3	11-19	0.35	11.5	11-27	0.47	11.8	12-4	0.62	12.5	

\* Detailed analysis

San Luis Valley, Colorado, Surface Waters - 3 -

(Conductance)

<u>Index No.</u>	<u>Location and Description</u>
36-38-6	Rock Creek near Monte Vista, Colo. (409). SE 1/4 sec. 36, T.38N., R.6E., N.M.P.M.; 11 miles southwest of Monte Vista. Discharges, c.f.s.: June 29, 3.24; July 23, 4.92.
7-37-10	Rock Creek near Alamosa, Colo. (410). SE 1/4 sec. 7, T.37N., R.10E., N.M.P.M.; below Hickory Ditch 2-1/2 miles west of Alamosa.
1-37-7	Spring Creek, south of Monte Vista, Colo. (410a). Sec. 1, T.37N., R.7E., N.M.P.M.; 7 miles south of Monte Vista at bridge on Gunbarrel Road. No gage.
23-36-6	Alamosa Creek below Terrace Reservoir (414). Sec. 23, T.36N., R.6E., N.M.P.M.; 1/2 mile below Terrace Reservoir. Discharges, c.f.s.: June 30, 212; July 23, 74.3.
32-34-7	La Jara Creek near Capulin, Colo. (415). Sec. 32, T.34N., R.7E., N.M.P.M.; 12 miles southwest of Capulin. Discharges, c.f.s.: June 30, 9.55; July 23, 38.1.
6-35-10	La Jara Creek below Empire Canal near Sanford, Colo. (416). Sec. 6, T.35N., R.10E., N.M.P.M.; 120 feet below diversion of Empire Canal; 3 miles north of Sanford, Colo.
34-33-7	Conejos River near Mogote, Colo. (421). Sec. 34, T.33N., R.7E., N.M.P.M.; at Broils bridge 5 miles west of Mogote, Colo. Discharges, c.f.s.: July 7, 124; July 28, 107.6.
2-35-11	Conejos River near La Sauses, North Channel. (422). Sec. 2, T.35N., R.11E., N.M.P.M.; 50 feet below highway bridge; 1/2 mile above mouth. Discharges, c.f.s.: July 13, 108; July 27, 0.685.
34-32-8	Los Pinos River near Ortiz (424). Sec. 34, T.32N., R.8E., N.M.P.M.; 3 miles southwest of Ortiz. Discharges, c.f.s.: July 7, 28.3; July 28, 28.3.

San Luis Valley, Colorado, Surface Waters - 3 -

(Conductance)

Date 1936	G.H.	Kx10 <sup>5</sup> @25°C	Date 1936	G.H.	Kx10 <sup>5</sup> @25°C	Date 1936	G.H.	Kx10 <sup>5</sup> @25°C	Date 1936	G.H.	Kx10 <sup>5</sup> @25°C	Index No.
6-29	0.43	7.8	7-16		7.0	7-23	0.29	7.1	8- 1	0.41	6.8	36-38-6
8- 7	0.89	8.2	8-13	0.58	7.5	8-20	1.00	13.1	8-27	0.50	7.4	
9- 3	0.54	7.3	9-10	0.31	6.9	9-17	0.30	6.8	9-24	0.25	7.8	
9-30	0.29	7.9	10- 9	0.26	7.3	10-15	0.26	7.8	10-22	0.19	7.7	
10-29	0.36	7.4	11- 5	0.32	7.5	11-12	0.30	7.5*	11-19	0.35	7.0	
11-27	0.33	7.4	12- 3	0.59	7.3							
7- 7		65.9	7-15		50.2	8-11	0.95	64.3	8-18	0.79	59.6	7-37-10
8-25	0.82	51.1	9- 1	0.78	56.5	9- 9	0.68	47.0	9-15	0.61	48.0	
9-22	0.64	46.3	9-29	1.08	106.0	10- 6	1.14	70.2	10-13	1.02	57.3	
10-20	1.06	51.6	10-27	1.03	64.6	11- 5	0.92	53.9	11-10	0.94	52.2*	
11-17	1.00	50.1	11-24	0.75	50.2	12- 1	1.05	47.8				
7-20	--	33.0	8-17	--	24.0	9-16	--	30.4	11-13	--	35.4	1-37-7
10-19	--	38.0										
6-30	2.58	12.0	7-16	2.24	14.8	7-23	2.05	15.6	8- 7	1.91	17.7	23-36-6
8-13	2.37	15.8	8-20	2.38	16.7	8-27	2.43	17.1	9- 3	1.59	16.7	
9-10	2.25	17.1	9-17	2.08	18.3	9-24	1.86	19.9	9-30	1.78	21.0	
10- 9	1.70	20.7	10-15	1.71	21.6	10-22	1.71	21.5	10-29	1.70	21.6	
11- 5	1.74	22.8	11-12	1.74	22.9	11-19	1.74	23.0	11-27	1.74	23.7	
12- 3	1.75	24.2										
6-30	1.59	15.4	7-16	2.11	10.6	7-23	2.11	10.6	8- 7		15.5	32-34-7
8-13	1.52	16.2	8-20	2.17	16.9	8-27	1.47	16.3	9- 3	1.52	16.2	
9-10	1.46	16.1	9-17	1.47	15.9	9-24	1.50	15.9	9-30	1.68	15.6	
10- 9	1.72	15.3	10-15	1.53	16.4	10-22	1.65	15.4	10-29	1.61	15.2	
11- 5	1.97	16.4	11-12	1.80	16.1	11-21	1.79	15.6	11-27	1.84	16.1	
12- 3	1.88	16.6										
7- 7		42.0	7-14		42.4	7-21		36.1	7-29		33.1	6-35-10
8- 4	0.74	32.1	8-11	1.80	24.6	8-18	0.82	32.7	8-25	1.00	30.1	
9- 1	0.80	33.4	9- 9	0.79	30.9	9-15	0.97	30.9	9-22	1.05	32.2	
9-29	2.49	30.9	10- 7	1.89	32.7	10-13	2.31	30.5	10-20	2.34	31.7	
10-27	2.45	30.7	11- 3	2.50	30.1	11-10	2.38	31.2	11-17	2.42	29.8	
11-24	2.08	32.0	12- 1	2.24	31.9							
7- 7	1.91	7.5	7-21	1.79	7.7	7-28	1.81	7.8	8- 4	1.97	7.7	34-33-7
8-11		6.2	8-18	2.01	7.5	8-25	1.97	7.4	9- 1	2.21	6.5	
9- 9	1.94	7.3	9-15	1.83	7.6	9-22	1.81	7.8	9-26	2.01	7.2	
10- 6	2.11	7.5	10-13	1.98	7.5	10-22	2.03	7.4	10-27	1.91	7.8	
11- 3	1.75	8.5	11-10	1.91	8.1*	11-17	1.92	7.9	11-25	1.69	8.4	
12- 1	1.76	8.2										
7- 6		22.4	7-13	0.23	21.9	7-20	0.19	22.3	7-27	0.20	23.4	2-35-11
8- 3	0.25	20.7	8-10	0.91	17.1	8-17	0.54	19.7	8-24	0.80	18.7	
8-31	0.63	19.3	9- 8	0.64	16.4	9-14	1.45	19.0	9-21	1.61	19.3	
9-28	0.76	17.6	10- 5	0.96	16.1	10-12	0.97	15.1	10-19	0.89	17.4	
10-26	0.91	17.1	11- 2	1.05	14.8	11- 9	1.06	14.9*	11-16	1.02	15.3	
11-23	0.98	16.3	11-30	0.96	16.2							
7- 7	0.80	8.1	7-14	0.88	8.7	7-21	0.76	8.6	7-28	0.80	8.6	34-32-8
8- 4	0.93	11.4	8-11		8.4	8-18	0.83	8.9	8-25	0.79	9.1	
9- 1	1.01	7.8	9- 9	0.78	8.4	9-15	0.74	8.4	9-22	0.75	8.6	
9-29	0.88	7.9	10- 6	1.03	7.4	10-13	0.93	7.9	10-20	1.325	7.0	
10-27	1.01	7.6	11- 3	1.88	9.9	11-10	0.84	8.2	11-17	0.86	7.9	
11-25	0.98	8.7	12- 1	1.26	8.2							

\* Detailed analysis

San Luis Valley, Colorado, Surface Waters - 4 -

(Conductance)

<u>Index No.</u>	<u>Location and Description</u>
<u>Drains:</u>	
20-44-10	Hall Drain, north of Moffat, Colo. (428a). Sec. 20, T.44N., R.10E., N.M.P.M.; 3 miles north of Moffat, Colo., at well (6M19B1---X-21).
27-41-8	Gibson Drain near Center, Colo. (426a). Sec. 27, T.41N., R.8E., N.M.P.M.; 2-1/2 miles northeast of Center, Colo., at well (10K27A1---D-11).
19-40-11	Farmers Union Drain near Hooper, Colo. (431). Sec. 19, T.40N., R.11E., N.M.P.M.; at county road crossing 6 miles southeast of Hooper. Discharges, c.f.s.: July 17, 0.41; July 24, 0.42; July 30, 0.97.
24-40-9	San Luis Valley Irrigation District Drain, South Fork, northwest of Mosca, Colo. (430a). Sec. 24, T.40N., R.9E., N.M.P.M.; 4 miles northwest of Mosca, Colo.
20-40-10	San Luis Valley Irrigation District Drain, South Fork. (430b). Sec. 20, T.40N., R.10E., N.M.P.M.; 3 miles northwest of Mosca, Colo., 1-1/2 miles east of 430a.
20-40-10	San Luis Valley Irrigation District Drain, North Fork. (430c). Sec. 20, T.40N., R.10E., N.M.P.M.; 3 miles northwest of Mosca, Colo., 1-1/2 miles east of 430a.
34-40-11	San Luis Valley Irrigation District Drain near mouth. (432). Sec. 34, T.40N., R.11E., N.M.P.M.; about 1 mile west of San Luis Lake at bridge on road to north end of lake.
26-40-11	San Luis Lake, north end. (433). Sec. 26, T.40N., R.11E., N.M.P.M.; at north end of San Luis Lake near well (11N26B1---R-2).
35-40-11	San Luis Lake, south end. (434). In NW1/4 of SW1/4 sec. 35, T.40N., R.11E., at south end of San Luis Lake near well (11N35L---S-1).
34-39-9	Rio Grande Drain near Monte Vista, Colo. (407). Center south line of sec. 34, T.39N., R.9E., N.M.P.M.; about 9 miles east of Monte Vista.
12-37-8	Bowen Drain near Monte Vista, Colo. (408). Sec. 12, T.37N., R.8E., N.M.P.M.; 50 feet below siphon crossing of Empire Canal, 11 miles southeast of Monte Vista.
26-38-9	Bowen Drain, at highway, 5 miles northwest of Alamosa, Colo. (408a). Sec. 26, T.38N., R.9E., N.M.P.M.; 5 miles northwest of Alamosa at highway bridge. No gage.
29-37-10	Waverly Drain near Alamosa, Colo. (412). Sec. 29, T.37N., R.10E., N.M.P.M.; about 3 miles south of Alamosa, at highway crossing from Alamosa to La Jara. No gage.
32-37-10	Carmel Drain near Alamosa, Colo. (411). Sec. 32, T.37N., R.10E., N.M.P.M.; about 2-1/2 miles south of Alamosa, at highway crossing from Alamosa to La Jara, Colo. No gage.

San Luis Valley, Colorado, Surface Waters - 4 -

(Conductance)

Date 1936	G.H.	Kx10 <sup>3</sup> @25°C	Date 1936	G.H.	Kx10 <sup>3</sup> @25°C	Date 1936	G.H.	Kx10 <sup>3</sup> @25°C	Date 1936	G.H.	Kx10 <sup>3</sup> @25°C	Index No.
8-21	--	49.3	11-19	--	61.1							20-44-10
8-18	--	34.5	11-18	--	29.6							27-41-8
7-17	1.14	57.2	7-24	1.15	67.8	7-30	1.23	59.8	8-8	2.18	58.7	19-40-11
8-14	1.58	56.2	8-21	1.42	61.2	8-28	1.37	60.9	9-4	1.49	58.0	
9-11	1.43	56.5	9-18	1.38	59.2	10-2	1.82	44.0	10-10	1.80	41.5	
10-16	1.78	41.4	10-23	1.79	39.6	10-30	1.82	39.7	11-6	1.79	40.0	
11-13	1.83	40.2*	11-21	1.79	41.7	11-28	1.98	39.5	12-4	2.11	39.3	
9-22	--	51.8	11-19	--	44.2							24-40-9
9-22	--	53.5	11-19	--	46.6							20-40-10
9-23	--	41.7	11-19	--	39.8							20-40-10
8-14	--	56.3	9-24	--	46.5	11-9	--	39.8				34-40-11
8-14	0.21	108	9-24		101	11-23	0.73	78.2				26-40-11
9-24		63.9	11-14	1.25	97.2							35-40-11
7-24	--	56.9	7-27	--	52.1	8-8	--	29.8	8-12	--	32.5	34-39-9
8-22	--	33.6	8-27	--	47.6	9-4	--	32.8	9-11	--	55.4	
9-16	--	28.0	9-26	--	28.9	10-29	--	27.5	11-7	--	29.2	
11-21	--	28.9	11-10	--	29.7	12-2	--	28.6				
7-7		92.4*	7-15		85.2	7-29	0.64	88.9	8-11	0.77	83.0	12-37-8
8-25	0.57	56.4	9-9	0.37	61.1	9-15	0.40	60.2	9-22	0.39	72.0	
9-29	0.49	67.9	10-6	0.60	67.7	10-13	0.60	67.9	10-20	0.62	65.1	
10-27	0.64	59.5	11-3	0.65	59.3	11-10	0.64	64.9	11-17	0.66	64.3	
11-24	0.66	62.6	12-1	0.63	64.8							
9-22	--	87.4	11-16	--	89.7							26-38-9
7-20	--	158.1	7-27	--	132.4	8-8	--	124	8-15	--	155	29-37-10
8-25	--	136	9-5	--	96.0	9-9	--	111	9-15	--	127	
9-22	--	157	9-29	--	130	10-6	--	164	10-13	--	157	
10-20	--	169	10-27	--	160	11-10	--	168*	11-25	--	162	
11-26	--	186	11-25	--	172	12-1	--	168				
7-20	--	161.3	7-27	--	126.2	8-8	--	102	8-15	--	108	32-37-10
8-25	--	97.0	9-5	--	92.9	9-9	--	88.1	9-15	--	97.4	
9-22	--	93.5	9-29	--	95.3	10-6	--	88.5	10-13	--	86.0	
10-20	--	94.3	10-27	--	93.6	11-10	--	89.4	11-26	--	92.6	
11-25	--	91.1	12-2	--	86.9							

\* Detailed analysis

San Luis Valley, Colorado, Surface Waters - 5 -

(Conductance)

<u>Index No.</u>	<u>Location and Description</u>
25-36-9	Morgan Drain near La Jara, Colo. (413). Sec. 25, T.36N., R.9E., N.M.P.M.; about 4 miles north of La Jara, at highway crossing between Alamosa and La Jara. No gage.
8-35-10	La Jara Drain near Sanford, Colo. (417). Sec. 8, T.35N., R.10E., N.M.P.M.; 400 feet above crossing of Empire Canal; 2 miles north of Sanford.



San Luis Valley, Colorado, Surface Waters - 5 -

(Conductance)

Date 1936	G.H.	Kx10 <sup>5</sup> @25°C	Date 1936	G.H.	Kx10 <sup>5</sup> @25°C	Date 1936	G.H.	Kx10 <sup>5</sup> @25°C	Date 1936	G.H.	Kx10 <sup>5</sup> @25°C	Index No.
7-27	- -	245.9	8-6	- -	205	8-15	- -	226	8-25	- -	151	25-36-9
9-5	- -	198	9-9	- -	222	9-15	- -	240	9-22	- -	219	
9-29	- -	150	10-6	- -	144	10-13	- -	126	10-20	- -	143	
10-27	- -	150	11-10	- -	168	11-25	- -	162	12-1	- -	165	
7-7	- -	84.6*	7-14	1.61	77.9	7-21	1.33	68.6	7-29	1.17	87.1	8-35-10
8-4	1.07	88.8	8-11	1.21	80.0	8-18	1.02	78.0	8-25	1.03	79.8	
9-1	0.90	83.0	9-9	0.70	81.7	9-15	0.70	82.4	9-22	0.67	76.7	
9-29	0.57	78.0	10-7	0.71	84.4	10-13	0.58	81.7	10-20	0.52	80.8	
10-27	0.54	81.7	11-3	0.53	80.7	11-10	0.53	82.0	11-17	0.51	75.8	
11-24	0.49	81.1	12-1	0.49	75.4							

\* Detailed analysis

82343 O-38-5

San Luis Valley, Colorado, Ground Waters

(Conductance)

Index No.	Location and Description
<p>Note: The elevations in the following list are referred to sea level datum. Those given for the wells established by the States of Colorado and New Mexico are from traverses by the engineers of those States, adjusted by the Geological Survey to conform to the 1929 General Adjustment of the First Order Level Net. The other elevations and the samples and analyses are by the Geological Survey.</p>	
32-45-10	Shallow well (6M32N1---X-25) In SW1/4 of SW1/4 sec. 32, T.45N, R.10E. Elev. R.P. 7,624.71 ft.
26-44-8	Shallow well (6K26E1) In SW1/4 of NW1/4 sec. 26, T.44N, R.8E. Temp. 7-22, 57.5°F.
1-44-9	Shallow well (6L1D1) In NW1/4 of NW1/4 sec. 1, T.44N, R.9E. Temp. 7-22, 63°F.
4-44-9	Glascow well (6N4B1) In NW1/4 of NE1/4 sec. 4, T.44N, R.9E. Depth 19.5 ft.; diam. 6 ft.x 6 ft. Not artesian. Temp. 7-22, 55°F.
19-44-9	Shallow well (6L19H1) In SE1/4 of NE1/4 sec. 19, T.44N, R.9E.
28-44-9	Shallow well (6L28N1) In SW1/4 of SW1/4 sec. 28, T.44N, R.9E.
3-44-10	Shallow well (6M3B1) In NW1/4 of NE1/4 sec. 3, T.44N, R.10E.
6-44-10	Shallow well (6M6R1---X-24) In SE1/4 of SE1/4 sec. 6, T.44N, R.10E. Elev. R.P. 7,610.38 ft. Temp. 7-22, 56.5°F.
7-44-10	Shallow well (6M7R1---X-23) In SE1/4 of SE1/4 sec. 7, T.44N, R.10E. Elev. R.P. 7,598.75 ft.
19-44-10	Shallow well (6M19A1---X-22) In NE1/4 of NE1/4 sec. 19, T.44N, R.10E. Elev. R.P. 7,589.46 ft. Temp. 7-22, 53°F.
19-44-10	Shallow well (6M19R1)---X-21) In SE1/4 of SE1/4 sec. 19, T.44N, R.10E. Elev. R.P. 7,580.47 ft. Temp. 7-22, 61°F.
26-44-10	Shallow well (6M26M1) In NW1/4 of SW1/4 sec. 26, T.44N, R.10E.
30-44-10	Shallow well (6M30R1---X-20) In SE1/4 of SE1/4 sec. 30, T.44N, R.10E. Elev. R.P. 7,574.20 ft. Temp. 7-21, 58°F.
31-44-10	Shallow well (6M31R1---X-19) In SE1/4 of SE1/4 sec. 31, T.44N, R.10E. Elev. R.P. 7,566.89 ft. Temp. 7-22, 57°F.
31-44-11	Shallow well (6N31D1) In NW1/4 of NW1/4 sec. 31, T.44N, R.11E.
1-43-8	Shallow well (7K1R1---E-8) In SE1/4 of SE1/4 sec. 1, T.43N, R.8E. Elev. R.P. 7,579.89 ft.
1-43-8	Shallow well (7K1N1---E-9) In SW1/4 of SW1/4 sec. 1, T.43N, R.8E. Elev. R.P. 7,584.97 ft.
3-43-8	Shallow well (7K3N1---E-11) In SW1/4 of SW1/4 sec. 3, T.43N, R.8E. Elev. R.P. 7,597.31 ft.
4-43-8	Shallow well (7K4N1---E-12) In SW1/4 of SW1/4 sec. 4, T.43N, R.8E. Elev. R.P. 7,602.99 ft.

## San Luis Valley, Colorado, Ground Waters

(Conductance)

Date 1936	Elev. W.S.	Kr105 @25°C	Date 1936	Elev. W.S.	Kr105 @25°C	Date 1936	Elev. W.S.	Kr105 @25°C	Date 1936	Elev. W.S.	Kr105 @25°C	Index No.
7-22	7619.45	no water	9-19	7619.85	95.2	11-19	7620.52	86.4				32-45-10
7-22		86.8*	9-19		75.2	11-20		112.0				26-44-8
7-22		82.8	9-19		64.0	11-20		47.2				1-44-9
7-22		28.5	9-19		28.4	11-20		29.9				4-44-9
11-20		101.0										19-44-9
11-20		62.7										28-44-9
7-22		76.5	9-19		141.0	11-20		232.0				3-44-10
7-22	7605.93	86.8	9-19	7605.38	90.7	11-19	7606.65	89.7				6-44-10
9-19	7594.58	106.0	11-19	7594.88	140.0*							7-44-10
7-22	7585.18	109.0	8-21	7584.88	90.4	9-19	7584.86	92.0	11-19	7585.10	89.6	19-44-10
7-22	7576.10	308.0	8-21	7576.53	326.0	9-19	7576.57	320.0	11-19	7577.74	312.0	19-44-10
8-6		333.0	9-18		273.0	11-19		221.0				26-44-10
8-21	7569.21	114.0	9-19	7569.50	107.0	11-19	7570.11	109.0				30-44-10
7-22	7561.17	174.0	9-19	7561.84	147.0	11-19	7562.43	144.0				31-44-10
8-6		45.6	9-18		38.3	11-19		79.9				31-44-11
7-21	7575.53	69.7	9-19	7575.89	79.5	11-20	7576.21	60.6				1-43-8
7-21	7580.82	72.0	11-20	7582.13	77.6							1-43-8
7-21	7593.34	84.0	9-19	7594.05	64.0	11-20	7594.44	47.0				3-43-8
9-19	7599.10	146.0	11-20	7601.08	155.0*							4-43-8

\*Detailed analysis

San Luis Valley, Colorado, Ground Waters - 2 -

(Conductance)

Index No.	Location and Description
6-43-8	Shallow well (7K6N1---E-14) In SW1/4 of SW1/4 sec. 6, T.43N, R.8E. Elev. R.P. 7,638.17 ft.
7-43-8	Shallow well (7K7A1---E-13) In NE1/4 of NE1/4 sec. 7, T.43N, R.8E. Elev. R.P. 7,610.65 ft. Flowing well 30 ft. east.
10-43-8	Shallow well (7K10A1---E-10) In NE1/4 of NE1/4 sec. 10, T.43N, R.8E. Elev. R.P. 7,591.14 ft.
16-43-8	Shallow well (7K16R1) In SE1/4 of SE1/4 sec. 16, T.43N, R.8E. Temp. 7-21, 64°F.
25-43-8	Shallow well (7K25A1) In NE1/4 of NE1/4 sec. 25, T.43N, R.8E.
30-43-8	Shallow well (7K30D1) In NW1/4 of NW1/4 sec. 30, T.43N, R.8E. Elev. R.P. 7,584.96 ft. Temp. 7-21, 67°F.
33-43-8	Shallow well (7K33R1) In SE1/4 of SE1/4 sec. 33, T.43N, R.8E. Temp. 7-21, 57°F.; 9-19, 62°F.
1-43-9	Shallow well (7L1R1---E-2) In SE1/4 of SE1/4 sec. 1, T.43N, R.9E. Elev. R.P. 7,588.89 ft.
2-43-9	Shallow well (7L2R1---E-3) In SE1/4 of SE1/4 sec. 2, T.43N, R.9E. Elev. R.P. 7,567.04 ft.
3-43-9	Shallow well (7L3R1---E-4) In SE1/4 of SE1/4 sec. 3, T.43N, R.9E. Elev. R.P. 7,563.50 ft.
4-43-9	Shallow well (7L4R1---E-5) In SE1/4 of SE1/4 sec. 4, T.43N, R.9E. Elev. R.P. 7,566.69 ft.
5-43-9	Shallow well (7L5R1---E-6) In SE1/4 of SE1/4 sec. 5, T.43N, R.9E. Elev. R.P. 7,571.10 ft.
7-43-9	Shallow well (7L7A1---E-7) In NE1/4 of NE1/4 sec. 7, T.43N, R.9E. Elev. R.P. 7,574.26 ft.
22-43-9	Shallow well (7L22C1) In NE1/4 of NW1/4 sec. 22, T.43N, R.9E.
5-43-10	Shallow well (7M5N1---E-1, F-1, X-18) In SW1/4 of SW1/4 sec. 5, T.43N, R.10E. Elev. R.P. 7,560.28 ft.
5-43-10	Shallow well (7M5R1---F-2) In SE1/4 of SE1/4 sec. 5, T.43N, R.10E. Elev. R.P. 7,559.93 ft. Temp. 11-6, 54°F.
8-43-10	Shallow well (7M8N1---X-17) In SE1/4 of SE1/4 sec. 8, T.43N, R.10E. Elev. R.P. 7,555.85 ft.
10-43-10	Shallow well (7M10D1---F-3) In NW1/4 of NW1/4 sec. 10, T.43N, R.10E. Elev. R.P. 7,559.33 ft.
10-43-10	Shallow well (7M10H1---F-4) In SE1/4 of NE1/4 sec. 10, T.43N, R.10E. Elev. R.P. 7,560.35 ft.
11-43-10	Shallow well (7M11H1---F-5) In SE1/4 of NE1/4 sec. 11, T.43N, R.10E. Elev. R.P. 7,571.07 ft.
12-43-10	Shallow well (7M12A1---F-6) In NE1/4 of NE1/4 sec. 12, T.43N, R.10E. Elev. R.P. 7,587.47 ft.

San Luis Valley, Colorado, Ground Waters - 2 -

(Conductance)

Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Index No.
7-21	7629.91	114.0	8-24	7630.79	152.0	9-19	7630.71	159.0	11-20	7632.26	147.0	6-43-8
7-21	7606.67	150.0	9-19	7607.62	417.0	11-20	7608.15	418.0				7-43-8
9-19	7586.81	92.5	11-20	7587.31	81.0							10-43-8
7-21		69.3	9-19		73.2	11-20		99.9				16-43-8
11-18		70.3										25-43-8
7-21	7584.20	54.0	9-19	7583.17	71.4	11-17	7582.71	no water				30-43-8
7-21		97.6	9-19		97.2	11-17		103.0				33-43-8
8-6	7555.76	251.0	9-19	7555.60	226.0	11-20	7556.19	193.0				1-43-9
7-21	7560.95	57.6	11-20	7561.22	61.8							2-43-9
7-21	7556.93	28.0	11-20	7561.71	16.4							3-43-9
7-21	7560.27	52.1	9-19	7559.99	57.8	11-20	7559.90	51.3*				4-43-9
11-20	7564.32	75.8										5-43-9
7-21	7568.22	69.7	9-19	7568.30	64.2	11-20	7568.82	50.0				7-43-9
7-21		84.3										22-43-9
7-21	7553.74	140.0	9-18	7554.58	96.9	11-19	7555.10	87.7				5-43-10
7-23	7553.03	96.6	9-18	7552.83	116.0	11-6	7553.20	75.7*				5-43-10
7-23	7548.22	162.0	11-19	7548.55	250.0							8-43-10
7-23	7552.93	58.2	9-18	7552.96	58.5	11-19	7553.76	56.2				10-43-10
7-23	7554.52	76.0	9-18	7555.50	171.0	11-19	7555.85	147.0				10-43-10
7-23	7566.20	30.3	9-18	7566.88	30.8	11-19	7568.00	25.1				11-43-10
7-23	7583.15	57.4	9-18	7583.78	113.0	11-19	7584.48	96.7				12-43-10

\*Detailed analysis

San Luis Valley, Colorado, Ground Waters - 3 -

(Conductance)

Index No.	Location and Description
27-43-10	Shallow well (7M2701) In NE1/4 of NW1/4 sec. 27, T.43N, R.10E. Elev. R.P. 7,547.47 ft.
29-43-10	Shallow well (7M2911---X-14) In NE1/4 of SW1/4 sec. 29, T.43N, R.10E. Elev. R.P. 7,544.01 ft.
8-43-11	Shallow well (7M2811---F-7) In SW1/4 of SW1/4 sec. 8, T.43N, R.11E. Elev. R.P. 7,608.43 ft.
10-43-11	Shallow well (7N10R1) In SE1/4 of SE1/4 sec. 10, T.43N, R.11E. Temp. 11-6, 50°F.
1-42-7	Shallow well (9J1R1) In SE1/4 of SE1/4 sec. 1, T.42N, R.7E. Elev. R.P. 7,595.27 ft. Temp. 7-21, 62°F.; 9-19, 60°F.
10-42-7	Shallow well (9J1001) In NE1/4 of NW1/4 sec. 10, T.42N, R.7E. 4 ft. x 4 ft., 11 ft. deep.
22-42-7	L. C. Dappin well (9J2201) In NE1/4 of SE1/4 sec. 22, T.42N, R.7E. Depth 38 ft.; diam. 16 in. Not artesian. Temp. 7-21, 51°F.; 9-19, 59°F.
25-42-7	Shallow well (9J25A1) In NE1/4 of SE1/4 sec. 25, T.42N, R.7E. Elev. R.P. 7,613.69 ft. Temp. 9-19, 64°F.
34-42-7	C. D. Wadsworth well (9J34E1) In SW1/4 of NW1/4 sec. 34, T.42N, R.7E. Depth 17 ft.; diam. 4 ft. x 4 ft. Not artesian. Temp. 7-21, 65°F.; 9-18, 56°F.
12-42-8	Shallow well (9K12A1) In NE1/4 of NE1/4 sec. 12, T.42N, R.8E.
24-42-8	Shallow well (9K24H1) In SE1/4 of NE1/4 sec. 24, T.42N, R.8E.
27-42-9	Shallow well (9L27A1) In NE1/4 of NE1/4 sec. 27, T.42N, R.9E.
33-42-9	Shallow well (9L33F1) In SE1/4 of SW1/4 sec. 33, T.42N, R.9E.
36-42-9	Shallow well (9L36N1) In SW1/4 of SW1/4 sec. 36, T.42N, R.9E.
2-42-10	Shallow well (9M201) In NE1/4 of NW1/4 sec. 2, T.42N, R.10E. Elev. R.P. 7,539.87 ft.
5-42-10	Shallow well (9M5K1---X-13) In NW1/4 of NE1/4 sec. 5, T.42N, R.10E. Elev. R.P. 7,541.96 ft.
5-42-10	Shallow well (9M5K1---X-12) In NW1/4 of SE1/4 sec. 5, T.42N, R.10E. Elev. R.P. 7,542.34 ft.
8-42-10	Shallow well (9M8J1---X-11) In NE1/4 of SE1/4 sec. 8, T.42N, R.10E. Elev. R.P. 7,541.29 ft.
14-42-10	Shallow well (9M14H1) In SE1/4 of NE1/4 sec. 14, T.42N, R.10E.
17-42-10	Shallow well (9M17J1---X-10) In NE1/4 of SE1/4 sec. 17, T.42N, R.10E. Elev. R.P. 7,537.89 ft.
20-42-10	Shallow well (9M20J1---X-9) In NE1/4 of SE1/4 sec. 20, T.42N, R.10E. Elev. R.P. 7,539.62 ft.

San Luis Valley, Colorado, Ground Waters - 3 -

(Conductance)

Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Index No.
11-19	7539.79	79.6										27-43-10
11-19	7534.04	102.0										29-43-10
7-23	7601.24	74.6	9-18	7601.96	56.1	11-19	7602.32	49.9				8-43-11
7-23		33.6	9-18		32.0	11-6		37.4*				10-43-11
7-21	7592.16	48.7	9-19	7592.24	49.3	11-17	7593.45	40.8				1-42-7
7-21		60.8	9-19		84.4	11-17		64.6				10-42-7
7-21		27.1	9-19		32.6	11-17		37.5				22-42-7
8-5	7610.24	68.9	9-19	7610.23	72.9	11-13	7611.56	85.5*	11-17	7611.68	70.9	25-42-7
7-21		41.3	9-18		34.1	11-17		32.8				34-42-7
7-20		123.0	9-17		111.0	11-18		167.0				12-42-8
7-20		95.0	11-18		71.4							24-42-8
9-17		518.0	11-18		694							27-42-9
11-18		213.0										33-42-9
11-18		115.0										36-42-9
7-22	7532.79	141.0	9-18	7533.98	142.0	11-19	7534.49	134.0				2-42-10
11-19	7532.13	72.7										5-42-10
11-19	7531.85	88.0										5-42-10
7-23	7536.86	71.3	11-19	7532.86	82.3							8-42-10
7-22		96.5	11-19		105.0							14-42-10
7-23	7532.90	145.5	9-18	7533.21	149.0	11-19	7533.35	153.0				17-42-10
7-25	7533.35	201.0	9-18	7534.78	223.0	11-19	7534.67	278.0				20-42-10

\*Detailed analysis

San Luis Valley, Colorado, Ground Waters - 4 -

(Conductance)

Index No.	Location and Description
32-42-10	Shallow well (9M32A1---X-8) In NE1/4 of NE1/4 sec. 32, T.42N, R.10E. Elev. R.P. 7,538.75 ft.
32-42-10	Shallow well (9M32B1---X-7) In SE1/4 of SE1/4 sec. 32, T.42N, R.10E. Elev. R.P. 7,540.82 ft.
26-1-1	San Luis Valley Land & Cattle Co. Artesian well (9N26A1) In NE1/4 of SW1/4 sec. 26, T.1S, R.1W. (Baca Grant) Depth unknown. Disch. 5 gpm, estimated. Temp. 11-13, 73°F.
27-1-1	Shallow well (9N27Q1---U.S.G.S. 96) In SW1/4 of SE1/4 sec. 27, T.1S, R.1W. (Baca Grant)
29-1-1	Shallow well (9N29P1---U.S.G.S. 95) In SE1/4 of SW1/4 sec. 29, T.1S, R.1W. (Baca Grant)
30-1-1	Shallow well (9Q30D1---U.S.G.S. 97) In NW1/4 of NW1/4 sec. 30, T.1S, R.1E. (Baca Grant)
27-41-7	Ella Smith Artesian well (10J27A1) In NE1/4 of NE1/4 sec. 27, T.41N, R.7E. Depth 128 ft.; diam. 2 in. Disch. 2 gpm. Temp. 7-22, 53°F.; 9-18, 52°F.
28-41-7	L. M. Gardner estate Artesian well (10J28A1) In NE1/4 of NE1/4 sec. 28, T.41N, R.7E. Depth 135 ft.; diam. 2 in. Temp. 7-22, 50.5°F.; 9-18, 50°F.
33-41-7	Claude Buroket well (10J33M1) In SW1/4 of SW1/4 sec. 33, T.41N, R.7E. 11.5 ft. deep. Elev. R.P. 7,720.18 ft. Temp. 7-17, 51°F.; 9-17, 56°F.
12-41-8	Shallow well (10K12A1) In NE1/4 of NE1/4 sec. 12, T.41N, R.8E.
16-41-8	Shallow well (10K16A1) In NE1/4 of NE1/4 sec. 16, T.41N, R.8E. Temp. 7-21, 68°F.
21-41-8	Shallow well (10K21R1---D-12) In SE1/4 of SE1/4 sec. 21, T.41N, R.8E. Elev. R.P. 7,622.57 ft.
23-41-8	Shallow well (10K23R1---D-10) In SE1/4 of SE1/4 sec. 23, T.41N, R.8E. Elev. R.P. 7,604.58 ft.
27-41-8	Shallow well (10K27A1---D-11) In NE1/4 of NE1/4 sec. 27, T.41N, R.8E. Elev. R.P. 7,612.76 ft. Temp. 8-18, 55°F.
14-41-9	Shallow well (10L14D1) In NW1/4 of NW1/4 sec. 14, T.41N, R.9E.
20-41-9	Shallow well (10L20R1---D-7) In SE1/4 of SE1/4 sec. 20, T.41N, R.9E. Elev. R.P. 7,581.43 ft.
26-41-9	Shallow well (10L26A1---D-4) In NE1/4 of NE1/4 sec. 26, T.41N, R.9E. Elev. R.P. 7,563.32 ft.
27-41-9	Shallow well (10L27A1---D-5) In NE1/4 of NE1/4 sec. 27, T.41N, R.9E. Elev. R.P. 7,569.43 ft. Temp. 8-18, 65°F.
28-41-9	Shallow well (10L28A1---D-6) In NE1/4 of NE1/4 sec. 28, T.41N, R.9E. Elev. R.P. 7,573.68 ft.
30-41-9	Shallow well (10L30A1---D-8) In NE1/4 of NE1/4 sec. 30, T.41N, R.9E. Elev. R.P. 7,588.85 ft.



San Luis Valley, Colorado, Ground Waters - 4 -

(Conductance)

Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Index No.
7-23	7534.60	182.0	9-18	7535.56	137.0	11-19	7535.85	208.0				32-42-10
7-21	7535.96	163.0	9-17	7536.99	113.0	11-19	7537.17	101.0				32-42-10
7-22		103.7	11-13		109.0							26-1-1
7-22		57.9	10-21		88.1	11-16		58.3*				27-1-1
7-22		101.0	10-21		73.7	11-16		52.4				29-1-1
7-22		28.6	10-21		32.3	11-16		24.1				30-1-1
7-22		17.2	9-18		20.5							27-41-7
7-22		17.4	9-18		15.5	10-14		18.2*				28-41-7
7-17	7712.92	29.4	9-17	7713.18	28.9	11-16	7712.59	27.7*				33-41-7
7-20		58.0	11-18		61.6							12-41-8
7-21		38.2	9-19		33.9	11-17		40.6				16-41-8
7-20		43.0	9-17	7617.14	39.0	11-18	7619.70	39.8				21-41-8
7-20	7601.56	33.8	9-17	7600.47	39.6	11-18	7601.64	48.2				23-41-8
7-20	7609.78	59.4	8-18	7609.28	52.3	9-17	7609.20	51.6	11-18	7609.68	52.6	27-41-8
9-17		53.9										14-41-9
7-20	7577.43	202.0	9-17	7578.10	154.0	11-18	7578.63	135.0				20-41-9
7-20	7561.19	83.4	8-18	7560.83	97.6	9-17	7560.09	96.5	11-18	7559.59	107.0*	26-41-9
7-20	7566.52	44.2	8-18	7565.88	52.8	9-17	7565.96	58.8	11-18	7566.00	50.9	27-41-9
7-20	7561.45	146.0	8-18	7561.70	236.0	9-17	7561.63	261.0	11-18	7561.80	179.0	28-41-9
7-20	7584.58	112.0	9-17	7585.44	58.5	11-18	7585.47	70.0				30-41-9

\*Detailed analysis

San Luis Valley, Colorado, Ground Waters - 5 -

(Conductance)

Index No.	Location and Description
30-41-9	Shallow well (10L30D1---D-9) In NW1/4 of NW1/4 sec. 30, T.41N, R.9E. Elev. R.P. 7,595.83 ft.
33-41-9	Shallow well (10L33R1) In SE1/4 of SE1/4 sec. 33, T.41N, R.9E.
2-41-10	Shallow well (10M2A1) In NE1/4 of NE1/4 sec. 2, T.41N, R.10E. Elev. R.P. 7,532.52 ft.
4-41-10	Shallow well (10M4N1---X-6) In SW1/4 of SW1/4 sec. 4, T.41N, R.10E. Elev. R.P. 7,543.52 ft.
12-41-10	Shallow well (10M12Q1) In SW1/4 of SE1/4 sec. 12, T.41N, R.10E.
16-41-10	Shallow well (10M16D1---X-5) In NW1/4 of NW1/4 sec. 16, T.41N, R.10E. Elev. R.P. 7,546.15 ft.
16-41-10	Shallow well (10M16N1---X-4) In SW1/4 of SW1/4 sec. 16, T.41N, R.10E. Elev. R.P. 7,546.23 ft.
23-41-10	Shallow well (10M23B1) In NW1/4 of NW1/4 sec. 23, T.41N, R.10E. Elev. R.P. 7,533.23 ft.
29-41-10	Shallow well (10M29D1---D-2) In NW1/4 of NW1/4 sec. 29, T.41N, R.10E. Elev. R.P. 7,554.13 ft.
30-41-10	Shallow well (10M30D1---D-3) In NW1/4 of NW1/4 sec. 30, T.41N, R.10E. Elev. R.P. 7,556.59 ft.
32-41-10	Shallow well (10M32A1---X-2) In NE1/4 of NE1/4 sec. 32, T.41N, R.10E. Elev. R.P. 7,550.06 ft.
32-41-10	Shallow well (10M32R1---C-1, X-1) In SE1/4 of SE1/4 sec. 32, T.41N, R.10E. Elev. R.P. 7,556.45 ft.
33-41-10	Shallow well (10M33A2---C-2) In SE1/4 of SE1/4 sec. 33, T.41N, R.10E. Elev. R.P. 7,546.10 ft.
31-41-11	Shallow well (10N31N1---C-5) In SW1/4 of SW1/4 sec. 31, T.41N, R.11E. Elev. R.P. 7,532.46 ft.
14-40-6	Drilled well (11E14B1) In NW1/4 of NE1/4 sec. 14, T.40N, R.6E. Owner not known. Depth reported to be 40 ft. Not artesian. Diam. 4 in. Elev. R.P. 7,804.41 ft. Temp. 7-17, 53.5°F.; 9-17, 55°F.
2-40-7	A. K. Deitrich Artesian well (11J2A1) In NE1/4 of NE1/4 sec. 2, T.40N, R.7E. Depth 180 ft.; diam. 2 in. Disch. 1 gpm. Temp. 7-20, 54°F.; 9-18, 54°F.
7-40-7	Frank Crown well (11J7F1) In SE1/4 of SW1/4 sec. 7, T.40N, R.7E. Depth 42.5 ft.; diam. 4 in. Not artesian. Temp. 7-17, 55°F.; 9-17, 56°F.
9-40-7	State of Colorado well (11J9D1) In NW1/4 of NW1/4 sec. 9, T.40N, R.7E. Depth 17.5 ft.; diam. 18 in. Not artesian. Temp. 7-17, 62°F.
13-40-7	J. C. Hynds Artesian well (11J13D1) In NE1/4 of NW1/4 sec. 13, T.40N, R.7E. Depth 150 ft.; diam. 2 in. Elev. R.P. 7,662.70 ft. Temp. 7-20, 65°F.; 9-18, 59°F.
13-40-7	Howard Macy Artesian well (11J13R1) In SE1/4 of SE1/4 sec. 13, T.40N, R.7E. Depth 123 ft.; diam. 2 in. Elev. R.P. 7,660.66 ft. Temp. 7-20, 69.5°F.; 9-18, 49.5°F.

San Luis Valley, Colorado, Ground Waters - 5 -

(Conductance)

Date 1936	Elev. W.S.	Kr10 <sup>3</sup> @25°C	Date 1936	Elev. W.S.	Kr10 <sup>3</sup> @25°C	Date 1936	Elev. W.S.	Kr10 <sup>3</sup> @25°C	Date 1936	Elev. W.S.	Kr10 <sup>3</sup> @25°C	Index No.
7-20	7593.15	35.3	9-27	7592.97	32.5	11-18	7591.76	34.4				30-41-9
9-17		154.0	11-17		150.0							33-41-9
7-22	7526.02	93.2	9-18	7526.26	94.7	11-19	7526.64	90.2*				2-41-10
7-21	7536.91	208.0	9-17	7538.32	199.0	11-19	7538.55	236.0				4-41-10
10-21		75.5	11-16		49.4							12-41-10
7-21	7540.36	94.8	11-19	7540.32	88.7							16-41-10
9-17	7541.37	112.0	11-19	7541.61	92.0							16-41-10
7-18	7529.89	77.8	10-21	7530.95	185.0	11-16	7530.33	190.0				23-41-10
7-20	7547.54	46.3	9-17	7548.70	31.9	11-18	7549.91	27.4				29-41-10
7-20	7553.94	92.5	9-17	7554.04	66.8	11-18	7554.15	57.4				30-41-10
7-20	7544.97	226.0	9-17	7545.49	127.0	11-18	7546.19	no water	11-19	7546.00	104.0	32-41-10
7-18	7554.91	69.2	9-17	7552.18	108.0	11-16	7551.47	101.0				32-41-10
7-18	7544.02	98.0	9-17	7544.11	92.5	11-16	7544.46	112.0				33-41-10
7-18	7528.70	311.0	9-15	7529.06	262.0	11-14	7529.44	257.0				31-41-11
7-17	7794.22	28.0	9-17	7794.62	27.4	11-16	7794.39	27.0				14-40-6
7-20		17.0	9-18		16.4	11-16		16.7				2-40-7
7-17		24.2	9-17		25.9	11-16		27.8				7-40-7
7-17		39.4	9-17		42.1	11-16		40.2				9-40-7
7-20	7682.29	15.4	9-18	7682.44	15.5	11-16	7682.39	15.1				13-40-7
7-20	7676.33	12.2	9-18	7676.16	11.0	11-16	7676.11	10.3				13-40-7

\*Detailed analysis

San Luis Valley, Colorado, Ground Waters - 6 -

(Conductance)

Index No.	Location and Description
13-40-7	Howard Macy Artesian well #2 (11J13R2) In SE1/4 of SE1/4 sec. 13, T.40N, R.7E. Depth 173 ft.; diam. 2 in. Disch. 3 gpm. Elev. R.P. 7,681.43 ft., or 2.9 ft. above G.S. Temp. 7-20, 53.5°F.; 9-18, 53°F.
13-40-7	Shallow well (11J13R3) In SE1/4 of SE1/4 sec. 13, T.40N, R.7E. Elev. R.P. 7,680.47 ft. Temp. 7-20, 63°F.; 9-18, 55°F.
14-40-7	J. H. Boats Artesian well (11J14P1) In SE1/4 of SW1/4 sec. 14, T.40N, R.7E. Depth 145 ft.; diam. 2 in. Temp. 7-20, 52.5°F.; 9-18, 51°F.
21-40-7	J. C. Pepper irrigation well (11J21N1) In SW1/4 of SW1/4 sec. 21, T.40N, R.7E. Depth 65 ft.; diam. 20 in. Not artesian. Temp. 7-17, 50°F.
23-40-7	Anna McCormick Artesian well (11J23H1) In SE1/4 of NE1/4 sec. 23, T.40N, R.7E. Depth 150.5 ft.; diam. 4 in.; W.L. 3.69 ft. below G.S.
25-40-7	Roy McConnell Artesian well (11J25R1) In SE1/4 of SE1/4 sec. 25, T.40N, R.7E. Depth 207 ft.; diam. 2 in. Elev. R.P. 7,682.81 ft. Temp. 7-20, 51°F.; 9-18, 52°F.
26-40-7	J. H. Brownell well (11J26P1) In SE1/4 of SW1/4 sec. 26, T.40N, R.7E. Depth 40 ft.; diam. 4.5 in. Not artesian. Temp. 7-20, 52°F.; 9-18, 52°F.
4-40-8	Shallow well (11K4J1) In NE1/4 of SE1/4 sec. 4, T.40N, R.8E. Elev. R.P. 7,633.94 ft. Temp. 7-21, 67°F.
13-40-8	Shallow well (11K13R1) In SE1/4 of SE1/4 sec. 13, T.40N, R.8E. Elev. R.P. 7,609.74 ft. Temp. 7-21, 66°F.
16-40-8	Shallow well (11K16R1) In SE1/4 of SE1/4 sec. 16, T.40N, R.8E. Elev. R.P. 7,639.55 ft. Temp. 7-21, 62°F.; 9-19, 64°F.
17-40-8	Harlan Scott Artesian well (11K17Q1) In SW1/4 of SE1/4 sec. 17, T.40N, R.8E. Depth 164 ft.; diam. 2 in. Disch. 16 gpm. Temp. 8-20, 53°F.
33-40-8	Shallow well (11K33A1) In NE1/4 of NE1/4 sec. 33, T.40N, R.8E. Elev. R.P. 7,641.22 ft. Temp. 9-19, 63°F.
6-40-9	Shallow well (11L6M1) In NW1/4 of SW1/4 sec. 6, T.40N, R.9E. Temp. 7-21, 64°F.
7-40-9	Walker Myers Artesian well (11L7K1) In SW1/4 of NW1/4 sec. 7, T.40N, R.9E. Reported depth 250 ft. cased 220 ft.; diam. 2 in. Disch. 37.5 gpm. Temp. 8-12, 55°F.
14-40-9	John Achatz well (11L14K1) In SW1/4 of NW1/4 sec. 14, T.40N, R.9E. Depth 18 ft.; diam. 16 ft. x 16 ft. Elev. R.P. 7,585.67 ft.
19-40-9	Carl Seathoff Artesian well (11L19N1) In SW1/4 of SW1/4 sec. 19, T.40N, R.9E. Depth 303 ft. cased 245 ft.; diam. 2 in. Disch. 5 gpm. Temp. 8-15, 54°F.
20-40-9	Shallow well (11L20A1) In NE1/4 of NE1/4 sec. 20, T.40N, R.9E. Elev. R.P. 7,594.62 ft.
23-40-9	Shallow Recorder well (11L23D1) In NW1/4 of NW1/4 sec. 23, T.40N, R.9E. Elev. R.P. 7,581.62 ft. Temp. 7-20, 61°F.

San Luis Valley, Colorado, Ground Waters - 6 -

(Conductance)

Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Index No.
7-20	7679.66	18.2	9-18	7679.86	17.7	11-16	7679.80	18.0				13-40-7
7-20	7676.48	25.3	9-18	7675.09	80.5	11-16	7675.20	123.0				13-40-7
7-20		13.3	9-18		13.1	11-16		12.9				14-40-7
7-17		22.8	11-16	Impossible to get sample								21-40-7
10-14		22.2*	11-16		18.8							23-40-7
7-20	7681.46	12.0	9-18	7681.76	11.5	11-16	7681.61	11.5				25-40-7
7-20		31.4	9-18		30.3	11-16		30.7				26-40-7
7-21	7631.22	47.0	9-19	7629.90	no water	11-17	7629.90	no water				4-40-8
7-21	7607.22	134.0	9-16	7606.35	74.7	11-17	7606.93	39.2				13-40-8
7-21	7637.17	66.9	9-19	7636.61	45.7	11-17	7637.21	41.5*				16-40-8
8-20		12.8	10-19		13.1*	11-17		12.8				17-40-8
8-18	7636.85	48.4	9-19	7637.24	40.9	11-17	7637.23	37.8				33-40-8
7-21		61.6	9-17		76.2	11-17		60.1				6-40-9
8-12		13.9	10-19		14.1*							7-40-9
7-20	7580.33	41.0	9-16	7578.45	42.1	11-17	7578.15	35.6				14-40-9
8-15		12.4	10-19		12.3							19-40-9
7-20	7591.34	52.6	11-17	7591.37	48.7							20-40-9
7-20		77.3	9-22		75.7							23-40-9

\*Detailed analysis

San Luis Valley, Colorado, Ground Waters - 7 -

(Conductance)

Index No.	Location and Description
24-40-9	Shallow well (11L24A1) In NE1/4 of NE1/4 sec. 24, T.40N, R.9E.
30-40-9	Shallow well (11L30N1) In SW1/4 of SW1/4 sec. 30, T.40N, R.9E.
33-40-9	Shallow well (11L33D1) In NW1/4 of NW1/4 sec. 33, T.40N, R.9E.
35-40-9	Shallow well (11L35D1) In NW1/4 of NW1/4 sec. 35, T.40N, R.9E. Elev. R.P. 7,583.40 ft.
36-40-9	Shallow well (11L36A1) In NE1/4 of NE1/4 sec. 36, T.40N, R.9E. Elev. R.P. 7,574.61 ft.
1-40-10	Shallow well (11M1D1--C-4) In NW1/4 of NW1/4 sec. 1, T.40N, R.10E. Elev. R.P. 7,537.35 ft.
2-40-10	Shallow well (11M2D1--C-3, Y-1) In NW1/4 of NW1/4 sec. 2, T.40N, R.10E. Elev. R.P. 7,542.96 ft.
6-40-10	Shallow well (11M6N1) In SW1/4 of SW1/4 sec. 6, T.40N, R.10E.
10-40-10	Shallow well (11M10A1--Y-2) In NE1/4 of NE1/4 sec. 10, T.40N, R.10E. Elev. R.P. 7,545.58 ft.
13-40-10	Shallow well (11M13R1--R-8) In SE1/4 of SE1/4 sec. 13, T.40N, R.10E. Elev. R.P. 7,538.85 ft.
14-40-10	Shallow well (11M14R1--R-9) In SE1/4 of SE1/4 sec. 14, T.40N, R.10E. Elev. R.P. 7,542.47 ft. Temp. 7-11, 59°F.
14-40-10	Shallow well (11M14D1--Y-3) In NW1/4 of NW1/4 sec. 14, T.40N, R.10E. Elev. R.P. 7,547.27 ft.
21-40-10	Shallow well (11M21D1) In NW1/4 of NW1/4 sec. 21, T.40N, R.10E. Elev. R.P. 7,557.24 ft.
22-40-10	Shallow well (11M22R1--Y-5) In SE1/4 of SE1/4 sec. 22, T.40N, R.10E. Elev. R.P. 7,547.72 ft. Temp. 7-17, 59°F.
23-40-10	Shallow well (11M23D1--Y-4, R-10) In NW1/4 of NW1/4 sec. 23, T.40N, R.10E. Elev. R.P. 7,547.00 ft.
27-40-10	Shallow well (11M27R1--Y-6) In SE1/4 of SE1/4 sec. 27, T.40N, R.10E. Elev. R.P. 7,548.09 ft. Temp. 7-17, 58°F.
29-40-10	Shallow well (11M29R1) In SE1/4 of SE1/4 sec. 29, T.40N, R.10E.
34-40-10	Shallow well (11M34R1--A-1, Y-7) In SE1/4 of SE1/4 sec. 34, T.40N, R.10E. Elev. R.P. 7,549.81 ft.
36-40-10	Shallow well (11M36N1--A-2) In SW1/4 of SW1/4 sec. 36, T.40N, R.10E. Elev. R.P. 7,543.01 ft.
36-40-10	Shallow well (11M36R1--A-3) In SE1/4 of SE1/4 sec. 36, T.40N, R.10E. Elev. R.P. 7,539.74 ft.
3-40-11	Shallow well (11N3R1--C-9) In SE1/4 of SE1/4 sec. 3, T.40N, R.11E. Elev. R.P. 7,535.29 ft.
4-40-11	Shallow well (11N4R1--C-8) In SE1/4 of SE1/4 sec. 4, T.40N, R.11E. Elev. R.P. 7,530.87 ft.

San Luis Valley, Colorado, Ground Waters - 7 -

(Conductance)

Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Index No.
7-20		268	9-16		153	1-17		112				24-40-9
11-17		40.5										30-40-9
11-17		85.5										33-4-9
8-17	7579.70	143	9-16	7579.50	120	11-17	7579.83	141				35-40-9
7-17	7567.61	74.1	9-16	7567.98	51.3	11-17	7568.29	39.7				36-40-9
7-18	7531.67	168	11-14	7532.07	103							1-40-10
7-18	7535.88	154	9-14	7536.21	136	11-6	7536.48	131	11-14	7536.48	127*	2-40-10
7-20		451	9-17		608	11-17		488				6-40-10
7-20	7541.44	161	9-14	7541.11	177	11-19	7542.22	311				10-40-10
7-16	7533.68	53.7	9-14	7534.05	49.1	11-14	7533.49	42.4				13-40-10
7-11	7538.16	42.8	9-14	7538.35	44.4	11-14	7538.17	158				14-40-10
7-20	7542.72	69.7	9-14	7542.81	171	11-19	7543.27	141				14-40-10
7-20	7554.68	108	9-16	7554.04	103	11-17	7553.58	116*				21-40-10
7-17	7544.26	75.0	9-14	7544.11	186	11-19	7543.70	93.8				22-40-10
7-16	7543.26	226	9-14	7543.00	256	11-19	7542.67	242				23-40-10
7-17	7543.56	129	8-15	7544.02	99.4	9-14	7543.33	83.9	11-19	7543.56	76.0	27-40-10
7-17		147	9-16		202	11-17		144				29-40-10
7-16	7546.12	42.6	8-14	7545.55	51.8	9-14	7544.47	74.6	11-13	7544.87	46.4	34-40-10
7-16	7538.45	86.9	8-14	7539.05	90.2	8-15	7538.06	92.6	11-13	7538.55	87.9*	36-40-10
7-16	7533.82	69.4	11-13	7534.84	49.7							36-40-10
7-18	7529.81	52.6	9-15	7531.43	43.7	11-14	7531.67	37.3				3-40-11
7-18	7526.33	41.8	9-15	7528.17	317	11-14	7528.28	95.1				4-40-11

\*Detailed analysis

San Luis Valley, Colorado, Ground Waters - 8 -  
(Conductance)

Index No.	Location and Description
5-40-11	Shallow well (11N5W1--C-6) In SW1/4 of SW1/4 sec. 5, T.40N, R.11E. Elev. R.P. 7,531.70 ft.
9-40-11	Shallow well (11N5D2--C-7) In NW1/4 of NW1/4 sec. 9, T.40N, R.11E. Elev. R.P. 7,528.58 ft.
13-40-11	Shallow well (11N13D2--C-11) In NW1/4 of NW1/4 sec. 13, T.40N, R.11E. Elev. R.P. 7,531.60 ft.
14-40-11	Shallow well (11N14D1--C-10) In NW1/4 of NW1/4 sec. 14, T.40N, R.11E. Elev. R.P. 7,528.17 ft.
17-40-11	Shallow well (11N17N1--R-7) In SW1/4 of SW1/4 sec. 17, T.40N, R.11E. Elev. R.P. 7,534.50 ft.
17-40-11	Shallow well (11N17E1--R-6) In SE1/4 of SE1/4 sec. 17, T.40N, R.11E. Elev. R.P. 7,529.39 ft.
22-40-11	Shallow well (11N22E1--R-5) In SW1/4 of NW1/4 sec. 22, T.40N, R.11E. Elev. R.P. 7,526.54 ft.
26-40-11	Shallow well (11N26E1--R-2) In NW1/4 of NE1/4 sec. 26, T.40N, R.11E. Elev. R.P. 7,524.60 ft.
26-40-11	Shallow well (11N26D1--R-3) In NW1/4 of NW1/4 sec. 26, T.40N, R.11E. Elev. R.P. 7,528.65 ft.
27-40-11	Shallow well (11N27E1--R-4) In NW1/4 of NE1/4 sec. 27, T.40N, R.11E. Elev. R.P. 7,526.35 ft.
32-40-11	Drilled well (11N32E1) In SE1/4 of SE1/4 sec. 32, T.40N, R.11E. Depth 93.5 ft.; diam. 2 in. Non-flowing artesian well.
33-40-11	Shallow well (11N33N1--A-5) In SW1/4 of SW1/4 sec. 33, T.40N, R.11E. Elev. R.P. 7,525.55 ft.
33-40-11	Shallow well (11N33E1--A-6) In SE1/4 of SE1/4 sec. 33, T.40N, R.11E. Elev. R.P. 7,524.10 ft.
34-40-11	Shallow well (11N34E1--A-7) In SE1/4 of SE1/4 sec. 34, T.40N, R.11E. Elev. R.P. 7,524.00 ft.
7-40-12	Shallow well (11Q7E1--C-13) In SE1/4 of SE1/4 sec. 7, T.40N, R.12E. Elev. R.P. 7,543.66 ft.
16-40-12	Shallow well (11Q16E1--C-15) In SE1/4 of NE1/4 sec. 16, T.40N, R.12E. Elev. R.P. 7,573.85 ft.
17-40-12	Shallow well (11Q17E2--C-14) In SW1/4 of NE1/4 sec. 17, T.40N, R.12E. At Medano Ranch headquarters. Elev. R.P. 7,552.57 ft. Temp. 8-19, 60°F.
18-40-12	Shallow well (11Q18D1--C-12) In NW1/4 of NW1/4 sec. 18, T.40N, R.12E. Elev. R.P. 7,534.20 ft. Temp. 7-18, 65°F.
31-40-12	Shallow well (11Q31E1) In NE1/4 of NW1/4 sec. 31, T.40N, R.12E. Elev. R.P. 7,525.68 ft.
31-40-12	Shallow well (11Q31N1--A-9) In SW1/4 of SW1/4 sec. 31, T.40N, R.12E. Elev. R.P. 7,524.78 ft.
32-40-12	Shallow well (11Q32E1--A-10) In SW1/4 of SW1/4 sec. 32, T.40N, R.12E. Elev. R.P. 7,532.67 ft.



San Luis Valley, Colorado, Ground Waters - 8 -

(Conductance)

Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Index No.
9-15	7528.42	1308	11-14	7528.51	1146							5-40-11
7-18	7526.14	43.4	9-15	7526.36	58.3	11-14	7526.60	32.9				9-40-11
7-18	7526.92	60.0	9-15	7528.50	62.1	11-14	7528.94	54.3*				13-40-11
7-18	7522.70	28.4	9-14	7524.39	29.3	11-14	7524.67	21.6				14-40-11
7-16	7528.44	118	9-14	7528.96	97.2	11-14	7529.13	104				17-40-11
7-16	7525.06	95.7	9-14	7525.82	152	11-14	7525.55	174				17-40-11
7-16	7522.69	163	9-15	7523.49	98.0	11-13	7523.65	307				22-40-11
7-16	7521.90	405.5	8-14	7522.80	263	9-15	7522.48	579	11-13	7522.67	409	26-40-11
7-16	7522.00	286	9-14	7522.66	334	11-13	7522.80	285				26-40-11
7-16	7521.72	647	9-15	7522.75	672	11-13	7522.95	745				27-40-11
7-16		197	10-13		197*	11-13		169				32-40-11
7-16	7521.99	1007	9-15	7522.50	2608	11-13	7522.70	677*				33-40-11
7-16	7519.97	227	9-15	7520.64	201	11-13	7520.83	196				33-40-11
7-16	7519.73	133	9-15	7520.08	118	11-13	7521.60	129				34-40-11
7-18	7542.22	109	8-19	7540.91	169	9-15	7540.74	161	11-14	7542.21	141*	7-40-12
7-18	7569.61	28.5	9-15	7570.12	43.7	11-14	7569.96	53.4				16-40-12
8-19	7549.22	29.0	9-15	7549.21	85.1	11-14	7549.85	24.7				17-40-12
7-18	7530.60	18.1	8-19	7533.17	219	9-15	7532.14	23.9	11-14	7532.52	15.6	18-40-12
7-16	7522.74	112	9-15	7523.13	122	11-13	7523.81	66.4				31-40-12
7-16	7517.83	281	9-15	7519.59	498	11-13	7519.89	496				31-40-12
7-16	7525.72	185	9-15	7526.82	204	11-13	7526.69	192				32-40-12

\*Detailed analysis  
82343 O-38—6

San Luis Valley, Colorado, Ground Waters - 9 -

(Conductance)

Index No.	Location and Description
33-40-12	Shallow well (1133301---A-11) In SW1/4 of SW1/4 sec. 33, T.40N, R.12E. Elev. R.P. 7,551.69 ft.
1-39-7	C. F. Monter well (1271H1) In SE1/4 of NE1/4 sec. 1, T.39N, R.7E. Depth 9.5 ft. Elev. R.P. 7,681.61 ft. Temp. 7-20, 66°F.; 9-18, 60°F.
4-39-7	E. P. Long Irrigation well (1274G1) In SW1/4 of NE1/4 sec. 4, T.39N, R.7E. Depth 90 ft.; diam. 20 in. Not artesian. Temp. 7-17, 52.5°F.; 9-17, 61°F.
10-39-7	John Dennis Artesian well (12710E1) In SW1/4 of NW1/4 sec. 10, T.39N, R.7E. Depth 165 ft.; diam. 4 in. for 6 ft., then 2 in. Non-flowing. Temp. 7-17, 50.5°F.
10-39-7	E. L. Neff Irrigation well (12710K1) In NW1/4 of SE1/4 sec. 10, T.39N, R.7E. Depth 49.5 ft.; diam. 16 in. Not artesian. Temp. 7-17, 53°F.; 9-17, 62°F.
12-39-7	Lyman Wright Artesian well (12712F1) In SE1/4 of SW1/4 sec. 12, T.39N, R.7E. Depth 138 ft.; diam. 2 in. Flows intermittently. Elev. R.P. 7,681.74 ft. Temp. 7-17, 64°F.; 9-17, 67.5°F.
13-39-7	H. A. Mathias Artesian well (12713G1) In NE1/4 of NW1/4 sec. 13, T.39N, R.7E. Depth 159 ft.; diam. 2 in. Flows Intermittently. Elev. R.P. 7,680.36 ft. Temp. 7-17, 49.5°F.; 9-17, 49°F.
26-39-7	Frank C. Seyfried Artesian well (12726G1) In NW1/4 of NW1/4 sec. 26, T.39N, R.7E. Depth 168 ft.; diam. 2 in. Temp. 9-17, 50°F.
6-39-8	Van Ostrand Artesian, Recorder, well (12K6C1) In NE1/4 of NW1/4 sec. 6, T.39N, R.8E. Depth 150 ft.; diam. 2 in. Disch. 3 gpm. Elev. R.P. 7,687.89 ft.
6-39-8	Van Ostrand Artesian well (12K6D1) In NW1/4 of NE1/4 sec. 6, T.39N, R.8E. Depth 176 ft.; diam. 2 in.; nonflowing. Elev. R.P. 7,680.06 ft.
8-39-8	Shallow well (12K6A1) In NE1/4 of NE1/4 sec. 8, T.39N, R.8E. Elev. R.P. 7,649.83 ft.
11-39-8	Shallow well (12K11A1---B-12) In NE1/4 of NE1/4 sec. 11, T.39N, R.8E. Elev. R.P. 7,619.30 ft.
13-39-8	Shallow well (12K13R1) In SE1/4 of SE1/4 sec. 13, T.39N, R.8E.
15-39-8	Shallow well (12K15N1) In SW1/4 of SW1/4 sec. 15, T.39N, R.8E. Temp. 9-19, 66°F.
1-39-9	Shallow well (12L1R1---B-5) In SE1/4 of SE1/4 sec. 1, T.39N, R.9E. Elev. R.P. 7,572.81 ft. Temp. 7-17, 63°F.
2-39-9	Shallow well (12L2N1---B-7) In SW1/4 of SW1/4 sec. 2, T.39N, R.9E. Elev. R.P. 7,583.71 ft. Temp. 7-17, 62°F.
2-39-9	Shallow well (12L2R1---B-6) In SE1/4 of SE1/4 sec. 2, T.39N, R.9E. Elev. R.P. 7,577.03 ft.
4-39-9	Shallow well (12L4R1---B-8) In SE1/4 of SE1/4 sec. 4, T.39N, R.9E. Elev. R.P. 7,590.16 ft. Temp. 7-17, 63°F.
5-39-9	Shallow well (12L5R1---B-9) In SE1/4 of SE1/4 sec. 5, T.39N, R.9E. Elev. R.P. 7,598.99 ft.
7-39-9	Shallow well (12L7A3---B-10) In NE1/4 of NE1/4 sec. 7, T.39N, R.9E. Elev. R.P. 7,605.93 ft.

San Luis Valley, Colorado, Ground Waters - 9 -

(Conductance).

Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Index No.
11-13	7544.61	85.7										33-40-12
7-20	7676.68	33.0	9-18	7677.11	32.3	11-16	7676.14	41.7				1-39-7
7-17		22.1	9-17		16.6							4-39-7
7-17		25.3	10-19		23.9*	11-16		25.8				10-39-7
7-17		21.3	9-16		23.8	11-16		27.0				10-39-7
7-17	7681.44	11.4	9-17	7581.73	12.3	11-16	7681.33	11.1				12-39-7
7-17	7679.51	12.8	9-17		12.0	11-16		12.5				13-39-7
9-17		16.0	10-14		16.3*	11-16		16.4				26-39-7
9-22	7686.67	12.2	10-20		13.7*	11-16		13.6				6-39-8
11-16	7679.39	13.2										6-39-8
7-21	7646.89	43.6	9-19	7646.84	87.5	11-17	7647.15	72.3				8-39-8
7-17	7616.11	114	9-16	7615.94	52.5	11-16	7615.96	49.2				11-39-8
11-17		70.4										13-39-8
7-17		31.3	9-19		35.9							15-39-8
7-17	7567.88	122	9-16	7567.46	128	11-16	7567.70	92.0				1-39-9
7-17	7579.33	73.5	9-16	7579.80	71.1	11-16	7580.12	97.1				2-39-9
9-16	7574.25	280	11-16	7574.64	352							2-39-9
7-17	7585.37	62.0	9-16	7585.98	64.3	11-16	7586.15	57.3*				4-39-9
7-17	7593.47	38.6	9-16	7593.29	37.4	11-16	7593.67	41.7				5-39-9
7-17	7601.94	39.1										7-39-9

\*Detailed analysis

San Luis Valley, Colorado, Ground Waters - 10-

(Conductance)

Index No.	Location and Description
15-39-9	Shallow well (12L15R1) In SE1/4 of SE1/4 sec. 15, T.39N, R.9E. Elev. R.P. 7,580.26 ft.
17-39-9	Shallow well (12L17R1) In SE1/4 of SE1/4 sec. 17, T.39N, R.9E.
26-39-9	Shallow well (12L26N1) In SW1/4 of SW1/4 sec. 26, T.39N, R.9E.
29-39-9	Shallow well (12L29R1) In SE1/4 of SE1/4 sec. 29, T.39N, R.9E.
1-39-10	Fletcher Artesian well (12M1R1) In SE1/4 of SE1/4 sec. 1, T.39N, R.10E. Depth 496 ft.; diam. 5-3/16 in. Temp. 8-25, 55.5°F. Brown water.
3-39-10	Shallow well (12M3R1---B-1, Y-8) In SE1/4 of SE1/4 sec. 3, T.39N, R.10E. Elev. R.P. 7,550.63 ft.
5-39-10	Shallow well (12M5N2---B-4) In SW1/4 of SW1/4 sec. 5, T.39N, R.10E. Elev. R.P. 7,566.45 ft. Temp. 7-17, 63°F.
8-39-10	Shallow well (12M8A1---B-3) In NE1/4 of NE1/4 sec. 8, T.39N, R.10E. Elev. R.P. 7,560.48 ft. Temp. 7-17, 56°F.
9-39-10	Shallow well (12M9A2---B-2) In NE1/4 of NE1/4 sec. 9, T.39N, R.10E. Elev. R.P. 7,555.78 ft. Temp. 7-17, 60°F.
13-39-10	Shallow well (12M13A1) In NE1/4 of NE1/4 sec. 13, T.39N, R.10E. Elev. R.P. 7,539.63 ft.
14-39-10	Shallow well (12M14N1---Y-10) In SW1/4 of SW1/4 sec. 14, T.39N, R.10E. Elev. R.P. 7,546.80 ft.
16-39-10	Shallow well (12M16N1) In SW1/4 of SW1/4 sec. 16, T.39N, R.10E. Elev. R.P. 7,558.19 ft.
19-39-10	Shallow well (12M19R1) In NW1/4 of NW1/4 sec. 19, T.39N, R.10E.
23-39-10	Shallow well (12M23N1---Y-11) In SW1/4 of SW1/4 sec. 23, T.39N, R.10E. Elev. R.P. 7,548.70 ft.
26-39-10	Shallow well (12M26N1---Y-12) In SW1/4 of SW1/4 sec. 26, T.39N, R.10E. Elev. R.P. 7,548.69 ft.
29-39-10	Shallow well (12M29R1) In SE1/4 of SE1/4 sec. 29, T.39N, R.10E.
30-39-10	Shallow well (12M30N1) In SW1/4 of SW1/4 sec. 30, T.39N, R.10E.
35-39-10	Shallow well (12M35N1---Y-13) In SW1/4 of SW1/4 sec. 35, T.39N, R.10E. Elev. R.P. 7,545.77 ft.
1-39-11	Shallow well (12M11N1---A-8) In NW1/4 of NW1/4 sec. 1, T.39N, R.11E. Elev. R.P. 7,522.28 ft.
6-39-11	Shallow well (12M6A1---A-4) In NE1/4 of NE1/4 sec. 6, T.39N, R.11E. Elev. R.P. 7,531.70 ft.
9-39-11	Shallow well (12M9N1) In SW1/4 of SW1/4 sec. 9, T.39N, R.11E.

San Luis Valley, Colorado, Ground Waters - 10 -

(Conductance)

Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Index No.
9-16	7576.95	173	11-17	7577.39	221							15-39-9
7-17		94.3	9-16		62.4	11-17		94.0				17-39-9
7-17		168	11-17		139							26-39-9
11-17		61.0										29-39-9
8-25		324	10-13		335*							1-39-10
7-16	7546.28	105.5	8-15	7546.55	112	9-14	7545.92	94.5	11-16	7546.08	74.2	3-39-10
7-17	7561.62	181	9-16	7561.35	141	11-16	7561.74	119				5-39-10
7-17	7555.38	68.6	9-16	7555.45	67.8	11-16	7555.56	79.8				8-39-10
7-17	7550.36	110	9-16	7550.30	123	11-16	7551.63	120				9-39-10
7-15	7535.70	317										13-39-10
7-15	7541.26	199	9-14	7541.81	201	11-19	7542.02	207				14-39-10
8-17	7550.92	123	9-16	7551.11	120	11-17	7551.36	121*				16-39-10
7-17	No water		9-16		105	11-17		103				19-39-10
7-15	7543.83	108	8-15	7543.33	103	9-14	7543.74	101	11-19	7544.81	127	23-39-10
7-15	7549.67	210	9-14	7545.19	181	11-19	7546.36	577				26-39-10
7-30		158	9-16		67.4	11-17		64.4				29-39-10
7-30		75.8	9-16		103	11-17		112				30-39-10
7-16	7541.85	338	8-15	7542.73	110	9-14	7542.83	636	11-10	7542.87	629	35-39-10
7-16	7519.53	368	9-15	7520.32	739	11-13	7520.43	775				1-39-11
7-16	7527.93	55.5	9-15	7527.76	100	11-13	7528.21	73.9				6-39-11
11-13		206										9-39-11

\*Detailed analysis

San Luis Valley, Colorado, Ground Waters - 11 -

(Conductance)

Index No.	Location and Description
13-39-11	Shallow well (12N13J1) In NE1/4 of SE1/4 sec. 13, T.39N, R.11E.
15-39-11	Shallow well, Colorado, (12N19H1) In SE1/4 of NE1/4 sec. 15, T.39N, R.11E. Elev. R.P. 7,519.26 ft.
23-39-11	Shallow well, Colorado, (12N23M1) In SW1/4 of SW1/4 sec. 23, T.39N, R.11E. Elev. R.P. 7,520.89 ft. Temp. 7-15, 66°F.
24-39-11	Shallow well, Colorado, (12N24R1) In SE1/4 of SE1/4 sec. 24, T.39N, R.11E. Elev. R.P. 7,520.63 ft.
25-39-11	Shallow well, Colorado, (12N25R1) In SE1/4 of SE1/4 sec. 25, T.39N, R.11E. Elev. R.P. 7,517.53 ft.
29-39-11	Shallow well (12N29M1) In NW1/4 of NW1/4 sec. 29, T.39N, R.11E.
31-39-11	Shallow well (12N31R1) In SE1/4 of SE1/4 sec. 31, T.39N, R.11E. Elev. R.P. 7,533.07 ft.
6-39-12	Shallow well, Colorado, (12Q6L1) In NE1/4 of SW1/4 sec. 6, T.39N, R.12E. Elev. R.P. 7,524.49 ft.
6-39-12	Shallow Recorder well (12Q6L2) In NE1/4 of SW1/4 sec. 6, T.39N, R.12E. Elev. R.P. 7,526.90 ft.
18-39-12	Shallow well (12Q18M1) In NW1/4 of NW1/4 sec. 18, T.39N, R.12E.
18-39-12	Shallow well, Colorado, (12Q18N1) In SW1/4 of SW1/4 sec. 18, T.39N, R.12E. Elev. R.P. 7,517.59 ft.
33-39-12	Shallow well, Colorado, (12Q33Q1) In SW1/4 of SE1/4 sec. 33, T.39N, R.12E. Elev. R.P. 7,528.21 ft.
6-38-10	Shallow well (13N6M1) In SW1/4 of SW1/4 sec. 6, T.38N, R.10E.
11-38-10	Shallow well (13N11M1--Y-14) In NW1/4 of NW1/4 sec. 11, T.38N, R.10E. Elev. R.P. 7,544.81 ft.
14-38-10	Shallow well (13N14M1--Z-2) In NE1/4 of NE1/4 sec. 14, T.38N, R.10E. Elev. R.P. 7,541.79 ft.
14-38-10	Shallow well (13N14M1--Y-15, Z-1) In NW1/4 of NW1/4 sec. 14, T.38N, R.10E. Elev. R.P. 7,545.14 ft.
15-38-10	Shallow well (13N15R1--Y-16) In SE1/4 of SE1/4 sec. 15, T.38N, R.10E. Elev. R.P. 7,544.51 ft.
17-38-10	Shallow well (13N17H1) In SE1/4 of NE1/4 sec. 17, T.38N, R.10E. Temp. 7-17, 59°F.
22-38-10	Shallow well (13N22R1--Y-17) In SE1/4 of SE1/4 sec. 22, T.38N, R.10E. Elev. R.P. 7,545.63 ft.
35-38-10	Shallow well (13N35M1--Y-18) In NW1/4 of NW1/4 sec. 35, T.38N, R.10E. Elev. R.P. 7,542.83 ft.
1-38-11	Shallow well, Colorado, (13N1A1) In NE1/4 of NE1/4 sec. 1, T.38N, R.11E. Elev. R.P. 7,513.75 ft.

San Luis Valley, Colorado, Ground Waters - 11 -

(Conductance)

Date 1936	Elev. W.S.	Kr10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kr10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kr10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kr10 <sup>5</sup> @25°C	Index No.
8-3		727*	11-13		83.7							13-39-11
9-12	7515.71	1128	11-11	7515.88	1146							15-39-11
7-15	7514.22	1223	9-12	7514.59	1142	11-11	7514.63	1317*				23-39-11
7-14	7514.66	424										24-39-11
7-14	7510.05	702										25-39-11
11-11		151										29-39-11
7-15	7525.80	153.5	9-14	7526.19	113	11-11	7526.38	102				31-39-11
9-15	7521.60	132	11-15	7521.56	165							6-39-12
8-10	7522.45	49.5	9-22	7522.04	150	11-13	7522.08	165				6-39-12
7-14		325	9-12		392	11-11		361				18-39-12
7-14	7514.38	219	9-12	7515.50	346	11-11	7515.71	423				18-39-12
7-14	7526.09	106	9-12	7525.99	417	11-11	7526.20	288				33-39-12
11-17		25.1										6-38-10
7-16	7540.65	83.0	9-14	7540.84	94.3	11-10	7541.61	91.3				11-38-10
7-15	7536.43	60.3	8-14	7536.35	63.8	11-11	7536.33	57.7				14-38-10
7-15	7540.26	91.3	9-14	7540.77	60.5	11-10	7540.91	69.8				14-38-10
7-16	7540.56	75.9	11-10	7540.65	54.7							15-38-10
7-17		48.1	9-16		42.1	11-17		26.7				17-38-10
9-12	7540.27	54.3	11-10	7540.78	36.6							22-38-10
7-15	7537.33	68.8	9-12	7537.32	68.9	11-10	7537.32	73.6				35-38-10
7-14	7508.36	297										1-38-11

\*Detailed analysis

San Luis Valley, Colorado, Ground Waters - 12 -

(Conductance)

Index No.	Location and Description
1-38-11	Shallow well, Colorado, (13N171) In NE1/4 of SE1/4 sec. 1, T.38N, R.11E. Elev. R.P. 7,516.36 ft. Temp. 7-14, 69°F.
2-38-11	Shallow well (13N2D1) In NW1/4 of NW1/4 sec. 2, T.38N, R.11E. Elev. R.P. 7,519.28 ft. (Yellow water)
7-38-11	Shallow well (13N7R1---Z-4) In SE1/4 of SE1/4 sec. 7, T.38N, R.11E. Elev. R.P. 7,534.14 ft.
10-38-11	Shallow well (13N10R1---Z-7) In SE1/4 of SE1/4 sec. 10, T.38N, R.11E. Elev. R.P. 7,523.97 ft.
12-38-11	Shallow well, Colorado, (13N12D1) In NW1/4 of NW1/4 sec. 12, T.38N, R.11E. Elev. R.P. 7,517.15 ft.
15-38-11	Shallow well (13N15D1---Z-6) In NW1/4 of NW1/4 sec. 15, T.38N, R.11E. Elev. R.P. 7,526.85 ft. (Yellow water)
16-38-11	Shallow well (13N16D1---Z-5) In NW1/4 of NW1/4 sec. 16, T.38N, R.11E. Elev. R.P. 7,531.50 ft. (Yellow water)
18-38-11	Shallow well (13N18D1---Z-3) In NW1/4 of NW1/4 sec. 18, T.38N, R.11E. Elev. R.P. 7,537.93 ft.
21-38-11	Shallow well (13N21R1) In SE1/4 of SE1/4 sec. 21, T.38N, R.11E. Elev. R.P. 7,526.64 ft.
24-38-11	Shallow well (13N24N1) In SW1/4 of SW1/4 sec. 24, T.38N, R.11E. Elev. R.P. 7,526.92 ft.
30-38-11	Shallow well (13N30A1) In NE1/4 of NE1/4 sec. 30, T.38N, R.11E. Elev. R.P. 7,532.30 ft.
34-38-11	Shallow well, Colorado, (13N34R1) In SE1/4 of SE1/4 sec. 34, T.38N, R.11E. Elev. R.P. 7,523.53 ft. (Flowing well 30 ft. northwest of well)
8-38-12	Shallow well (13Q8R1) In SE1/4 of SE1/4 sec. 8, T.38N, R.12E. Elev. R.P. 7,527.02 ft.
19-38-12	Shallow well, Colorado, (13Q19A1) In NE1/4 of NE1/4 sec. 19, T.38N, R.12E. Elev. R.P. 7,526.25 ft. (Yellow water)
19-38-12	Shallow well, Colorado, (13Q19F1) In SE1/4 of NW1/4 sec. 19, T.38N, R.12E. Elev. R.P. 7,523.72 ft. (Yellow water)
20-38-12	Shallow well, Colorado, (13Q20N1) In SW1/4 of SW1/4 sec. 20, T.38N, R.12E. Elev. R.P. 7,532.37 ft.
20-38-12	Shallow Recorder (Colorado) well (13Q20N2) In SW1/4 of SW1/4 sec. 20, T.38N, R.12E. (Yellow water) Temp. 7-20, 66°F.
28-38-12	Shallow well (13Q28A1) In NE1/4 of NE1/4 sec. 28, T.38N, R.12E.
28-38-12	Drilled Artesian well (13Q28B1) In NW1/4 of NE1/4 sec. 28, T.38N, R.12E. Depth 103 ft.; diam. 3 in. Non-flowing.
24-37-7	Toby Maestas well (14J28H1) In SE1/4 of NE1/4 sec. 24, T.37N, R.7E. Depth 42 ft.; diam. 3 ft. x 3 ft. Not artesian. Temp. 7-18, 52.5°F.; 9-16, 51°F.
13-37-8	Shallow well (14K13N1) In SW1/4 of SW1/4 sec. 13, T.37N, R.8E. Temp. 7-13, 76°F.



San Luis Valley, Colorado, Ground Waters - 12 -

(Conductance)

Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Index No.
7-14	7509.62	847										1-38-11
7-15	7512.01	1240	11-11	7511.66	102							2-38-11
7-15	7526.86	101	9-14	7527.23	93.6	11-11	7527.43	86.6				7-38-11
9-14	7513.67	276	11-11	7513.93	359							10-38-11
7-14	7509.04	535										12-38-11
7-15	7521.05	132.5	9-14	7520.88	143	11-11	7521.04	136				15-38-11
7-15	7523.83	62.6	8-14	7523.88	134	11-11	7523.74	no water				16-38-11
7-15	7533.84	119	8-14	7533.78	125	9-14	7533.47	126	11-13	7534.07	132	18-38-11
9-12	7517.78	44.3	11-10	7517.75	45.8							21-38-11
9-12	7520.71	332	11-10	7520.79	329							24-38-11
7-13		287.2	9-11	7527.37	62.7	11-10	7528.53	71.5				30-38-11
7-24	7514.36	70.9	9-11	7515.05	57.0	11-10	7515.36	54.5				34-38-11
9-12	7524.55	96.1	11-10	7524.62	85.6							8-38-12
7-14	7522.83	no water	9-12	7524.13	265	11-10	7524.48	346				19-38-12
9-12	7520.93	367	11-10	7521.07	632							19-38-12
9-12	7530.24	171	11-4	7530.83	106	11-10	7530.92	93.5				20-38-12
7-20		339	9-12		483	11-10		567				20-38-12
9-12		106	11-10		37.9							26-38-12
7-13		18.6	11-10		14.6							28-38-12
7-18		48.3	9-16		57.5	11-13		47.4				24-37-7
7-13		582	11-10		520							13-37-8

San Luis Valley, Colorado, Ground Waters - 13 -

(Conductance)

Index No.	Location and Description
14-37-6	Irrigation well (14K14D1) In NW1/4 of NW1/4 sec. 14, T.37N, R.6E. Depth 9.0 ft.; 4 ft. x 6.5 ft. Temp. 7-13, 56°F.
15-37-6	Shallow well (14K15M1) In NW1/4 of SW1/4 sec. 15, T.37N, R.6E. Temp. 7-13, 58°F.
15-37-6	Shallow well (14K15R1) In SE1/4 of SE1/4 sec. 15, T.37N, R.6E. Temp. 7-13, 67°F.
17-37-6	Shallow well (14K17H1) In SE1/4 of NE1/4 sec. 17, T.37N, R.6E.
18-37-6	Shallow well (14K18J1) In NE1/4 of SE1/4 sec. 18, T.37N, R.6E.
21-37-6	Shallow well (14K21H1) In SE1/4 of NE1/4 sec. 21, T.37N, R.6E.
21-37-6	Shallow well (14K21M1) In NW1/4 of SW1/4 sec. 21, T.37N, R.6E. Temp. 7-13, 72°F.; 9-23, 65°F.
23-37-6	Shallow well (14K23M1) In NW1/4 of SW1/4 sec. 23, T.37N, R.6E.
24-37-6	Shallow well (14K24F1) In SE1/4 of SW1/4 sec. 24, T.37N, R.6E.
25-37-6	L. V. Goff Artesian well (14K25M4) In SW1/4 of NW1/4 sec. 25, T.37N, R.6E. Depth 118 ft.; diam. 4 in. Temp. 9-18, 54°F.
25-37-6	Shallow well (14K25N1) In SW1/4 of SW1/4 sec. 25, T.37N, R.6E. Temp. 7-13, 75°F.
27-37-6	Shallow well (14K27R1) In SE1/4 of SE1/4 sec. 27, T.37N, R.6E. Temp. 7-23, 64°F.
28-37-6	Shallow well (14K28H1) In SE1/4 of NE1/4 sec. 28, T.37N, R.6E. Temp. 7-23, 66°F.
30-37-6	Hannah M. Worth estate well (14K30A1) In NE1/4 of NE1/4 sec. 30, T.37N, R.6E. Depth 38.7 ft.; diam. 8 ft. x 3 ft. Not artesian. Temp. 7-18, 55°F.; 9-16, 59°F.
31-37-6	John Corral well (14K31D1) In NW1/4 of NW1/4 sec. 31, T.37N, R.6E. Depth 46.2 ft.; diam. 3.5 ft. square. Not artesian. Temp. 7-16, 51.5°F.; 9-16, 52°F.
33-37-6	Shallow well (14K33A1) In NE1/4 of NE1/4 sec. 33, T.37N, R.6E.
33-37-6	Dyilled well (14K33J1) In NE1/4 of SE1/4 sec. 33, T.37N, R.6E. Depth 17.9 ft.; diam. 4 in. Not artesian. Temp. 7-18, 52°F.; 9-16, 53°F.; 11-13, 52°F.
11-37-9	Shallow well (14L11R1) In SE1/4 of SE1/4 sec. 11, T.37N, R.9E. (Yellow water)
15-37-9	Shallow well (14L15D1) In NW1/4 of NW1/4 sec. 15, T.37N, R.9E. Temp. 7-13, 62.5°F.
18-37-9	Shallow well (14L18A1) In NE1/4 of NE1/4 sec. 18, T.37N, R.9E. Temp. 11-9, 54.5°F.

San Luis Valley, Colorado, Ground Waters - 13 -

(Conductance)

Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Index No.
7-13		93.5	9-12		51.0	11-10		84.1	11-18		85.3*	14-37-8
7-13		156	9-12		78.0	11-10		49.7				15-37-8
7-13		63.1	9-12		77.3	11-10		47.9				15-37-8
9-23		no water	11-10		no water							17-37-8
7-13		104	9-23		47.5	11-10		37.2				18-37-8
7-13		56.5	9-23		37.9	11-10		29.2				21-37-8
7-13		108	9-23		44.6	11-10		40.2				21-37-8
11-10		95.5										23-37-8
11-10		213										24-37-8
9-18		24.0	9-25		24.2*							25-37-8
7-13		74.6	11-10		81.6							25-37-8
9-23		97.1										27-37-8
9-23		55.1	11-10		48.5							28-37-8
7-18		40.0	9-16		44.4	11-13		46.1				30-37-8
7-16		44.8	9-16		46.8	11-13		43.4				31-37-8
7-13		111										33-37-8
7-18		19.1	9-16		37.8	11-13		30.4				33-37-8
7-27		388	9-12		313	11-10		317	11-12		329*	11-37-9
7-13		1675	9-12		1140	11-10		1071				15-37-9
7-27		2812	9-12		2863	11-9		2840	11-10		3040*	18-37-9

\*Detailed analysis

San Luis Valley, Colorado, Ground Waters - 14 -

(Conductance)

Index No.	Location and Description
22-37-9	Shallow well (14L22R1) In SE1/4 of SE1/4 sec. 22, T.37N, R.9E.
26-37-9	Shallow well (14L26D1) In NW1/4 of NW1/4 sec. 26, T.37N, R.9E.
31-37-9	Shallow well (14L31D1) In NW1/4 of NW1/4 sec. 31, T.37N, R.9E. Temp. 7-13, 79°F.; 9-23, 69°F.
31-37-9	Shallow well (14L31P1) In SE1/4 of SW1/4 sec. 31, T.37N, R.9E. Temp. 9-23, 67°F.
34-37-9	Shallow well (14L34N1) In SW1/4 of SW1/4 sec. 34, T.37N, R.9E. Temp. 9-24, 64°F.
35-37-9	Shallow well (14L35R1) In SE1/4 of SE1/4 sec. 35, T.37N, R.9E.
7-37-10	Shallow well (14M7R1) In SE1/4 of SE1/4 sec. 7, T.37N, R.10E.
16-37-10	Shallow well (14M16A1) In NE1/4 of NE1/4 sec. 16, T.37N, R.10E. Elev. R.P. 7,536.08 ft. Temp. 7-13, 70°F.
19-37-10	Shallow well (14M19N1) In SW1/4 of SW1/4 sec. 19, T.37N, R.10E. Temp. 9-24, 67°F.
21-37-10	Shallow well (14M21N1) In SW1/4 of SW1/4 sec. 21, T.37N, R.10E. Elev. R.P. 7,535.48 ft.
24-37-10	Shallow well (14M24N1) In SW1/4 of SW1/4 sec. 24, T.37N, R.10E.
31-37-10	Shallow well (14M31R1) In SE1/4 of SE1/4 sec. 31, T.37N, R.10E. Elev. R.P. 7,546.53 ft.
9-37-11	Shallow well (14N9R1) In SE1/4 of SE1/4 sec. 9, T.37N, R.11E.
11-37-11	Shallow, Colorado, well (14N11G1) In SW1/4 of NE1/4 sec. 11, T.37N, R.11E. Elev. R.P. 7,536.43 ft.
31-37-11	Shallow well (14N31M1) In NW1/4 of SW1/4 sec. 31, T.37N, R.11E.
6-37-12	Shallow well, Colorado, (14Q6D1) In NW1/4 of NW1/4 sec. 6, T.37N, R.12E. Elev. R.P. 7,543.86 ft.
7-37-12	Shallow well, Colorado, (14Q7R1) In SW1/4 of SW1/4 sec. 7, T.37N, R.12E. Elev. R.P. 7,555.68 ft.
25-36-7	Specker well (15J25M1) In NW1/4 of SW1/4 sec. 25, T.36N, R.7E. Depth 90.6 ft.; diam. 3.5 ft. Not artesian. Temp. 9-17, 49.5°F.
1-36-8	Shallow well (15K1G1) In NE1/4 of NW1/4 sec. 1, T.36N, R.8E.
1-36-8	Shallow well (15K1P2) In SE1/4 of SW1/4 sec. 1, T.36N, R.8E. Temp. 7-14, 72°F.; 9-23, 63°F.
3-36-8	Shallow well (15K3B1) In NW1/4 of NE1/4 sec. 3, T.36N, R.8E. Temp. 9-23, 66°F.

San Luis Valley, Colorado, Ground Waters - 14 -

(Conductance)

Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Index No.
7-16		420	11-12		336							22-37-9
7-29		1027	9-15		543	11-20		154				28-37-9
7-13		73.1	9-23		58.8	11-10		59.3				31-37-9
9-23		151	11-11		116							31-37-9
9-24		212	11-12		91.4							34-37-9
7-15		872	9-24		1273	11-12		834				35-37-9
7-25		173	9-12		89.1	11-10		73.4				7-37-10
7-13	7534.31	no water	9-12	7534.44	134	11-10	7534.23	131				16-37-10
9-15		569	9-24		600	11-12		654				19-37-10
9-14	7532.04	218	11-12	7532.65	116							21-37-10
7-16		99.5	9-16		79.1*	11-5		102				24-37-10
9-14	7544.71	34.5	11-12	7545.40	26.1							31-37-10
11-10		29.0										9-37-11
7-24	7531.61	82.9	9-11	7532.54	65.0	11-10	7533.49	66.8				11-37-11
7-16		95.8	11-13		85.3							31-37-11
7-24	7538.26	127	9-11	7540.02	108	11-10	7540.93	89.0				6-37-12
7-13	7551.49	130	9-11	7551.95	145	11-10	7552.46	258				7-37-12
9-17		38.9	11-13		46.1							25-36-7
7-14		398	9-15		no water	9-23		335	11-11		288	1-36-8
7-14		67.7	9-23		66.8							1-36-8
7-14		50.2	9-23		32.4							3-36-8

San Luis Valley, Colorado, Ground Waters - 15 -

(Conductance)

Index No.	Location and Description
4-36-8	Dug well (15K11E1) In SW1/4 of NW1/4 sec. 4, T.36N, R.8E. Depth 72.6 ft.; diam. 2.5 ft. square. Not artesian. Temp. 7-18, 55°F.; 9-16, 53°F.
11-36-8	Shallow well (15K11D1) In NW1/4 of NW1/4 sec. 11, T.36N, R.8E. Temp. 7-14, 56°F.; 9-23, 63.5°F.
12-36-8	Ed Knapp well (15K12E1) In SW1/4 of NW1/4 sec. 12, T.36N, R.8E. Depth 12.9 ft.; diam. 4 ft. square. Temp. 7-14, 65°F.
13-36-8	W. R. O'Toole well (15K13E1) In SE1/4 of SW1/4 sec. 13, T.36N, R.8E. Depth 11.5 ft. Diam. 5 in. Temp. 7-15, 55°F.
14-36-8	Shallow well (15K14A1) In NE1/4 of NE1/4 sec. 14, T.36N, R.8E.
15-36-8	Dug well (15K15E1) In SE1/4 of SE1/4 sec. 15, T.36N, R.8E. Depth 49.1 ft.; diam. 3.5 ft. square. Not artesian. Temp. 7-18, 54°F.; 9-16, 56°F.; 11-13, 52.5°F.
21-36-8	Roy Frazier well (15K21E1) In SE1/4 of NE1/4 sec. 21, T.36N, R.8E. Depth 105.3 ft.; diam. 3.5 ft. square. Not artesian. Temp. 7-20, 55°F.; 9-16, 51°F.; 11-13, 50°F.
23-36-8	School District No. 35 well (15K23E1) In SW1/4 of SW1/4 sec. 23, T.36N, R.8E. Depth 54 ft.; diam. 6 in. Not artesian. Temp. 7-20, 54°F.; 9-16, 60.5°F.
26-36-8	L. E. Timmins well (15K26E1) In SE1/4 of NE1/4 sec. 26, T.36N, R.8E. Depth 17.3 ft.; diam. 3.5 ft. square. Not artesian. Temp. 7-20, 56°F.; 9-16, 60°F.; 11-13, 52°F.
5-36-9	Shallow well (15L5N1) In SW1/4 of SW1/4 sec. 5, T.36N, R.9E. Temp. 9-23, 64°F.
7-36-9	Shallow well (15L7C1) In NE1/4 of NW1/4 sec. 7, T.36N, R.9E. Temp. 7-14, 55°F.; 9-23, 66°F.
7-36-9	D. E. Ryker Irrigation well (15L7N1) In SW1/4 of SW1/4 sec. 7, T.36N, R.9E. Depth 23 ft.; diam. 10.5 ft. square. Not artesian. Temp. 7-14, 56°F.; 11-9, 52°F.
13-36-9	Shallow well (15L13A1) In NE1/4 of NE1/4 sec. 13, T.36N, R.9E. Elev. R.P. 7,558.40 ft.
14-36-9	Shallow well (15L14D1) In NW1/4 of NW1/4 sec. 14, T.36N, R.9E.
16-36-9	Shallow well (15L16D1) In NW1/4 of NW1/4 sec. 16, T.36N, R.9E. Temp. 9-23, 69°F.
17-36-9	Shallow well (15L17D1) In NW1/4 of NW1/4 sec. 17, T.36N, R.9E. Temp. 9-23, 68°F.
19-36-9	Shallow well (15L19B1) In NW1/4 of NE1/4 sec. 19, T.36N, R.9E. Temp. 9-23, 64°F.
25-36-9	Shallow well (15L25D1) In NW1/4 of NW1/4 sec. 25, T.36N, R.9E. Elev. R.P. 7,573.04 ft. Temp. 11-9, 46°F.
27-36-9	Shallow well (15L27D1) In NW1/4 of NW1/4 sec. 27, T.36N, R.9E. Temp. 9-24, 72°F.
30-36-9	Shallow well (15L30G1) In SW1/4 of NE1/4 sec. 30, T.36N, R.9E. Temp. 9-24, 60°F.

San Luis Valley, Colorado, Ground Waters - 15 -

(Conductance)

Date 1936	Elev. W.S.	Kr10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kr10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kr10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kr10 <sup>5</sup> @25°C	Index No.
7-18		69.9	9-16		87.1	11-13		48.0				4-36-8
7-14		54.8	9-23		51.0							11-36-8
7-14		37.1	9-15		40.4	11-11		43.0				12-36-8
7-15		46.5	9-15		47.1	11-11		50.0				13-36-8
7-14		79.2	9-23		64.2	11-11		69.5				14-36-8
7-18		79.9	9-16		58.3	11-13		50.6				15-36-8
7-20		44.5	9-16		42.4	11-13		43.6*				21-36-8
7-20		33.9	9-16		41.5	11-13		44.3				23-36-8
7-20		53.5	9-16		54.1	11-13		54.6	11-18		54.6*	26-36-8
7-28		148	9-23		58.1	11-11		50.0				5-36-9
7-14		88.1	9-23		108	11-12		93.0				7-36-9
7-14		56.2	9-15		42.1	11-9		55.3*				7-36-9
9-14		562	9-24		415	11-12		352				13-36-9
11-12		747										14-36-9
7-14		290.4	9-23		284	11-11		307				16-36-9
7-14		154	9-23		128	11-11		118				17-36-9
9-23		160	11-11		146							19-36-9
7-15	7570.10	378	11-9	7570.60	287	11-11	7570.51	280*				25-36-9
7-15		491	9-24		390	11-11		348				27-36-9
9-24		120	11-11		108							30-36-9

\*Detailed analysis

San Luis Valley, Colorado, Ground Waters - 16 -

(Conductance)

Index No.	Location and Description
33-36-9	Shallow well (15L33R1) In SE1/4 of SE1/4 sec. 33, T.36N, R.9E.
35-36-9	Shallow well (15L35R1) In SE1/4 of SE1/4 sec. 35, T.36N, R.9E. Elev. R.P. 7,562.35 ft.
4-36-10	Shallow well (15M4R1) In SE1/4 of SE1/4 sec. 4, T.36N, R.10E.
16-36-10	Shallow well (15M16R1) In SE1/4 of SE1/4 sec. 16, T.36N, R.10E.
25-36-10	Shallow well (15M25A1) In NE1/4 of NE1/4 sec. 25, T.36N, R.10E. Temp. 9-24, 62°F.
28-36-10	Shallow well (15M28R1) In SE1/4 of SE1/4 sec. 28, T.36N, R.10E.
29-36-10	Shallow well (15M29M1) In NW1/4 of SW1/4 sec. 29, T.36N, R.10E.
36-36-10	Shallow well (15M36R1) In SE1/4 of SE1/4 sec. 36, T.36N, R.10E. Temp. 9-24, 62°F.
7-36-11	Shallow well (15N7N1) In SW1/4 of SW1/4 sec. 7, T.36N, R.11E.
3-35-6	Shallow well (16E3J1) In NE1/4 of SE1/4 sec. 3, T.35N, R.8E. Temp. 7-20, 63°F.; 9-17, 56°F.
23-35-6	J. Luis Rivera well (16E23D1) In NW1/4 of NW1/4 sec. 23, T.35N, R.8E. Depth 60.5 ft.; 4 ft. square. Temp. 9-24, 51°F. Not artesian.
5-35-9	Shallow well (16L5D1) In NW1/4 of NW1/4 sec. 5, T.35N, R.9E. Temp. 7-15, 58°F.
18-35-9	O. O. Kanton Artesian well (16L18R1) In SE1/4 of SE1/4 sec. 18, T.35N, R.9E. Depth 75 ft.; diam. 2 in. Temp. 9-21, 58.5°F.
23-35-9	Colo. State Fish Hatchery Artesian well (16L23M5---52) In NW1/4 of SW1/4 sec. 23, T.35N, R.9E.; one half mile south of La Jara. Depth 300 ft.; cased 155 ft.; diam. 5 in. Disch. 70' gpm. Temp. 9-26, 49.5°F.
23-35-9	Colo. State Fish Hatchery Artesian well (16L23M6---56) In NW1/4 of SW1/4 sec. 23, T.35N, R.9E.; one half mile south of La Jara. Depth 210 ft.; cased 200 ft.; diam. 5 in. Disch. est. 50 gpm. Temp. 9-26, 49.5°F.
31-35-9	Tennis Smith Artesian well (16L31A1) In NE1/4 of NE1/4 sec. 31, T.35N, R.9E. Depth unknown. Diam. 2 in. Disch. 2.9 gpm. Temp. 9-21, 47°F. Head 7.15 ft. above ground surface Nov. 18.
32-35-9	Frank Morgan Artesian well (16L32P1) In SE1/4 of SW1/4 sec. 32, T.35N, R.9E. Depth 61 ft.; diam. 2 in. Non-flowing. Temp. 7-23, 50°F.; 9-21, 50.5°F.
6-35-10	Shallow well (16M6R1) In SE1/4 of NE1/4 sec. 6, T.35N, R.10E.
9-35-10	Shallow well (16M9A1) In NE1/4 of NE1/4 sec. 9, T.35N, R.10E.
24-35-10	Flowing Artesian well (16M24L1) In NE1/4 of SW1/4 sec. 24, T.35N, R.10E. Owner unknown. Depth unknown; diam. 3 in. Temp. 7-24, 58.5°F.



San Luis Valley, Colorado, Ground Waters - 16 -

(Conductance)

Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Index No.
11-11		239										33-36-9
7-16	7576.19	109	9-15	7575.60	77.4	11-12	7576.38	43.5				35-36-9
7-27		409	9-16		480	11-5		500				4-36-10
7-16		745	9-16		766	11-12		830				16-36-10
9-24		764	11-13		1570							25-36-10
7-15		308	9-16		492	11-12		336				28-36-10
7-15		no water	9-16		252	11-12		138				29-36-10
9-24		59.6	11-13		45.9							36-36-10
11-13		95.9										7-36-11
7-20		36.0	9-17		32.5	11-13		32.9				3-35-8
9-24		20.8	10-15		19.1*	11-18		17.7				23-35-8
7-15		241	11-11		151							5-35-9
7-23		19.3	9-21		16.3	10-15		15.0*	11-18		14.0	18-35-9
9-26		17.5	11-18		17.2							23-35-9
9-26		19.5	11-18		19.8							23-35-9
9-21		25.1	10-15		25.6*	11-18		25.4				31-35-9
7-23		21.0	9-21		19.4	11-18		19.6*				32-35-9
7-16		95.6										6-35-10
7-16		457										9-35-10
7-24		17.2	8-19		16.2*	11-18		15.3				24-35-10

\*Detailed analysis

82343 O-38-7

San Luis Valley, Colorado, Ground Waters - 17 -

(Conductance)

<u>Index No.</u>	<u>Location and Description</u>
10-34-9	B. Bako Artesian well (17L1OD1) In NW1/4 of NW1/4 sec. 10, T.34N, R.9E. Depth 68.5 ft.; diam. 2 in.; disch. 2 gpm. Temp. 7-23, 50°F.; 9-21, 50.5°F.
10-34-9	Mrs. V. F. Hunnicutt Artesian well (17L1OR1) In SE1/4 of SE1/4 sec. 10, T.34N, R.9E. Depth 75 ft.; diam. 2 in.; disch. 0.25 gpm. Temp. 7-23, 50°F.; 9-21, 51°F.

San Luis Valley, Colorado, Ground Waters - 17 -

(Conductance)

Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W.S.	Kx10 <sup>5</sup> @25°C	Index No.
7-23		18.8	9-21		18.4	10-15		19.2*	11-18		19.2	10-34-9
7-23		20.7	9-21		21.1	10-15		21.6*	11-18		21.3	10-34-9

\*Detailed analysis

Middle Rio Grande Valley, New Mexico, Surface Waters

(Conductance)

Index No.	Location and Description
<p>Note: In the following descriptions the townships and ranges are referred to the New Mexico principal meridian; the elevations are by the Geological Survey. In the facing tables the conductance values are given as reported by the Geological Survey and by the State of Texas. For some stations there are reports from both agencies. In general, the State of Texas reported discharges and not gage heights and the Geological Survey reported gage heights but only a few discharges. In respect to the stations on drains the initials "R.S.D." mean riverside drain and "I.D." interior drain.</p>	
<u>Streams:</u>	
10-26-13	<p>Rio Lucero near Arroyo Seco (6).            Lat. 36°30', long. 105°32', sec. 10, T. 26N., R. 13E.; 200 ft. above Rio Lucero Diversion Dam, 2 miles southeast of Arroyo Seco, 4-1/2 miles north of Taos Pueblo. Zero of gage is 8048.92 ft. above sea level. Sampled and analyzed by U.S.G.S.</p>
23-25-12	<p>Rio Taos near Los Cordovas, N. Mex. (7).            Lat. 36°23', long. 105°39', N. 1/2 sec. 23, T. 25N., R. 12E.; about 50 ft. below mouths of Rio Ranchos de Taos and Arroyo Seco, 1/2 mile northeast of Los Cordovas, and 4 miles west of Taos. Zero of gage is 6710.59 ft. above sea level. Sampled and analyzed by U.S.G.S.</p>
29-23-10	<p>Embudo Creek near Dixon, N. Mex. (9).            Lat. 36°12', long. 105°55', sec. 29, T. 23N., R. 10E.; 1 mile northwest of Dixon and 1-1/2 miles above confluence with Rio Grande. Zero of gage is 5925.56 ft. above sea level. Sampled and analyzed by U.S.G.S.</p>
24-17-10	<p>Santa Fe Creek near Santa Fe, N. Mex. (11).            Lat. 35°41', long. 105°50', SW 1/4 SW 1/4 sec. 24, T. 17N., R. 10E.; about 300 ft. below upper storage reservoir of New Mexico Power Co., and 6 miles east of Santa Fe. Sampled and analyzed by U.S.G.S.</p>
13-15-5	<p>Galisteo Creek at mouth (866.2).            In sec. 13, T. 15N., R. 5E., above confluence with Rio Grande. Sampled and analyzed by the State of Texas.</p>
19-25-7	<p>El Rito Creek near El Rito, N. Mex. (8).            Lat. 36°23', long. 106°13', sec. 19, T. 25N., R. 7E.; 3 miles northwest of El Rito. Sampled and analyzed by U.S.G.S.</p>
33-28-2	<p>Rio Chama near Tierra Amarilla, N. Mex. (5).            Lat. 36°35', long. 106°44', NE 1/4 NE 1/4 SE 1/4 sec. 33, T. 28N., R. 2E.; 1600 ft. below El Vado Dam, and 13 miles southwest of Tierra Amarilla. Zero of gage is 6726.455 ft. above sea level. Sampled and analyzed by U.S.G.S.</p>
31-22-8	<p>Rio Chama near Chumita, N. Mex. (10).            Lat. 36°06', long. 106°08', S. 1/2 sec. 31, T. 22N., R. 8E.; 50 ft. below Espanola-Ojo Caliente Highway bridge, 3-3/4 miles northwest of Chumita and 4 miles above confluence with Rio Grande. Zero of gage is 5654.09 ft. above sea level. Sampled and analyzed by U.S.G.S. and State of Texas.</p>
23-23-9	<p>Rio Grande at Embudo, N. Mex. (T).            SW 1/4 sec. 23, T. 23N., R. 9E.; about 2-1/2 miles below Embudo Creek. Sampled and analyzed by the State of Texas.</p>
13-19-7	<p>Rio Grande at Otowi Bridge, near San Ildefonso, N. Mex. (A).            Lat. 35°43'30", long. 106°17'28", sec. 13, T. 19N., R. 7E.; at Denver &amp; Rio Grande Western Railroad bridge, 2 miles southwest of San Ildefonso and 3 miles below mouth of Tesuque Creek; approximately 5,300 ft. above sea level. Samples by U.S.G.S., analyses by U.S.B.P.L. Zero of gage is 5488.48 ft. above sea level.</p>

Middle Rio Grande Valley, New Mexico, Surface Waters

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
7-2	0.93	16	11.8	7-30	0.82	12	12.6	8-11	0.98	20	10.5	10-26-13
9-9	0.84	13	11.9	9-22	0.83	14	12.1					
7-2	1.46	8	71.9	7-29	1.32	5.5	50.5	8-27	1.54	13.6	54.2	23-25-12
9-30	1.68	20.8	39.8	10-21	1.78	28.8	47.6					
7-1	1.67	22	39.5	8-10	2.54	49	33.1	9-10	2.65	14	23.0	29-23-10
7-14	2.43	53	35.1	8-25	2.80	29	36.5	9-21	2.92	33	33.5	
7-14	2.58	53	39.4	8-27	2.42	16.3	37.2	9-28	2.11	70.0	33.3	
7-28	1.97	7	39.9	9-4	2.86	26.4	36.2	10-19		40	31.7	
7-30	2.22	8	43.4									
7-3	0.74	5.9	5.1	8-21	0.98	14	6.4	10-8	0.90	--	6.3	24-17-10
7-12	0.82	8.6	4.8	8-28	0.84	8.1	6.1	10-16	1.00	13.3	6.0	
7-18	0.84	9.4	4.8	9-4	0.82	7.4	7.0	10-23	0.94	2.5	6.4	
7-24	0.85	9.8	4.9	9-11	0.76	4.7	6.8	10-31	0.92	--	6.2	
7-31	0.85	9.8	4.9	9-18	0.62	2.2	7.0	11-6	0.92	--	6.0	
8-8	1.06	24.0	6.0	9-25	0.64	2.4	6.9	11-13	0.76	2.5	6.1	
8-14	0.90	11.0	6.6	10-2	0.96	11.9	6.6					
3-3			21.2									13-15-5
7-20	0.89	1.9	11.5	8-3	0.96	3.3	28.2	8-20	0.98	2.58	12.6	19-25-7
9-24	0.94	1.61	13.3	10-29	1.28	9.05	26.9					
7-21	5.13	388	28.1	9-1	5.62	686	21.9	10-6	3.58	--	57.3	33-28-2
7-28	5.34	1,200	26.9	9-8	5.56	675	23.7	10-13	5.84	--	31.5	
8-1	5.06	397	23.8	9-15	5.54	665	25.6	10-20	5.81	--	32.5	
8-11	6.23	1,090	23.6	9-29	3.64	16	47.4	10-27	5.80	--	31.4	
8-19		1,060	23.4									
5-26		515	27.4	8-31	2.73	638	40.0	10-17	2.20	353	41.4	31-22-8
7-2	2.58	900	31.3	9-11	2.64	554	33.2	11-7	2.57	675	36.4	
8-1	2.90	1,180	31.2	9-28	2.28	438	74.0	11-23	1.62	72.1	65.4	
8-8	1.94	310	77.9	10-1	1.72	143	55.8	11-30	1.58	84	67.7	
8-12	2.82	890	51.2									
3-11			33.6	5-26			21.5					23-23-9
5-23		2920	24.0	7-8		1380	33.2	8-18		1200	31.5	13-19-7
6-10		947	31.8	7-15		643	39.6	8-28		981	32.1	
6-23		1170	24.2	7-27		1125	33.3	9-8		1050	33.0	
6-30		1320	30.2	8-8		706	42.1	9-21		775	37.8	

Middle Rio Grande Valley, New Mexico, Surface Waters - 2 -

(Conductance)

Index No.	Location and Description
	<u>Streams:</u> (Cont'd)
17-16-6	Rio Grande at Cochiti, N. Mex. (12). Lat. $35^{\circ}38'$ , long. $106^{\circ}19'$ NE $1/4$ sec. 17, T. 16N., R. 6E.; at highway bridge 1 mile northeast of Cochiti and 8 miles above mouth of Galisteo Creek. Zero of gage is 5224.76 ft. above sea level. Sampled and analyzed by U.S.G.S.
13-15-5	Rio Grande at Pena Blanca N. Mex. (865.9). NW $1/4$ sec. 13, T. 15N., R. 5E., above outlet of Pena Blanca R.S.D. Sampled and analyzed by the State of Texas.
17-14-5	Rio Grande at San Felipe, N. Mex. (21). SW $1/4$ sec. 17, T. 14N., R. 5E.; at highway bridge 2000 ft. below mouth of Tonque Arroyo, $1/2$ mile above San Felipe, and about 12 miles northeast of Bernalillo. Zero of gage is 5110.38 ft. above sea level. Sampled and analysed by U.S.G.S. and State of Texas.
3-13-4	Rio Grande at Angostura Diversion Dam, N. Mex. (879.5). SE $1/4$ sec. 3, T. 13N., R. 4E.; near Algodones N. Mex. Sampled and analyzed by the State of Texas.
13-10-2	Rio Grande at Old Town Bridge, N. Mex. (901.8). SE $1/4$ sec. 13, T. 10N., R. 2E.; at highway bridge 1 mile west of Albuquerque. Sampled and analyzed by the State of Texas.
24-6-2	Rio Grande at Isleta, N. Mex. (48). W $1/2$ sec. 24, T. 6N., R. 2E.; at highway bridge just east of Isleta, and immediately upstream from Isleta Diversion Dam. No gage. Sampled and analyzed by U.S.G.S. and State of Texas.
16-5-2	Rio Grande near Belen, N. Mex. (933.1). Sec. 16, T. 5N., R. 2E.; at highway bridge 2 miles east of Belen. Sampled and analyzed by the State of Texas.
12-2-1	Rio Grande near Bernardo, N. Mex. (78). NW $1/4$ sec. 12, T. 2N., R. 1E.; at bridge on highway U.S. 60, 2 miles east of Bernardo. Zero of west gage is 4723.98 ft. above sea level; that of the east gage, left bank, is 4723.49 ft. above sea level. Sampled and analyzed by U.S.G.S. and State of Texas.

Middle Rio Grande Valley, New Mexico, Surface Waters - 2 -

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
7-14	3.94	513	49.2	9-4	4.34	862	31.1	10-23	4.31	730	39.2	17-16-6
7-21	3.77	335	43.6	9-11	4.05	600	32.1	10-28	4.42	1,010	37.4	
7-30	4.35	1,020	39.2	9-12	4.05	630	32.9	11-4	4.50	1,080	36.9	
8-4	5.70	2,150	37.5	9-23	4.62	1,180	40.1	11-11	4.08	660	37.5	
8-11	4.40	773	39.6	9-30	4.15	630	52.4	11-17	4.35	958	32.4	
8-21	2.00	2,280	47.3	10-7	4.00	531	40.4	11-25	4.28	700	33.0	13-15-5
8-28	4.30	898	34.7	10-14	4.21	660	55.5	12-3	4.08	720	34.0	
8-11			42.3									
1-30		780	36.9	8-31	4.22	1,370	45.0	10-21	3.79	952	39.8	17-14-5
7-10		1,040	40.7	9-7	3.54	941	35.2	10-28	4.12	1,150	39.5	
7-22	3.55	622	42.4	9-14	3.78	919	36.6	11-4	4.25	1,260	38.2	
7-28	4.00	1,360	35.6	9-21		780	47.8	11-11	3.76	842	39.4	
8-4	5.15	2,360	51.2	9-28	4.35	1,710	64.6	11-17	3.90	985	36.4	
8-10	3.94	996	58.0	10-5	3.45	700	41.6	11-25	3.99	810	34.9	3-13-4
8-17	4.04	1,170	42.4	10-14	3.51	831	41.3	12-2	3.85	820	35.9	
8-24	3.43	675	40.8									
9-26-35			60.2	3-30			36.2	6-22			26.0	
11-19-35			42.3	4-8			45.0	7-7			62.4	
1-9			35.3	5-7			35.2	8-11			43.8	13-10-2
3-3			39.8	5-25			28.2	8-30			45.2	
3-20			41.4	6-8			29.5	10-1			45.8	
1-31			55.5	3-4			51.5	3-21			48.6	
4-6			60.6									
9-27-35			63.0	7-24		134	65.8	9-28		4,960	78.4	24-8-2
11-22-35			56.0	7-29		577	47.9	10-3		910	58.6	
1-10			60.0	8-5		2,300	64.5	10-9		817	53.9	
1-31			56.2	8-12		568	52.7	10-14		622	54.8	
3-5			55.7	8-13		730	51.3	10-21		910	49.9	
3-21			52.3	8-18		670	45.2	10-27		1,600	53.6	16-5-2
4-9			58.8	8-24		595	50.1	11-4		1,440	50.1	
5-7			26.8	8-31		1,440	39.3	11-9		839	50.8	
5-25			70.6	9-2		773	51.1	11-16		1,100	49.3	
6-10			42.3	9-8		613	45.0	11-23		1,180	49.2	
7-7		1,110	45.8	9-16		622	45.2	11-30		751	48.4	12-2-1
7-17		650	53.9	9-21		1,080	49.4	12-3		1,020	50.8	
7-24		134	66.0									
3-6			67.6	3-21			69.7	6-23			93.0	
9-27-35			90.6	7-30	1.75	53	101	9-27	3.93	2,330	142	
1-10			63.0	8-3	3.11	777	73.6	10-3		724	76.6	12-2-1
2-1			61.6	8-10	1.97	171	93.9	10-5	3.20	942	68.9	
3-7			60.9	8-17	3.02	173	68.6	10-12	3.00	644	68.2	
3-21			59.4	8-24	2.75	758	70.7	10-19	3.06	740	66.1	
4-10			79.6	8-31	3.84	704	67.7	10-26	3.34	1,270	61.5	
5-8			31.2	9-8	2.56	428	66.5	11-2	3.25	1,520	55.8	67.6
5-26			41.4	9-14	2.85	660	66.4	11-9	2.96	1,270	65.2	
6-10		304	68.7	9-21	2.90	830	61.9	11-16	2.93	776	63.4	
6-24		112	91.6	8-13		171	93.6	11-23	2.88	758	67.6	
7-7		532	66.4	9-2		631	73.2	12-1	2.96	676		
7-18	2.45	370	80.7	9-14		660	64.8					

Middle Rio Grande Valley, New Mexico, Surface Waters - 3 -

(Conductance)

Index No.	Location and Description
	<u>Streams:</u> (Cont'd)
1-1-1	Rio Grande at San Acacia, N. Mex. (82). NE 1/4 sec. 1, T.1S., R.1W., 1/8 mile downstream from diversion dam, and 3/8 mile east of San Acacia. Zero of west gage is 4662.56 ft. above sea level, that of east gage is 4663.03 ft. above sea level. Sampled and analyzed by U.S.G.S. and State of Texas.
32-4-1	Rio Grande at San Antonio, N. Mex. (967.9). SE 1/4 sec. 32, T.4S., R.1E.; at highway bridge 1 mile east of San Antonio. Sampled and analyzed by the State of Texas.
19-7-1	Rio Grande at San Marcial, N. Mex. (1000.6). Sec. 19, T.7S., R.1W.; at railroad bridge 1 mile below San Marcial. Zero of gage is 4455.38 ft. above sea level. Sampled and analyzed by the State of Texas.
7-15-2	Jemez Creek near San Ysidro, N. Mex. (T). Sec. 7, T.15N., R.2E., above the junction of Salado branch. Sampled and analyzed by the State of Texas.
1-15-1	Jemez Creek, Salado branch near San Ysidro, N. Mex. (T). Sec. 1, T.15N., R.1E., above the junction with Jemez Creek. Sampled and analyzed by the State of Texas.
32-14-4	Jemez Creek near Bernalillo, N. Mex. (25). Lat. 35°23'40", long. 106°32'25", S 1/2 sec. 32, T.14N., R.4E.; about 2 miles above confluence with Rio Grande, and 6.2 miles north of Bernalillo. Zero of gage is 5120.11 ft. above sea level. Sampled and analyzed by U.S.G.S. and State of Texas.
31-7-1	Rio Puerco at Rio Puerco, N. Mex. (51). Lat. 34°47', long. 107°00' sec. 31, T.7N., R.1W., at railroad bridge, 16 miles west of Los Lunas. Zero of gage is 5008.68 ft. above sea level. Sampled and analyzed by U.S.G.S.
8-2-1	Rio Puerco at bridge on highway U.S. 85 (101). SE 1/4 sec. 8, T.2N., R.1E., 5 miles southeast of the village of Picocho, N. Mex. and 1.5 miles above junction with Rio Grande. Sampled and analyzed by U.S.G.S. and State of Texas. (950.5).
24-1-1	Rio Salado, near mouth, near San Acacia, N. Mex. (21). S 1/2 sec. 24, T.1N., R.1W., at highway bridge 2 miles north of San Acacia, about 9 miles southwest of Bernardo, and 3 miles above junction with Rio Grande. No gage. Sampled and analyzed by U.S.G.S. and State of Texas.
31-6-7	Alamosa River near Monticello, N. Mex. (96). Lat. 35°35', long. 107°36', S 1/4 sec. 31, T.6S., R.7W., 15 miles northwest of Monticello, just below mouth of Wildhorse Creek, the Alamosa dam site and old Fort Ojo Caliente, 600 ft. below head of box canyon. Zero of gage is                      ft. above sea level. Sampled and analyzed by U.S.G.S.



Middle Rio Grande Valley, New Mexico, Surface Waters - 3 -

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
1-25-35			95.5	8-3	3.16	533	106	9-28	3.74	6,860	183	1-1-1
1-11			74.5	8-5	2.40	4,380	195	10-3		814	94.1	
2-1			78.9	8-10	1.16	331	130	10-5	3.13	828	82.9	
3-7			73.6	8-15		67	91.7	10-12	2.88	690	74.7	
3-23			61.8	8-17	1.95	429	76.5	10-19	3.12	912	72.5	
4-10			72.0	8-24	1.36	994	88.4	10-26	3.50	1,230	67.4	
5-8		6,390	37.7	8-31	1.68	569	89.8	11-2	3.56	1,570	64.2	
5-26		1,850	44.7	9-8	1.58	394	75.4	11-9	3.24	1,120	60.3	
6-10		257	71.2	9-14	2.62	704	98.2	11-16	2.94	585	76.2	
7-7		349	80.0	9-14		704	102	11-23	3.92	884	73.1	
7-10	2.00	506	110	9-21	2.52	416	78.1	12-1	3.84	786	90.4	
7-26	1.94	21	123									
1-25-35			96.1	4-10			91.7	7-7			96.5	32-4-1
2-1			80.8	5-8			40.0	8-15			86.1	
2-21			78.8	5-28			53.1	10-3			96.6	
3-22			68.2									
3-22			75.1									19-7-1
2-17			74.0									7-15-2
12-13-35			1400	2-17			1270					1-15-1
12-13-35			219	8-6		8	110	10-18		35	152	32-14-4
3-4			91.8	8-22		4	143	10-25	0.26	44	208	
3-20			46.6	8-31		13	562	11-5	0.20	80	112	
4-8		300	95.4	9-14		6	279	11-12		44	114	
6-9		1	106	9-21		27	256	11-14	0.25	44	120	
7-24		0	274	9-28		125	194	11-18	0.20	58	136	
7-28		0	149	10-6		53	121	11-25		40	147	
8-4	0.62	19	251	10-12	0.22	48	127	12-5	0.32	62	174	
7-23	0.56	1	302	9-9	0.54	3	258	11-5	0.56	--	306	31-7-1
8-3	1.00	333	356	9-13	1.48	798	122	11-10	0.58	--	344	
8-11	0.69	37	210	9-20	0.52	1	389	11-18	0.54	--	426	
8-17	0.61	11	317	9-27	3.98	4,680	171	11-22	0.52	--	483	
8-22	1.48	874	197	10-26	0.65	132	322	12-2	0.51	--	485	
8-31	1.58	565	280									
3-7			195	8-21		800	339	11-3		5	272	8-2-1
5-8			210	8-21		400	268	11-10		8.00	375	
7-15			337	9-2			245	11-19			465	
8-4		100	359	9-14			161	11-17		2.00	422	
8-4		300	365	9-23		700	194	11-23		2.00	522	
8-7			198	9-24			197	12-1		2.00	507	
6-25			291	8-21		200	133	9-14		75	182	24-1-1
7-11			279	8-31		200	125	9-27		800-1000	91.4	
7-23		0.75	472	9-2			139	9-28		125	76.4	
7-29		15	263	9-11		300	205	9-28			80.5	
8-3		40	228									
7-11	1.47	6.9	81.0	8-13	1.46	6.7	79.5	8-28		7.56	67.4	31-8-7
9-13	1.01	7.24	73.3	11-12	1.59	8.09	63.9					

Middle Rio Grande Valley, New Mexico, Surface Waters - 4 -

(Conductance)

Index No.	Location and Description
<u>Streams:</u> (Cont'd)	
33-16-11	Mimbres River near Mimbres, N. Mex. (99). Lat. 32°52', long. 107°59', SE 1/4 NW 1/4 sec. 33, T. 16S., R. 11W.; 1-1/2 miles northwest of Mimbres. Zero of gage is                      ft. above sea level. Sampled and analyzed by U.S.G.S.
7-20-10	Mimbres River near Faywood, N. Mex. (100). Lat. 32°36', long. 107°53', sec. 7, T. 20S., R. 10W.; about 6 miles northeast of Faywood Hot Springs and 10 miles northeast of Faywood. Zero of gage is                      ft. above sea level. Sampled and analyzed by U.S.G.S.
15-14-10	Rio Tularosa near Tularosa, N. Mex. (97). Lat. 33°07', long. 105°57', SW 1/4 SW 1/4 sec. 15, T. 14S., R. 10E.; 200 ft. above diversion dam for Tularosa Community Pitch and 5 miles northeast of Tularosa. Zero of gage is                      ft. above sea level. Sampled and analyzed by U.S.G.S.
4-17-11	Alamo Creek at Wood Ranch near Alamogordo, N. Mex. (96). Lat. 32°51'25", long. 105°50'00", SW 1/4 sec. 4, T. 17S., R. 11E.; 100 ft. above road crossing at Wood Ranch and 4 miles southeast of Alamogordo. Zero of gage is                      ft. above sea level. Sampled and analyzed by U.S.G.S.
<u>Canals:</u>	
14-15-5	Sili Main Canal near Santo Domingo, N. Mex. (13). NW 1/4 sec. 14, T. 15N., R. 5E.; at road crossing 2 miles northwest of Santo Domingo and opposite mouth of Calisteo Creek. No gage. Sampled and analyzed by U.S.G.S.
8-14-5	Sili Main Canal, at end, near San Felipe, N. Mex. (19). NW 1/4 sec. 8, T. 14N., R. 5E.; at road crossing 1-3/4 miles north of San Felipe, and 6-1/2 miles downstream from mouth of Calisteo Creek. No gage. Sampled and analyzed by U.S.G.S.
19-15-6	Cochiti Main Canal at Santo Domingo, N. Mex. (14). NW 1/4 sec. 19, T. 15N., R. 6E.; at road crossing 3/4 mile east of Santo Domingo, 1-1/4 miles from Rio Grande, and 1-1/4 miles southeast of mouth of Calisteo Creek. No gage. Sampled and analyzed by U.S.G.S.
20-14-5	Cochiti Main Canal at San Felipe, N. Mex. (20). NE 1/4 sec. 20, T. 14N., R. 5E.; at road crossing 1/2 mile from Rio Grande, 3/4 mile east of San Felipe, and 8 miles downstream from mouth of Calisteo Creek. Zero of gage is 5162.61 ft. above sea level. Sampled and analyzed by U.S.G.S.
10-13-4	Albuquerque Main Canal, at head, near Algodones, N. Mex. (24). NE 1/4 sec. 10, T. 13N., R. 4E.; 1 mile west of Algodones, 6 miles northeast of Bernalillo, and opposite mouth of Jemez Creek. Zero of gage is 5074.66 ft. above sea level. Sampled and analyzed by U.S.G.S.
17-11-3	Albuquerque Main Canal, at end, near Alameda, N. Mex. (36). SE 1/4 sec. 17, T. 11N., R. 3E.; at highway crossing 1-1/2 miles southwest of Alameda, 1 mile downstream from highway bridge over Rio Grande, and about 12 miles below canal head. No gage. Sampled and analyzed by U.S.G.S.

Middle Rio Grande Valley, New Mexico, Surface Waters - 4 -

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
7-12	1.65	6.5	27.8	8-13	1.59	3.1	28.1	8-29	1.77	9.64	21.3	33-16-11
9-20	1.67	4.76	26.5	11-13	1.68	4.26	25.7					
7-12	0.42	1.0	61.1	8-10	0.32	1.0	59.1	8-29	0.58	6.34	28.3	7-20-10
7-17	2.10	4.95	191	8-7	2.32	12.3	171	9-2	1.67	13.0	149	15-14-10
9-21	2.64	11.1	180	11-16	2.76	13	143					
7-17	0.16	1.08	66.9	8-22	0.17	--	67.3	9-22	0.16	.84	65.3	4-17-11
8-7	0.18	.82	67.8	8-29	0.17	--	66.5	11-17	0.17	1.11	56.9	
8-8	0.17	--	67.0	9-5	0.17	--	66.9					
8-15	0.17	--	66.9	9-12	0.17	--	65.8					
7-15			43.0	9-3			32.8	10-14			38.7	14-15-5
7-29			35.3	9-10			33.1	10-21			38.0	
8-13			33.3	9-16			32.6	10-28			37.8	
8-20			30.3	9-30			49.8	11-4			37.3	
8-27			34.7	10-7			39.8	11-11			36.8	
7-29			32.8	9-16			32.8	10-28			38.3	8-14-5
8-13			35.8	9-30			50.6	11-4			37.9	
8-27			37.4	10-7			41.0	11-11			38.1	
9-3			32.7	10-14			38.0	11-17			38.0	
9-10			33.0	10-21			37.5					
7-9			33.5	8-27	1.26		35.3	10-13	1.38			19-15-6
7-14			49.2	9-3	1.35		32.5	10-21	1.51		36.7	
7-21			45.0	9-10	1.18		32.6	10-28	1.50		37.8	
7-29			36.4	9-16	1.23		32.3	11-4	1.05		36.9	
8-5			56.9	9-23	1.46		39.3	11-11			36.8	
8-13	0.84		32.7	9-30	1.44		49.4	11-25			32.9	
8-20	1.26		29.5	10-7	1.40		40.4	12-2			33.8	
7-23	2.28	44	38.4	8-24	2.16	25	38.9	10-5	2.74	54	39.8	20-14-5
7-28	2.50	48	35.1	8-31	2.52	44	34.1	10-12	2.30	37	39.0	
8-4	1.36	10	33.0	9-14	2.69	48	32.0	10-21	2.81	62	37.7	
8-10	0.40	0	45.0	9-21	2.76	56	49.7	10-28	2.68	58	38.7	
8-17	2.16	32	32.5	9-28	0.76	0	36.1	11-4	1.32	23	36.1	
7-23	5.23	316	40.9	9-7	5.04	282	34.9	10-26	4.83	270	38.3	10-13-4
7-28	5.44	341	34.2	9-14	5.34	295	33.8	11-5	4.70	222	37.6	
8-4	4.32	166	52.3	9-22	5.20	293	36.4	11-14	3.17	64	35.9	
8-10	4.68	306	62.5	9-28	2.98	0	47.4	11-18	3.04	6	40.5	
8-17	5.10	316	36.6	10-5	4.60	212	41.3	11-21	4.16	70	35.3	
8-24	4.66	245	40.4	10-14	4.78	264	40.2	11-25	4.48	180	35.5	
8-31	4.32	245	48.4	10-19	4.90	266	39.5	12-1	4.20	140	34.9	
7-9			38.9	8-26			42.2	10-14			40.7	17-11-3
7-18			40.2	9-2			37.6	10-19			39.9	
7-24			89.2	9-9			36.6	10-28			42.3	
7-24			48.5	9-16			34.6	11-2			46.2	
8-1			33.4	9-23			37.9	11-14			36.1	
8-5			41.6	9-30			50.2	11-27			35.6	
8-12	80		40.3	10-6	80		40.6	12-1			35.4	
8-19			34.3									

Middle Rio Grande Valley, New Mexico, Surface Waters - 5 -

(Conductance)

Index No.	Location and Description
<u>Canals: (Cont'd)</u>	
8-11-3	Corrales Main Canal near Alameda, N. Mex. (32). N1/2 sec.3, T.11N., R.3E.; 1-3/4 miles northwest of Alameda, 3/8 mile northwest of highway bridge over Rio Grande, and 8 miles north of Albuquerque. No gage. Sampled and analyzed by U.S.G.S.
8-10-3	Griegos Acequia near Albuquerque, N. Mex. (38). NE1/4 sec.6, T.10N., R.3E.; at highway crossing about 1 mile north of Albuquerque, 5-3/4 miles south of Alameda, and 3/8 mile south of highway crossing over Alameda Drain. No gage. Sampled and analyzed by U.S.G.S.
14-10-2	Arenal Main Canal, at head, near Albuquerque, N. Mex. (41). SE1/4 sec.14, T.10N., R.2E.; about 2 miles west of Albuquerque, 1/4 mile southwest of Atrisco Heading, and 5/8 mile upstream from Old Town Bridge over Rio Grande. Zero of gage is 4947.95 ft. above sea level. Sampled and analyzed by U.S.G.S.
2-6-2	Arenal Main Canal at Los Padillas, N. Mex. (47). NE1/4 sec.2, T.8N., R.2E.; at highway crossing about 1/4 mile southwest of Los Padillas, 3 miles north of Isleta, and about 11 miles below canal head. No gage. Sampled and analyzed by U.S.G.S.
29-10-3	Barr Canal, at head, near Albuquerque, N. Mex. (42). SW1/4 sec.29, T.10N., R.3E.; about 1 mile south of Albuquerque, and 1/2 mile downstream from east end of main highway bridge over Rio Grande. Zero of gage is 4974.05 ft. above sea level. Sampled and analyzed by U.S.G.S.

Middle Rio Grande Valley, New Mexico, Surface Waters - 5 -

(Conductance)

Date 1936	G. H.	Masch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Masch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Masch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
7-8			56.1	8-26			42.9	10-20			38.7	8-11-3
7-16			45.9	9-2		8	39.3	10-27			38.6	
7-24			40.2	9-9			35.1	11-5			37.5	
8-1			36.3	9-16		7	35.2	11-11			39.6	
8-5			43.1	9-23			36.8	11-17			39.6	
8-12			42.9	10-9		4	40.8	11-24			36.4	
8-19		7	34.9	10-13			45.2					
7-18			41.5	8-26		8	41.6	10-6		5	42.5	8-10-3
7-24			42.7	9-2		8	37.4	10-15			40.0	
8-1			33.4	9-9			36.2	10-21			38.6	
8-5			37.1	9-16			34.8	10-28			42.7	
8-12		8	43.1	9-23		0.5	38.0	11-5			37.9	
8-19		10	33.8	10-2		2	49.5					
7-8	5.34	118	41.5	9-3	5.29	123	40.1	10-19	4.92	95	49.0	14-10-2
7-16	3.14	42	56.8	9-4	5.44	135	39.0	10-20	4.80	76	46.3	
7-23	5.06	99	51.9	9-5	5.24	91	39.5	10-22	4.70	102	48.6	
8-1	5.02	67	41.6	9-7	4.86	76	40.0	10-23	4.70	64	49.0	
8-3	4.72	63	39.7	9-8	5.25	106	39.9	10-24		0	48.3	
8-4	3.88	51	101	9-9	5.74	71	38.3	10-26	4.76	66	49.1	
8-5	4.31	56	69.7	9-10	4.80	135	39.9	10-27	4.32	39	49.5	
8-6	9.40	97	65.2	9-11	4.74	130	38.7	10-28		23	49.6	
8-13	5.06	96	58.1	9-12	4.74	80	38.2	10-29	4.42	89	47.8	
8-8	4.92	92	64.3	9-14	4.28	84	43.2	10-30	2.96	42	47.8	
8-10	5.50	132	50.8	9-15	4.03	62	40.6	11-2	4.10	23	47.5	
8-11	5.20	117	56.6	9-16	4.36	62	40.7	11-4	4.61	51	43.5	
8-12	5.27	118	47.4	9-17	4.62	76	39.8	11-6	3.20	16	43.9	
8-13	5.34	125	41.1	9-18	4.64	81	39.8	11-7	3.84	25	44.1	
8-14	5.34	144	39.0	9-19	4.48	52	40.9	11-12	2.80	0	46.3	
8-15	5.21	154	39.0	9-21	4.27	77	45.5	11-13	2.80	0	46.2	
8-16	3.80	70	54.0	9-22	4.40	89	47.4	11-14	2.80	0	45.1	
8-17	5.16	122	39.9	9-23	3.58	34	78.4	11-16	2.80	0	45.4	
8-18	5.38	146	44.2	9-24	4.24	50	51.1	11-17	2.80	0	45.2	
8-19	5.22	126	39.6	9-25	4.18	36	60.1	11-17	2.80	0	45.2	
8-20	5.50	97	39.7	10-1			64.2	11-18	2.80	0	44.5	
8-21	4.72	61	41.9	10-2	4.08	55	59.7	11-20	2.80	0	44.9	
8-22	4.30	32	55.3	10-5		83	54.0	11-21	2.80	0	45.2	
8-24	4.39	71	44.1	10-6	4.38	81	52.0	11-23	2.80	0	45.5	
8-25	4.67	73	45.4	10-8	4.50	69	51.9	11-24	2.80	0	45.5	
8-26	4.78	62	46.4	10-9	4.44	48	54.5	11-25	2.80	0	44.8	
8-27	5.44	106	45.7	10-12	4.44	70	53.3	11-26	2.80	0	42.8	
8-28	5.48	128	42.8	10-13	4.56	69	51.8	11-27	2.80	0	45.2	
8-29	5.37	102	39.3	10-14	2.80	22	48.9	11-28	2.80	0	45.4	
8-31	4.24	52	45.6	10-15	2.90	0.5	50.2	11-30	4.54	45	45.7	
9-1	4.06	75	45.6	10-16	4.20	91	47.4	12-1	4.46	42	45.3*	
9-2	5.29	140	42.1	10-17	4.41	93	47.5					
7-7		10	38.7*	8-18			40.2	9-21			47.1	2-8-2
7-17			54.8	8-28			46.4	10-9		1	52.2	
7-24			51.7	8-31			37.0	10-14			52.0	
7-28			43.0	9-8			40.4	10-20			46.9	
8-6			67.7	9-16			40.2	10-26			48.0	
8-12			48.6									
7-8	3.36	77	63.0	9-2		54	77.0	10-20	2.34	34	74.0	29-10-3
7-17	3.03	66	74.6	9-9	2.90	66	70.4	10-27	2.10	32	69.6	
7-23	3.06	68	68.8	9-16	2.90	65	69.1	11-2	2.49	41	76.9	
8-1	2.92	73	65.4	9-23	2.90	59	71.7	11-11		0	74.9	
8-5	3.22	75	68.4	9-30		0	79.6	11-17		1	76.2	
8-12	2.62	53	82.4	10-6	2.32	35	67.7	11-23	2.10	27	73.7	
8-19	2.85	35	71.1	10-14	2.52	36	71.1	12-1		0	73.3	
8-26	2.79	57	78.7									

\*Detailed analyses

Middle Rio Grande Valley, New Mexico, Surface Waters - 6 -

(Conductance)

Index No.	Location and Description
<u>Canals:</u> (Cont'd)	
12-6-2	Chical Lateral near Tome, N. Mex. (59). W1/2 sec.12, T.6N., R.2E.; at highway crossing 3-3/4 miles southeast of Los Lunas and 2-1/4 miles east of Rio Grande. No gage. Sampled and analyzed by U.S.G.S.
17-6-2	Los Chavez Lateral, at head, near Los Chavez, N. Mex. (60). NE1/4 sec.17, T.6N., R.2E.; 1/8 mile east of highway and railroad, 1-1/2 miles north of Los Chavez, and 4 miles south of Los Lunas. Zero of gage is 4822.22 ft. above sea level. Sampled and analyzed by U.S.G.S.
4-5-2	Peralta Main Canal, at end, near Belen, N. Mex. (64). NW1/4 sec.4, T.5N., R.2E.; on left bank of Rio Grande, 2-1/2 miles northeast of Belen, 3-1/2 miles south of Tome, and 2-1/2 miles upstream from highway bridge. Zero of gage is 4807.65 ft. above sea level. Sampled and analyzed by U.S.G.S.
17-5-2	Jeral Lateral No. 1, at head, at Belen, N. Mex. (66). NE1/4 sec.17, T.5N., R.2E.; 3/4 mile northeast of Belen, 3/8 mile east of highway, and 1-1/4 miles upstream from highway bridge over Rio Grande. Zero of gage is 4797.76 ft. above sea level. Sampled and analyzed by U.S.G.S.
13-5-1	Belen Highline Canal at Belen, N. Mex. (67). SW1/4 sec.13, T.5N., R.1E.; at highway crossing 1 mile west-southwest of Belen, and 3 miles north of Pueblitos. No gage. Sampled and analyzed by U.S.G.S.
17-4-2	San Juan Main Canal, at head, near Casa Colorado, N. Mex. (72). NE1/4 sec.17, T.4N., R.2E.; 1/8 mile west of highway, 1 mile north of Casa Colorado, and 1-1/4 miles downstream from canal head. Zero of gage is 4772.25 ft. above sea level. Sampled and analyzed by U.S.G.S.
1-2-1	San Juan Canal, at end, near Bernardo, N. Mex. (75). NE1/4 sec.1, T.2N., R.1E.; at highway crossing 3 miles northeast of Bernardo, 3/4 mile east of Rio Grande, 1-1/4 miles northeast of Bernardo Bridge over Rio Grande, and 12 miles below canal head. Zero of gage is 4736.90 ft. above sea level. Sampled and analyzed by U.S.G.S.
9-2-1	San Francisco Lateral at Bernardo, N. Mex. (80). NE1/4 sec.9, T.2N., R.1E.; at highway crossing just south of Bernardo. Zero of gage is 4731.40 ft. above sea level. Sampled and analyzed by U.S.G.S.

Middle Rio Grande Valley, New Mexico, Surface Waters - 6 -

(Conductance)

Date 1956	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1956	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1956	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
7-17		15.00	59.0	8-25			55.0	10-20			53.0	12-6-2
7-24			77.3	9-2			53.1	10-27			53.3	
7-28			56.4	9-8			49.7	11-6			49.7	
8-4			67.9	9-15			51.9	11-10			52.4	
8-11			57.7	9-22			49.6	11-24			49.2	
8-18			47.4									
7-9	4.52	72	62.2	8-24	3.80	41	56.7	10-16	4.16	--	61.8	17-6-2
7-16	4.06	57	50.6	8-31	4.08	50	51.9	10-19	4.20	53	59.4	
7-20	4.32	67	57.8	9-8	4.28	62	53.6	10-26	4.30	61	58.6	
7-23	3.25	21	69.4	9-14	4.50	71	58.7	11-5	4.02	--	56.1	
7-27	4.10	59	65.1	9-22	4.00	55	57.0	11-9	4.15	55	57.8	
8-3	4.55	74	65.5	9-29	1.89	2	66.7	11-16	4.10	28	59.2	
8-11	4.74	75	57.3	10-5	1.77	0	65.6	11-24	3.52	41	58.0	
8-17	4.54	78	59.4									
7-14	2.52	52	68.9	8-25	1.91	21	51.0	10-6	3.28	88	61.4	4-5-2
7-21	1.24	12	54.6	9-1	2.25	39	47.7	10-13	3.28	88	58.7	
7-23	3.60	0.6	76.5	9-8	2.47	48	49.3	10-20	2.85	58	54.3	
7-28	1.23	0.5	65.6	9-15	3.55	102	52.1	10-27		56	53.5	
8-4	1.38	10	67.0	9-22	3.06	82	50.0	11-6	2.28	26	49.3	
8-11	1.20	9.3	59.4	9-29	1.60	0	56.4	11-10	1.92	19	53.4	
8-18	1.89	30	46.3					11-24	1.24	30	49.8	
7-10	1.74		168	8-19	1.84		150	10-1	1.69		156	17-5-2
7-16	1.48		173	8-26	1.86		170	10-7	1.17		160	
7-24	2.48		148	9-2	1.58		150	10-15	1.14		164	
7-29	2.50		142	9-9	1.56		155	11-25	2.55		129	
8-5	1.58		158	9-16	1.66		157	12-4	1.28		162	
8-12	1.74		156	9-23	1.75		151					
7-14			71.3	8-18			45.2	10-19			51.1	13-5-1
7-17			52.8	8-25			46.3	10-28			51.5	
7-23			66.4	9-10			47.5	11-6			47.9	
7-30			52.4	9-16			45.6	11-10			50.2	
8-3			48.1	9-24			48.6	11-16			47.1	
8-12			65.5	10-15			50.8	11-25			49.6	
7-15	3.36	42	75.2	8-31	3.56	50	55.5	11-2	1.98	2.00	59.0	17-4-2
7-21	2.16	8.6	83.2	9-8	3.45	54	64.2	11-9	3.23	25	55.4	
7-30	3.38	46	75.6	9-14	3.68	43	73.2	11-16	3.41	13	62.4	
8-4	3.59	35	88.2	9-21	3.68	39	59.4	11-23	3.51	35	59.2	
8-10	3.56	48	83.9	10-16	3.08	40	65.5	11-30	2.02	1.00	73.6	
8-17	3.30	42	54.7	10-19	2.65	37	61.8	12-1	2.04	1.00	66.4*	
8-24	3.62	47	67.7	10-26	3.19	27	57.6					
7-9	1.69	29	60.3	8-25	1.61	17	69.5	10-26	1.74	8.8	61.0	1-2-1
7-16	2.12	26	80.2	8-31	1.60	16	74.0	11-5	1.47	10	55.7	
7-23	1.72	13	90.3	9-8	1.88	20	63.1	11-10	1.45	12	59.9	
7-30	1.60	14	87.8	9-14	1.00	44.8	62.1	11-17	0.98	0.9	64.4	
8-3	1.59	4.6	69.3	9-22	1.68	16	64.5	11-25	1.60	11	66.3	
8-10	1.81	34	92.4	10-16	1.08	17	69.3	11-30	1.02	1.50	72.8	
8-18	1.37	10	66.3	10-19	1.61	8.5	66.6					
7-9	1.74	7	62.9	8-17	2.22	17	44.6	11-9	2.19	13	47.4	9-2-1
7-16	1.40	4.6	72.3	9-16	1.59	4.2	50.7	11-16		12	47.7	
7-31	1.82	2.5	50.3	9-21	2.20	15	45.0	11-24	1.50	7.3		
8-3	2.24	12	44.2	11-2	1.54	0.25	50.8					
8-10	1.68	4.8	66.4									

\*Detailed analyses

Middle Rio Grande Valley, New Mexico, Surface Waters - 7 -

(Conductance)

Index No.	Location and Description
<u>Canals:</u> (Cont'd)	
24-2-1	Socorro Main Canal North Wasteway near Limitar, N. Mex. (87). NE1/4 sec.24, T.38., R.1E.; on right bank of Rio Grande 1/2 mile above Escondido Bridge, and 2-1/2 miles south of Limitar. Zero of gage is 4611.38 ft. above sea level. Sampled and analyzed by U.S.G.S.
29-3-1	Socorro Main Canal Center, at end, near Socorro, N. Mex. (90). SW1/4 sec.29, T.38., R.1E.; on right bank of Rio Grande, about 1/2 mile east of railroad, 3-1/4 miles south of Socorro, and 7 miles north of San Antonio. No gage. Sampled and analyzed by U.S.G.S.
31-3-1	Socorro Main Canal South, at head, near Socorro, N. Mex. (92). SE1/4 sec.31, T.38., R.1E.; on right bank of Rio Grande, 1/4 mile east of railroad, 4 miles south of Socorro, and 6 miles north of San Antonio. Zero of gage is 4565.55 ft. above sea level. Sampled and analyzed by U.S.G.S.
<u>Drains:</u>	
Cochiti Division:	
13-15-5	Pena Blanca R.S.D. near Domingo, N. Mex. (12a). At gaging station in SW1/4 sec.13, T.15N., R.5E., 1-1/2 miles north of Santo Domingo, on left bank of Rio Grande and 1/4 mile upstream from Galisteo Arroyo. Zero of gage is 5171.17 ft. above sea level. Sampled and analyzed by U.S.G.S. and State of Texas. (865.9).
23-15-5	Upper Santo Domingo West R.S.D. near Santo Domingo, N. Mex. (15). SE1/2 sec.23, T.15N., R.5E., 3/4 mile north of Santo Domingo, and 1/4 mile downstream from mouth of Galisteo Creek. No gage. Sampled and analyzed by U.S.G.S.
34-15-5	Upper Santo Domingo East R.S.D., above Santo Domingo I.D., near Santo Domingo, N. Mex. (17). SW1/4 sec.34, T.15N., R.5E.; 1/2 mile northwest of highway and railroad, 3 miles southwest of Santo Domingo, and 4 miles downstream from mouth of Galisteo Creek. No gage. Sampled and analyzed by U.S.G.S. and State of Texas. (870.1).
34-15-5	Upper Santo Domingo East R.S.D. (870.3). SW1/4 sec.34, T.15N., R.5E.; below outlet of Santo Domingo I.D. Sampled and analyzed by the State of Texas.
3-14-5	Lower Santo Domingo East R.S.D. (871.1). 1/2 mile below head, in W1/2 sec.3, T.14N., R.5E., Sampled and analyzed by the State of Texas.
9-14-5	Lower Santo Domingo East R.S.D., at mouth, near San Felipe, N. Mex. (18). NW1/4 sec.9, T.14N., R.5E.; 2-1/2 miles northeast of San Felipe, and 5-1/2 miles downstream from mouth of Galisteo Creek. Zero of gage is 5134.68 ft. above sea level. Sampled and analyzed by U.S.G.S.
14-15-5	Santo Domingo West R.S.D. near Domingo, N. Mex. (14a). At gaging station, in SE1/4 sec.14, T.15N., R.5E., 1 mile northwest of Santo Domingo on right bank of Rio Grande and 1/2 mile below mouth of Galisteo Arroyo. Sampled and analyzed by U.S.G.S. and State of Texas. (866.4).



Middle Rio Grande Valley, New Mexico, Surface Waters - 7 -

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
7-9	0.40		75.7	8-31			122	10-12			74.7	24-2-1
7-23			103	9-8			76.0	10-19			73.6	
8-3			190	9-14			124	10-26			72.5	
8-10	0.80		131	9-21			78.2	11-2			64.8	
8-17	0.48		82.2	10-5			86.4	11-9			65.8	
8-24			87.3									
7-9			87.6	8-31			93.7	10-12			74.9	29-3-1
8-3			95.4	9-8			79.6	10-19			74.7	
8-10			124	9-14			84.2	10-27			75.2	
8-17			86.5	9-21			78.6	11-2			66.7	
8-24			91.0	10-5			85.9	11-9			65.0	
7-9	2.42	33	79.8	8-31	2.04	51	92.7	10-12	1.36	21	78.8	31-3-1
7-30	1.56	22	77.9	9-8	1.18	32	82.8	10-19	2.12	29	78.4	
8-3	2.06	40	95.0	9-14	1.42	35	83.5	10-26	1.36	14	81.7	
8-10	2.54	61	111	9-21	1.52	42	80.9	11-2	1.82	31	83.1	
8-17	2.40	22	88.3	9-30	1.47	27	82.9	11-9	2.06	36	78.9	
8-24	2.50	47	95.6	10-5	1.35	23	85.6					
5-21		19.2	48.9	9-3	2.02	14	55.5	11-4	1.44	13	55.0	13-15-5
8-11		11.2	51.8	10-5	1.64	12	54.9	11-11	1.27	14	55.3	
9-15	2.20	14	53.4	10-13	1.44	11	56.1	11-17	1.26	15	55.5	
9-23	2.06	14	53.6	10-21	1.46	13	56.0	11-25	1.18	12	56.0	
9-25		12.7	54.9	10-28	1.49	13	55.4	12-2	1.15	13	55.7	
7-22			47.9	9-3			56.0	10-21			51.1	23-15-5
7-29			42.1	9-10			57.2	10-28			54.6	
7-29			51.4	9-16			57.8	11-4			52.7	
8-5			51.9	9-23			51.7	11-12			50.1	
8-13			59.7	9-30			51.0	11-17			49.0	
8-20			57.8	10-7			50.3	11-25			56.4	
8-27			56.9	10-13			49.7	12-2			55.4	
3-3		10.6	44.1	9-3	4.74	22	49.4	10-21		25	80.0	34-15-5
5-21		20.0	40.1	9-9	4.92	23	46.5	10-28	5.02	24	82.7	
6-22		12.0	39.5	9-16	4.80	18	44.7	11-4	5.06	25	44.1	
7-22		18	72.8	9-23	5.16	33	41.7	11-11		24	44.5	
8-5	4.36	16	40.6	9-30	1.74	29	43.9	11-17	4.82	22	44.2	
8-13	4.94	19	52.0	10-7			42.6	11-25	4.78	22	44.0	
8-20	4.92	31	48.5	10-12	4.75	28	42.9	12-2	4.82	20	43.3	
8-27	4.86	23	52.4									
3-3		18.9	71.5	8-11		14.0	53.8	9-25		24.3	45.5	34-15-5
3-3		1.0	61.1	6-22		0.5	48.8	8-11		2.10	46.6	3-14-5
9-25		3.03	45.4									
7-22		1.9	52.0	9-16		2.6	44.6	10-28		3.3	45.6	9-14-5
7-29		2.8	52.2	9-23		3.0	46.3	11-4		3.2	45.2	
8-13		2.4	46.0	9-30		2.4	44.4	11-11		2.7	45.7	
8-27		2.2	46.8	10-7		2.4	43.2	11-17		3.8	45.6	
9-3		2.6	44.5	10-12		2.1	42.9	11-25		3.0	45.9	
9-10		2.6	44.8	10-21		2.6	46.6	12-2		3.0	46.3	
8-11		1.42	45.6	10-7		1.5	44.3	11-11		1.0	45.9	14-15-5
9-16		1.0	44.9	10-12		1.0	44.5	11-17		1.1	45.5	
9-23		1.5	44.5	10-21		1.5	45.5	11-25		1.1	45.5	
9-25		1.36	45.2	10-28		1.6	44.9	12-2		1.1	44.7	
9-30		1.9	44.4	11-4		1.8	45.3					

Middle Rio Grande Valley, New Mexico, Surface Waters - 8 -

(Conductance)

Index No.	Location and Description
<u>Drains:</u>	
Cochiti Division (Cont'd)	
34-15-5	Lower Santo Domingo West R.S.D., near Domingo, N. Mex. (16a). At gaging station in SW1/4 sec. 34, T.15N., R.5E., 3 miles southeast of Santo Domingo on right bank of Rio Grande, and 4 miles downstream from mouth of Galisteo Arroyo. Sampled and analyzed by U.S.G.S. and State of Texas. (870.3).
34-15-5	Santo Domingo I.D., at mouth, near Santo Domingo, N. Mex. (16). SE1/2 sec. 34, T.15N., R.5E.; 1/2 mile northwest of highway and railroad, 3 miles southwest of Santo Domingo, and 4 miles downstream from mouth of Galisteo Creek. Sampled and analyzed by U.S.G.S. and State of Texas. (870.2).
2-13-4	Algodones R.S.D., above Yaso I.D., at Algodones, N. Mex. (22). SW1/4 sec. 2, T.13N., R.4E.; about 3/8 mile northwest of highway junction with railroad, about 1/2 mile northwest of Algodones, about 7 miles northeast of Bernalillo. Sampled and analyzed by U.S.G.S. and State of Texas. (879.7).
2-13-4	Yaso I.D., at mouth, at Algodones, N. Mex. (23). SW1/4 sec. 2, T.13N., R.4E.; 3/8 mile northwest of highway junction with railroad, 1/2 mile west of Algodones, about 7 miles northeast of Bernalillo. Sampled and analyzed by U.S.G.S. No gage.
<u>Albuquerque Division:</u>	
30-13-4	Bernalillo R.S.D., above Ranchitos I.D., near Bernalillo, N. Mex. (26). SE1/4 sec. 30, T.13N., R.4E.; at highway crossing 2 miles north of Bernalillo, and about 4-1/2 miles downstream from mouth of Jemez Creek. No gage. Sampled and analyzed by U.S.G.S. and State of Texas (884.2).
31-13-4	Bernalillo R.S.D., near Bernalillo. (885.0). In NE1/2 sec. 31, T.13N., R.4E., below mouth of Ranchitos I.D. and 0.6 mile below Bernalillo Bridge. No gage. Sampled and analyzed by the State of Texas.
14-12-3	Bernalillo R.S.D., above Bernalillo I.D., near Bernalillo, N. Mex. (28). NE1/2 sec. 14, T.12N., R.3E.; 3 miles southwest of Bernalillo, 5-1/2 miles north of Alameda and 1 mile downstream from Corrales Siphon. Sampled and analyzed by U.S.G.S. and State of Texas. (888.9).

Middle Rio Grande Valley, New Mexico, Surface Waters - 8 -

(Conductance)

Date 1976	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1976	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1976	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
9-16		1.5	38.6	10-12		1.4	35.0	11-11		1.5	38.9	34-15-5
9-23		1.9	36.2	10-21		1.8	37.5	11-17		1.8	39.2	
9-25		0.84	35.0	10-28		2.1	36.5	11-25		1.9	39.1	
9-30		1.8	37.1	11-4		2.1	38.1	12-2		2.6	38.7	
10-7		1.4	37.3									
5-21		10.1	73.7	8-27	4.86	5.6	85.7	10-12		7.2	80.3	34-15-5
6-22		9.0	79.5	9-3	4.74	5.8	83.2	10-21	4.89	7.4	71.4	
7-15	4.74	8.6	83.3	9-9	4.92	6.0	84.8	10-28	5.02	8.0	43.6	
7-22	4.60	5.8	82.4	9-16	4.80	7.4	86.8	11-4	5.06	8.8	81.1	
7-29	4.90	7.1	75.2	9-23	5.16	8.0	87.9	11-11		6.9	81.3	
8-11		5.92	84.7	9-25		8.37	90.2	11-17		6.7	80.7	
8-13	4.94	4.0	81.4	9-30		7.7	82.1	11-25	4.78	7.5	79.7	
8-15	4.36	6.6	77.5	10-7		7.3	85.0	12-2	4.82	7.0	80.8	
8-20	4.82	5.7	85.7									
4-6		29.4	61.5	8-17			61.1	10-5	2.00		51.7	2-13-4
4-21		47.5	54.0	8-18		35.8	69.4	10-14	2.20		52.3	
5-5		46.2	54.7	8-24			56.0	10-19	1.70		61.2	
5-21		43.8	41.7	8-31	2.68		55.4	10-28		1.90	59.1	
6-8		41.0	51.6	9-1		47.0	51.7	11-4			56.7	
7-20		35.5	56.2	9-7	1.72		56.8	11-5		32.9	58.5	
7-23	1.04		57.3	9-14	3.26		47.7	11-14			58.6	
7-28	2.68		52.6	9-15		43.6	53.3	11-21	1.90		58.4	
8-3			56.8	9-21	2.70		49.4	11-26	1.25		58.1	
8-3			49.4	9-29		30.6	55.2	12-1			56.9	
8-10		43.0	60.9	10-1	1.42		57.8					
7-23			82.7	9-14			79.8	10-28			78.9	2-13-4
7-28			83.7	9-21			80.8	11-4			79.6	
8-3			78.3	10-1			78.9	11-14			79.6	
8-10			80.6	10-5			78.9	11-21			80.6	
8-17			82.3	10-14			73.0	11-26			81.1	
8-24			82.2	10-19			79.7	12-1			78.5	
8-31			80.1									
9-7			79.2									
11-14-75		30.0	57.7	8-10			54.5	10-5			56.8	30-13-4
12-2-75		28.0	57.0	8-17			56.6	10-12			57.0	
12-19-75		27.0	56.4	8-24			54.6	10-19			57.3	
1-27		29.0	54.6	8-31			56.2	10-28			55.8	
2-17		27.0	88.7	9-7			51.6	11-2			55.3	
3-4		29.0	51.9	9-14			51.8	11-12			54.3	
5-5		42.0	50.6	9-21			52.8	11-20			53.0	
7-13			50.7	9-29			53.8	11-25			53.8	
7-28			56.0	8-6		25.0	53.3	12-1			52.7	
8-3			53.7	9-1		30.0	52.5					
3-4		34.0	56.9	6-22		39.0	119	10-12		20.0	61.9	31-13-4
9-5-75		85.0	61.3	8-31	2.24		54.3	10-19	2.20		57.2	14-12-3
10-10-75		29.0	58.8	9-7	2.30		50.2	10-28	2.20		56.1	
3-4		60.0	53.3	9-14	2.26		50.3	11-2	2.20		55.5	
6-22		64.0	46.5	9-21	2.30		51.5	11-14	2.12		54.8	
8-3	2.20		55.3	9-29	2.22		56.5	11-20	2.12		53.9	
8-10	2.10		56.8	10-5	2.22		61.7	11-24	2.06		52.3	
8-17			56.6	10-13	2.12		58.4	12-1	2.10		52.8	
8-25	2.04		54.8									

Middle Rio Grande Valley, New Mexico, Surface Waters - 9 -

(Conductance)

Index No.	Location and Description
<u>Drains:</u> Albuquerque Division: (Cont'd)	
23-12-3	Bernalillo R.S.D., near Sandia, N. Mex. (889.8). At gaging station 1.4 miles above outlet in E1/2 sec.23, T.12N., R.3E., 1 mile west of Sandia Pueblo. Sampled and analyzed by the State of Texas.
30-13-4	Rancharitos I.D., above wasteway, near Bernalillo, N. Mex. (27). SE1/4 sec.30, T.12N., R.4E.; at highway crossing 2 miles north of Bernalillo, and about 4-1/2 miles downstream from mouth of Jemez Creek. No gage. Sampled and analyzed by U.S.G.S. and State of Texas. (884.3).
14-12-3	Bernalillo I.D., at mouth, near Bernalillo, N. Mex. (29). SE1/4 sec.14, T.12N., R.3E.; 3 miles southwest of Bernalillo, 5-1/2 miles north of Alameda, and 1 mile downstream from Corrales Siphon. No gage. Sampled and analyzed by U.S.G.S. and State of Texas. (888.9).
23-12-3	Upper Corrales R.S.D., opposite Sandia, N. Mex. (889.7). Center sec.23, T.12N., R.3E., 1.7 miles below head. No gage. Sampled and analyzed by the State of Texas.
34-12-3	Upper Corrales R.S.D., near Corrales, N. Mex. (892.4). SE1/4 sec.34, T.12N., R.3E., 1/2 mile above entrance of Corrales I.D. No gage. Sampled and analyzed by the State of Texas.
8-11-3	Upper Corrales R.S.D., near Alameda, N. Mex. (31a). At gaging station in NE1/4 sec.8, T.11N., R.3E., 1.5 miles west-northwest of Alameda, 1/4 mile upstream from highway bridge. Zero of gage is 4992.08 ft. above sea level. Sampled and analyzed by U.S.G.S. and State of Texas. (893.9).
34-12-3	Corrales I.D., near mouth, near Alameda, N. Mex. (30). SW1/4 sec.34, T.12N., R.3E.; about 0.2 mile southeast of highway, 2 miles north of Alameda, and 7 miles southwest of Bernalillo. No gage. Sampled and analyzed by U.S.G.S. and State of Texas. (892.4).

Middle Rio Grande Valley, New Mexico, Surface Waters - 9 -

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
4-6		70.7	56.7	6-8		80.7	46.1	9-15		84.4	52.9	23-12-3
4-21		102	52.9	7-20		74.0	57.2	9-29		85.7	56.1	
5-5		106	48.1	8-18		85.3	56.2	11-15		90.2	56.0	
5-22		92.5	45.4	9-1		87.7	54.2					
11-14-35		2.52	106	8-3		3.1	94.4	9-29		2.6	102	30-13-4
12-19-35		1.72	108	8-5		3.14	97.0	9-29		2.60	101	
1-7		1.91	105	8-10		3.0	91.1	10-5		2.2	100	
1-27		1.72	107	8-17		2.3	89.1	10-12		2.0	100	
3-4		1.45	107	8-18		3.36	86.6	10-19		1.8	102	
4-6		2.45	92.0	8-24		4.0	97.3	10-28		1.6	103	
4-21		2.94	91.5	8-31		4.3	102	11-2		2.6	102	
5-5		3.28	99.5	9-1		2.73	102	11-5		2.65	103	
5-22		4.40	97.2	9-7		4.1	102	11-12		3.2	102	
6-22		4.61	101	9-14		3.4	102	11-20		2.0	102	
7-20		3.00	101	9-15		3.43	106	11-25		1.2	102	
7-24		2.1	104	9-21		2.9	103	12-1		1.1	101	
7-28		2.1	107									
9-5-35		2.38	105	8-3		2.25	116	9-29		2.07	107	14-12-3
10-10-35		2.01	105	8-10		2.5	106	10-5		1.7	105	
3-4		2.02	109	8-17		2.0	108	10-12		1.80	111	
4-6		2.34	103	8-18		1.85	108	10-13		1.9	115	
4-21		2.70	108	8-25		1.6	115	10-19		2.6	113	
5-5		2.80	107	8-31		1.9	96.8	10-28		1.7	108	
5-22		2.19	112	9-1		1.91	110	11-2		2.1	109	
6-8		2.15	108	9-7		1.8	109	11-5		1.65	108	
6-22		2.65	111	9-14		1.7	116	11-14		3.0	114	
7-20		2.33	113	9-15		1.77	109	11-20		2.2	110	
7-24		2.7	108	9-21		2.5	111	11-24		1.7	107	
8-3		2.2	104	9-29		2.1	104	12-1		1.4	107	
3-4		9.0	50.1	6-23		10.0	40.3	10-11		10.0	51.8	23-12-3
3-4		36.0	49.2	6-23		25.0	37.7	10-12		20.0	53.5	34-12-3
4-6		48.3	51.0	9-1		38.5	51.3	10-20	1.92	64.0	57.7	8-11-3
4-21		73.1	51.3	9-15		39.6	42.4	10-28	1.82	50.0	57.6	
5-5		56.2	50.4	9-16	1.87	56	48.9	11-5	2.05	48.0	57.4	
5-22		48.0	42.8	9-29		39.6	43.0	11-5		35.9	53.0	
6-8		45.4	39.6	9-23	2.02	62	48.5	11-14	1.62	38.0	57.7	
7-20		42.5	43.6	9-30	1.43	36	50.9	11-17	2.00	38.0	56.7	
8-3		50.6	46.7	10-6	1.60	44	54.7	11-24	1.81	34.0	54.8	
8-18		38.9	52.2	10-13	1.37	39	56.4	12-1	2.06	41.0	46.7	
12-2-35		1.53	75.7	8-12		2.0	80.0	9-30		1.5	81.9	31-12-3
4-6		2.18	76.1	8-18		1.77	78.6	10-6		1.2	81.3	
4-21		2.10	77.7	8-19		1.6	81.8	10-14		1.6	145	
5-5		2.20	77.7	8-26		1.7	81.9	10-21		2.1	79.8	
5-23		2.76	82.2	9-1		1.91	79.4	10-28		1.7	79.8	
6-8		2.24	76.1	9-2		1.9	81.5	11-5		2.6	75.4	
7-20		2.16	77.9	9-9		1.8	83.0	11-5		2.59	76.0	
7-24		2.5	79.7	9-15		1.79	82.4	11-14		3.0	78.1	
7-24		2.5	75.8	9-16		1.8	83.6	11-17		2.6	78.8	
8-1		2.1	75.3	9-23		2.0	86.0	11-27		1.5	77.2	
8-3		1.96	76.7	9-29		1.69	82.6	12-1		1.4	77.7	
8-5		1.9	76.3									

Middle Rio Grande Valley, New Mexico, Surface Waters - 10 -

(Conductance)

Index No.	Location and Description
<u>Drains:</u>	
Albuquerque Division: (Cont'd)	
5-11-3	San Mateo I.D., at mouth, near Alameda, N. Mex. (31). SE1/4 sec.5, T.11N., R.3E.; at highway crossing about 1-3/4 miles northwest of Alameda, 8 miles north of Albuquerque, and 3/4 mile upstream from highway bridge over Rio Grande. No gage. Sampled and analyzed by U.S.G.S. and State of Texas. (893.2).
10-11-3	Alameda I.D., at Alameda, N. Mex. (33). S1/2 sec.10, T.11N., R.3E.; at road crossing 1/4 mile northeast of Alameda, about 8 miles north of Albuquerque, and 1/4 mile east of main highway. No gage. Sampled and analyzed by U.S.G.S. and State of Texas. (894.3).
21-11-3	Alameda I.D., near Alameda, N. Mex. (896.1). At road crossing in NE1/4 sec.21, T.11N., R.3E., 7.3 miles above mouth. No gage. Sampled and analyzed by the State of Texas.
5-10-3	Alameda I.D., at Griegos Road near Los Griegos, N. Mex. (899.0). In NE1/4 sec.5, T.10N., R.3E., 4.5 miles above mouth. No gage. Sampled and analyzed by the State of Texas.
6-10-3	Alameda I.D., near Los Candelarias, N. Mex. (899.9). In SW1/4 sec.6, T.10N., R.3E., 1/2 mile southwest of Los Candelarias and 2.1 miles above mouth. No gage. Sampled and analyzed by the State of Texas.
13-10-2	Alameda I.D., at mouth, near Albuquerque, N. Mex. (39). NE1/4 sec.13, T.10N., R.2E.; above highway crossing, about 1 mile west of Albuquerque and 0.6 mile north of Old Town Bridge across Rio Grande. Zero of gage is 4947.08 ft. above sea level. Sampled and analyzed by U.S.G.S. and State of Texas. (901.1).
29-11-3	Los Griegos I.D., near Los Griegos, N. Mex. (897.2). In NW1/4 sec.29, T.11N., R.3E., 0.9 mile below head. No gage. Sampled and analyzed by the State of Texas.
6-10-3	Los Griegos I.D., near Los Candelarias, N. Mex. (899.9). At gaging station at mouth of drain in SW1/4 sec.6, T.10N., R.3E., Sampled and analyzed by the State of Texas.
19-11-3	Lower Corrales R.S.D., near mouth, near Alameda, N. Mex. (37). NE1/4 sec.19, T.11N., R.3E.; 3 miles southwest of Alameda, about 5-1/2 miles north of Albuquerque, and 2-1/4 miles downstream from highway bridge over Rio Grande. Zero of gage is 4978.34 ft. above sea level. Sampled and analyzed by U.S.G.S. and State of Texas. (896.2).

Middle Rio Grande Valley, New Mexico, Surface Waters - 10 -

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
7-4		0.1	96.1	9-2			140	10-22			150	5-11-3
7-20		0.27	141	9-9			143	10-28			147	
7-24			135	9-16		.09	146	11-5			57.6	
8-1			137	9-23			145	11-14		.5	148	
8-5			148	9-30			147	11-17			147	
8-12		.11	145	10-6			140	11-27			150	
8-19			124	10-13		.1	61.6	12-1		.5	122	
8-26			147									
9-16-35		11.0	75.6	8-26			76.5	10-15			71.4	10-11-3
7-4		1.6	69.3	9-2			75.8	10-19			70.7	
6-18		3.61	74.5	9-9			74.4	10-28			73.7	
7-18			73.4	9-16			75.4	11-2			74.1	
7-24			74.2	9-23			74.3	11-14			72.2	
8-1			74.3	9-30			73.5	11-17			72.1	
8-5			71.9	10-6			72.5	11-27			73.1	
8-12			73.9	10-12		2.30	73.8	12-1			71.7	
8-19			76.1									
3-5		1.7	77.0	6-18		7.15	88.0	10-12		4.50	86.0	21-11-3
10-10-35		9.0	88.2	12-8-35		7.0	102	3-5		7.0	102	5-10-3
11-15-35		8.0	98.9	1-28		6.0	102	6-18		27.1	68.2	
12-3-35		8.0	101	2-18		5.0	102	9-13		10.0	96.8	
3-5		9.0	108	6-3		18.0	88.7	6-18		33.4	72.1	6-10-3
10-13		21.0	98.5									
4-7		27.9	76.6	8-5	2.10	58	72.9	9-30	1.06	31	97.0	13-10-2
4-20		38.1	73.5	8-12	1.30	33	93.2	10-6	1.36	--	74.8	
5-6		50.2	49.8	8-17		34.6	110	10-14	1.10	32	75.8	
5-25		35.3	98.6	8-19	1.33	38	90.2	10-28	0.95	31	95.7	
5-3		32.0	94.0	8-26	1.30	33	103	11-2	0.84	22	115	
6-18		40.9	88.2	8-31		28.7	113	11-14	1.02	25	92.6	
7-9		53	90.8	9-2	1.25	31	96.3	11-17	0.87	22	114	
7-18		36	108	9-9	1.46	38	87.2	11-27		--	108	
7-21		30.9	102	9-14		31.0	101	11-6		30.5	86.0	
7-23	1.48	38	95.0	9-16	1.38	35	79.9	12-1	0.68	22	106	
8-1	1.89	57	72.8	9-23	1.18	31	94.6	10-19	0.96	29	97.0	
8-4		41.5	103	9-28		27.8	112					
6-18		1.98	117	10-12		2.00	121					29-11-3
4-7		4.84	101	6-18		8.04	113	8-31		8.35	116	6-10-3
5-6		7.89	105	7-21		8.20	110	9-14		8.13	116	
5-25		10.7	93.0	8-4		10.5	116	11-6		5.69	114	
6-3		9.37	99.4	8-17		8.27	116					
4-6		11.3	54.7	8-12	1.80	16.0	51.2	9-30	1.77	16	49.5	19-11-3
4-21		17.6	54.8	8-18		17.7	52.2	10-6	1.77	16	50.6	
5-5		17.3	52.0	8-19	2.15	15.0	52.2	10-13	1.71	14	52.9	
5-23		15.3	54.5	8-26	2.09	14.0	52.9	10-20	1.60	17	54.4	
5-8		22.5	44.4	9-1		15.9	52.5	10-27	1.36	17	55.4	
6-23		13.1	42.1	9-2	2.20	18.0	51.3	11-3	1.24	18	59.9	
7-20		13.1	45.5	9-9	2.18	18.0	49.9	11-5		18.8	54.0	
7-24	1.59	11.0	49.2	9-19		15.3	51.1	11-11	2.15	17	55.0	
8-1	1.92	18.0	49.8	9-16	2.05	16.0	50.8	11-17	1.08	17	55.0	
8-3		17.3	50.0	9-23	1.96	16.0	49.8	11-24	1.06	17	54.3	
8-5	1.90	16.0	49.0	9-29		16.8	40.2	12-1	1.05	17	53.5	

Middle Rio Grande Valley, New Mexico, Surface Waters - 11 -

(Conductance)

Index No.	Location and Description
<u>Drains:</u>	
Albuquerque Division: (Cont'd)	
8-11-3	Gonzales I.D., near Alameda, N. Mex. (35). SE1/4 sec.8, T.11N., R.3E.; at highway bridge 1-1/4 miles west of Alameda, 7 miles north of Albuquerque, about 1/4 mile east of the Rio Grande, and 1/2 mile downstream from highway bridge over Rio Grande. No gage. Sampled and analyzed by U.S.G.S.
8-11-3	Albuquerque R.S.D., near Alameda, N. Mex. (34). E1/2 sec.8, T.11N., R.3E.; at highway crossing just east of bridge over Rio Grande, 1-1/4 miles northwest of Alameda, and 8 miles north of Albuquerque. No gage. Sampled and analyzed by U.S.G.S. and State of Texas. (894.1).
30-11-3	Albuquerque R.S.D. (897.2). NW1/4 sec.30, T.11N., R.3E. Sampled and analyzed by State of Texas.
13-10-2	Albuquerque R.S.D., at mouth, near Albuquerque, N. Mex. (40). NW1/4 sec.13, T.10N., R.2E.; about 1-1/2 miles west of Albuquerque, 1/2 mile upstream from Atasco Diversion, and 1 mile upstream from Old Town Bridge over Rio Grande. Zero of gage is 4951.86 ft. above sea level. Sampled and analyzed by U.S.G.S. and State of Texas. (901.1).
30-10-3	Albuquerque-Barr R.S.D., at Albuquerque, N. Mex. (903.2). In NE1/4 sec.30, T.10N., R.3E., at west end of Barajas Bridge, 10.2 miles above outlet. No gage. Sampled and analyzed by State of Texas.
29-10-3	Albuquerque-Barr R.S.D., near Albuquerque, N. Mex. (903.8). Municipal sewer outfall in SW1/4 sec.23, T.10N., R.3E., No gage. Sampled and analyzed by the State of Texas.
13-9-2	Albuquerque-Barr R.S.D., near Pajarito, N. Mex. (908.1). Near SE1/4 cor. sec.13, T.9N., R.2E., 4.9 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
12-8-2	Albuquerque-Barr R.S.D., near Isleta, N. Mex. (912.5). At gaging station in NE1/4 sec.12, T.8N., R.2E., 0.5 mile above outlet. Sampled and analyzed by the State of Texas.



Middle Rio Grande Valley, New Mexico, Surface Waters - 11 -

(Conductance)

Date 1976	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1976	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1976	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
7-9			101	9-2			95.3	10-19			107	8-11-3
7-18			99.3	9-9			91.9	10-28			105	
7-24			107	9-16			97.6	11-2			110	
8-1			93.8	9-23			104	11-14			109	
8-5			105	9-30			108	11-17			109	
8-12			108	10-6			110	11-27			111	
8-19			101	10-14			109	12-1			109	
8-26			103									
3-4		30.0	51.1	8-12			51.6	10-12		20.0	52.6	8-11-3
6-23		30.0	40.5	8-19			51.5	10-14			50.8	
7-9			41.3	8-26			50.7	10-20			52.6	
7-18			44.9	9-2			49.6	10-28			54.1	
7-24			48.9	9-9			49.1	11-4			54.4	
7-24			45.5	9-16			49.3	11-14			55.5	
7-25			44.8	9-23			49.0	11-17			55.5	
8-1			46.9	9-30			49.3	11-27			56.1	
8-5			47.7	10-6			51.5	12-1			55.2	
5-23		50.0	42.1	10-12		40.0	52.7					30-11-3
9-5-35		106	55.0	7-18	2.35	59	44.2	9-23	2.28	70	49.3	13-10-2
10-11-35		84.5	55.2	7-21		56.6	44.3	9-28		75.2	42.6	
11-15-35		89.2	54.5	8-1	2.09	66	46.7	9-30	2.20	64	49.5	
12-3-35		82.9	54.2	8-4		68.7	48.0	10-6	1.08	56	51.2	
12-18-35		84.7	56.5	8-5	2.25	73	47.1	10-14	2.10	66	52.0	
1-28		68.9	53.0	8-12	2.06	61	50.1	10-20	2.16	65	53.6	
2-25		71.2	52.2	8-17		64.2	50.1	10-27	2.18	64	54.2	
3-5		75.5	51.5	8-19	2.18	64	50.5	11-4		65	54.5	
4-7		78.9	52.8	8-26	2.06	57	49.9	11-6		69.4	54.0	
4-22		115	53.8	8-31		65.7	50.4	11-14	2.25	68	52.5	
5-11		120	47.9	9-2	2.16	61	49.2	11-17	2.20	64	54.3	
5-25		100	43.6	9-9	2.22	60	48.9	11-27		58	53.2	
6-9		83.5	41.2	9-14		65.8	49.6	12-1	2.16	63	52.8	
7-9	2.50	76	67.6	9-16	2.20	64	48.9					
3-5			76.0	6-22		67.0	71.3	10-13		60.0	77.3	30-10-3
3-5		5.0	117									29-10-3
3-5		60.0	73.6	10-13		45.0	70.6					13-9-2
4-7		67.0	76.5	6-9		71.6	69.7	8-31		72.1	77.3	12-8-2
4-20		101	69.8	7-21		52.1	74.0	9-14		76.4	74.8	
5-6		94.6	71.6	8-4		77.5	72.7	9-28		123	75.5	
5-25		86.5	70.9	8-17		68.6	71.2	11-6		98.4	71.0	

Middle Rio Grande Valley, New Mexico, Surface Waters - 12 -

(Conductance)

Index No.	Location and Description
<u>Drains:</u>	
Albuquerque Division: (Cont'd)	
7-9-3	San Jose I.D., near mouth, near Albuquerque, N. Mex. (43). NEL 1/4 sec. 7, T. 9N., R. 3E.; at highway crossing 4 miles south of Albuquerque, 3 miles northeast of Pajarito, 0.6 mile above junction with Albuquerque-Barr R.S.D. and 1/2 mile east of Rio Grande. No gage. Sampled and analyzed by U.S.G.S. and State of Texas. (906.4).
30-10-3	Atrisco R.S.D., near Albuquerque, N. Mex. (903.2). In NEL 1/4 sec. 30, T. 10N., R. 3E., at west end of Barajas Bridge, 10.2 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
24-9-2	Atrisco R.S.D., at Pajarito, N. Mex. (45). SW 1/4 sec. 24, T. 9N., R. 2E.; 1/4 mile east of Pajarito, about 7 miles south of Albuquerque, about 4 miles upstream from Railroad bridge across Rio Grande. No gage. Sampled and analyzed by U.S.G.S. and State of Texas. (907.8).
12-8-2	Atrisco R.S.D., near Isleta, N. Mex. (912.6). At gaging station in NW 1/4 sec. 12, T. 8N., R. 2E., 0.6 mile above outlet. Sampled and analyzed by the State of Texas.
11-9-2	Armiijo I.D., near Armiijo, N. Mex. (906.1). At gaging station in NW 1/4 sec. 11, T. 9N., R. 2E.; at junction with Isleta Drain, 3 miles southwest of Armiijo. Sampled and analyzed by the State of Texas.
23-9-2	Los Padillas, I.D., near Pajarito, N. Mex. (909.0). In S 1/2 sec. 23, T. 9N., R. 2E., 3 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
2-8-2	Los Padillas, I.D., near Los Padillas, N. Mex. (911.6). At gaging station in NE 1/4 sec. 2, T. 8N., R. 2E., 0.3 mile above mouth. Sampled and analyzed by the State of Texas.
24-10-2	Isleta I.D. (902.2). NW 1/4 sec. 24, T. 10N., R. 2E., near head of drain. Sampled and analyzed by the State of Texas.
35-10-2	Isleta I.D., near Armiijo, N. Mex. (904.4). In NE 1/4 sec. 35, T. 10N., R. 2E., 13.6 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
2-9-2	Isleta I.D., near Armiijo, N. Mex. (906.0). In SW 1/4 sec. 2, T. 9N., R. 2E., above entrance of Armiijo I.D. and 11.8 miles above outlet. No gage. Sampled and analyzed by the State of Texas.

Middle Rio Grande Valley, New Mexico, Surface Waters - 12 -

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
12-3-35		1.90	96.8	8-5		3.8	104	10-6		3.1	55.2	7-9-3
4-7		1.87	92.4	8-12		4.0	66.5	10-13		2.72	57.2	
4-20		2.16	91.8	8-17		1.63	83.3	10-14		2.6	51.9	
5-6		4.04	81.0	8-19		1.0	54.8	10-20		1.4	51.8	
5-25		2.49	96.3	8-26		1.9	98.0	10-27		1.1	94.7	
6-9		1.94	90.3	8-31		2.23	92.7	11-2		3.1	92.0	
6-22		2.06	92.6	9-2		2.2	49.3	11-6		1.47	49.0	
7-9		5.3	79.5	9-9		1.5	40.8	11-10		4.1	35.3	
7-17		2.0	61.2	9-14		3.06	87.8	11-17		2.8	35.1	
7-21		1.88	102	9-16		6.4	40.7	11-23		1.4	96.4	
7-23		2.0	98.9	9-23		5.2	62.1	11-30		1.6	92.9	
7-29		3.0	51.5	9-28		3.06	118	12-3		.5	81.4	
8-4		3.70	68.3	9-29		3.0	119					
3-5		6.8	52.5	6-23		7.0	40.4	10-14		7.0	51.1	30-10-3
3-5		25.0	56.3	8-24			55.1	10-19			56.6	24-9-2
6-23		26.0	10.6	8-31			34.6	10-26			57.6	
7-7			48.0	9-7			53.8	11-2			57.3	
7-17			48.9	9-15			52.8	11-8			57.8	
7-24			53.2	9-20			51.4	11-16			56.6	
7-28			52.2	9-29			52.2	11-23			55.9	
8-5			50.1	10-9			54.3	11-30			56.5	
8-12			54.4	10-14			54.2	12-1			55.5	
8-18			55.1	10-14		22.0	56.2					
9-6-35		60.3	54.8	3-5		45.1	54.8	7-22		34.7	48.5	12-8-2
10-14-35		51.0	56.1	4-8		39.8	55.6	8-8		39.3	50.8	
11-30-35		45.1	58.2	4-22		79.3	54.2	8-20		44.3	52.7	
12-4-35		43.1	56.7	5-7		79.5	52.8	9-2		42.5	53.2	
12-19-35		41.8	57.5	5-25		76.5	46.4	9-16		43.9	51.6	
1-21		46.1	56.3	6-10		50.5	48.4	9-30		43.4	51.5	
2-25		43.0	54.7									
3-5		0.75	85.3	6-10		12.3	81.8	8-24		6.76	97.4	11-9-2
4-8		2.84	62.1	6-19		11.7	64.6	9-5		7.09	101	
4-24		6.81	86.6	7-25		12.7	86.1	9-21		5.42	98.0	
5-26		11.7	54.1	8-8		8.99	96.7	10-3		4.45	99.7	
3-5		1.0	109	6-19		4.0	99.7	10-14		2.0	106	23-9-2
3-5		1.70	97.1	6-10		7.95	101	8-24		3.66	92.3	2-8-2
4-8		1.94	102	6-19		7.85	101	9-5		6.83	93.0	
4-24		5.66	105	7-25		5.82	94.8	9-21		4.71	93.4	
5-7		7.16	103	8-8		5.55	94.3	10-3		4.01	99.7	
5-26		7.06	104					11-7		3.44	106	
3-5		2.30	52.2	6-19		2.86	49.3					24-10-2
9-19-35		11.0	91.3	12-4-35		6.0	78.0	6-19		11.9	85.2	35-10-2
10-4-35		7.0	84.2	1-31		6.0	73.5	9-5		9.0	87.7	
11-18-35		7.0	84.5	3-5		5.0	72.6	10-14		7.5	79.0	
12-4-35		6.0	79.5									
6-10		12.0	91.2	10-14		12.0	85.4					2-9-2

Middle Rio Grande Valley, New Mexico, Surface Waters - 13 -

(Conductance)

Index No.	Location and Description
	<u>Drains:</u> Albuquerque Division: (Cont'd)
15-9-2	Isleta I.D., near Pajarito, N. Mex. (907.3). In NE1/4 sec.15, T.10N., R.2E., 10.5 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
22-9-2	Isleta I.D., near Pajarito, N. Mex. (46). In SE1/4 sec.22, T.9N., R.2E.; at highway crossing 1 mile west of Pajarito, 0.2 mile west of highway crossing over Arenal Main Canal, and about 6-1/2 miles north of Isleta. No gage. Sampled and analyzed by U.S.G.S.
2-6-2	Isleta I.D., near Los Padillas. (911.6). In NW1/4 sec.2, T.8N., R.2E., 6.1 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
23-6-2	Isleta I.D., near Isleta, N. Mex. (914.6). In NE1/4 sec.23, T.8N., R.2E.; above entrance of Indian I.D. and 2.8 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
23-6-2	Isleta I.D., at Isleta, N. Mex. (49). In SE1/4 sec.23, T.8N., R.2E.; in southwest edge of Isleta, 1/4 mile east of main highway and 1/2 mile west of Isleta Diversion Dam and highway bridge over Rio Grande. Zero of gage is 4875.21 ft. above sea level. Sampled and analyzed by U.S.G.S. and the State of Texas. (915.0).
36-9-2	Barr I.D., near Isleta, N. Mex. (911.0). In NE1/4 sec.36, T.9N., R.2E., 1 mile above outlet. No gage. Sampled and analyzed by the State of Texas.
1-8-2	Barr I.D., at mouth, near Isleta, N. Mex. (44). In SE1/4 sec.1, T.8N., R.2E.; 1/4 mile west of highway, 1-1/4 miles southeast of Los Padillas, 2-3/4 miles northeast of Isleta, and 1-1/4 miles upstream from railroad bridge over Rio Grande. No gage. Sampled and analyzed by U.S.G.S. and the State of Texas. (911.8).
13-6-2	Indian I.D., near Isleta, N. Mex. (914.2). In SW1/4 sec.13, T.8N., R.2E.; above entrance of Riverside Stub and 0.6 mile above mouth. No gage. Sampled and analyzed by the State of Texas.
13-6-2	Indian I.D., near Isleta, N. Mex. (914.4). On Riverside Stub, above its junction with Main Drain in SW1/4 sec.13, T.8N., R.2E. No gage. Sampled and analyzed by the State of Texas.

Middle Rio Grande Valley, New Mexico, Surface Waters - 13 -

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>3</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>3</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>3</sup> @25°C	Index No.
3-5		13.0	83.2	6-19		29.6	83.4	10-14		19.0	91.1	15-9-2
7-7			98.6	8-31			93.6	10-26			89.1	22-9-2
7-17			104	9-8			90.9	11-2			91.2	
7-24			91.5	9-16			93.2	11-9			90.8	
7-28			95.5	9-21			92.0	11-16			91.8	
8-5			91.3	9-29			92.8	11-23			91.7	
8-12			91.2	10-9			102	11-30			90.2	
8-18			96.5	10-14			91.1	12-1			90.7	
8-24			94.0	10-20			90.4					
3-5		9.0	85.6	10-14		21.0	93.0					2-8-2
4-8		25.0	73.5	6-19		51.0	91.1	10-14		30.0	93.5	23-8-2
3-5		21.8	77.0	8-12		62	83.0	10-3		44.7	85.5	23-8-2
4-8		37.4	71.4	8-18	2.76	66	75.7	10-9	2.26	50	78.6	
4-24		55.3	69.6	8-24		57.2	82.1	10-14	2.06	38	84.2	
5-7		76.0	65.6	8-24	2.48	54	80.2	10-21		44	83.2	
5-26		80.3	66.9	8-31	2.33	49	81.0	10-27	2.25	49	80.4	
6-10		57.5	82.2	9-5		64	78.3	11-3		34	85.1	
6-19		62.2	86.5	9-8	2.57	64	74.8	11-9	1.85	30	89.2	
7-17	2.48	54	83.9	9-16	2.32	54	83.8	11-16	1.85	33	87.2	
7-25		61.0	82.8	9-21	2.22	49	84.8	11-23	1.97	34	82.4	
7-29	2.66	72	81.1	9-21		46.8	86.0	11-30	1.94	31	81.3	
8-5	2.56	62	88.3	9-29	2.23		78.4	12-3	1.94	31	81.3	
8-8		60.8	82.2									
3-5		4.30	122	6-22		9.70	109	10-13		5.00	120	36-9-2
10-11-35		11.7	139	7-23		9.6	110	9-28		10.2	130	1-8-2
11-15-35		13.8	129	7-29		12.0	118	9-29		10.0	119	
12-3-35		10.1	123	8-4		11.7	115	10-6		9.0	117	
12-16-35		7.8	124	8-5		12.0	112	10-14		7.4	118	
1-28		6.18	125	8-12		10.0	110	10-20		8.3	117	
2-18		5.35	121	8-17		9.95	118	10-27		8.8	116	
3-5		5.41	122	8-19		10.0	117	11-2		8.9	119	
4-7		11.4	114	8-26		13.0	117	11-6		8.66	116	
4-20		8.04	124	8-31		15.2	120	11-9		8.0	117	
5-6		16.0	104	9-2		15.0	112	11-17		8.1	120	
5-25		15.2	110	9-9		14.0	107	11-23		7.8	121	
6-9		11.8	109	9-14		12.4	113	11-30		6.3	121	
7-17		8.8	107	9-16		9.7	116	12-3		5.7	121	
7-21		8.85	115	9-23		9.3	116					
3-5		2.0	69.4	6-19		3.0	71.7	10-14		4.0	75.7	13-8-2
3-5		5.0	54.9	6-19		5.0	48.2	10-14		3.0	54.3	13-8-2

Middle Rio Grande Valley, New Mexico, Surface Waters - 14 -

(Conductance)

Index No.	Location and Description
<u>Drains:</u>	
Albuquerque Division: (Cont'd)	
23-6-2	Indien I.D., near Isleta, N. Mex. (914.6). At metering station in NE1/4 sec.23, T.8N., R.2E. Sampled and analyzed by the State of Texas.
34-6-2	Isleta R.S.D., above Isleta I.D., near Isleta, N. Mex. (50). In NE1/4 sec.34, T.8N., R.2E.; about 0.2 mile southeast of main highway, 2-1/4 miles southwest of Isleta, and 2-1/4 miles downstream from Isleta Diversion Dam. Zero of gage is 4868.86 ft. above sea level. Sampled and analyzed by U.S.G.S. and the State of Texas. (917.1).
<u>Belen Division:</u>	
2-7-2	Otero I.D., near Peralta, N. Mex. (918.9). Near SW1/4 cor. sec.2, T.7N., R.2E., 2.6 miles above mouth. No gage. Sampled and analyzed by the State of Texas.
14-7-2	Otero I.D., near mouth, near Peralta, N. Mex. (52). In SW1/4 sec.14, T.7N., R.2E.; 3/4 mile southwest of Peralta, 1/2 mile east of Rio Grande. Zero of gage is 4846.19 ft. above sea level. Sampled and analyzed by U.S.G.S. and the State of Texas. (920.7).
3-7-2	Upper Peralta R.S.D., near Peralta, N. Mex. (918.9). In SW1/4 sec.3, T.7N., R.2E., 3.7 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
26-7-2	Upper Peralta R.S.D., at mouth, near Los Lunas, N. Mex. (53). In NE1/4 sec.26, T.7N., R.2E.; 1-1/2 miles northeast of Los Lunas, 2 miles southwest of Peralta, east side of Rio Grande and 3/4 mile upstream from highway bridge at Los Lunas. Zero of gage is 4846.57 ft. above sea level. Sampled and analyzed by U.S.G.S. and the State of Texas. (921.9).
27-7-2	Upper Belen R.S.D., above Los Lunas I.D., at Los Lunas, N. Mex. (55). In NE1/2 sec.27, T.7N., R.2E.; 1/2 mile northeast of Los Lunas, on west side of Rio Grande, and 1/4 mile upstream from highway bridge at Los Lunas. No gage. Sampled and analyzed by U.S.G.S. and the State of Texas. (922.2).

## Middle Rio Grande Valley, New Mexico, Surface Waters - 14 -

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Kilohms @25°C	Date 1936	G. H.	Disch. c.f.s.	Kilohms @25°C	Date 1936	G. H.	Disch. c.f.s.	Kilohms @25°C	Index No.
3-5		8.0	59.8	6-10		10.8	58.7	9-5		17.4	53.5	23-6-2
4-8		11.7	53.9	6-19		10.4	59.2	9-21		10.4	62.9	
4-24		17.4	55.1	7-25		11.8	58.6	10-3		10.2	62.1	
5-7		24.5	49.6	8-8		12.0	62.2	11-7		3.74	65.1	
5-26		26.5	43.5	8-24		16.8	57.6					
3-5		8.52	53.3	8-18	1.25	8.6	57.6	10-3	1.22	12.0	57.0	34-6-2
4-8		6.17	54.3	8-20		8.45	57.6	10-6	1.30	13.0	60.1	
6-10		7.90	42.1	8-24	1.37	11.0	56.6	10-21	1.20	11.0	59.8	
6-25		6.66	44.0	8-31	1.48	9.0	56.0	10-29	1.24	12.0	58.0	
7-22		7.64	51.4	9-2		6.05	55.7	11-3	1.40	13.0	57.6	
7-23	1.19	7.0	53.8	9-9	0.99	13.0	54.2	11-8	1.38	12.0	56.2	2-7-2
7-29	1.12	5.8	56.4	9-16	0.95	9.4	53.9	11-16	1.00	12.0	55.9	
8-5	1.55	14.0	54.5	9-21		13.2	54.0	11-23	0.94	11.0	54.0	
8-5		14.1	56.0	9-21	1.20	13.0	53.4	12-3	1.16	12.0	53.3	
8-12	0.92	7.3	57.2									
6-23		1.5	123	10-16		1.0	124					2-7-2
12-4-35		4.58	105	8-5		3.14	99.5	9-29	2.14	3.4	98.7	14-7-2
4-9		3.00	99.6	8-11	2.28	3.1	100	9-30		3.63	101	
4-25		3.37	100	8-18	2.28	3.1	99.0	10-5	2.09	3.9	99.5	
5-8		3.29	99.8	8-19		3.29	98.3	10-12	2.06	3.0	98.0	
5-27		3.66	98.9	8-24	2.31	3.1	99.9	10-19	2.06	3.6	101	
6-11		3.87	95.9	8-31	2.15	3.2	98.5	10-27	2.00	3.3	99.4	3-7-2
6-23		3.56	99.4	9-2		3.77	98.1	11-2	1.90	3.5	100	
7-20	2.28	3.3	102	9-8	2.18	3.0	96.9	11-9	1.86	3.0	97.8	
7-22		3.38	99.2	9-14	2.24	3.2	99.7	11-16	1.84	3.5	98.7	
7-27	2.27	2.6	99.6	9-16		3.34	103	11-24	1.78	3.4	97.6	
8-3	2.36	3.1	97.5	9-22	2.15	3.9	98.9	12-2	1.90	6.4	93.9	26-7-2
3-6		13.0	58.9	6-23		7.0	51.4	10-16		11.0	61.5	
4-9		16.4	58.7	8-17	1.71	18.0	55.5	9-30		24.9	54.8	
4-25		33.9	57.2	8-19		12.6	54.3	10-5	1.84	23.0	56.8	
5-11		33.3	55.3	8-24	1.72	17.0	54.9	10-12	1.77	22.0	58.2	27-7-2
5-27		26.4	49.2	8-31	1.79	19.0	56.1	10-19	1.70	21.0	59.3	
6-11		12.6	47.7	9-2		17.5	56.3	10-27	1.80	23.0	58.2	
7-20	1.56	14.0	52.9	9-8	1.70	18.0	55.4	11-2	1.85	24.0	57.9	
7-22		13.0	52.7	9-14	1.76	20.0	54.9	11-9	1.70	21.0	56.5	
7-27	1.56	12.0	54.4	9-16		13.2	55.4	11-16	1.71	21.0	57.1	27-7-2
8-3	2.05	16.0	53.6	9-22	1.80	21.0	54.2	11-24	1.70	21.0	56.3	
8-5		19.2	53.7	9-29	1.97	25.0	53.4	12-2	1.80	25.0	56.6	
8-11	1.64	15.0	54.8									
10-3-35		17.0	58.8	8-3			53.4	10-5			56.6	
11-16-35		17.0	63.4	8-11			55.3	10-12			55.7	27-7-2
12-4-35		17.0	59.3	8-17			56.7	10-15		12.0	58.4	
12-24-35		17.0	59.6	8-24			55.8	10-19			57.8	
2-1		17.0	59.8	8-31			56.8	10-29			59.1	
2-25		17.0	58.0	9-2		10.0	57.5	11-2			59.0	
3-6		17.0	59.5	9-8			56.6	11-9			57.8	27-7-2
3-27		22.0	66.6	9-14			57.0	11-16			59.3	
6-24		10.0	53.8	9-22			56.8	11-24			57.7	
7-20			54.8	9-29			56.5	12-2			57.8	
7-27			60.3									

Middle Rio Grande Valley, New Mexico, Surface Waters - 15 -

(Conductance)

Index No.	Location and Description
<u>Drains:</u>	
Belen Division: (Cont'd)	
4-6-2	Upper Belen R.S.D., near Los Lunas, N. Mex. (924.2). In NE1/4 sec.4, T.6N., R.2E., 2.3 miles above outlet and above Running Lateral Wasteway. No gage. Sampled and analyzed by the State of Texas.
9-6-2	Upper Belen R.S.D., near Los Chavez, N. Mex. (925.6). At metering station in NW1/2 sec.9, T.6N., R.2E., 0.9 mile above outlet. Sampled and analyzed by the State of Texas.
16-6-2	Upper Belen R.S.D., at outlet (926.4). In NW1/4 sec.16, T.6N., R.2E. Sampled and analyzed by the State of Texas.
27-7-2	Los Lentes I.D., at mouth, at Los Lunas, N. Mex. (54). In NW1/4 sec.27, T.7N., R.2E.; 1/2 mile northeast of Los Lunas and 1/4 mile upstream from highway bridge at Los Lunas. No gage. Sampled and analyzed by U.S.G.S. and the State of Texas. (922.3).
26-7-2	Valencia I.D., near Los Lunas, N. Mex. (56). In SE1/4 sec.26, T.7N., R.2E.; at highway crossing 2 miles east-southeast of Los Lunas, 3 miles south of Peralta, and 1 mile east of Rio Grande. No gage. Sampled and analyzed by U.S.G.S.
17-6-2	Lower Belen R.S.D., near Los Chavez, N. Mex. (927.0). In SE1/4 sec.17, T.6N., R.2E., 8.3 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
29-6-2	Lower Belen, R.S.D., near Sausal, N. Mex. (929.0). In SE1/2 sec.29, T.6N., R.2E., 6.1 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
8-5-2	Lower Belen, R.S.D., near Belen, N. Mex. (931.9). In SE1/4 sec.8, T.5N., R.2E., above entrance of Los Chavez I.D. and 3 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
20-5-2	Lower Belen R.S.D., near Belen, N. Mex. (67a). At gaging station in SE1/4 sec.20, T.5N., R.2E., 1 mile below highway bridge and 0.5 mile above outlet. Zero of gage is 4791.14 ft. above sea level. Sampled and analyzed by U.S.G.S. and the State of Texas. (934.1).



## Middle Rio Grande Valley, New Mexico, Surface Waters - 15 -

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
6-11		22.0	69.8									4-6-2
9-7-35		55.2	74.8	5-27		77.9	49.0	8-5		44.2	77.5	9-6-2
4-11		80.8	59.6	5-11		56.3	54.9	8-19		61.2	56.0	
4-22		86.3	50.2	6-24		35.8	59.4	9-2		57.0	59.9	
5-11		98.7	41.3	7-22		21.3	69.4	9-30		37.5	67.8	
9-16		8.16	54.7									16-6-2
9-7-35		4.91	122	7-20		3.9	121	9-16		3.86	120	27-7-2
10-14-35		3.26	120	7-22		4.10	119	9-22		4.4	115	
11-18-35		4.11	118	7-27		4.3	121	9-29		4.5	115	
12-4-35		4.10	117	8-5		4.2	118	9-30		4.52	119	
12-24-35		3.45	117	8-5		3.99	118	10-5		4.3	114	
2-1		3.41	110	8-11		2.7	115	10-12		3.8	113	
2-25		3.17	112	8-17		3.4	121	10-19		3.1	117	
3-6		2.97	114	8-19		3.90	118	10-29		3.2	114	
4-11		3.66	114	8-24		4.3	114	11-2		3.6	117	
4-22		3.88	115	8-31		4.2	116	11-9		4.0	113	
5-11		4.33	116	9-2		3.98	119	11-16		3.8	115	
5-27		4.34	116	9-8		3.5	115	11-24		3.4	113	
6-11		4.24	116	9-14		3.7	117	12-2		4.6	116	
7-21		154		9-8			150	10-27			151	26-7-2
7-28		156		9-14			151	11-2			152	
8-5		141		9-22			149	11-9			151	
8-11		149		9-29			151	11-16			147	
8-18		148		10-5			149	11-24			150	
2-24		152		10-12			149	12-2			147	
8-31		150		10-19			152					
3-6		2.0	61.8	6-24		2.5	126	10-15		7.5	123	17-6-2
3-6		7.0	62.4	10-15		11.0	83.4					29-6-2
3-6		15.0	63.5	6-24		18.0	78.5	10-15		19.5	74.2	8-5-2
4-9		27.2	119	9-3		32.6	125	10-21	1.45	43	117	20-5-2
4-24		52.9	92.2	9-16	1.34	36.0	127	10-28	1.59	44	117	
5-8		80.5	104	9-17		37.0	135	11-4	1.48	40	117	
5-28		47.3	124	9-23	1.70	46.0	123	11-11	1.34	38	119	
6-12		40.8	131	9-30	1.54	44.0	122	11-20	1.50	42	120	
7-23		11.3	116	10-3		42.1	125	11-25	1.37	39	117	
8-6		38.4	124	10-7	1.44	39.0	125	12-2	1.36	44	119	
8-24		37.5	126	10-14	1.38	36.0	123					

Middle Rio Grande Valley, New Mexico, Surface Waters - 16 -

(Conductance)

Index No.	Location and Description
<u>Drains:</u>	
Belen Division: (Cont'd)	
3-6-2	San Fernandez I.D., near mouth, near Tome, N. Mex. (57). W1/2 sec.3, T.6N., R.2E.; at highway crossing 3/8 mile east of river, 2-1/2 miles north of Tome, 2 miles south of Los Lunas. Zero of gage is 4832.1 <sup>8</sup> ft. above sea level. Sampled and analyzed by U.S.G.S. and the State of Texas. (924.4).
17-6-2	Harlan I.D., near Los Chavez, N. Mex. (926.1). At gaging station in NE1/4 sec.17, T.6N., R.2E. Sampled and analyzed by the State of Texas.
12-7-2	Tome I.D., near Peralta, N. Mex. (919.9). In SW1/4 sec.12, T.7N., R.2E., 14.7 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
1-6-2	Tome I.D., near Tome, N. Mex. (58). In SW1/4 sec.1, T.6N., R.2E.; at highway crossing 3 miles northeast of Tome, 3-1/4 miles southeast of Los Lunas, and 2 miles east of Rio Grande. Zero of gage is 4823.40 ft. above sea level. Sampled and analyzed by U.S.G.S. and the State of Texas. (924.9).
4-5-2	Tome I.D., at mouth, near Belen, N. Mex. (65). In NE1/4 sec.4, T.5N., R.2E.; at highway crossing 3 miles northeast of Belen, 3-1/2 miles south of Tome, and 1/2 mile east of Rio Grande. Zero of gage is 4803.46 ft. above sea level. Sampled and analyzed by U.S.G.S. and the State of Texas. (930.4).
22-6-2	El Cerro I.D., at mouth, near Tome, N. Mex. (61). In SE1/4 sec.22, T.6N., R.2E.; at highway crossing 1-1/4 miles southeast of Tome, about 5-1/2 miles northeast of Belen, and 1-1/4 miles east of Rio Grande. No gage. Sampled and analyzed by U.S.G.S.
34-7-2	Lower Peralta R.S.D., near Los Lunas, N. Mex. (923.5). In W1/2 sec.34, T.7N., R.2E., 10.1 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
9-6-2	Lower Peralta R.S.D., near Tome, N. Mex. (925.5). In SE1/4 sec.9, T.6N., R.2E., 7.7 miles above outlet. No gage. Sampled and analyzed by the State of Texas.

Middle Rio Grande Valley, New Mexico, Surface Waters - 16 -

(Conductance)

Date 1976	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1976	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1976	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
3-6		1.69	57.8	8-6		1.95	66.5	9-30	0.63	2.5	66.7	3-6-2
4-9		2.68	58.2	8-11		2.1	66.9	10-1		2.43	67.2	
4-23		2.68	57.5	8-18	0.62	1.8	66.6	10-6	0.62	2.0	64.4	
5-5		3.20	64.0	8-20	0.58	1.6	67.7	10-13	0.62	2.3	65.1	
5-28		2.62	63.8	8-25	0.56	1.35	67.4	10-20	0.62	1.9	65.7	
6-12		3.27	68.0	9-2	0.54	1.7	66.0	10-27	0.63	1.9	66.1	
6-23		2.04	66.9	9-3		2.01	69.5	11-4	0.61	1.9	65.2	
7-14	0.96	2.5	73.1	9-8	0.55	2.2	66.0	11-10	0.63	1.9	64.6	
7-21	0.87	1.9	69.6	9-15	0.56	2.4	65.3	11-20	0.68	2.1	66.4	
7-23		2.17	69.9	9-17		1.99	66.4	11-24	0.69	1.8	66.8	
7-28		2.0	70.4	9-22	0.58	2.1	64.4	12-2	0.76	2.7	66.3	
8-4	0.07	1.9	64.9									
6-11		1.50	197	8-24		1.28	182	9-17		3.27	184	17-6-2
7-22		1.28	187	9-2		1.28	182	9-30		3.27	194	
8-5		1.52	182									
3-5		3.0	97.5	6-23		8.6	91.1	10-16		7.0	102	12-7-2
3-5		9.0	148	8-25	5.80	23	138	10-16			143	1-6-2
6-23		19.0	146	9-2	5.38	22	140	10-20	5.18	18.0	148	
7-14	5.30	21.0	140	9-8	5.41	26	149	10-27	5.24	18.0	152	
7-21	5.42	19.0	143	9-15	5.41	24	155	11-4	5.22	16.0	147	
7-28	5.41	21.0	132	9-22	5.37	23	148	11-10	5.29	16.0	145	
8-4	5.48	24.0	136	9-30	5.35	24	150	11-20	5.41	19.0	145	
8-11	5.53	20.0	139	10-6	5.35	21	140	11-24			143	
8-18	5.85	22.0	132	10-13	5.19	18	141	12-2	5.52	21.0	151	
9-9-75		37.8	155	7-14	1.75	33	147	9-15	1.76	36.0	158	4-5-2
10-15-75		27.7	152	7-21	1.72	31	158	9-17		35.6	162	
11-19-75		33.3	154	7-23		31.1	156	9-22	1.78	34.0	156	
12-5-75		33.8	150	7-28	1.65	28	150	9-29	1.86	36.0	149	
12-20-75		26.2	153	8-4	1.80	36	158	10-1		35.0	155	
2-19		18.5	150	8-6		38.6	155	10-6	1.70	28.0	150	
3-5		16.4	154	8-12	1.71	31	155	10-13	1.62	24.0	146	
4-9		26.7	165	8-18	1.79	36	141	10-20	1.56	24.0	151	
4-23		31.9	161	8-20		38.8	152	10-27	1.56	26.0	154	
5-6		38.0	157	8-25	1.78	36	156	11-3	1.54	24.0	148	
5-28		38.5	155	9-1	1.66	32	151	11-10	1.61	25.0	147	
6-12		36.7	152	9-3		34.2	152	11-20	1.73	31.0	152	
7-10	1.80	37.0	148	9-8	1.74	34	156	11-24	1.67	28.0	148	
7-14								12-2	1.91	38.0	157	
7-21		166		9-2			164	10-20			169	22-6-2
7-28		170		9-8			168	10-27			162	
7-28		172		9-15			169	11-4			167	
8-4		165		9-22			162	11-10			168	
8-11		172		9-30			163	11-20			171	
8-18		173		10-6			166	11-24			172	
8-25		167		10-13			166	12-2			170	
10-15-75	8.0	77.9		2-3		8.0	79.7	6-12	12.0		84.8	34-7-2
11-19-75	8.0	77.1		2-19		8.0	78.4	6-23	9.0		86.3	
12-5-75	8.0	82.5		3-6		12.0	77.5	9-3	20.0		82.9	
12-20-75	8.0	86.2		5-28		10.0	79.7					
3-6		22.0	67.4	6-23		20.0	69.8	10-16		20.0	68.5	9-6-2

Middle Rio Grande Valley, New Mexico, Surface Waters - 17 -

(Conductance)

Index No.	Location and Description
	<u>Drains:</u>
	Belen Division (Cont'd)
4-5-2	Lower Peralta R.S.D., near Adelino, N. Mex. (930.4). In NW1/4 sec.4, T.5N., R.2E., 2.6 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
16-5-2	Lower Peralta R.S.D., opposite Belen, N. Mex. (66a). At gaging station in NW1/4 sec.16, T.5N., R.2E., 1 mile upstream from highway bridge. Zero of gage is 4795.72 ft. above sea level. Sampled and analyzed by U.S.G.S. and the State of Texas. (932.9).
32-7-2	Los Chavez I.D., near Los Lunas, N. Mex. (923.5). In SE1/4 sec.32, T.7N., R.2E., 9.4 miles above outlet and 0.8 mile below head. No gage. Sampled and analyzed by the State of Texas.
20-6-2	Los Chavez I.D., at Los Chavez, N. Mex. (62). In SW1/4 sec.20, T.6N., R.2E.; at highway crossing 1/2 mile west of Los Chavez, 4-3/4 miles north of Belen, and 1 mile west of Rio Grande. No gage. Sampled and analyzed by U.S.G.S. and the State of Texas. (927.9).
6-5-2	Los Chavez I.D., at mouth, at Belen, N. Mex. (65). In S1/2 sec.5, T.5N., R.2E.; 3/4 mile northeast of Belen, about 1/8 mile west of Rio Grande, 1/4 mile east of highway, and 1-1/4 miles upstream from highway bridge over Rio Grande. No gage. Sampled and analyzed by U.S.G.S. and the State of Texas. (932.0).
4-5-2	Public Wasteway near Adelino, N. Mex. (930.5). At gaging station in NE1/4 sec.4, T.5N., R.2E., 0.8 mile above outlet. Sampled and analyzed by the State of Texas.
31-5-2	Bosque I.D., at Pueblitos, N. Mex. (68). In SW1/4 sec.31, T.5N., R.2E.; at highway crossing just east of railroad, at east edge of Pueblitos, 5/8 mile west of Jaramas, 1-1/2 miles west of Rio Grande, and 3-1/2 miles south of Belen. No gage. Sampled and analyzed by U.S.G.S. and the State of Texas. (936.1).
24-4-1	Bosque I.D., near Bosque, N. Mex. (939.7). In E1/2 sec.24, T.4N., R.1E., 2.1 miles above outlet. No gage. Sampled and analyzed by the State of Texas.

Middle Rio Grande Valley, New Mexico, Surface Waters - 17 -

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
3-5		42.0	63.2	10-16		3.4	65.0					4-5-2
9-9-35		166	83.7	8-20		129	87.1	10-15	3.84	75	92.2	16-5-2
4-9		158	82.8	9-3		135	82.6	10-22	4.60	134	77.6	
4-23		169	72.8	9-17		143	84.0	10-29	4.33	126	80.1	
5-8		191	70.6	9-19		138	82.2	11-5	4.02	90	87.4	
5-28		161	79.2	9-24	4.62	134	100	11-12	4.32	115	85.4	
6-12		122	89.1	10-1	4.06	94	98.8	11-19	4.06	93	95.8	
6-23		92.5	94.0	10-1		95.7	99.3	11-25	4.48	115	79.9	
7-23		87.5	97.7	10-8	3.92	80	94.8	12-4	4.16	92	98.5	
8-6		150	91.5									
3-6		0.7	132	6-24		0.7	134	10-15		1.0	134	32-7-2
3-6		5.0	223	8-17			209	10-15		8.0	223	20-6-2
6-24		5.0	219	8-24			199	10-19			205	
7-9			200	8-31			202	10-26			201	
7-16			207	9-10			198	11-2			201	
7-24			218	9-14			189	11-9			198	
7-28			214	9-24			194	11-16			191	
7-29			207	9-29			195	11-25			189	
8-3			212	10-5			197	12-2			191	
8-11			211	10-12			196					
12-5-35		15.5	203	8-6		14.8	208	10-1		19.0	200	8-5-2
4-9		11.1	212	8-12		14.0	203	10-1		19.0	203	
4-24		17.9	202	8-19		15.0	203	10-7		15.0	202	
5-11		18.5	200	8-24		15.7	207	10-15		14.0	203	
6-28		19.7	196	8-26		15.0	197	10-21		14.0	208	
6-12		29.2	204	9-2		15.0	199	10-29		14.0	205	
7-9		16.0	199	9-5		16.0	200	11-5		14.0	207	
7-16		16.0	207	9-5		14.0	194	11-11		14.0	203	
7-23		14.4	209	9-16		14.0	199	11-20		15.0	203	
7-24		15.0	210	9-17		17.3	203	11-25		13.0	201	
8-5		15.0	207	9-23		22.0	197	12-4		14.0	201	
4-23		47.5	34.7	6-23		11.3	42.8	8-20		41.3	49.4	4-5-2
5-28		43.4	35.3	7-23		9.9	57.0	9-3		49.5	49.2	
6-12		28.9	47.0	8-6		47.4	71.3	9-14		65.1	48.8	
3-6			183	8-21			146	10-19		5.2	171	31-5-2
6-25		3.0	145	9-8			111	10-26			170	
7-24		7.0	171	9-14			111	11-2			187	
7-31			155	9-21			124	11-9			187	
8-5			169	9-29			149	11-18			176	
8-11			133	10-5			173	11-23			178	
8-17			160	10-17			158	12-1			185	
8-24			143	10-19			170					
3-6		5.0	232	6-25		14.0	204	10-19		8.5	220	24-4-1

Middle Rio Grande Valley, New Mexico, Surface Waters - 16 -

(Conductance)

Index No.	Location and Description
	<u>Drains:</u> Belen Division: (Cont'd)
25-4-1	Bosque I.D., near mouth, near Bosque, N. Mex. (70). In SE1/4 sec.25, T.4N., R.1E.; at highway crossing 2 miles south of Bosque, 3/4 mile east of main highway and railroad, and 1-1/4 miles southwest of highway bridge over Rio Grande. No gage. Sampled and analyzed by U.S.G.S. and the State of Texas. (941.5).
20-4-2	Casa Colorado I.D., near Casa Colorado, N. Mex. (939.5). At gaging station in NW1/4 sec.20, T.4N., R.2E., at outlet of drain. Sampled and analyzed by the State of Texas.
20-4-2	Upper San Juan R.S.D., near Casa Colorado, N. Mex. (939.5). In NW1/4 sec.20, T.4N., R.2E., 1.7 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
29-4-2	Upper San Juan R.S.D., near mouth, near Casa Colorado, N. Mex. (73). In W1/2 sec.25, T.4N., R.2E.; at highway crossing just east of highway bridge over Rio Grande, 2 miles southeast of Bosque, 1-1/4 miles south of Casa Colorado, and about 4 miles downstream from San Juan heading. Zero of gage is 4762.99 ft. above sea level. Sampled and analyzed by U.S.G.S. and the State of Texas. (940.7).
25-4-1	Luna I.D., at mouth, near Bosque, N. Mex. (69). In SE1/4 sec.25, T.4N., R.1E.; at highway crossing 2 miles south of Bosque, 1/2 mile east of main highway and railroad, and 1 mile southwest of highway bridge over Rio Grande. No gage. Sampled and analyzed by U.S.G.S. and the State of Texas.
8-4-2	Sabinal R.S.D., near Jarales, N. Mex. (937.6). In W1/2 sec.8, T.4N., R.2E., 5.6 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
36-4-1	Sabinal R.S.D., near Bosque (71). In NE1/4 sec.36, T.4N., R.1E.; on west side of Rio Grande above Bosque I.D., 2-1/2 miles south of Bosque, 1/2 mile east of main highway and railroad, and about 1-1/2 miles downstream from highway bridge over Rio Grande. No gage. Sampled and analyzed by U.S.G.S. and the State of Texas. (941.5).
13-3-1	Lower San Juan R.S.D., near Las Nutrias, N. Mex. (944.5). In NW1/4 sec.13, T.3N., R.1E., 5.5 miles above outlet. No gage. Sampled and analyzed by the State of Texas.

Middle Rio Grande Valley, New Mexico, Surface Waters - 16 -

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
12-6-35		12.0	207	8-7		19.7	202	10-2		16.1	215	25-4-1
4-10		19.1	159	8-10			204	10-5			219	
4-27		21.0	156	8-17			214	10-12			216	
5-12		25.2	161	8-21		31.4	121	10-19			222	
5-29		21.4	179	8-24			200	10-26			223	
6-15		21.2	192	8-31			183	11-2			224	
7-10			199	9-4		13.7	214	11-9			221	
7-17			177	9-8			222	11-16			201	
7-24			217	9-14			160	11-23			224	
7-28		15.1	211	9-18		17.9	174	11-30			174	
7-31			214	9-21			170	12-1			159	
8-4			196	9-29			202					
3-6		0.75	80.3	4-10		1.49	81.5	4-27		1.50	83.7	20-4-2
6-24		0.75	88.5									
3-6		7.0	65.8	6-24		3.0	59.6	10-16		3.0	66.0	20-4-2
4-10		9.06	68.1	8-11	2.05	8.1	68.5	10-2			69.4	29-4-2
4-27		15.3	67.0	8-17	2.00	8.1	68.2	10-5	2.04	9.40	9.4	
5-12		14.2	65.7	8-21		8.3	68.9	10-12	2.03		9.6	
5-29		11.4	60.7	8-24	2.00	7.8	67.3	10-19	2.03		9.3	
6-15		9.84	61.5	8-31	1.97	8.3	66.4	10-26	2.09		10.0	
7-17	2.16	8.2	66.7	9-4		9.09	69.0	11-2	2.12		10.0	
7-21	2.14	8.0	67.2	9-8	2.00	9.0	67.8	11-9	2.12		11.0	
7-24		6.90	65.7	9-14	2.02	8.6	69.6	11-16	2.12		9.4	
7-30		6.4	68.3	9-18		8.80	69.3	11-23	2.12		10.0	
8-4	2.14	9.7	63.6	9-21	2.00	10.0	67.8	12-1			11.0	
8-16		9.43	65.6	9-29	2.10	12.0	67.6					
7-10			180	8-31			190	10-19		2.0	211	25-4-1
7-17			184	9-4			189	10-26			212	
7-24		3.00	177	9-14			199	11-2			240	
7-31		4.00	177	9-21			194	11-9			225	
8-4			184	9-29			204	11-16			232	
8-10			190	10-5			197	11-23		2.00	200	
8-17			181	10-12			198	11-30			189	
8-24			199	10-19			209	12-1			188	
3-6		11.0	79.8	6-25		9.0	88.0	10-19		13.0	75.0	8-4-2
4-10		43.1	68.1	8-7			70.8	9-29	3.06		77.6	36-4-1
4-27		53.7	72.6	8-10	2.90	29.7	70.1	10-2		27.7	71.5	
5-12		53.4	60.4	8-17			67.1	10-5	2.78		69.7	
5-29		43.9	58.5	8-21		33.0	80.0	10-12	2.71		70.7	
6-15		31.9	65.4	8-24	2.89		73.4	10-19	3.30		64.8	
7-10	3.41		69.6	8-31	2.77		* 71.6	10-26	3.14		67.3	
7-17	3.29		67.0	9-4		29.5	75.8	11-2	2.98		71.4	
7-24	2.57		68.1	9-8	2.65		71.4	11-9	3.41		64.1	
7-28		23.6	70.1	9-14	3.36		61.4	11-18	2.98		72.1	
7-31	2.68		68.6	9-18		31.8	68.9	11-23	2.82			
8-4	3.10		73.6	9-21	3.26		63.0	12-1	3.34		65.5	
3-6		9.0	71.5	6-24		9.0	63.2	10-19		8.0	67.6	13-3-1

\*Detailed analyses

82343

Middle Rio Grande Valley, New Mexico, Surface Waters - 19 -

(Conductance)

Index No.	Location and Description
	<u>Drains:</u> Belen Division: (Cont'd)
1-2-1	Lower San Juan R.S.D., near Las Nutrias, N. Mex. (77). In NW1/4 sec.1, T.2N., R.1E., above outlet of Las Nutrias I.D. No gage. Sampled and analyzed by U.S.G.S. and the State of Texas. (948.6).
12-2-1	Lower San Juan R.S.D., near Bernardo, N. Mex. (949.8). In NW1/4 sec.12, T.2N., R.1E., at east end of Bernardo Bridge and 0.2 mile above outlet. No gage. Sampled and analyzed by the State of Texas.
13-3-1	San Juan I.D., near Las Nutrias, N. Mex. (944.5). In NW1/4 sec.13, T.3N., R.1E., 0.5 mile above junction with Las Nutrias I.D. No gage. Sampled and analyzed by the State of Texas.
18-3-2	Las Nutrias I.D., near Las Nutrias, N. Mex. (944.5). In NW1/4 sec.18, T.3N., R.2E., 5.2 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
36-3-1	Las Nutrias I.D., near Las Nutrias, N. Mex. (76). In SW1/4 sec.36, T.3N., R.1E.; 1-3/4 miles southwest of Las Nutrias, 0.2 mile west of road, 1/2 mile east of Rio Grande, and 1-1/4 miles north of Bernardo Bridge over Rio Grande. Sampled and analyzed by U.S.G.S. and the State of Texas. (948.5).
23-3-1	San Francisco R.S.D., near Abeyta, N. Mex. (946.2). In SW1/4 sec.23, T.3N., R.1E., 6.7 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
35-3-1	San Francisco R.S.D., near Piecho, N. Mex. (944.4). In SW1/4 sec.35, T.3N., R.1E., 4.3 miles above outlet and 1/2 mile below Bernardo Lake. No gage. Sampled and analyzed by the State of Texas.
11-2-1	San Francisco R.S.D., near Bernardo, N. Mex. (79). At gaging station in NW1/4 sec.11, T.2N., R.1E., at west end of Bernardo Bridge, 3 miles above outlet. Zero of gage is 4715.30 ft. above sea level. Sampled and analyzed by U.S.G.S. and the State of Texas. (949.6).



Middle Rio Grande Valley, New Mexico, Surface Waters - 19 -

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> 25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> 25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> 25°C	Index No.
3-7		24.5	69.4	8-7		18.7	65.6	9-29	1.81		67.5	1-2-1
4-10		22.6	69.0	8-10	1.65		67.2	10-2		23.3	68.2	
4-27		46.1	69.0	8-17	1.61		66.4	10-5	1.71		66.6	
5-12		35.9	67.8	8-21		20.5	66.6	10-12	1.71		66.6	
5-29		26.6	65.1	8-24	1.68		68.1	10-19	1.72		68.7	
6-15		22.7	65.6	8-31	1.63		67.4	10-26	1.79		68.4	
7-16			65.9	9-4		19.2	68.8	11-2	1.80		68.1	
7-21	1.66		67.5	9-6	1.64		67.1	11-9			68.9	
7-28		14.9	65.9	9-14	1.68		68.3	11-16	1.80		68.9	
7-30	1.62		65.3	9-21			67.3	11-23	1.80		69.1	
8-3	1.67		65.7					12-1	1.79		68.5	
6-25		27.0	81.6	9-18		19.6	68.1					12-2-1
3-6		1.0	109	6-24		1.0	108	10-19		1.0	99.4	13-3-1
3-6		2.0	78.0	6-24		3.0	87.0	10-19		2.5	81.5	18-3-2
12-6-35		9.48	104	8-7		12.8	95.6	9-29	0.90	11.0	102	36-3-1
4-10		11.5	93.5	8-10	0.97	15.0	101	10-2		11.4	98.5	
4-27		19.9	63.0	8-17	0.90	15.0	99.5	10-5	0.82	11.0	99.3	
5-12		17.2	82.4	8-21		12.5	99.5	10-12	0.80	9.5	98.0	
5-29		16.7	88.4	8-24	0.90	9.5	99.8	10-19	0.80	9.4	99.7	
6-15		15.3	98.6	8-31	0.85	6.0	101	10-26	0.80	9.4	98.1	
7-9		17.0	96.3	9-4		11.4	99.1	11-2	0.78	8.2	98.4	
7-16	4.08	22.0	97.3	9-6	0.85	14.0	97.2	11-9	0.78	10.0	98.4	
7-21	0.90	15.0	102	9-14	0.85	13.0	103	11-16	0.80	12.0	96.9	
7-28		12.3	97.6	9-18		11.9	98.0	11-23	0.80	9.8	96.4	
7-30	1.00	10.0	92.0	9-21	0.87	10.0	102	12-1	0.80	--	95.9	
8-3	0.45	10.0	95.2									
2-20		2.0	73.8	6-25		1.0	62.2	10-19		1.0	72.3	23-3-1
2-20		2.0	66.5	6-25		1.0	67.3	10-19		1.0	65.5	35-3-1
9-10-35		6.14	77.3	6-15		7.17	68.4	9-14	4.38	6.2	75.8	11-2-1
10-16-35		5.85	77.4	7-9	4.48	6.7	71.4	9-18		5.16	73.5	
11-20-35		6.01	77.6	7-23	4.41	5.5	72.8	9-21	4.36	5.3	75.1	
12-6-35		6.25	76.3	7-28		5.11	71.5	9-29	4.40	7.3	74.1	
12-23-35		6.50	76.0	7-30	4.41	5.0	73.5	10-2		5.81	75.0	
2-4		6.12	76.6	8-3	4.47	5.8	76.7	10-5	4.38	6.1	74.2	
2-20		6.33	76.1	8-7		5.63	74.5	10-12	4.36	5.4	72.3	
3-7		6.51	76.0	8-10	4.46	4.5	75.9	10-19	4.36	6.0	74.7	
4-10		6.00	76.1	8-17	4.48	5.3	75.4	10-26	4.41	6.1	73.9	
4-27		13.4	75.6	8-21		5.51	74.8	11-2	4.42	6.4	74.3	
5-12		10.2	74.9	8-24	4.48	5.6	74.2	11-9	4.42	5.9	74.1	
5-29		8.28	70.9	8-31	4.42	5.0	75.3	11-16	4.44	5.5	68.7	
				9-4		4.84	74.3	11-23	4.48	6.3	74.9	
				9-6	4.42	5.4	74.0	12-1		6.5	75.3	

Middle Rio Grande Valley, New Mexico, Surface Waters - 20 -

(Conduotance)

Index No.	Location and Description
<u>Drains:</u> Belen Division: (Cont'd)	
15-2-1	San Francisco R.S.D., near San Francisco, N. Mex. (950.9). In NE1/4 sec.15, T.2N., R.1E., 1.7 miles above outlet and above entrance of Bernardo I.D. Sampled and analyzed by the State of Texas.
34-3-1	Bernardo Lake (946.0). In E1/2 sec.34, T.3N., R.1E. Sampled and analyzed by the State of Texas.
34-3-1	Bernardo I.D., near Bernardo, N. Mex. (74). In NE1/4 sec.34, T.3N., R.1E.; above lake just east of main highway and railroad, 1-3/4 miles, by highway, northeast of Bernardo, on east edge of village of Pinacho, about 1/2 mile west of Rio Grande, and 2 miles northwest of Bernardo Bridge, over Rio Grande. No gage. Sampled and analyzed by U.S.G.S. and the State of Texas. (946.0).
10-2-1	Bernardo I.D., near Bernardo, N. Mex. (949.9). At gaging station in NE1/4 sec.10, T.2N., R.1E., 1.2 miles above outlet. Sampled and analyzed by the State of Texas.
<u>Socorro Division:</u>	
2-1-1	San Acacia I.D., near San Acacia, N. Mex. (963.9). In NE1/4 sec.2, T.1S., R.1W. No gage. Sampled and analyzed by the State of Texas.
11-1-1	San Acacia I.D., near San Acacia, N. Mex. (83). In S1/2 sec.11, T.1S., R.1W.; above Alamillo Acequia Wasteway, at bend of drain between highway and railroad, 1-1/2 miles south of San Acacia. No gage. Sampled and analyzed by U.S.G.S. and the State of Texas. (965.3).
11-1-1	San Acacia I.D., near San Acacia, N. Mex. (965.35). Surface inflow from borrow pit along west side of Socorro Main Canal. In SE1/4 sec.11, T.1S., R.1W. No gage. Sampled and analyzed by the State of Texas.
11-1-1	San Acacia I.D., near San Acacia, N. Mex. (965.4). At gaging station in SE1/4 sec.11, T.1S., R.1W., 0.5 mile above mouth. Sampled and analyzed by the State of Texas.
12-1-1	San Acacia I.D., at mouth, near San Acacia, N. Mex. (965.7). In SW1/4 sec.12, T.1S., R.1W. At outlet of drain. No gage. Sampled and analyzed by the State of Texas.
24-1-1	Chamisal I.D., at mouth, near San Acacia, N. Mex. (84). In S1/2 sec.24, T.1S., R.1W.; west of Rio Grande, and 3-1/2 miles south of San Acacia. No gage. Sampled and analyzed by U.S.G.S. and the State of Texas. (967.6).

Middle Rio Grande Valley, New Mexico, Surface Waters - 20 -

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> 25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> 25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> 25°C	Index No.
2-20		7.53	81.5									15-2-1
2-20			72.0	10-19			70.5					34-3-1
9-10-35		5.0	235	7-30			224	9-29			228	34-3-1
10-16-35		5.0	232	8-4			223	10-5			226	
11-20-35		5.0	234	8-10			208	10-12			225	
12-6-35		5.0	238	8-17			225	10-19			229	
12-27-35		5.0	247	8-24			228	10-26			225	
2-4		5.0	242	8-31			229	11-2			229	
2-11		7.0	235	9-4		5.0	212	11-9			227	
3-7		7.0	234	9-8			222	11-16			229	
6-25		7.0	228	9-14			231	11-23			229	
7-10			227	9-21			224	12-1			229	
7-23			234									
2-20		12.9	197	5-29		14.6	200	8-21		10.4	217	10-2-1
3-7		12.8	196	6-15		10.4	230	9-4		10.1	210	
4-10		14.4	211	7-24		9.7	235	9-18		10.3	208	
4-27		19.3	169	8-7		10.1	208	10-2		13.2	195	
5-12		18.2	180									
3-9		4.0	291									2-1-1
9-19-35		4.0	319	7-24		3.8	300	9-29			307	11-1-1
11-18-35		4.9	311	7-26			331	9-30		4.97	309	
12-6-35		5.3	305	8-3			307	10-5			299	
12-26-35		5.5	303	8-10			306	10-12			296	
2-4		5.49	304	8-17			314	10-19			303	
2-18		5.47	302	8-24			311	10-26			307	
3-9		5.40	302	8-31			308	11-2			304	
4-7		5.00	306	9-3		4.04	308	11-9			306	
4-20		5.50	301	9-8			307	11-16			307	
5-26		4.90	291	9-14			310	11-23			305	
6-9		4.10	305	9-21			305	12-1			306	
7-11			197									
3-9		3.4	101	6-26		2.13	93.0	7-24		3.39	89.4	11-1-1
9-3		1.89	89.3	10-19		2.29	92.1					
7-24		7.20	211	8-12		5.58	233	9-3		5.97	234	11-1-1
9-30		7.98	233	10-19		6.89	305					
6-26		7.0	228									12-1-1
11-26-35		3.26	134	8-10		1.4	90.6	10-5		--	133	24-1-1
2-4		3.56	135	8-12		1.41	139	10-12		2.6	86.0	
2-18		3.42	132	8-17		--	90.9	10-19		2.32	86.8	
4-7		3.92	136	8-24		1.69	138	10-26		3.2	91.7	
4-20		3.74	136	8-31		1.5	92.2	11-2		3.29	141	
5-26		2.72	136	9-8		--	99.6	11-9		--	88.7	
6-9		1.98	138	9-14		1.78	139	11-16		--	102	
7-24		1.95	135	9-21		--	136	11-23		3.86	104	
7-27		1.4	88.7	9-29		--	88.0	12-1		--	101	
8-3		1.4	91.5	9-30		2.74	136	12-1		--	142	

Middle Rio Grande Valley, New Mexico, Surface Waters - 21 -

(Conductance)

Index No.	Location and Description
<u>Drains:</u>	
Socorro Division: (Cont'd)	
12-1-1	Lemitar R.S.D., near Chamisal, N. Mex. (965.7). In SW1/4 sec.12, T.1S., R.1W., above junction of San Acacia, I.D. and 8.3 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
25-1-1	Lemitar R.S.D., near Polvadera, N. Mex. (968.1). In NW1/4 sec.25, T.1S., R.1W., 0.5 mile below outlet of Chamisal I.D. and 5.6 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
36-1-1	Lemitar R.S.D., above Lemitar Wasteway, near Lemitar, N. Mex. (85). In SE1/4 sec.36, T.1S., R.1W.; on west side of Rio Grande, 0.6 mile east of railroad, 1-1/4 miles northeast of Lemitar, and 5-1/2 miles south of San Acacia, No gage. Sampled and analyzed by U.S.G.S.
16-2-1	Lemitar R.S.D., near Pueblitos, N. Mex. (971.9). At gaging station in NW1/2 sec.16, T.2S., R.1E., 1.5 miles above outlet. Sampled and analyzed by the State of Texas.
35-1-1	Polvadera I.D., near Lemitar, N. Mex. (969.0). In NW1/4 sec.35, T.1S., R.1W. No gage. Sampled and analyzed by the State of Texas.
1-2-1	Polvadera I.D., near mouth, at Lemitar, N. Mex. (86). In SW1/4 sec.1, T.2S., R.1W.; at crossing of Socorro Main Canal north, just east of railroad, 1/2 mile west of Rio Grande, and 3/8 mile northeast of Lemitar. No gage. Sampled and analyzed by U.S.G.S. and the State of Texas. (970.3).
30-2-1	Socorro R.S.D., near Pueblitos, N. Mex. (974.3). In NW1/4 sec.30, T.2S., R.1E., 8 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
6-3-1	Socorro R.S.D., near Florida, N. Mex. (976.1). In NW1/4 sec.6, T.3S., R.1E., 6 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
7-3-1	Socorro R.S.D., near Socorro, N. Mex. (977.6). In SE1/2 sec.7, T.3S., R.1E., 4.5 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
20-3-1	Socorro R.S.D., near Socorro, N. Mex. (88). In NW1/4 sec.20, T.3S., R.1E.; above Luis Lopez "C" I.D., on west side of Rio Grande, about 1/2 mile east of railroad, and 2 miles southeast of Socorro. No gage. Sampled and analyzed by U.S.G.S. and the State of Texas. (979.2).

Middle Rio Grande Valley, New Mexico, Surface Waters - 21 -

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Krl05 @25°C	Date 1936	G. H.	Disch. c.f.s.	Krl05 @25°C	Date 1936	G. H.	Disch. c.f.s.	Krl05 @25°C	Index No.
9-23-35		1.0	96.3	12-6-35		1.0	104	6-26		29.8	116	12-1-1
10-24-35		1.0	111	3-9		1.0	102	9-3		18.0	100	
11-18-35		1.0	101									
3-10		18.0	161									25-1-1
7-10			116	9-8			180	10-26			134	36-1-1
7-27			150	9-17			139	11-2			137	
8-3			144	9-21			139	11-9			136	
8-10			140	10-5			131	11-16			133	
8-17			146	10-12			130	11-23			131	
8-24			147	10-19			132	12-1			135	
8-31			144 *									
12-26-35		37.3	139	4-26		50.9	124	8-12		24.3	138	18-2-1
2-3		38.5	140	5-26		55.8	102	9-3		26.8	131	
2-17		33.4	141	6-11		49.8	111	10-1		37.9	130	
4-7		47.1	125	7-24		27.5	132					
3-9		0.7	194	6-26		1.5	192					35-1-1
9-19-35		1.0	194	7-27		2.1	197	9-30		1.59	196	1-2-1
10-21-35		0.2	198	8-3		--	188	10-1		--	193	
12-26-35		1.06	198	8-10		--	196	10-5		1.48	192	
2-3		1.11	193	8-12		2.08	196	10-12		--	190	
2-17		1.06	193	8-17		--	198	10-19		1.58	193	
4-7		2.01	196	8-24		1.80	195	10-26		--	190	
4-20		2.07	195	8-31		2.0	193	11-2		--	188	
5-26		2.19	194	9-3		2.08	195	11-9		--	194	
6-11		2.09	199	9-8		--	190	11-16		--	181	
6-26		2.89	181	9-14		1.9	193	11-23		1.58	190	
7-24		2.05	194	9-21		--	194	12-1		1.5	192	
2-14		4.0	90.9									30-2-1
2-14		11.0	91.1									6-3-1
2-14		15.0	90.9	9-5		10.0	86.5					7-3-1
9-23-35		17	91.9	7-29		8.0	81.5	10-5			83.4	20-3-1
10-21-35		36	92.1	8-3			85.7	10-12			84.3	
11-29-35		21	92.2	8-10			86.0	10-19			86.6	
12-27-35		21	90.4	8-17			86.5	10-21			83.7	
1-10		25	90.1	8-24			89.6	10-26		28.0	86.5	
1-31		20	91.2	8-31			86.2	11-2			86.5	
3-11		24	88.2	9-8			81.6	11-9			86.5	
5-25		28	81.4	9-14			86.4	11-16			86.0	
6-10		23	77.5	9-21			84.6	11-23			86.8	
6-30		31	80.7	9-28			87.4	12-1			86.2	
7-17			85.6									

Middle Rio Grande Valley, New Mexico, Surface Waters - 22 -

(Conductance)

Index No.	Location and Description
<u>Drainage:</u>	
Socorro Division: (Cont'd)	
29-3-1	Socorro R.S.D., near Socorro, N. Mex. (980.2). At gaging station in W1/2 sec.29, T.3S., R.1E., 1.4 miles above outlet. Sampled and analyzed by the State of Texas.
25-2-1	Luis Lopez "C" I.D., near Florida, N. Mex. (974.2). In NW1/4 sec.29, T.2S., R.1W., 500 ft. below head and 5.6 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
36-2-1	Luis Lopez "C" I.D., near Florida, N. Mex. (975-1). In NW1/4 sec.36, T.2S., R.1W., 4.7 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
31-2-1	Luis Lopez "C" I.D., near Florida, N. Mex. (975.9). In SE1/4 sec.31, T.2S., R.1E., 3.9 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
7-3-1	Luis Lopez "C" I.D., above Socorro, N. Mex. (977.0). In NW1/4 sec.7, T.3S., R.1E., above entrance of Lopezville Drain and 2.8 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
7-3-1	Luis Lopez "C" I.D., at Socorro, N. Mex. (977.6). In SW1/4 sec.7, T.3S., R.1E., 2.2 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
16-3-1	Luis Lopez "C" I.D., near Cuba, N. Mex. (978.8). In SW1/4 sec.16, T.3S., R.1E., 1 mile above mouth. No gage. Sampled and analyzed by the State of Texas.
20-3-1	Luis Lopez "C" I.D., at mouth, near Socorro, N. Mex. (89). In NW1/4 sec.20, T.3S., R.1E.; west of Rio Grande, about 1/2 mile east of railroad, and 2 miles southeast of Socorro. Zero of gage is 4573.24 ft. above sea level. Sampled and analyzed by U.S.G.S. and the State of Texas.
31-3-1	Luis Lopez "B" I.D., at mouth, near Socorro, N. Mex. (91). In SE1/4 sec.31, T.3S., R.1E.; west of Rio Grande, 1 1/4 mile east of railroad, 4 miles south of Socorro, and 6 miles north of San Antonio. Zero of gage is 4560.48 ft. above sea level. Sampled and analyzed by U.S.G.S. and the State of Texas. (981.4).
8-4-1	Luis Lopez "A" I.D., near Luis Lopez, N. Mex. (983.5). In SW1/4 sec.8, T.4S., R.1E., 4 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
29-4-1	Luis Lopez "A" I.D., near San Antonio, N. Mex. (986.3). In W1/2 sec.29, T.4S., R.1E., 1 mile above mouth. No gage. Sampled and analyzed by the State of Texas.

Middle Rio Grande Valley, New Mexico, Surface Waters - 22 -

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
3-11		42.8	81.2	6-30		59.6	81.2	9-2		37.7	97.7	29-3-1
4-8		44.5	80.0	7-29		23.0	79.0	10-1		35.8	83.5	
4-22		61.7	81.3	8-14		57.0	91.9					
2-14		0.5										25-2-1
2-14		4.6	84.0	7-1		4.0	83.7					36-2-1
7-1		7.0	86.2									31-2-1
9-5		10.0	81.2									7-3-1
2-14		12.9	67.7									7-3-1
10-20-35		12.0	69.6	5-29		16.0	68.6	8-14		10.0	77.4	18-3-1
11-29-35		12.0	68.7	6-30		11.0	82.0	10-21		14.0	73.8	
9-23-35		12.0	70.5	8-3	2.40	11.0	84.9	10-1		12.8	76.5	20-3-1
12-7-35		14.0	68.2	8-10	2.65	14.0	103	10-5	2.50	6.7	76.7	
12-27-35		14.0	68.2	8-17	2.60	14.0	84.5	10-12	2.90	--	74.7	
1-31		15.4	67.5	8-24	2.40	16.0	87.0	10-19	2.40	23.0	74.7	
3-11		15.1	65.8	8-31	2.40	13.0	83.8	10-26	2.20	17.0	73.5	
4-8		16.4	67.4	9-2		22.3	96.6	11-2	2.10	16.0	73.1	
4-22		19.6	67.2	9-8	2.00	--	85.7	11-9	2.20	15.0	72.4	
6-10		12.5	73.2	9-14	1.90	11.0	76.6	11-16	2.00	14.0	71.3	
7-13	2.18	14.0	75.4	9-21	2.00	10.0	82.0	11-23	2.20	14.0	71.5	
7-27		25.0	82.0	9-29	2.40	23.0	75.7	12-1	2.10	14.0	71.3	
7-29		10.7	75.5									
9-20-35		1.84	59.9	7-30	1.40	1.4	65.4	9-30	2.75	--	57.0	31-3-1
10-27-35		2.52	58.9	8-3	2.40	1.8	58.3	10-2		2.56	57.0	
11-29-35		3.1	54.0	8-10	1.80	--	108	10-5	2.70	2.60	56.7	
12-7-35		3.24	56.7	8-18	1.50	--	59.0	10-12	2.70	2.83	56.5	
12-27-35		3.24	55.8	8-17	1.40	1.3	57.7	10-19	2.70	2.60	56.5	
1-31		3.23	54.5	8-24	2.40	1.3	59.2	10-26	2.70	--	56.0	
2-18		3.08	55.5	8-31	2.45	--	58.2	11-2	2.80	3.64	56.8	
4-8		3.73	55.7	9-1		1.78	59.1	11-9	2.80	--	56.0	
4-22		3.64	56.0	9-8	2.40	1.5	57.9	11-16	2.70	--	55.9	
5-27		7.02	50.4	9-14	2.50	1.9	57.6	11-23	2.70	3.10	56.3	
7-13	2.54	2.20	60.2	9-21	2.50	1.6	56.8	12-1	2.75	3.60	56.4	
7-22		3.03	67.3									
3-12		3.0	129									8-4-1
3-12		7.0										29-4-1

Middle Rio Grande Valley, New Mexico, Surface Waters - 23 -

(Conductance)

Index No.	Location and Description
<u>Drains:</u>	
Socorro Division: (Cont'd)	
32-4-1	Luis Lopez "A" I.D., at mouth, near San Antonio, N. Mex. (94). In NW1/4 sec.32, T.4S., R.1E.; at crossing of Socorro Main Canal South, 1/4 mile west of Rio Grande, 3/4 mile east of main highway, and 3/4 mile northeast of San Antonio. Zero of gage is 4536.36 ft. above sea level. Sampled and analyzed by U.S.G.S. and the State of Texas. (986.9).
6-4-1	San Antonio R.S.D., near Luis Lopez, N. Mex. (983.4). In S1/2 sec.8, T.4S., R.1E., 10.2 miles above outlet. No gage. Sampled and analyzed by the State of Texas.
32-4-1	San Antonio R.S.D., at San Antonio, N. Mex. (93). In NE1/4 sec.32, T.4S., R.1E.; above Luis Lopez "A", I.D., west of Rio Grande, about 3/4 mile upstream from San Antonio Highway Bridge, and 3/4 mile northeast of San Antonio. No gage. Sampled and analyzed by U.S.G.S.
32-4-1	San Antonio R.S.D., near San Antonio, N. Mex. (987.9). At gaging station in SE1/4 sec.32, T.4S., R.1E., 5.7 miles above outlet. Sampled and analyzed by the State of Texas.
28-5-1	San Antonio R.S.D., near San Antonio, N. Mex. (992.3). In NW1/4 sec.28, T.5S., R.1E., 1 mile above outlet. No gage. Sampled and analyzed by the State of Texas.
6-5-1	Elmendorf I.D., near San Antonio, N. Mex. (989.6). Near W1/4 cor. sec.8, T.5S., R.1E., 1.9 miles above mouth. No gage. Sampled and analyzed by the State of Texas.
20-5-1	Elmendorf I.D., at mouth, near San Antonio, N. Mex. (95). In NE1/4 sec.20, T.5S., R.1E.; west of Rio Grande, 1 mile east of main highway and railroad, and 3-1/2 miles south of San Antonio. Zero of gage is 4519.32 ft. above sea level. Sampled and analyzed by U.S.G.S. and the State of Texas. (990.9).



Middle Rio Grande Valley, New Mexico, Surface Waters - 23 -

(Conductance)

Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	G. H.	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
9-20-35		7.73	279	7-22		11.5	198	9-29	1.90	--	287	32-4-1
10-18-35		8.29	274	7-28	1.80	7.2	286	10-2			8.21	290
11-19-35		9.35	265	8-4	1.30	7.3	277	10-6	1.90		8.1	296
12-5-35		10.1	258	8-11	1.90	9.0	236	10-13	1.90		8.4	275
12-27-35		10.3	261	8-15		7.0	258	10-20	1.90		9.2	285
2-1		10.5	262	8-18	1.90	7.2	217	10-27	2.00	--	--	256
2-19		10.1	263	8-25	1.30	7.3	215	11-3	1.90	10.0		281
4-9		11.7	238	9-1	1.90	7.4	225	11-10	1.95		9.7	281
4-24		12.4	258	9-1		7.54	268	11-16	1.95	11.0		277
5-28		11.5	269	9-8	1.70	9.7	294	11-23	1.90		9.7	
6-18		7.79	267	9-15	1.90	9.4	294	12-1	2.00	10.0		274
7-11		11.0	78.0	9-22	2.10	--	201					
3-12		16.0	74.9									8-4-1
7-11			164	9-8			85.2	10-27			93.1	32-4-1
7-28			97.9	9-15			67.8	11-5			74.2	
8-4			84.4	9-22			89.9	11-10			93.9	
8-11			99.4	9-29			89.3	11-16			94.4	
8-18			84.6	10-6			89.5	11-23			94.0	
8-25			86.5	10-13			89.7	12-1			94.4	
9-1			85.4*	10-20			92.1					
9-20-35		32.0	173	2-1		33.3	156	6-18		32.6	154	32-4-1
10-18-35		31.0	164	2-19		33.4	156	7-22		15.0	137	
11-18-35		28.0	161	4-9		33.0	150	8-15		22.0	160	
12-5-35		30.0	159	4-24		42.5	151	9-1		21.3	164	
12-27-35		32.0	157	5-28		39.1	152	10-2		29.3	157	
4-9		71.9	120	7-22		47.7	124					28-5-1
9-20-35		0.7	135	2-1		0.7	121	5-28		0.7	128	8-5-1
10-18-35		0.7	127	4-9		0.7	104	6-18		0.7	128	
11-19-35		0.7	124	4-23		0.7	117	9-1		0.7	123	
1-8		0.7	128									
2-1		1.58	125	8-25	1.50	--	98.5	10-13	1.65	--	110	20-5-1
2-19		1.49	128	9-1	1.50	--	103	10-20	1.70	--	120	
4-9		8.55	88.9	9-1	1.50	--	108	10-27	1.80	1.8	131	
4-23		6.08	82.6	9-8	1.30	--	130	11-3	1.90	--	131	
7-18	1.70	4.50	115	9-15	1.60	8.3	106	11-10	1.90	3.2	109	
7-28	1.30	2.10	112	9-22	1.60	--	102	11-16	1.80	--	128	
8-4	1.40	--	116	9-29	1.70	--	127	11-23	1.90	2.6	128	
8-11	1.45	--	121	10-6	1.70	--	98.2	12-1	1.85	2.2	127	
8-18	1.45	4.50	105									

\*Detailed analyses

82343 O-38-10

Middle Rio Grande Valley, New Mexico, Subsoil Waters

(Conductance)

Index No.

Location and Description

Observation Wells:

Note: The well lines are designated to correspond to the mileage on the Atchison, Topeka and Santa Fe Railway, as marked by mile posts, at the points where the lines cross the railroad or, in case the line of wells does not extend to the railroad, at the point where this line would cross if extended. The wells in each line are numbered consecutively beginning at the river: the designation "E" or "W" after the well number indicates that the well numbering begins at the east or the west bank of the river. Wells extend throughout the width of the valley bottom on all lines. The designations in parentheses are those given by the Middle Rio Grande Conservancy District and correspond to the numbers used in the field during this investigation. The datum used for elevations of the reference points and ground surface at the wells is that established by the Middle Rio Grande Conservancy District. The index number indicates the section in which the line of wells intersects the river channel.

2-13-4

Line 879.8 (Algodones Line No. 17).  
Line runs northwesterly through mile post 879.8 to Rio Grande.

Well No.:	1 E (17-1)	Elevation, R. P.:	5084.18	Elevation, Ground Surface:	5084.0
	2 E (17-2)		5083.46		5083.1
	3 E (17-3)		5085.71		5085.2
	4 E (17-4)		5091.12		5091.1

30-13-4

Line 884.8 (Bernalillo Line No. 13).  
From mile post 884.8 line runs northwest for 0.5 mile thence southwest on U. S. Highway 66 for 500 feet thence northwest on Polesia canyon road to Rio Grande.

Well No.:	1 E (13-1)	Elevation, R. P.:	5052.12	Elevation, Ground Surface:	5052.1
	2 E (13-2)		5051.45		5051.2
	3 E (13-3)		5051.37		5051.2
	4 E (13-4)		5051.09		5050.9
	5 E (13-5)		5054.65		5054.6
	6 E (13-6)		5059.60		5059.0
	7 E (13-7)		5061.04		5060.3
	8 E (13-8)		5067.75		5067.3

1-12-3

Line 886.9 (Bernalillo Line No. 12).  
Mile post 886.9 thence northwesterly to Rio Grande.

Well No.:	1 E (12-1)	Elevation, R. P.:	5040.09	Elevation, Ground Surface:	5039.9
	2 E (12-2)		5038.41		5038.4
	3 E (12-3)		5040.02		5040.0
	4 E (12-4)		5039.44		5038.8
	5 E (12-5)		5038.72		5038.7
	6 E (12-6)		5041.84		5040.9
	7 E (12-7)		5040.70		5040.3
	8 E (12-8)		5042.45		5042.4

14-12-3

Line 889.6 (Bernalillo Line No. 10).  
Mile post 889.6 thence northwesterly to Rio Grande.

Well No.:	1 E (10-1)	Elevation, R. P.:	5021.25	Elevation, Ground Surface:	5021.0
	2 E (10-2)		5021.68		5021.4
	3 E (10-3)		5022.01		5020.8
	4 E (10-4)		5025.19		5025.1

26-12-3

Line 890.8 (Corrales Line No. 9).  
From a point on the west bank of the Rio Grande due west of mile post 890.8 line runs in a northwesterly direction to sand hills.

Well No.:	1 W (9-1)	Elevation, R. P.:	5018.79	Elevation, Ground Surface:	5018.4
	2 W (9-2)		5018.30		5018.2
	3 W (9-3)		5018.27		5018.2
	4 W (9-4)		5018.28		5018.2
	5 W (9-5)		5018.64		5018.4
	6 W (9-6)		5017.11		5016.8
	7 W (9-7)		5018.98		5018.8

Middle Rio Grande Valley, New Mexico, Subsoil Waters

(Conductance)

Well No.	Date	Elev.	Kx10 <sup>5</sup>	Date	Elev.	Kx10 <sup>5</sup>	Date	Elev.	Kx10 <sup>5</sup>	Date	Elev.	Kx10 <sup>5</sup>	Index No.
	1936	W. S.	@25°C	1936	W. S.	@25°C	1936	W. S.	@25°C	1936	W. S.	@25°C	
1 E (17-1)	8-25	5081.01	143	10-13	5080.94	137	11-12	5080.80	157				2-13-4
2 E (17-2)	8-25	5081.25	141	10-13	5081.02	114	11-12	5081.04	101				
3 E (17-3)	8-25	5080.99	79.6	10-13	5080.65	78.9	11-12	5080.67	77.3				
4 E (17-4)	8-25	5085.33	48.1	10-13	5084.47	80.0	11-12	5083.75	71.1				
1 E (13-1)	8-20	5046.71	88.6	10-14	5047.45	227	11-11	5046.60	75.4				30-13-4
2 E (13-2)	8-20	5046.80	191	10-14	5046.10	122	11-11	5047.13	111				
3 E (13-3)	8-20	5047.23	139	10-14	5046.41	111	11-11	5046.53	90.0				
4 E (13-4)	8-20	5049.11	128	10-14	5047.36	138	11-11	5047.25	137				
5 E (13-5)	8-20	5050.50	213	10-14	5048.72	259	11-11	5048.56	114				
6 E (13-6)	8-20	5052.43	61.2	10-14	5050.66	99.2	11-11	5050.14	80.8				
7 E (13-7)	8-20	5054.50	227	10-14	5051.76	1070	11-11	5050.77	1275				
8 E (13-8)	8-20	5053.17	94.4	10-14	5052.06	365	11-11	Well dry.					
1 E (12-1)	8-24	5033.79	117	9-10	5033.84	91.2	10-12	5034.29	90.9	11-11	5033.93	83.6	1-12-3
2 E (12-2)	8-24	5033.79	118	10-12	5033.66	115	11-11	5033.98	126				
3 E (12-3)	8-24	5034.08	170	10-12	5033.88	103	11-11	5034.17	99.8				
4 E (12-4)	8-24	5034.71	164	10-12	5034.58	236	11-11	5034.53	193				
5 E (12-5)	8-24	5034.03	220	10-12	5033.87	170	11-11	5033.88	194				
6 E (12-6)	8-24	5033.43	105	10-12	5033.25	92.7	11-11	5033.20	98.5				
7 E (12-7)	8-24	5034.33	86.6	10-12	5034.18	96.0	11-11	5034.27	102				
8 E (12-8)	8-24	5037.30	84.7	10-12	5037.02	62.3	11-11	5037.07	71.6				
1 E (10-1)	8-24	5019.04	68.4	8-26	5018.49	51.0	9-10	5019.11	47.1	10-12	5019.31	50.8	14-12-3
	11-11	5019.54	43.1										
2 E (10-2)	8-24	5018.48	70.6	10-12	5018.82	170	11-11	5019.11	102				
3 E (10-3)	8-24	5018.87	170	10-12	5018.96	156	11-11	5019.14	187				
4 E (10-4)	8-26	5018.60	126	10-12	5018.64	105	11-11	5017.42	115				26-12-3
1 W (9-1)	8-26	5015.59	54.9	10-14	5016.48	294	11-12	5016.40	174				
2 W (9-2)	8-26	5014.20	117	10-14	5014.39	68.9	11-12	5014.73	61.7				
3 W (9-3)	8-26	5014.33	224	10-14	5014.26	167	11-12	5014.47	164				
4 W (9-4)	8-26	5014.28	105	10-14	5013.89	105	11-12	5013.91	101				
5 W (9-5)	8-26	5014.80	122	10-14	5014.48	107	11-12	5014.15	114				
6 W (9-6)	8-26	5014.38	124	10-14	5013.70	186	11-12	5014.05	207				
7 W (9-7)	8-26	5013.15	48.8	10-14	5012.70	89.4	11-12	5012.86	269				

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 2 -

(Conductance)

Index No.	Location and Description																																																																																																																																																																								
Observation Wells (Cont'd):																																																																																																																																																																									
35-12-3	<p>Line 892.5 (Corrales Lines Nos. 8A and 8). From east edge of valley line runs northwesterly crossing Bernalillo-Sandoval County lines and railroad at mile post 892.5 continuing to Rio Grande. Line crosses river and continues northwesterly through the town of Corrales to sand hills.</p> <table> <tr> <td>Well No.:</td><td>1 E (8A-2)</td><td>Elevation, R. P.:</td><td>5007.79</td><td>Elevation, Ground Surface:</td><td>5007.2</td></tr> <tr> <td></td><td>2 E (8A-3)</td><td></td><td>5007.74</td><td></td><td>5007.6</td></tr> <tr> <td></td><td>1 W (8-1)</td><td></td><td>5010.29</td><td></td><td>5010.2</td></tr> <tr> <td></td><td>2 W (8-2)</td><td></td><td>5008.96</td><td></td><td>5008.9</td></tr> <tr> <td></td><td>3 W (8-3)</td><td></td><td>5006.84</td><td></td><td>5006.7</td></tr> <tr> <td></td><td>4 W (8-4)</td><td></td><td>5005.82</td><td></td><td>5004.8</td></tr> <tr> <td></td><td>5 W (8-5)</td><td></td><td>5006.37</td><td></td><td>5005.9</td></tr> <tr> <td></td><td>6 W (8-6)</td><td></td><td>5011.86</td><td></td><td>5011.1</td></tr> <tr> <td></td><td>7 W (8-7)</td><td></td><td>5009.11</td><td></td><td>5008.3</td></tr> </table>	Well No.:	1 E (8A-2)	Elevation, R. P.:	5007.79	Elevation, Ground Surface:	5007.2		2 E (8A-3)		5007.74		5007.6		1 W (8-1)		5010.29		5010.2		2 W (8-2)		5008.96		5008.9		3 W (8-3)		5006.84		5006.7		4 W (8-4)		5005.82		5004.8		5 W (8-5)		5006.37		5005.9		6 W (8-6)		5011.86		5011.1		7 W (8-7)		5009.11		5008.3																																																																																																																		
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	7 W (8-7)		5009.11		5008.3																																																																																																																																																																				
8-11-3	<p>Line 894.4 (Albuquerque Line No. 6). Mile post 894.4 thence northwest to U. S. Highway 66, south 0.5 mile to the town of Alameda, thence northwesterly along Corrales road to Rio Grande. Cross river and continue in a northerly direction 1500 feet. Wells 1 E, 3 E, 5 E, and 6 E are drive points penetrating 15 feet below the water table.</p> <table> <tr> <td>Well No.:</td><td>1 E (150 W)</td><td>Elevation, R. P.:</td><td>4992.94</td><td>Elevation, Ground Surface:</td><td>4992.9</td></tr> <tr> <td></td><td>2 E (6-2C)</td><td></td><td>4994.82</td><td></td><td>4994.3</td></tr> <tr> <td></td><td>3 E (50 W)</td><td></td><td>4999.21</td><td></td><td>4999.0</td></tr> <tr> <td></td><td>4 E (6-2D)</td><td></td><td>4994.52</td><td></td><td>4994.3</td></tr> <tr> <td></td><td>5 E (75 E)</td><td></td><td>4993.99</td><td></td><td>4993.6</td></tr> <tr> <td></td><td>6 E (175 E)</td><td></td><td>4993.41</td><td></td><td>4993.4</td></tr> <tr> <td></td><td>7 E (6-3)</td><td></td><td>4993.04</td><td></td><td>4993.0</td></tr> <tr> <td></td><td>8 E (6-4)</td><td></td><td>4994.21</td><td></td><td>4994.2</td></tr> <tr> <td></td><td>9 E (6-5)</td><td></td><td>4993.39</td><td></td><td>4993.5</td></tr> <tr> <td></td><td>10 E (6-5A)</td><td></td><td>4995.42</td><td></td><td>4994.9</td></tr> <tr> <td></td><td>11 E (6-5C) In Albuquerque Main</td><td></td><td>4997.51</td><td>Canal</td><td>- -</td></tr> <tr> <td></td><td>Albuquerque Main Canal at Well 11 E</td><td></td><td></td><td></td><td></td></tr> <tr> <td></td><td>12 E (6-5B)</td><td></td><td>4994.30</td><td></td><td>4993.3</td></tr> <tr> <td></td><td>13 N (6-6)</td><td></td><td>4994.17</td><td></td><td>4994.1</td></tr> <tr> <td></td><td>14 E (6-7)</td><td></td><td>4995.27</td><td></td><td>4995.2</td></tr> <tr> <td></td><td>15 N (6-8)</td><td></td><td>4997.70</td><td></td><td>4997.4</td></tr> <tr> <td></td><td>16 E (6-9)</td><td></td><td>4997.65</td><td></td><td>4996.6</td></tr> <tr> <td></td><td>17 E (6-10)</td><td></td><td>4998.21</td><td></td><td>4998.5</td></tr> <tr> <td></td><td>18 E (6-11)</td><td></td><td>4999.72</td><td></td><td>4999.5</td></tr> <tr> <td></td><td>19 E (6-12)</td><td></td><td>5006.82</td><td></td><td>5004.5</td></tr> <tr> <td></td><td>1 W (6-2B)</td><td></td><td>4995.29</td><td></td><td>4995.2</td></tr> <tr> <td></td><td>2 W (6-2A)</td><td></td><td>4995.55</td><td></td><td>4995.2</td></tr> <tr> <td></td><td>3 W (6-2)</td><td></td><td>4995.04</td><td></td><td>4994.8</td></tr> <tr> <td></td><td>4 W (6-1)</td><td></td><td>4997.75</td><td></td><td>4997.3</td></tr> <tr> <td></td><td>(6-1A)</td><td>Domestic well, Jack Means, 34 feet deep, in corral</td><td></td><td></td><td></td></tr> <tr> <td></td><td>(6-1B)</td><td>Domestic well, Jack Means, 52 feet deep, north of house.</td><td></td><td></td><td></td></tr> <tr> <td></td><td>(6-1C)</td><td>Domestic well, J. H. Lane, 36 feet deep, west of house.</td><td></td><td></td><td></td></tr> <tr> <td></td><td>(6-1D)</td><td>Domestic well, J. H. Lane, 35 feet deep, in house.</td><td></td><td></td><td></td></tr> </table>	Well No.:	1 E (150 W)	Elevation, R. P.:	4992.94	Elevation, Ground Surface:	4992.9		2 E (6-2C)		4994.82		4994.3		3 E (50 W)		4999.21		4999.0		4 E (6-2D)		4994.52		4994.3		5 E (75 E)		4993.99		4993.6		6 E (175 E)		4993.41		4993.4		7 E (6-3)		4993.04		4993.0		8 E (6-4)		4994.21		4994.2		9 E (6-5)		4993.39		4993.5		10 E (6-5A)		4995.42		4994.9		11 E (6-5C) In Albuquerque Main		4997.51	Canal	- -		Albuquerque Main Canal at Well 11 E						12 E (6-5B)		4994.30		4993.3		13 N (6-6)		4994.17		4994.1		14 E (6-7)		4995.27		4995.2		15 N (6-8)		4997.70		4997.4		16 E (6-9)		4997.65		4996.6		17 E (6-10)		4998.21		4998.5		18 E (6-11)		4999.72		4999.5		19 E (6-12)		5006.82		5004.5		1 W (6-2B)		4995.29		4995.2		2 W (6-2A)		4995.55		4995.2		3 W (6-2)		4995.04		4994.8		4 W (6-1)		4997.75		4997.3		(6-1A)	Domestic well, Jack Means, 34 feet deep, in corral					(6-1B)	Domestic well, Jack Means, 52 feet deep, north of house.					(6-1C)	Domestic well, J. H. Lane, 36 feet deep, west of house.					(6-1D)	Domestic well, J. H. Lane, 35 feet deep, in house.			
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	12 E (6-5B)		4994.30		4993.3																																																																																																																																																																				
	13 N (6-6)		4994.17		4994.1																																																																																																																																																																				
	14 E (6-7)		4995.27		4995.2																																																																																																																																																																				
	15 N (6-8)		4997.70		4997.4																																																																																																																																																																				
	16 E (6-9)		4997.65		4996.6																																																																																																																																																																				
	17 E (6-10)		4998.21		4998.5																																																																																																																																																																				
	18 E (6-11)		4999.72		4999.5																																																																																																																																																																				
	19 E (6-12)		5006.82		5004.5																																																																																																																																																																				
	1 W (6-2B)		4995.29		4995.2																																																																																																																																																																				
	2 W (6-2A)		4995.55		4995.2																																																																																																																																																																				
	3 W (6-2)		4995.04		4994.8																																																																																																																																																																				
	4 W (6-1)		4997.75		4997.3																																																																																																																																																																				
	(6-1A)	Domestic well, Jack Means, 34 feet deep, in corral																																																																																																																																																																							
	(6-1B)	Domestic well, Jack Means, 52 feet deep, north of house.																																																																																																																																																																							
	(6-1C)	Domestic well, J. H. Lane, 36 feet deep, west of house.																																																																																																																																																																							
	(6-1D)	Domestic well, J. H. Lane, 35 feet deep, in house.																																																																																																																																																																							
36-11-2	<p>Line 898.5 (Albuquerque Line No. 4). Mile post 898.5 thence northwesterly along a road for 1.5 miles, then continuing across country in the same direction to the Rio Grande.</p> <table> <tr> <td>Well No.:</td><td>1 E (4-1)</td><td>Elevation, R. P.:</td><td>4974.68</td><td>Elevation, Ground Surface:</td><td>4974.6</td></tr> <tr> <td></td><td>2 E (4-2)</td><td></td><td>4973.26</td><td></td><td>4972.0</td></tr> <tr> <td></td><td>3 E (4-3)</td><td></td><td>4973.19</td><td></td><td>4973.0</td></tr> <tr> <td></td><td>4 E (4-4)</td><td></td><td>4974.95</td><td></td><td>4974.6</td></tr> <tr> <td></td><td>5 E (4-5)</td><td></td><td>4970.48</td><td></td><td>4970.1</td></tr> <tr> <td></td><td>6 E (4-6)</td><td></td><td>4973.84</td><td></td><td>4973.7</td></tr> <tr> <td></td><td>7 E (4-7)</td><td></td><td>4974.38</td><td></td><td>4974.3</td></tr> <tr> <td></td><td>8 E (4-8)</td><td></td><td>4971.78</td><td></td><td>4971.3</td></tr> <tr> <td></td><td>9 E (4-9)</td><td></td><td>4974.34</td><td></td><td>4974.3</td></tr> <tr> <td></td><td>10 E (4-10)</td><td></td><td>4974.54</td><td></td><td>4974.2</td></tr> </table>	Well No.:	1 E (4-1)	Elevation, R. P.:	4974.68	Elevation, Ground Surface:	4974.6		2 E (4-2)		4973.26		4972.0		3 E (4-3)		4973.19		4973.0		4 E (4-4)		4974.95		4974.6		5 E (4-5)		4970.48		4970.1		6 E (4-6)		4973.84		4973.7		7 E (4-7)		4974.38		4974.3		8 E (4-8)		4971.78		4971.3		9 E (4-9)		4974.34		4974.3		10 E (4-10)		4974.54		4974.2																																																																																																												
Well No.:	1 E (4-1)	Elevation, R. P.:	4974.68	Elevation, Ground Surface:	4974.6																																																																																																																																																																				
	2 E (4-2)		4973.26		4972.0																																																																																																																																																																				
	3 E (4-3)		4973.19		4973.0																																																																																																																																																																				
	4 E (4-4)		4974.95		4974.6																																																																																																																																																																				
	5 E (4-5)		4970.48		4970.1																																																																																																																																																																				
	6 E (4-6)		4973.84		4973.7																																																																																																																																																																				
	7 E (4-7)		4974.38		4974.3																																																																																																																																																																				
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	9 E (4-9)		4974.34		4974.3																																																																																																																																																																				
	10 E (4-10)		4974.54		4974.2																																																																																																																																																																				

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 2 -

(Conductance)

Well No.	1936			1936			1936			1936			Index No.
	Date	Elev.	Kx10 <sup>5</sup>	Date	Elev.	Kx10 <sup>5</sup>	Date	Elev.	Kx10 <sup>5</sup>	Date	Elev.	Kx10 <sup>5</sup>	
	1936	w. s.	@25°C	1936	w. s.	@25°C	1936	w. s.	@25°C	1936	w. s.	@25°C	
1 E (8A-2)	8-22	5005.70	98.7	10-12	5005.58	120	11-10	5004.87	133				35-12-3
2 E (8A-3)	8-22	5006.34	95.5	10-12	5005.09	180	11-10	5004.90	196				
1 W (8-1)	8-26	5005.84	49.5	10-15	5005.86	94.8	11-13	5006.10	56.6				
2 W (8-2)	8-26	5005.79	69.1	10-15	5003.75	57.0	11-13	5003.88	45.2				
3 W (8-3)	8-26	5002.95	73.1	10-15	5002.72	35.7	11-13	5002.92	37.8				
4 W (8-4)	8-26	5002.84	170	10-15	5001.23	104	11-13	5001.83	123				
5 W (8-5)	8-25	-	139	10-14	5001.01	150	11-13	5001.31	434				
6 W (8-6)	8-31	5001.51	73.8	10-14	5001.25	60.8	11-13	5000.27	70.8				8-11-3
7 W (8-7)	8-25	5001.56	73.5	10-14	5000.48	68.2	11-13	5000.87	75.9				
1 E (150 W)	8-26	4990.24	49.9	10-14	4990.63	38.9	11-10	4990.42	51.2	10-10	4993.44	300	
2 E (6-20)	7-25	4990.39	102	8-7	4991.23	105	8-22	4991.94	79.7				
	11-10	4991.97	309										
3 E (50 W)	8-22	4990.74	53.5	10-10	4989.75	45.9	11-10	4988.55	46.3				
4 E (6-20)	7-25	4990.05	159	8-7	4990.66	174	8-22	4990.80	166	10-10	4989.91	126	
	11-10	4989.77	114										
5 E (75 E)	8-22	4990.70	57.4	10-10	4988.95	51.5	11-10	4988.84	48.7				8-11-3
6 E (175 E)	8-22	4990.50	107	10-10	4990.83	81.6	11-10	4990.45	73.0				
7 E (6-3)	7-24	4990.03	132	8-7	4990.51	150	8-22	4990.38	133	10-10	4989.79	157	
8 E (6-4)	7-24	4990.12	328	8-7	4990.67	480	8-22	4989.82	638	10-10	4989.25	548	
	10-30	4989.41	515	11-10	4989.55	468							
9 E (6-5)	7-25	4991.47	120	8-7	4991.05	107	8-22	4990.70	122	10-10	4990.62	78.3	
	11-10	4990.86	95.0										
10 E (6-5A)	7-24	4992.17	57.4	8-7	4991.47	54.6	8-22	4991.22	54.8	10-10	4990.93	51.6	8-11-3
	11-10	4991.11	193										
11 E (6-5C)	10-10	4992.99	46.7	10-30	4992.08	39.0	10-30	4992.05	41.8	11-3	-	43.1	
	11-10	-	39.0										
Canal	10-10	-	41.8	10-30	-	38.5	11-3	-	38.4	11-10	-	39.0	
12 E (6-5B)	7-24	4991.85	151	8-7	4991.69	116	8-22	4991.52	144	10-10	-	105	
	10-30	4991.40	112	11-10	4991.32	110							
13 E (6-6)	8-22	4992.69	232	10-10	4992.22	281	11-10	4992.38	172				36-11-2
14 E (6-7)	8-22	4992.24	187	10-10	4992.62	175	11-10	4991.17	185				
15 E (6-8)	8-22	4992.89	77.8	10-10	4994.51	20.5	11-10	4992.09	110				
16 E (6-9)	8-24	4994.56	522	10-12	4994.75	380	11-10	4994.72	339				
17 E (6-10)	8-31	4994.51	105	10-12	4993.72	131	11-10	4993.78	122				
18 E (6-11)	8-26	4993.68	127	10-12	4994.41	88.0	11-10	4994.22	74.0				
19 E (6-12)	8-22	4995.85	176	10-12	4994.93	185	11-10	4994.89	201				
1 W (6-2B)	8-22	4993.06	98.7	10-10	4992.12	100	11-10	4992.82	78.2				36-11-2
2 W (6-2A)	7-25	4991.64	74.2	8-7	4992.36	86.4	8-22	4993.14	87.6	10-10	4992.30	70.2	
	11-10	4992.91	77.1										
3 W (6-2)	8-22	4992.92	68.0	10-10	4992.29	106	11-10	4992.78	68.5				
4 W (6-1)	8-22	4992.16	82.8	10-10	4992.16	69.9	11-10	4992.25	94.3				
(6-4A)	7-24	-	56.5	10-30	-	51.9	11-10	-	59.5	12-14	-	96.9	
(6-4B)	7-24	-	84.0	10-30	-	71.8	11-10	-	73.4	12-14	-	68.6	
(6-4C)	10-30	-	79.2	11-10	-	80.3	11-14	-	75.4				36-11-2
(6-4D)	10-30	-	65.2	11-10	-	65.5	12-14	-	65.1				
1 E (4-1)	8-21	4970.95	112	10-9	4970.06	103	11-9	4969.61	56.3				
2 E (4-2)	8-21	4968.49	137	10-9	4968.85	143	11-9	4969.30	222				
3 E (4-3)	8-21	4968.11	163	10-9	4968.46	26.9	11-9	4971.06	39.3				
4 E (4-4)	8-21	4966.66	94.6	10-9	4966.30	77.6	11-9	4966.19	92.7				
5 E (4-5)	8-21	4965.82	287	10-9	4965.55	110	11-9	4966.02	175				
6 E (4-6)	8-21	4969.39	232	10-9	4969.03	152	11-9	4968.76	182				
7 E (4-7)	8-25	4969.40	149	10-9	4969.13	96.2	11-9	4969.50	112				36-11-2
8 E (4-8)	8-22	4968.88	162	10-9	4969.31	141	11-9	4969.27	133				
9 E (4-9)	8-21	4968.70	124	10-9	4968.71	102	11-9	4968.48	84.9				
10 E (4-10)	8-21	4970.71	246	10-9	4970.14	269	11-9	4969.55	376				

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 3 -

(Conductance)

Index No.	Location and Description
Observation Wells (Cont'd):	
12-10-2	<p>Line 900.4 (Albuquerque Line No. 2).  Mile post 900.4 thence west along road for 2.5 miles, through the town of Duranes, thence west across country to Rio Grande.</p> <p>Well No.: 1 (2-2) Elevation, R. P.: 4958.89 Elevation, Ground Surface: 4958.8  2 (2-3) 4957.70 4957.6  3 (2-4) 4959.67 4959.3  4 (2-5) 4960.35 4960.3  5 (2-6) 4960.33 4960.3  6 (2-7) 4961.54 4961.2  7 (2-8) 4961.12 4960.8  8 (2-9) 4961.70 4961.3  9 (2-10) 4962.46 4962.0  10 (2-11) 4963.58 4962.3  11 (2-12) 4963.26 4963.0  12 (2-13) 4963.98 4962.2</p>
30-10-3	<p>Line 903.2 (Isleta-Atrisco Line No. 6).  Beginning at the west end of the Barelaz bridge over the Rio Grande and due west of mile post 903.2, line continues southwest on Five Points road to sand hills.</p> <p>Well No.: 1 W (6-10) Elevation, R. P.: 4941.96 Elevation, Ground Surface: 4941.9  2 W (6-9) 4943.50 4943.5  3 W (6-8) 4943.65 4943.5  4 W (6-7) 4941.08 4940.9  5 W (6-6) 4936.15 4938.0  6 W (6-5) 4936.94 4938.8  7 W (6-4) 4938.26 4938.2  8 W (6-3) 4939.37 4939.0  9 W (6-2) 4938.71 4938.7  10 W (6-1) 4939.48 4939.4</p>
6-9-3	<p>Line 905.3 (Barr Line No. 28).  Beginning at a point on the east bank of the Rio Grande, line runs east through mile post 905.3 and continues east to limits of Valley.</p> <p>Well No.: 1 E (28-1) Elevation, R. P.: 4933.79 Elevation, Ground Surface: 4932.8  2 E (28-2) 4931.67 4931.6  3 E (28-3) 4932.29 4931.4  4 E (28-4) 4931.90 4931.7  5 E (28-5) 4934.79 4934.7  6 E (28-6) 4935.54 4934.9  7 E (28-7) 4933.21 4933.2</p>
13-9-2	<p>Line 907.3 (Isleta-Atrisco Line No. 4).  Beginning at a point on the west bank of Rio Grande due west of mile post 907.3 line runs westerly on road to sand hills.</p> <p>Well No. 1 W (4-11) Elevation, R. P.: 4920.57 Elevation, Ground Surface: 4920.4  2 W (4-10) 4919.95 4919.9  3 W (4-9) 4920.27 4920.2  4 W (4-8) 4919.68 4919.6  5 W (4-7) 4919.57 4919.5  6 W (4-6) 4920.78 4920.6  7 W (4-5) 4921.80 4921.6  8 W (4-4A) 4921.29 4919.8  9 W (4-3) 4920.92 4920.8  10 W (4-3A) 4920.66 4920.5  11 W (4-2A) 4921.36 4921.3</p>

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 3 -

(Conductance)

Well No.	Date			Elev.	Kx105			Date	Elev.			Kx105	Date	Elev.			Kx105	Index No.
	1936	W. S.	@25°C		1936	W. S.	@25°C		1936	W. S.	@25°C			1936	W. S.	@25°C		
1 (2-2)	8-21	4955.52	85.8	10-8	4955.16	77.0	11-7	4955.31	57.3									12-10-2
2 (2-3)	8-21	4953.10	72.5	10-8	4954.16	144	11-7	4954.29	581									
3 (2-4)	8-21	4955.26	191	10-8	4954.75	165	11-7	4954.86	102									
4 (2-5)	8-21	4954.62	159	10-9	4954.51	207	11-7	4954.46	168									
5 (2-6)	8-21	4954.90	83.6	10-8	4954.43	71.8	11-7	4954.05	77.6									
6 (2-7)	8-21	4954.12	194	10-9	4953.62	213	11-7	4953.70	187									
7 (2-8)	8-21	4954.35	144	10-8	4954.77	168	11-7	4953.65	178									
8 (2-9)	8-21	4955.11	94.4	10-8	4954.24	129	11-7	4954.48	124									
9 (2-10)	8-21	4957.79	120	10-8	4955.69	110	11-7	4956.48	77.8									
10 (2-11)	8-21	4956.61	206	10-8	4955.62	202	11-7	4955.91	218									
11 (2-12)	8-21	4957.31	76.7	10-9	4960.94	115	11-7	4956.52	112									
12 (2-13)	8-21	4957.94	149	10-9	4957.11	155	11-7	4957.13	144									
1 W (6-10)	8-27	4939.14	66.7	10-15	4938.95	80.7	11-13	4938.89	73.5				11-13	4939.58	176			30-10-3
2 W (6-9)	7-25	4939.73	133	8-27	4939.88	142	10-15	4939.63	170									
3 W (6-8)	8-27	4939.17	32.8	10-12	4939.01	178	11-13	4936.63	78.5									
4 W (6-7)	8-27	4938.06	97.4	10-16	4936.95	90.7	11-13	4937.00	81.1									
5 W (6-6)	8-27	4934.68	99.5	10-15	4933.51	64.0	11-13	4942.75	71.7									
6 W (6-5)	8-27	4934.26	127	10-15	4933.46	144	11-13	4933.11	157									
7 W (6-4)	8-27	4933.50	159	10-16	4932.52	203	11-13	4932.49	174									
8 W (6-3)	8-27	4933.92	71.7	10-15	4933.23	75.4	11-13	4933.23	80.5									
9 W (6-2)	8-27	4934.53	126	10-15	4933.41	109	11-13	4933.53	129									
10 W (6-1)	8-27	4935.26	64.6	10-15	4934.66	68.1	11-13	4934.30	62.3									
1 X (88-1)	8-31	4927.57	73.5	10-21	4927.54	89.0	11-18	4927.92	92.4				11-18	4928.47	92.4			6-9-3
2 X (88-2)	8-31	4925.94	101	10-21	4926.04	82.2	11-18	4926.46	89.2									
3 X (88-3)	8-31	4929.08	85.6	10-21	4927.12	80.8	11-18	4927.41	75.7									
4 X (88-4)	8-31	4930.00	107	10-21	4927.79	144	11-18	4928.07	168									
5 X (88-5)	8-31	4930.39	88.8	10-21	4929.75	87.9	11-18	4929.47	92.4									
6 X (88-6)	8-31	4930.96	97.9	10-21	4930.07	127	11-17	4929.94	125									
7 X (88-7)	9-10	4930.12	108	10-21	4931.24	37.4	11-17	4928.62	103									
1 W (4-11)	8-28	4916.88	41.6	10-16	4916.80	47.3	11-14	4916.87	45.1				11-14	4915.99	204			13-9-2
2 W (4-10)	8-28	4916.47	273	10-16	4916.55	146	11-14	4916.59	172									
3 W (4-9)	8-28	4917.22	223	10-16	4916.73	202	11-14	4916.99	204									
4 W (4-8)	8-28	4916.26	196	10-16	4915.71	194	11-14	4915.72	211									
5 W (4-7)	8-28	4916.64	59.9	10-16	-	62.2	11-14	4915.48	58.2									
6 W (4-6)	8-27	4918.17	84.0	10-16	4916.83	94.5	11-14	4916.06	89.0									
7 W (4-5)	10-16	4915.12	110	11-14	4914.87	100												
8 W (4-4)	8-28	4913.94	142	10-16	-	110	11-14	4913.77	108									
9 W (4-3)	8-27	4913.57	246	10-16	4913.38	206	11-14	4913.38	156									
10 W (4-2A)	8-27	4912.27	317	10-16	4912.03	174	11-14	4911.89	179									
11 W (4-2B)	8-27	4911.76	172	10-16	4911.70	101	11-14	4911.51	102									

Middle Rio Grande Valley, New Mexico, Subsoil Waters- 4 -

(Conductance)

Index No.	Location and Description		
	Observation Wells (Cont'd):		
13-9-2	Line 908.1 (Barr Line No. 5). Mile post 908.1 thence west on road to Rio Grande.		
	Well No.: 1 E (E5-1)	Elevation, R. F.: 4917.30	Elevation, Ground Surface: 4917.3
	2 E (E5-2)	4915.60	4915.5
	3 E (E5-3)	4916.30	4916.3
	4 E (E5-4)	4917.15	4917.1
	5 E (E5-5)	4917.05	4917.0
	6 E (E5-6)	4917.19	4917.1
	7 E (E5-7)	4917.61	4917.3
	8 E (E5-8)	4922.10	4922.1
36-9-2	Line 911.2 (Barr Line E2 and Isleta-Atrisco Line No. 2) Mile post 911.2 thence west along township line crossing Rio Grande and continuing west on road through the town of Los Padillas to sand hills.		
	Well No.: 1 E (E2-1)	Elevation, R. F.: 4902.63	Elevation, Ground Surface: 4902.6
	2 E (E2-2)	4901.96	4901.9
	3 E (E2-3)	4902.02	4902.0
	4 E (E2-4)	4901.10	4901.1
	5 E (E2-5)	4901.19	4900.8
	6 E (E2-6)	4901.39	4901.0
	7 E (E2-7)	4901.89	4901.6
	8 E (E2-8)	4900.98	4900.8
	9 E (E2-9)	4900.46	4900.3
	1 W (2-10)	4902.05	4902.0
	2 W (2-9)	4900.99	4900.9
	3 W (2-8)	4901.47	4901.2
	4 W (2-7)	4899.34	4899.1
	5 W (2-6)	4897.98	4897.9
	6 W (2-5)	4901.15	4901.1
	7 W (2-4)	4900.51	4900.2
	8 W (2-3)	4900.32	4900.3
	9 W (2-2)	4901.54	4901.5



Middle Rio Grande Valley, New Mexico, Subsoil Waters - 4 -

(Conductance)

Well No.	Date	Elev.	Kx10 <sup>5</sup>	Date	Elev.	Kx10 <sup>5</sup>	Date	Elev.	Kx10 <sup>5</sup>	Date	Elev.	Kx10 <sup>5</sup>	Index No.
	1936	w. s.	@25°C	1936	w. s.	@25°C	1936	w. s.	@25°C	1936	w. s.	@25°C	
1 # (E5-1)	8-29	4912.47	71.6	10-20	4912.45	90.9	11-17	4912.35	92.5				13-9-2
2 # (E5-2)	8-29	4912.04	158	10-20	4911.82	196	11-17	4912.18	137				
3 # (E5-3)	8-29	4912.39	178	10-20	4911.49	191	11-17	4911.87	185				
4 # (E5-4)	8-29	4913.68	135	10-20	4913.17	129	11-17	4913.10	169				
5 # (E5-5)	8-28	4912.85	2052	9-10	4913.88	1466	10-20	4912.95	1838				
6 # (E5-6)	8-29	4914.05	473	10-20	4913.85	297	11-17	4914.02	359	11-17	4913.08	1810	
7 # (E5-7)	8-29	4914.98	271	10-20	4914.29	348	11-17	4914.35	283				
8 # (E5-8)	8-29	4915.15	1165	9-10	4916.25	1022	10-20	4914.18	973	11-17	4916.21	1081	
1 # (E2-1)	9-21	4901.59	73.8	10-19	4900.58	174	11-16	4900.96	144				36-9-2
2 # (E2-2)	9-21	4898.68	156	10-19	4898.68	148	11-16	4898.97	105				
3 # (E2-3)	9-21	4898.49	104	10-19	4898.37	99.6	11-16	4897.75	104				
4 # (E2-4)	9-21	4899.00	76.8	10-17	4897.87	63.4	11-16	4898.18	63.3				
5 # (E2-5)	9-21	4897.76	101	10-19	4898.05	92.2	11-16	4898.24	77.2				
6 # (E2-6)	9-21	4898.19	119	10-19	4898.27	120	11-16	4898.31	135				
7 # (E2-7)	9-21	4899.19	182.	10-19	4897.75	206.	11-16	4897.74	193.				
8 # (E2-8)	9-21	4897.75	80.1	10-19	4897.48	80.9	11-16	4897.54	80.7				
9 # (E2-9)	9-21	4897.46	85.8	10-19	4897.52	85.5	11-16	4897.31	151				
1 # (2-10)	8-28	4897.76	46.2	10-17	4897.73	156	11-16	4897.68	56.9				
2 # (2-9)	8-28	4896.76	80.3	10-16	4896.85	99.3	11-16	4896.85	82.7				
3 # (2-8)	8-28	4897.08	241	10-16	4896.11	217	11-16	4895.97	167				
4 # (2-7)	8-28	4896.22	182	10-16	4896.45	120	11-16	4896.09	127				
5 # (2-6)	7-25	4894.85	143	8-28	4894.83	143	10-15	4894.90	144	11-16	4894.36	151	
6 # (2-5)	7-25	4896.54	150	8-28	- -	123	10-17	4895.50	143	11-16	4894.98	118	
7 # (2-4)	8-28	4894.47	57.4	10-16	4895.20	61.1	11-16	4894.76	59.3				
8 # (2-3)	8-28	4895.29	124	10-16	4894.21	117	11-16	4894.44	118				
9 # (2-2)	8-28	4900.36	101	10-16	4894.26	88.0	11-16	4894.07	105				

[illegible]

## Middle Rio Grande Valley, New Mexico, Subsoil Waters - 5

(Conductance)

Well No.	Date			Date			Date			Date			Index No.
	1936	Elev. w. s.	Kx10 <sup>3</sup> 25°C	1936	Elev. w. s.	Kx10 <sup>3</sup> 25°C	1936	Elev. w. s.	Kx10 <sup>3</sup> 25°C	1936	Elev. w. s.	Kx10 <sup>3</sup> 25°C	
1 E (408-1E)	9-5	4877.90	109	10-8	4878.54	110	11-19	4878.63	101				24-8-2
2 E (408-2E)	9-5	4878.67	138	10-8	4878.07	114	11-19	4878.63	106				
1 E (253-1E)	9-8	4862.76	111	10-8	4863.05	150	11-19	4862.81	102				34-8-2
2 E (253-2E)	9-8	4863.89	75.7	10-8	4864.35	87.8	11-19	4864.12	101				
3 E (253-3E)	9-8	4863.26	377	10-8	4864.50	247	11-19	4863.97	420				
4 E (253-4E)	9-8	4862.59	123	10-9	4862.79	177	11-19	4862.89	100				
5 E (253-5E)	9-8	4860.79	81.2	10-9	4861.14	80.7	11-19	4861.14	70.9				
6 E (253-6E)	9-8	4863.22	71.9	10-8	4862.72	72.5	11-19	4862.07	64.1				
7 E (253-8E)	9-8	4864.30	73.6	10-8	4863.45	95.1	11-19	4863.31	116				
1 W (358-1W)	9-26	4857.79	75.2	10-28	4858.02	84.3	11-27	4857.86	76.5				10-7-2
2 W (358-2W)	9-26	4859.35	74.9	10-28	4859.39	80.2	11-27	-	73.6				
3 W (358-3W)	9-26	4859.51	113	10-28	4859.38	115	11-27	4859.86	107				
1 W (285-1W)	9-26	4850.06	78.3	10-28	4850.27	82.1	11-27	4850.07	70.1				15-7-2
2 W (285-2W)	9-26	4850.03	104	10-28	4850.01	78.4	11-27	4850.29	75.8				
3 W (285-3W)	9-26	4849.34	235	10-28	4848.64	--	11-27	4849.30	583				
4 W (285-4W)	9-26	4850.23	188	10-28	4849.81	156	11-27	4850.45	141				
1 E (66-1E)	9-9	4851.06	89.2	10-9	4851.96	80.6	11-20	4852.42	79.0				
2 E (66-2E)	9-9	4850.05	194	10-9	4850.63	225	11-20	4850.97	267				
3 E (66-3E)	9-9	4847.31	267	10-9	4848.83	264	11-20	4848.90	246				
4 E (66-4E)	9-9	4848.52	114	10-9	4849.07	126	11-20	4849.40	74.3				
5 E (66-5E)	9-9	4848.49	83.7	10-9	4849.04	85.8	11-20	4849.02	145				
6 E (66-6E)	9-9	4849.14	142	10-9	4849.46	112	11-20	4849.69	191				
7 E (66-7E)	9-9	4848.61	119	10-9	4848.80	109	11-20	4848.69	126				
8 E (66-8E)	9-9	4849.15	209	10-9	4849.16	172	11-20	4849.11	173				28-7-2
9 E (66-9E)	9-9	4850.07	493	10-9	4850.75	404	11-20	4850.82	315				
1 W (183-1W)	9-23	4842.40	123	10-27	4842.44	157	11-25	4842.32	160				
2 W (183-2W)	9-23	4842.93	79.7	10-27	4842.81	102	11-25	4842.97	101				
3 W (183-3W)	9-23	4842.57	156	10-28	4842.74	146	11-25	4843.12	187				
4 W (183-4W)	9-28	4843.40	144	10-27	4842.96	191	11-25	4843.13	140				
5 W (183-5W)	9-28	4842.54	154	10-27	4842.52	158	11-25	4842.85	209				
1 E (555-1E)	9-10	4838.54	89.9	10-12	4839.80	103	11-20	4840.52	78.6				
2 E (555-2E)	9-10	4839.26	119	10-12	4839.12	129	11-20	4840.69	90.9				
3 E (555-3E)	9-10	4839.16	106	10-12	4838.19	114	11-20	4839.25	86.3				
4 E (555-4E)	9-10	4837.21	127	10-12	4836.81	135	11-20	4836.91	138				
5 E (555-5E)	9-10	4837.66	80.7	10-12	4837.05	108	11-20	4837.16	119				34-7-2
6 E (555-6E)	9-10	4837.83	132	10-12	4837.59	120	11-20	4838.79	131				
7 E (555-7E)	9-10	4837.46	356	10-12	4836.56	282	11-20	4836.85	287				
8 E (555-8E)	9-10	4838.62	108	10-12	4839.57	77.4	11-20	4839.42	90.9				

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 6 -

(Conductance)

Index No.	Location and Description																																																																																				
	Observation Wells (Cont'd): Belen Division																																																																																				
4-6-2	<p>Line 924.8 (Stations 53 and 453). Beginning at the west limits of the valley line runs east and passes through the point 924.8 on railway thence east to Rio Grande, crosses Rio Grande and continues east to limits of valley.</p> <table> <tr> <td>Well No.:</td><td>1 W (53-1W)</td><td>Elevation, R.P.:</td><td>4837.19</td><td>Elevation, Ground Surface:</td><td>4837.1</td></tr> <tr> <td></td><td>2 W (53-2W)</td><td></td><td>4835.11</td><td></td><td>4835.1</td></tr> <tr> <td></td><td>3 W (53-3W)</td><td></td><td>4835.65</td><td></td><td>4835.6</td></tr> <tr> <td></td><td>4 W (53-4W)</td><td></td><td>4836.14</td><td></td><td>4836.1</td></tr> <tr> <td></td><td>5 W (53-5W)</td><td></td><td>4837.21</td><td></td><td>4837.2</td></tr> <tr> <td></td><td>6 W (53-6W)</td><td></td><td>4838.81</td><td></td><td>4838.8</td></tr> <tr> <td></td><td>7 W (53-7W)</td><td></td><td>4839.01</td><td></td><td>4839.0</td></tr> <tr> <td></td><td>1 E (453-2E)</td><td></td><td>4837.24</td><td></td><td>4837.2</td></tr> <tr> <td></td><td>2 E (453-3E)</td><td></td><td>4837.35</td><td></td><td>4837.3</td></tr> <tr> <td></td><td>3 E (453-4E)</td><td></td><td>4834.68</td><td></td><td>4834.6</td></tr> <tr> <td></td><td>4 E (453-5E)</td><td></td><td>4837.75</td><td></td><td>4837.7</td></tr> <tr> <td></td><td>5 E (453-6E)</td><td></td><td>4836.30</td><td></td><td>4836.3</td></tr> <tr> <td></td><td>6 E (453-7E)</td><td></td><td>4836.36</td><td></td><td>4836.3</td></tr> <tr> <td></td><td>7 E (453-8E)</td><td></td><td>4834.65</td><td></td><td>4834.6</td></tr> </table>	Well No.:	1 W (53-1W)	Elevation, R.P.:	4837.19	Elevation, Ground Surface:	4837.1		2 W (53-2W)		4835.11		4835.1		3 W (53-3W)		4835.65		4835.6		4 W (53-4W)		4836.14		4836.1		5 W (53-5W)		4837.21		4837.2		6 W (53-6W)		4838.81		4838.8		7 W (53-7W)		4839.01		4839.0		1 E (453-2E)		4837.24		4837.2		2 E (453-3E)		4837.35		4837.3		3 E (453-4E)		4834.68		4834.6		4 E (453-5E)		4837.75		4837.7		5 E (453-6E)		4836.30		4836.3		6 E (453-7E)		4836.36		4836.3		7 E (453-8E)		4834.65		4834.6
Well No.:	1 W (53-1W)	Elevation, R.P.:	4837.19	Elevation, Ground Surface:	4837.1																																																																																
	2 W (53-2W)		4835.11		4835.1																																																																																
	3 W (53-3W)		4835.65		4835.6																																																																																
	4 W (53-4W)		4836.14		4836.1																																																																																
	5 W (53-5W)		4837.21		4837.2																																																																																
	6 W (53-6W)		4838.81		4838.8																																																																																
	7 W (53-7W)		4839.01		4839.0																																																																																
	1 E (453-2E)		4837.24		4837.2																																																																																
	2 E (453-3E)		4837.35		4837.3																																																																																
	3 E (453-4E)		4834.68		4834.6																																																																																
	4 E (453-5E)		4837.75		4837.7																																																																																
	5 E (453-6E)		4836.30		4836.3																																																																																
	6 E (453-7E)		4836.36		4836.3																																																																																
	7 E (453-8E)		4834.65		4834.6																																																																																
16-6-2	<p>Line 926.3 (Station 361). From a point on the east bank of the Rio Grande opposite the point 926.3 on railway, line runs due east to limits of valley.</p> <table> <tr> <td>Well No.:</td><td>1 E (361-1E)</td><td>Elevation, R.P.:</td><td>4828.15</td><td>Elevation, Ground Surface:</td><td>4828.1</td></tr> <tr> <td></td><td>2 E (361-2E)</td><td></td><td>4831.33</td><td></td><td>4831.3</td></tr> <tr> <td></td><td>3 E (361-3E)</td><td></td><td>4827.35</td><td></td><td>4827.3</td></tr> <tr> <td></td><td>4 E (361-4E)</td><td></td><td>4827.56</td><td></td><td>4827.5</td></tr> <tr> <td></td><td>5 E (361-5E)</td><td></td><td>4830.06</td><td></td><td>4830.0</td></tr> <tr> <td></td><td>6 E (361-6E)</td><td></td><td>4830.42</td><td></td><td>4830.4</td></tr> <tr> <td></td><td>7 E (361-7E)</td><td></td><td>4830.22</td><td></td><td>4830.2</td></tr> </table>	Well No.:	1 E (361-1E)	Elevation, R.P.:	4828.15	Elevation, Ground Surface:	4828.1		2 E (361-2E)		4831.33		4831.3		3 E (361-3E)		4827.35		4827.3		4 E (361-4E)		4827.56		4827.5		5 E (361-5E)		4830.06		4830.0		6 E (361-6E)		4830.42		4830.4		7 E (361-7E)		4830.22		4830.2																																										
Well No.:	1 E (361-1E)	Elevation, R.P.:	4828.15	Elevation, Ground Surface:	4828.1																																																																																
	2 E (361-2E)		4831.33		4831.3																																																																																
	3 E (361-3E)		4827.35		4827.3																																																																																
	4 E (361-4E)		4827.56		4827.5																																																																																
	5 E (361-5E)		4830.06		4830.0																																																																																
	6 E (361-6E)		4830.42		4830.4																																																																																
	7 E (361-7E)		4830.22		4830.2																																																																																
20-6-2	<p>Line 927.9 (Stations 378 and 254). Beginning at the west limits of the valley, line runs east along a road through the village of Los Chaves to Mile Post 327.9 on railway thence east to the Rio Grande, crosses Rio Grande in a southeasterly direction, thence east to limits of valley.</p> <table> <tr> <td>Well No.:</td><td>1 W (378-1W)</td><td>Elevation, R.P.:</td><td>4821.32</td><td>Elevation, Ground Surface:</td><td>4821.3</td></tr> <tr> <td></td><td>2 W (378-2W)</td><td></td><td>4820.93</td><td></td><td>4820.9</td></tr> <tr> <td></td><td>3 W (378-3W)</td><td></td><td>4820.40</td><td></td><td>4820.4</td></tr> <tr> <td></td><td>4 W (378-4W)</td><td></td><td>4819.13</td><td></td><td>4819.1</td></tr> <tr> <td></td><td>5 W (378-5W)</td><td></td><td>4820.79</td><td></td><td>4820.7</td></tr> <tr> <td></td><td>6 W (378-6W)</td><td></td><td>4824.98</td><td></td><td>4824.9</td></tr> <tr> <td></td><td>7 W (378-7W)</td><td></td><td>4824.14</td><td></td><td>4824.1</td></tr> <tr> <td></td><td>1 E (254-1E)</td><td></td><td>4822.96</td><td></td><td>4822.9</td></tr> <tr> <td></td><td>2 E (254-2E)</td><td></td><td>4820.27</td><td></td><td>4820.2</td></tr> <tr> <td></td><td>3 E (254-3E)</td><td></td><td>4822.42</td><td></td><td>4822.4</td></tr> <tr> <td></td><td>4 E (254-4E)</td><td></td><td>4819.31</td><td></td><td>4819.3</td></tr> <tr> <td></td><td>5 E (254-5E)</td><td></td><td>4824.38</td><td></td><td>4824.3</td></tr> </table>	Well No.:	1 W (378-1W)	Elevation, R.P.:	4821.32	Elevation, Ground Surface:	4821.3		2 W (378-2W)		4820.93		4820.9		3 W (378-3W)		4820.40		4820.4		4 W (378-4W)		4819.13		4819.1		5 W (378-5W)		4820.79		4820.7		6 W (378-6W)		4824.98		4824.9		7 W (378-7W)		4824.14		4824.1		1 E (254-1E)		4822.96		4822.9		2 E (254-2E)		4820.27		4820.2		3 E (254-3E)		4822.42		4822.4		4 E (254-4E)		4819.31		4819.3		5 E (254-5E)		4824.38		4824.3												
Well No.:	1 W (378-1W)	Elevation, R.P.:	4821.32	Elevation, Ground Surface:	4821.3																																																																																
	2 W (378-2W)		4820.93		4820.9																																																																																
	3 W (378-3W)		4820.40		4820.4																																																																																
	4 W (378-4W)		4819.13		4819.1																																																																																
	5 W (378-5W)		4820.79		4820.7																																																																																
	6 W (378-6W)		4824.98		4824.9																																																																																
	7 W (378-7W)		4824.14		4824.1																																																																																
	1 E (254-1E)		4822.96		4822.9																																																																																
	2 E (254-2E)		4820.27		4820.2																																																																																
	3 E (254-3E)		4822.42		4822.4																																																																																
	4 E (254-4E)		4819.31		4819.3																																																																																
	5 E (254-5E)		4824.38		4824.3																																																																																
4-5-2	<p>Line 930.2 (Station 151). From a point on the east bank of the Rio Grande due east of the point 930.2 on railway, line runs in a southeasterly direction along a road to the limits of the valley.</p> <table> <tr> <td>Well No.:</td><td>1 E (151-1E)</td><td>Elevation, R.P.:</td><td>4814.98</td><td>Elevation, Ground Surface:</td><td>4814.9</td></tr> <tr> <td></td><td>2 E (151-2E)</td><td></td><td>4815.54</td><td></td><td>4815.5</td></tr> <tr> <td></td><td>3 E (151-3E)</td><td></td><td>4813.43</td><td></td><td>4813.4</td></tr> <tr> <td></td><td>4 E (151-4E)</td><td></td><td>4814.56</td><td></td><td>4814.5</td></tr> </table>	Well No.:	1 E (151-1E)	Elevation, R.P.:	4814.98	Elevation, Ground Surface:	4814.9		2 E (151-2E)		4815.54		4815.5		3 E (151-3E)		4813.43		4813.4		4 E (151-4E)		4814.56		4814.5																																																												
Well No.:	1 E (151-1E)	Elevation, R.P.:	4814.98	Elevation, Ground Surface:	4814.9																																																																																
	2 E (151-2E)		4815.54		4815.5																																																																																
	3 E (151-3E)		4813.43		4813.4																																																																																
	4 E (151-4E)		4814.56		4814.5																																																																																
8-5-2	<p>Line 931.2 (Station 190). Beginning at the west limits of the valley, line runs easterly through the point 931.2 on railway to the Rio Grande.</p> <table> <tr> <td>Well No.:</td><td>1 W (190-1W)</td><td>Elevation, R.P.:</td><td>4806.26</td><td>Elevation, Ground Surface:</td><td>4806.2</td></tr> <tr> <td></td><td>2 W (190-2W)</td><td></td><td>4808.08</td><td></td><td>4808.0</td></tr> <tr> <td></td><td>3 W (190-3W)</td><td></td><td>4806.94</td><td></td><td>4806.9</td></tr> <tr> <td></td><td>4 W (190-4W)</td><td></td><td>4807.94</td><td></td><td>4807.9</td></tr> <tr> <td></td><td>5 W (190-5W)</td><td></td><td>4809.36</td><td></td><td>4809.3</td></tr> </table>	Well No.:	1 W (190-1W)	Elevation, R.P.:	4806.26	Elevation, Ground Surface:	4806.2		2 W (190-2W)		4808.08		4808.0		3 W (190-3W)		4806.94		4806.9		4 W (190-4W)		4807.94		4807.9		5 W (190-5W)		4809.36		4809.3																																																						
Well No.:	1 W (190-1W)	Elevation, R.P.:	4806.26	Elevation, Ground Surface:	4806.2																																																																																
	2 W (190-2W)		4808.08		4808.0																																																																																
	3 W (190-3W)		4806.94		4806.9																																																																																
	4 W (190-4W)		4807.94		4807.9																																																																																
	5 W (190-5W)		4809.36		4809.3																																																																																

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 6 -

(Conductance)

Well No.	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Index No.
1 W (53-1W)	9-24	4834.07	60.7	10-27	4833.64	56.8	11-25	4833.65	59.5				4-6-2
2 W (53-2W)	9-24	4833.67	138	10-27	4832.10	131	11-25	4832.17	132				
3 W (53-3W)	9-24	4831.61	129	10-27	4830.64	130	11-25	4830.59	154				
4 W (53-4W)	9-24	- -	547	10-27	4830.37	381	11-25	4830.34	162				
5 W (53-5W)	9-24	4828.84	396	10-27	4829.18	392	11-25	4829.48	395				
6 W (53-6W)	9-24	4828.93	136	10-27	4828.86	136	11-25	4829.36	131				
7 W (53-7W)	9-24	4829.43	132	10-27	4831.15	142	11-25	4831.91	141				
1 N (453-2E)	9-12	4830.24	94.6	10-13	4830.64	67.7	11-21	4830.93	68.3				
2 E (453-3E)	9-12	4830.85	109	10-13	4830.70	124	11-21	4831.49	112				16-6-2
3 E (453-4E)	9-12	4830.38	383	10-13	4830.36	159	11-21	4830.06	587				
4 E (453-5E)	9-12	4831.75	121	10-13	4832.87	134	11-21	4832.60	135				
5 E (453-6E)	9-12	4830.30	121	9-25	4830.02	122	10-13	4830.48	261	11-21	4831.16	127	
6 E (453-7E)	9-10	4830.56	263	10-13	4830.64	260	11-21	4831.14	276				
7 E (453-8E)	9-10	4829.45	195	10-13	4830.08	221	11-21	4829.98	199				
1 E (361-1E)	9-14	4822.75	40.0	10-14	4823.37	48.0	11-23	4823.48	72.1				
2 E (361-2E)	9-12	4823.33	165	10-14	4822.76	184	11-23	4823.52	159				
3 E (361-3E)	9-12	4821.85	114	10-14	4822.11	112	11-23	4822.76	118				
4 E (361-4E)	9-12	4821.82	73.8	10-14	4821.41	75.6	11-23	4821.68	87.8				
5 E (361-5E)	9-12	4820.06	152	10-14	4820.01	168	11-23	4820.24	181				
6 E (361-6E)	9-12	4821.92	82.3	10-14	4821.77	88.9	11-23	4831.14	76.0				
7 E (361-7E)	9-12	4820.22	303	10-14	4820.17	290	11-23	4820.50	278				
1 W (378-1W)	9-25	4816.74	372	10-26	4816.62	184	11-25	4816.79	152				20-6-2
2 W (378-2W)	9-25	4817.01	104	10-26	4816.77	131	11-25	4816.64	111				
3 W (378-3W)	9-25	4816.15	398	10-27	4815.81	236	11-25	4815.68	256				
4 W (378-4W)	9-25	4813.66	829	10-27	4813.25	612	11-25	4813.24	662				
5 W (378-5W)	9-25	4815.44	426	10-27	4814.74	430	11-25	4814.87	429				
6 W (378-6W)	9-25	4816.29	1310	10-27	4816.36	1365	11-25	4817.83	2211				
7 W (378-7W)	9-25	4820.39	2832	10-27	4820.22	2730	11-25	4820.13	3232				
1 E (254-1E)	9-14	4814.26	92.1	10-15	4814.61	67.9	11-23	4814.47	92.5				4-5-2
2 E (254-2E)	9-14	4814.47	196	10-15	4814.99	179	11-23	4815.22	189				
3 E (254-3E)	9-14	4814.42	89.5	10-15	4814.90	78.6	11-23	4815.47	52.8				
4 E (254-4E)	9-14	4811.81	186	10-15	4812.41	198	11-23	4812.49	191				
5 E (254-5E)	9-14	4815.38	102	10-15	4815.63	109	11-23	4816.44	106				
1 E (151-1E)	9-15	4807.98	169	10-10	4808.76	133	11-24	4808.91	90.2				
2 E (151-2E)	9-15	4810.54	223	10-10	4810.09	154	11-23	4810.29	67.7				
3 E (151-3E)	9-14	4807.43	169	10-10	4808.18	143	11-24	4808.10	157				
4 E (151-4E)	9-15	4807.66	238	10-10	4807.28	136	11-24	4807.36	158				
1 W (190-1W)	9-25	4801.53	167	10-26	4802.45	167	11-24	4802.30	160				8-5-2
2 W (190-2W)	9-25	4804.57	194	10-26	4803.86	122	11-24	4802.60	167				
3 W (190-3W)	9-25	4802.59	72.2	10-26	4802.65	76.2	11-24	4802.76	84.7				
4 W (190-4W)	9-25	4802.49	312	10-26	4802.46	304	11-24	4802.65	309				
5 W (190-5W)	9-25	4804.11	298	10-26	4803.91	298	11-24	4804.03	324				

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 7 -

(Conductance)

Index No.	Location and Description
	Observation Wells (Cont'd):
	Belem Division
19-5-2	Line 933.6 (Station 456). From a point on U. S. Highway 85, line runs east through the point 933.6 on railway to the Rio Grande.
	Well No.: 1 W (456-8E) Elevation, R. P.: 4796.52 Elevation, Ground Surface: 4796.5
	2 W (456-7E) 4797.62 4797.6
	3 W (456-6E) 4799.71 4799.7
	4 W (456-5E) 4798.02 4798.0
	5 W (456-4E) 4795.94 4795.9
	6 W (456-3E) 4797.30 4797.3
	7 W (456-2E) 4797.72 4797.7
	8 W (456-1E) 4798.74 4798.7
	9 W (456-1W) 4799.46 4799.4
	10 W (456-2W) 4802.72 4802.7
31-4-2	Line 936.0 (Station 310). Beginning at the point 936.0 on railway in the village of Pueblitos, line runs east through the town of Jarales to the Rio Grande.
	Well No.: 1 W (310-6E) Elevation, R. P.: 4786.99 Elevation, Ground Surface: 4786.9
	2 W (310-6E) 4787.62 4787.6
	3 W (310-5E) 4789.45 4789.4
	4 W (310-4E) 4786.64 4786.6
	5 W (310-3E) 4785.96 4785.9
	6 W (310-2E) 4786.20 4786.2
	7 W (310-1E) 4785.24 4785.2
	8 W (310-1W) 4784.40 4784.4
12-4-1	Line 937.4 (Stations 234 and 188). Beginning at the point 937.4 on railway, line runs east to Rio Grande, crosses Rio Grande in a southeasterly direction thence along road to east limits of valley.
	Well No.: 1 W (234-5E) Elevation, R. P.: 4779.04 Elevation, Ground Surface: 4779.0
	2 W (234-4E) 4780.27 4780.2
	3 W (234-3E) 4780.01 4780.0
	4 W (234-1E) 4778.56 4778.5
	5 W (234-2W) 4780.23 4780.2
	6 W (234-3W) 4786.22 4786.2
	1 E (188-1E) 4781.05 4781.0
	2 E (188-2E) 4780.47 4780.4
	3 E (188-3E) 4779.92 4779.9
	4 E (188-4E) 4780.56 4780.5
25-4-1	Line 940.6 (Stations 61 and 36 + 59). Beginning at the point 940.6 on railway, line runs due east to Rio Grande, crosses Rio Grande and continues east to limits of valley.
	Well No.: 1 W (61-8E) Elevation, R. P.: 4766.74 Elevation, Ground Surface: 4766.7
	2 W (61-7E) 4767.45 4767.4
	3 W (61-6E) 4766.39 4766.3
	4 W (61-5E) 4764.74 4764.7
	5 W (61-2E) 4765.68 4765.6
	6 W (61-1E) 4765.93 4765.9
	7 W (61-1W) 4766.91 4766.9
	8 W (61-2W) 4765.98 4765.9
	1 E (36-1E) 4768.59 4768.5
	2 E (36-3E) 4770.51 4770.5
1-3-1	Line 942.7 (Station 598 + 46). Beginning at a point on the east bank of the Rio Grande due east of the point 942.7 on railway, line runs easterly along road to the east limits of the valley.
	Well No.: 1 E (598+46-1W) Elevation, R.P.: 4754.67 Elevation, Ground Surface: 4754.6
	2 E (598+46-1E) 4754.70 4754.7
	3 E (598+46-2E) 4757.17 4757.1
	4 E (598+46-3E) 4758.63 4758.6
	5 E (598+46-4E) 4758.39 4758.3
	6 E (598+46-5E) 4761.22 4761.2

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 7 -

(Conductance)

Well No.	Date	Elev.	Kx10 <sup>5</sup>	Date	Elev.	Kx10 <sup>5</sup>	Date	Elev.	Kx10 <sup>5</sup>	Date	Elev.	Kx10 <sup>5</sup>	Index No.
	1936	w. s.	@25°C	1936	w. s.	@25°C	1936	w. s.	@25°C	1936	w. s.	@25°C	
1 W (456-68)	9-23	4794.48	78.2	10-17	4794.27	92.3	11-14	4794.38	91.0				19-5-2
2 W (456-78)	9-23	4794.81	165	10-17	4794.02	251	11-14	4794.70	355				
3 W (456-68)	9-23	4794.13	96.4	10-17	4794.21	98.7	11-14	4794.45	110				
4 W (456-58)	9-23	4794.42	104	10-17	4794.27	202	11-14	4794.60	245				
5 W (456-48)	9-23	4793.07	158	10-17	4792.86	160	11-14	4793.47	150				
6 W (456-38)	9-23	4791.52	347	10-17	4791.60	272	11-14	4792.18	349				
7 W (456-28)	9-22	4791.30	700	10-19	4791.30	719	11-13	4792.23	822				
8 W (456-18)	9-22	4792.33	341	10-19	4793.52	274	11-13	4792.59	177				
9 W (456-1W)	9-22	4791.91	251	10-19	4792.58	224	11-13	4792.86	223				
10 W (456-2W)	9-22	4793.67	245	10-19	4793.46	294	11-13	4793.55	351				
1 W (310-78)	9-21	4783.14	205	10-20	4783.17	184	11-9	4783.30	192				31-5-2
2 W (310-68)	9-21	4783.79	157	10-20	4782.30	148	11-9	4783.75	156				
3 W (310-58)	9-21	4784.15	94.5	10-20	4784.13	133	11-9	4783.99	131				
4 W (310-48)	9-21	4782.65	280	10-19	4782.29	392	11-9	4782.29	303				
5 W (310-38)	9-21	4781.75	150	10-19	4781.21	460	11-9	4781.28	372				
6 W (310-28)	9-21	4781.19	82.9	10-20	4780.57	120	11-10	4780.10	87.5				
7 W (310-18)	9-21	4778.69	170	10-20	4778.79	179	11-9	4778.39	174				
8 W (310-1W)	9-22	4777.75	361	10-20	4778.34	717	11-9	4777.20	339				
1 W (234-58)	9-21	4773.41	130	10-21	4773.34	137	11-11	4773.36	131				12-4-1
2 W (234-48)	9-21	4773.88	183	10-21	4773.72	188	11-11	4774.05	192				
3 W (234-38)	9-21	4776.78	174	10-20	4775.74	179	11-11	4773.93	250				
4 W (234-18)	9-21	4773.09	292	10-20	4772.51	241	11-11	4772.69	225				
5 W (234-2W)	9-21	4773.36	1085	10-20	4772.99	998	11-10	4772.87	668				
6 W (234-3W)	9-21	4775.42	626	10-21	4774.74	764	11-11	4774.76	817				
1 E (188-1E)	9-15	4772.80	137	10-21	4772.97	94.3	11-18	4773.20	98.3				
2 E (188-2E)	9-15	4774.02	485	10-21	4773.97	468	11-18	4774.49	477				
3 E (188-3E)	9-15	4774.92	217	10-21	4774.88	220	11-18	4775.19	223				
4 E (188-4E)	9-15	4775.56	98.3	10-21	4775.74	80.2	11-18	4776.01	62.9				
1 W (61-8E)	9-19	4762.56	218	10-16	4762.69	221	11-12	4762.85	215				25-4-1
2 W (61-7E)	9-19	4761.93	83.4	10-16	4761.90	89.3	11-12	4762.23	106				
3 W (61-6E)	9-19	4761.54	142	10-16	4761.87	117	11-12	4761.79	127				
4 W (61-5E)	9-19	4759.64	153	10-16	4759.30	168	11-12	4759.80	168				
5 W (61-2E)	9-19	4759.38	168	10-16	4760.20	717	11-12	4760.72	703				
6 W (61-1E)	9-19	4760.52	150	10-16	4760.03	155	11-12	4760.27	136				
7 W (61-1W)	9-22	4759.86	157	10-16	4760.16	135	11-12	4760.67	181				
8 W (61-2W)	9-19	4760.67	146	10-16	4760.33	178	11-12	4760.68	179				
1 E (36-1E)	9-16	4765.09	202	10-21	4765.14	175	11-18	4765.42	236				
2 E (36-3E)	9-16	4767.51	293	10-27	4767.53	218	11-18	4767.87	438				
1 E (598-46-1W)	9-16	- -	83.0	10-24	- -	78.6	11-18	4750.33	81.2				1-3-1
2 E (598-46-1W)	9-16	4749.53	148	10-24	4749.62	143	11-18	4749.83	173				
3 E (598-46-2E)	9-16	4751.12	134	10-24	4751.11	128	11-18	4751.30	124				
4 E (598-46-3E)	9-16	4751.98	152	10-24	4751.88	228	11-18	4751.99	153				
5 E (598-46-4E)	9-16	4754.67	225	10-24	4754.09	163	11-18	4753.48	200				
6 E (598-46-5E)	9-16	4756.03	110	10-24	4755.52	121	11-18	4755.16	125				

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 8 -

(Conductance)

Index No.	Location and Description
	Observation Wells (Cont'd): Belen Division
1-3-1	Line 943.2 (Station 0 + 00). Beginning at the point 943.2 on railway, line runs due east a distance of 2000 feet to the Rio Grande. Well No.: 1 W (0+00-0W) Elevation, R.P.: 4752.80 Elevation, Ground Surface: 4752.8 2 W (0+00-5W) 4751.26 4751.2
2-3-1	Line 945.3 (Station 454). From a point on the east bank of the Rio Grande due east of the point 945.3 on railway, line runs southeasterly to limits of valley. Well No.: 1 E (454-1E) Elevation, R.P.: 4742.67 Elevation, Ground Surface: 4742.6 2 E (454-2E) 4743.79 4743.7 3 E (454-3E) 4743.31 4743.3 4 E (454-4E) 4742.67 4742.6 5 E (454-5E) 4744.62 4744.6 6 E (454-6E) 4746.81 4746.8
34-3-1	Line 947.8 (Station 948). Well is 100 feet west of the point 947.8 on railway. Well No.: 1 W (948-3W) Elevation, R.P.: 4732.05 Elevation, Ground Surface: 4732.0
35-3-1	Line 948.2 (Mile Post 948). Beginning at the point 948.2 on the railway, line runs east to Rio Grande. Well No.: 1 W (948-1W) Elevation, R.P.: 4732.64 Elevation, Ground Surface: 4732.6 2 W (948-2W) 4735.05 4735.0
36-3-1	Line 948.5 (Station 286 + 00). Beginning at a point on the east bank of the Rio Grande and 1.5 miles due east of the point 948.5 on railway, line runs east to limits of valley. Well No.: 1 E (286-1E) Elevation, R.P.: 4729.61 Elevation, Ground Surface: 4729.6 2 E (286-2E) 4730.73 4730.7 3 E (286-3E) 4731.41 4731.4
10-2-1	Line 949.8 (Stations 148 and 225). Beginning at the junction of U. S. Highway 60 and railway, line runs east on U. S. Highway 60 across bridge over the Rio Grande to east limits of valley. Well No.: 1 E (225-1E) Elevation, R.P.: 4726.31 Elevation, Ground Surface: 4726.3 2 E (225-2E) 4726.50 4726.5 1 W (148-1W) 4725.88 4725.9 2 W (148-2W) 4724.91 4724.9 3 W (148-3W) 4724.57 4724.5 4 W (148-4W) 4725.72 4725.7 5 W (148-5W) 4725.77 4725.7 6 W (148-6W) 4727.16 4727.1
16-2-1	Line 951.7 (Stations 58 and 85). Beginning at the town of San Francisco, due east of the point 951.7 on railway, line runs southeast along road to Rio Grande, crosses Rio Grande and continues southeast to limits of valley. Well No.: 1 W (58-1W) Elevation, R.P.: 4719.50 Elevation, Ground Surface: 4719.5 2 W (58-2W) 4724.64 4724.6 1 E (85-1E) 4719.21 4719.2 2 E (85-2E) 4718.50 4718.5 3 E (85-3E) 4722.66 4722.6
21-2-1	Line 952.0 (Station 26 + 30). At a point on the east bank of the Rio Puerco and due east of the point 952.05 on railway, line runs 1750 feet to Rio Grande. Well No.: 1 W (26-1W) Elevation, R.P.: 4719.80 Elevation, Ground Surface: 4719.8 2 W (26-2W) 4723.85 4723.8



Middle Rio Grande Valley, New Mexico, Subsoil Waters - 8 -

(Conductance)

Well No.	Date			Date			Date			Date			Index No.
	1936	Elev. w. s.	Kxl05 @25°C	1936	Elev. w. s.	Kxl05 @25°C	1936	Elev. w. s.	Kxl05 @25°C	1936	Elev. w. s.	Kxl05 @25°C	
1 W (0+00-6W)	9-18	4750.01	129	10-16	4750.35	88.1	11-12	4750.95	86.1				1-3-1
2 W (0+00-5W)	9-18	4750.17	76.0	10-16	4750.28	64.1	11-12	4750.80	60.9				
1 E (454-1E)	9-16	4738.38	88.2	10-23	4738.63	62.1	11-17	4738.72	54.6				23-3-1
2 E (454-2E)	9-16	4737.21	65.5	10-23	4737.64	46.3	11-17	4737.87	68.3				
3 E (454-3E)	9-16	4737.21	299	10-23	4737.33	326	11-17	4737.52	280				
4 E (454-4E)	9-16	4734.19	169	10-23	4734.75	172	11-16	4734.89	155				
5 E (454-5E)	9-16	4738.20	139	10-23	4738.54	114	11-17	4738.56	131				
6 E (454-6E)	9-16	4739.41	162	10-23	4738.85	140	11-17	4738.82	138				
1 W (948-3W)	9-18	4727.20	298	10-22	4727.17	289	11-16	4727.25	395				34-3-1
1 W (948-1W)	9-18	4727.81	316	10-22	4727.95	233	11-16	4727.96	188				35-3-1
2 W (948-2W)	9-18	4727.47	455	10-22	4727.37	412	11-16	4727.64	416				
1 E (286-1E)	9-17	4726.67	123	10-23	4726.85	91.8	11-17	4726.91	69.7				36-3-1
2 E (286-2E)	9-17	4726.99	79.9	10-23	4728.66	53.0	11-17	4726.71	73.8				
3 E (286-3E)	9-17	4728.29	232	10-23	4727.86	226	11-17	4727.76	212				
1 E (225-1E)	9-17	4724.18	157	10-22	4725.01	149	11-16	4725.29	141				10-2-1
2 E (225-2E)	9-17	4724.22	73.9	10-22	4724.78	70.2	11-16	4725.15	74.0				
1 W (148-1W)	9-17	4721.19	82.3	10-22	4721.44	86.9	11-16	4721.39	83.8				
2 W (148-2W)	9-17	4720.88	195	10-22	4721.43	189	11-16	4721.68	199				
3 W (148-3W)	9-17	4719.88	1030	10-22	4720.40	1025	11-12	4720.60	1094				
4 W (148-4W)	9-17	4719.60	376	10-22	4719.68	417	11-16	4719.65	493				
5 W (148-5W)	9-17	4721.97	262	10-22	4721.79	257	11-16	4722.08	439				
6 W (148-6W)	9-17	4722.36	4848	10-22	4722.66	4895	11-16	4722.89	6024				
1 W (58-1W)	9-18	4716.46	247	10-22	4718.21	142	11-16	4718.85	136				16-2-1
2 W (58-2W)	9-18	4718.49	1376	10-22	4718.85	1387	11-16	4719.49	2163				
1 E (85-1E)	9-17	4716.64	92.4	10-23	4717.46	105	11-17	4717.58	99.7				
2 E (85-2E)	9-17	4715.66	300	10-23	4716.93	226	11-17	4717.26	203				
3 E (85-3E)	9-17	4716.74	121	10-23	4717.21	68.9	11-17	4717.41	47.5				
1 W (26-1W)	9-18	4715.08	688	10-22	4717.53	759	11-16	4716.67	782				21-2-1
2 W (26-2W)	9-18	4715.28	682	10-22	4717.01	641	11-16	4717.35	635				

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 9 -

(Conductance)

Index No.	Location and Description
Observation Wells (Cont'd): Socorro Division.	
1-1-1	<p>Line 964 (964).</p> <p>Beginning at mile post 964 line runs west to the limits of the valley.</p> <p>Well No.: 1 W (964-1W) Elevation, R.P.: 4659.84 Elevation, Ground Surface: 4659.8</p> <p>2 W (964-2W) 4659.45 4659.4</p> <p>3 W (964-3W) 4658.57 4658.5</p> <p>4 W (964-4W) 4658.10 4658.1</p> <p>5 W (964-5W) 4657.54 4657.5</p>
24-1-1	<p>Line 967.1 (967).</p> <p>Beginning at a point on the west bank of the Rio Grande line runs west through the point 967.1 on the railway and continues for 500 feet.</p> <p>Well No.: 1 W (967-1E) Elevation, R.P.: 4647.73 Elevation, Ground Surface: 4647.7</p> <p>2 W (967-2E) 4646.99 4646.9</p> <p>3 W (967-3E) 4645.76 4645.7</p> <p>4 W (967-4E) 4644.11 4644.1</p> <p>5 W (967-5E) 4644.93 4644.9</p> <p>6 W (967-6E) 4643.82 4643.8</p>
1-2-1	<p>Line 969.9 (970).</p> <p>Beginning at a point on the west bank of the Rio Grande line runs southwesterly through the point 969.9 on the railway, thence southwesterly for 2000 feet.</p> <p>Well No.: 1 W (970-1E) Elevation, R.P.: 4629.02 Elevation, Ground Surface: 4629.0</p> <p>2 W (970-2E) 4628.69 4628.6</p> <p>3 W (970-3E) 4627.81 4627.8</p> <p>4 W (970-4E) 4625.85 4625.8</p>
18-2-1	<p>Line 972 (972).</p> <p>Beginning at a point on the west bank of the Rio Grande line runs west through mile post 972 thence west for 500 feet.</p> <p>Well No.: 1 W (972-1E) Elevation, R.P.: 4617.73 Elevation, Ground Surface: 4617.7</p> <p>2 W (972-2E) 4616.23 4616.2</p> <p>3 W (972-3E) 4617.40 4617.4</p> <p>4 W (972-4E) 4619.59 4619.5</p> <p>5 W (972-5E) 4621.09 4621.1</p>
24-2-1	<p>Line 973 (973).</p> <p>Beginning at mile post 973 line runs northeast for 1500 feet.</p> <p>Well No.: 1 W (973-1E) Elevation, R.P.: 4613.51 Elevation, Ground Surface: 4613.5</p> <p>2 W (973-2E) 4614.27 4614.2</p>
25-2-1	<p>Line 974 (974).</p> <p>Beginning at the west limits of the valley line runs due east through mile post 974 thence east for 400 feet.</p> <p>Well No.: 1 W (974-1E) Elevation, R.P.: 4607.21 Elevation, Ground Surface: 4607.2</p> <p>2 W (974-2E) 4604.84 4604.3</p> <p>3 W (974-3E) 4608.14 4607.9</p>
7-3-1	<p>Line 977 (977).</p> <p>From a point on the west bank of the Rio Grande the line runs west through mile post 977 and continues west for 2500 feet.</p> <p>Well No.: 1 W (977-1E) Elevation, R.P.: 4591.45 Elevation, Ground Surface: 4591.3</p> <p>2 W (977-2E) 4591.11 4590.8</p> <p>3 W (977-3E) 4591.75 4591.4</p> <p>4 W (977-4E) 4591.41 4591.3</p> <p>5 W (977-5E) 4591.91 4591.6</p> <p>6 W (977-6E) 4589.47 4589.3</p> <p>7 W (977-7E) 4589.32 4589.3</p> <p>8 W (977-8E) 4588.40 4588.4</p> <p>9 W (977-9E) 4589.71 4589.5</p>

## Middle Rio Grande Valley, New Mexico, Subsoil Waters - 9 -

(Conductance)

Well No.	Date			Date			Date			Date			Index No.
	1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	
1 W (964-1W)	9-9	4654.04	493	10-14	4653.51	497	11-16	4653.94	391				1-1-1
2 W (964-2W)	9-9	4654.38	148	10-14	4654.71	130	11-16	4655.18	137				
3 W (964-3W)	9-9	4653.32	236	10-14	4653.57	255	11-16	4653.52	282				
4 W (964-4W)	9-9	4651.20	1294	10-14	4651.57	1051	11-16	4651.66	793				
5 W (964-5W)	9-9	4651.99	621	10-14	4651.45	634	11-16	4651.68	586				
1 W (967-5E)	9-9	4640.82	103	10-13	4642.62	91.9	11-16	4643.23	97.4				24-1-1
2 W (967-4E)	9-9	4639.81	81.1	10-13	4641.56	76.2	11-16	4642.28	85.4				
3 W (967-3E)	10-13	4639.59	50.8	11-16	4640.22	49.9							
4 W (967-2E)	10-13	4638.61	83.2	11-16	4638.49	66.6							
5 W (967-1E)	9-9	4637.56	255	11-16	4638.20	284							
6 W (967-1W)	10-13	4638.59	215	11-16	4638.85	239							
1 W (970-4E)	11-14	4620.27	339										1-2-1
2 W (970-3E)	9-8	4624.38	60.8	10-13	4623.87	71.4	11-14	4623.13	93.3				
3 W (970-2E)	9-8	4621.00	217	10-13	4621.95	289	11-14	4622.72	197				
4 W (970-1E)	10-13	4621.58	69.1	11-14	4622.26	74.0							
1 W (972-5E)	9-8	4615.24	48.7	10-13	4616.25	61.7	11-14	4616.94	68.9				18-2-1
2 W (972-4E)	9-8	4614.01	65.6	10-13	4615.29	63.0	11-14	4615.82	60.0				
3 W (972-3E)	9-8	4613.56	114	10-13	4614.66	85.7	11-14	4615.27	97.0				
4 W (972-2E)	9-8	4615.80	401	10-13	4615.37	356							
5 W (972-1E)	9-8	4613.73	318										
1 W (973-1E)	9-8	4612.05	91.1	10-12	4611.59	202	11-14	4611.59	196				24-2-1
2 W (973-1W)	9-8	4613.27	133	11-14	4613.38	175							
1 W (974-1E)	10-12	4603.68	141	11-14	4604.12	174							25-2-1
2 W (974-1W)	9-5	4603.30	109	10-12	4603.65	57.4	11-14	4604.01	60.9				
3 W (974-2W)	9-5	4603.21	141	10-12	4603.27	85.8	11-14	4603.51	162				
1 W (977-5E)	10-12	4587.51	292	11-13	4587.76	314							7-3-1
2 W (977-4E)	10-12	4587.02	103	11-13	4587.40	113							
3 W (977-3E)	9-8	4585.46	60.3	10-12	4586.33	60.6	11-13	4586.86	62.5				
4 W (977-2E)	9-8	4584.60	72.7	10-12	4585.53	70.7	11-13	4586.13	95.7				
5 W (977-1E)	10-12	4584.87	146	11-13	4585.34	94.9							
6 W (977-1W)	10-12	4584.43	104	11-13	4585.29	146							
7 W (977-2W)	11-13	4585.51	177										
8 W (977-3W)	9-8	4585.27	2192	10-12	4585.83	1104	11-13	4585.19	1116				
9 W (977-4W)	10-12	4585.01	77.7	11-13	4585.28	63.8							

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 10 -

(Conductance)

Index No.	Location and Description
	Observation Wells (Cont'd): Socorro Division
29-3-1	Line 980 (980). Beginning at mile post 980 line runs east to Rio Grande. Well No.: 1 W (980-4E) Elevation, R.P.: 4576.42 Elevation, Ground Surface: 4576.0 2 W (980-3E) 4576.83 4576.8 3 W (980-2E) 4575.94 4575.3
30-3-1	Line 980.3 Beginning at the point 980.3 on the railway, line runs due east for 2000 feet. Well No.: 1 W (Recorder #1-1E) Elevation, R.P.: 4574.24 Elevation, Ground Surface: 4574.2
29-3-1	Line 980.4 Beginning at the point 980.4 on the railway line runs east to Rio Grande. At well 4 W auxiliary line runs north and south for 800 feet respectively. Well No.: 1 W (Recorder #1, 2E) Elevation, R.P.: 4574.41 Elevation, Ground Surface: 4574.4 2 W ( " #1, 1E) 4574.57 4574.5 3 W ( " #1, Sand Point) 4575.13 4575.1 4 W ( " #1) 4575.03 4575.0 5 W ( " #1, 1 W) 4573.95 4573.9 6 W ( " #1, 2 W) 4573.87 4573.8
30-3-1	Line 980.5 Beginning at the point 980.5 on the railway, line runs due east for 2000 feet. Well No.: 1 W (Recorder #1-1E) Elevation, R.P.: 4574.01 Elevation, Ground Surface: 4574.0
20-4-1	Line 985.2 (985). Beginning at the point 985.2 on railway line runs east to river. Well No.: 1 W (985-5E) Elevation, R.P.: 4552.19 Elevation, Ground Surface: 4552.1 2 W (985-4E) 4552.67 4552.6 3 W (985-3E) 4552.34 4552.3 4 W (985-2E) 4550.72 4550.7 5 W (985-1E) 4551.36 4551.3
20-5-1	Line 990.8 (991). Beginning at the point 990.8 on railway line runs east along north boundary of Bosque del Apache Grant to the Rio Grande. Well No.: 1 W (991-4E) Elevation, R.P.: 4525.79 Elevation, Ground Surface: 4525.6 2 W (991-3E) 4523.69 4523.6 3 W (991-2E) 4523.73 4523.7 4 W (991-1E) 4527.56 4527.5
28-5-1	Line 993.1 (993). Beginning at the west edge of the valley line runs east through the point 993.1 on railway thence east to the Rio Grande. Well No.: 2 W (993-4W) Elevation, R.P.: 4515.07 Elevation, Ground Surface: 4515.0 3 W (993-3E) 4513.06 4513.0 4 W (Recorder #2, 1E) 4513.50 4513.5 5 W (993-2E) 4512.60 4512.6 6 W (Recorder #2) 4513.31 4513.9 7 W (Recorder #2, 1W) 4512.06 4512.0 8 W (993-1E) 4513.66 4513.6 9 W (993-1W) 4516.10 4516.1
5-6-1	Line 995.1 (995). Beginning at the west limits of the valley line runs east through the point 995.1 of the railroad to the Rio Grande. Well No.: 1 W (995-5E) Elevation, R.P.: 4507.42 Elevation, Ground Surface: 4507.4 2 W (995-4E) 4506.61 4506.6 3 W (995-3E) 4505.47 4505.4 4 W (995-2E) 4505.28 4505.2 5 W (995-1E) 4506.42 4506.4 6 W (995-1W) 4506.30 4506.3

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 10 -

(Conductance)

Well No.	Date			Date			Date			Date			Index No.
	1936	Elev. W. S.	Kx10 <sup>5</sup> @25°C	1936	Elev. W. S.	Kx10 <sup>5</sup> @25°C	1936	Elev. W. S.	Kx10 <sup>5</sup> @25°C	1936	Elev. W. S.	Kx10 <sup>5</sup> @25°C	
1 W (980-4E)	9- 4	4572.32	60.4	10-12	4573.21	82.1	11-13	4573.76	96.5				29-3-1
2 W (980-1E)	10-12	4572.64	64.5	11-13	4573.45	95.5							
3 W (980-2E)	10-12	4572.26	94.0	11-13	4573.07	339							
1W(Recorder #1-1W)	9- 4	4568.81	59.6	10-12	4569.95	60.8	11-13	4570.85	154				30-3-1
1W(Recorder #1.2E)	9- 4	4569.86	74.5	10-12	4571.16	62.2	11-13	4571.92	63.1				29-3-1
2W( " #1.1E)	9- 4	4569.22	118	10-12	4570.29	117	11-13	4571.18	116				
3W(*#1. Sand Point)	9- 4	4569.08	61.9	10-12	4570.40	48.6	11-13	4570.99	39.0				
4W(Recorder #1)	9- 4	4567.93	95.7	10-12	4568.93	73.9	11-13	4569.80	72.9				
5W( " #1.1W)	9- 4	4568.55	40.9	10-12	4569.71	35.6	11-13	4570.57	34.6				
6W( " #1.2W)	9- 4	4567.99	35.1	10-12	4568.94	35.2	11-13	4569.59	37.2				
1W(Recorder #1-1E)	9- 4	4568.25	41.3	10-12	4569.40	38.9	11-13	4570.17	38.3				30-3-1
1 W (985-5E)	9- 4	4545.30	473	10-12	4545.88	552	11-12	4546.20	516				20-4-1
2 W (985-4E)	11-12	4544.92	157										
3 W (985-3E)	10-12	4544.31	360	11-12	4544.59	631							
4 W (985-2E)	11-12	4544.17	266										
5 W 985-1E)	9- 4	4543.72	115	10-12	4543.86	89.2	11-12	4544.04	101				
1 W (991-4E)	9- 3	4520.67	81.1	10- 8	4521.56	87.3	11-12	4522.15	83.3				20-5-1
2 W (991-3E)	9- 3	4519.87	65.8	10- 8	4520.78	35.3	11-12	4521.47	35.2				
3 W (991-2E)	9- 3	4519.65	155	10- 8	4520.23	101	11-12	4520.98	175				
4 W (991-1E)	10- 8	4520.17	58.8	11-12	4520.69	60.7							
2 W (993-4E)	9- 3	4512.17	171	10- 7	4513.12	160	11-10	4514.05	164				28-5-1
3 W (993-3E)	9- 3	4510.63	40.5	10- 7	4511.81	38.9	11-10	4512.46	39.5				
4W(Recorder #2.1E)	9- 3	4510.51	197	10- 7	4511.60	112	11-10	4512.20	106				
5 W (993-2E)	9- 3	4510.78	68.4	10- 7	4511.78	63.8	11-10	4512.36	62.9				
6 W (Recorder #2)	9- 3	4510.79	117	10- 7	4511.71	155	11-10	4512.28	136				
7W(Recorder #2.1W)	9- 3	4508.92	7292										
8 W (993-1E)	9- 3	4511.25	59.3	10- 7	4511.93	60.1	11-10	4512.47	75.2				
9 W (993-1W)	9- 3	4510.86	146	10- 7	4511.36	126	11-10	4511.85	121				
1 W (995-5E)	Not sampled.			10- 6	4504.92	237	11- 9	4505.39	242				5-6-1
2 W (995-4E)	9- 1	4503.80	302	10- 6	4504.18	93.0	11- 9	4504.77	103				
3 W (995-3E)	9- 1	4503.05	98.2	10- 6	4503.83	125	11- 9	4504.50	96.1				
4 W (995-2E)	9- 1	4502.68	179	9-14	4501.92	3140	10- 6	4503.20	3304				
5 W (995-1E)	9- 1	4502.26	3177										
6 W (995-1W)	9- 1	4502.88	83.9	10- 6	4503.45	78.5	11- 9	4503.95	74.0	11- 9	4503.72	3508	

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 11 -

(Conductance)

<u>Index No.</u>	<u>Location and Description</u>		
	Observation Wells (Cont'd): Socorro Division		
18-6-1	Line 997.2 (997). Line begins at west limits of valley and runs east through the point 997.2 on railway, thence east for 2500 feet.		
	Well No.: 1 W (997-2E)	Elevation, H.P.: 4497.32	Elevation, Ground Surface: 4497.3
	2 W (997-1E)	4494.97	4494.9
	3 W (997-1W)	4495.45	4495.4

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 11 -

(Conductance)

Well No.	Date			Date			Date			Date		
	1936	Elev.	Kx10 <sup>5</sup>	1936	Elev.	Kx10 <sup>5</sup>	1936	Elev.	Kx10 <sup>5</sup>	1936	Elev.	Kx10 <sup>5</sup>
		W. S.	@25°C		W. S.	@25°C		W. S.	@25°C		W. S.	@25°C
1 W (977-2E)	9-1	4493.98	403	10-6	4494.89	29.9	11-9	4496.51	85.7			
2 W (977-1E)	9-1	4492.45	264	10-6	4494.02	247	11-9	4495.00	157			
3 W (977-1W)	9-1	4492.35	328	10-6	4493.06	317	11-9	4493.68	266			

18-6-1

82343

Surface Waters of the Elephant Butte Project -- New Mexico and Texas.

(Conductance)

Index No.	Location and Description
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Note: In the following descriptions the townships and ranges are referred to the New Mexico principal meridian; the elevations to sea level datum. The location descriptions and the water samples are by the Bureau of Reclamation. The analyses are by the Geological Survey, except as otherwise noted.

IRRIGATION WATERS:

- |         |  |
|---------|--|
| 25-13-4 | Rio Grande at Elephant Butte Dam outlet, New Mexico.<br>Pool below dam in sec. 25, T.13S., R.4W.; at 4255 feet above sea level.<br>Analyses by U.S.B.P.I.  |
| 36-16-5 | Rio Grande at Percha Dam, New Mexico. (201).<br>N 950' - W 1450' of SE cor. sec. 36, T.16S., R.5W.<br>Zero of gage, crest of dam, is 4146.27 feet above sea level.   |
| 10-21-1 | Rio Grande at Leesburg Dam, New Mexico.<br>In SE cor. of NE1/4 sec. 10, T.21S., R.1W. Crest of dam is 3963.05 feet above sea level. Analyses by U.S.B.P.I.   |
| 13-24-1 | Rio Grande at Mesilla Dam, New Mexico. (210).<br>S 240' - E 1320' of NW cor. sec. 13, T.24S., R.1E.<br>Zero of gage is                feet above sea level.  |
| 9-29-4  | Rio Grande at El Paso gaging station, Texas.<br>In SE1/4 sec. 9, T.29S., R.4E. Zero of gage is 3720.65 feet above sea level. Analyses by U.S.B.P.I.  |
| 11-32-6 | Rio Grande at Riverside Canal head, Texas. (231).<br>N 2000' - E 1950' of SW cor. sec. 11, T.32S., R.6E.<br>Zero of gage is 3658.58 feet above sea level.  |
| 4-34-8  | Rio Grande at head of Tornillo Canal, Texas.<br>In SE1/4 sec. 4, T.34S., R.8E. The discharges given include the flow of the canal and of the river below the diversion.<br>Analyses by U.S.B.P.I.  |
|         | Rio Grande at Fort Quitman gaging station, Texas.<br>Located at lower end of El Paso Valley 1.5 miles below old Fort Quitman and 11.5 miles south of Finlay, Texas. Zero of gage is 3454.06 feet above sea level. Analyses by U.S.B.P.I. |

DRAINAGE WATERS:

RINCON DIVISION, NEW MEXICO:

- |         |  |
|---------|--|
| 6-19-3  | Garfield Drain (202).<br>Station S 1880' - W 900' of NW cor. sec. 6, T.19S., R.3W.; near outlet to river. Length, 12.4 miles; water surface 4060.32 feet above sea level on Dec. 1, 1936 when discharge was 8.7c.f.s.                      |
| 13-19-3 | Hatch Drain (203).<br>Station N 1150' - E 300' of SW cor. sec. 13, T.19S., R.3W.; near outlet to river. Length, 10.8 miles; gradient, 3.1 feet; water surface 4034.28 feet above sea level on Dec. 1, 1936 when discharge was 6.6 c.f.s.   |
| 28-19-2 | Agostura Drain (204).<br>Station S 460' - W 1200' of NE cor. sec. 28, T.19S., R.2W.; near outlet to river. Length, 4.1 miles; gradient, 2.6 feet; water surface 4012.48 feet above sea level on Dec. 1, 1936 when discharge was 1.3 c.f.s. |



Surface Waters of the Elephant Butte Project -- New Mexico and Texas.

(Condustance)

Date 1936	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
7-3	1816	86.5	7-10	2308	85.2	7-17	1815	84.6	7-24	2280	83.5	25-13-4
7-31	1950	82.0	8-7	2460	79.8	8-14	2345	80.2	8-21	2240	78.1	
8-28	1700	78.0	9-4	956	79.5	9-11	1560	77.8	9-18	1100	78.6	
9-25	360	79.1										
7-21	1856	87.1	7-23	2169	86.4	7-29	2393	82.3	8-5	2145	82.3*	36-16-5
8-19	2250	80.4	8-26	1870	82.1	8-12	2348	82.8	9-2		80.6	
9-9	1570	80.0	9-30	400	84.7	11-25	390	138				
7-6	2050	90.1	7-13	1839	89.9	7-20	1770	88.8	7-27	2187	83.7	10-21-1
8-3	1757	86.5	8-10	2257	84.1	8-17	2206	83.8	8-24	1773	82.1	
8-31	1148	78.7										
7-15	1605**	92.6	7-22	610**	88.7	7-29	743**	86.5	8-5	589**	86.4	13-24-1
8-12	788**	84.3	8-19	787**	84.4	8-26	624**	86.0	9-3	221**	99.2	
11-26	100	134										
7-6	1147	120	7-13	1376	115	7-20	1210	118	7-27	1149	122	9-29-4
8-3	1197	120	8-10	1365	116	8-24	1634	109	8-31	1677	99.3	
7-20	727	129	7-28	454.88	131	8-4	407.98	123	8-11	380	118	11-32-6
8-18	418.02	120	8-25	827.3	115	9-30	370	146	11-25	318	214	
7-3	217	290	7-21	429	246	7-27	412	200	8-4	310	248	14-34-8
8-10	552	176	8-16	314	224	8-24	738	163	8-31	2188	132	
7-3	21.7	645	7-10	33.4	112	7-17	133.0	354	7-24	46.0	424	
7-31	43.1	440	8-7	27.4	723	8-14	30.3	415	8-21	186.0	276	
8-28	269	234										
7-16	14.59	138	7-23	18.03	152	7-29	14.51	150	8-5	12.86	152*	6-19-3
8-12	15.73	155	8-19	17.26	150	8-26	15.18	157	9-2	15.39	151	
9-9	15.69	150	9-30	15.67	153	11-25	8.70	148				
7-16	17.97	153	7-23	18.76	150	7-29	17.86	145	8-5	18.35	149*	13-19-3
8-12	18.28	146	8-19	17.38	152	8-26	21.22	150	9-2	15.33	148	
9-9	15.69	146	9-30	13.27	148	11-25	4.91	138				
7-16	3.50	123	7-23	-	133	7-29	2.86	126	8-5	3.53	126*	28-19-2
8-12	3.93	131	8-19	4.28	136	8-26	2.46	133	9-2	2.52	132	
9-9	2.80	125	9-30	1.56	129	11-25	1.38	134				

\* Detailed analysis

\*\* Discharged through East Side and West Side canals.

Surface Waters of the Elephant Butte Project -- New Mexico and Texas - 2 -

(Conductance)

Index No.	Location and Description
12-20-2	Rincon Drain (205). Station S 600' - W 2300' of NW cor. sec. 12, T.20S., R.2W.; near outlet to river. Length, 14.4 miles; gradient, 3.1 feet; water surface 3993.77 feet above sea level on Dec. 1, 1936 when discharge was 7.9 c.f.s.
MESILLA VALLEY DIVISION, NEW MEXICO AND TEXAS:	
6-22-1	Selden Drain (211). Station S 1130' - E 2330' of NW cor. sec. 6, T.22S., R.1E.; near outlet to river. Length, 4.6 miles; gradient 3.1 feet; water surface 3934.74 feet above sea level on Dec. 1, 1936 when discharge was 1.7 c.f.s.
3-23-1	Leasburg Drain (212). Station S 1110' - E 2200' of NW cor. sec. 3, T.23S., R.1E.; above inlet to Del Rio Drain. Length, 12.3 miles; gradient, 4.2 feet; water surface 3899.31 feet above sea level on Dec. 1, 1936 when discharge was 2.3 c.f.s.
11-24-1	Picacho Drain (213). Station S 10' - E 1180' of NW cor. sec. 11, T.24S., R.1E.; above outlet to river. Length, 7.2 miles; gradient, 2.8 feet; water surface 3871.09 feet above sea level on Dec. 2, 1936 when discharge was 6.5 c.f.s.
17-24-2	Mesilla Drain (214). Station S 2410' - E 1620' of NW cor. sec. 17, T.24S., R.2E.; above inlet to Del Rio Drain. Length, 17.1 miles; gradient, 4.3 feet; water surface 3842.51 feet above sea level on Dec. 2, 1936 when discharge was 3.4 c.f.s.
29-25-3	Del Rio Drain (Includes flow of Leasburg and Mesilla Drains) (215). Station S 890' - E 1170' of NW cor. sec. 29, T.25S., R.3E.; above outlet to river. Length, 73.1 miles; gradient, 3.9 feet; water surface 3813.52 feet above sea level on Dec. 2, 1936 when discharge was 83.8 c.f.s.
33-25-3	Mesquite Drain (305). N 1800' - E 1300' of SW cor. sec. 33, T.25S., R.3E. Length, 11 miles; water surface 3802.62 feet above sea level on Dec. 2, 1936 when discharge was 4.1 c.f.s.
6-26-3	Chamberino Drain (219). Station N 460' - W 2640' of SE cor. sec. 6, T.26S., R.3E.; above confluence with La Mesa Drain. Length, 5.3 miles; gradient, 4.1 feet; water surface 3800.71 feet above sea level on Dec. 3, 1936 when discharge was 3.5 c.f.s.
7-26-3	La Mesa Drain (218). Station S 100' - E 1810' of NW cor. sec. 7, T.26S., R.3E.; above confluence with Chamberino Drain. Length, 21.8 miles; gradient, 3.8 feet; water surface 3801.65 feet above sea level on Dec. 3, 1936 when discharge was 18.9 c.f.s.
2-27-3	East Drain (216). Station N 1050' - E 1620' of SW cor. sec. 2, T.27S., R.3E.; above confluence with Anthony Drain. Length, 22.9 miles; gradient, 3.8 feet; water surface 3773.81 feet above sea level on Dec. 3, 1936 when discharge was 8.7 c.f.s.
11-27-3	Anthony Drain (217). Station S 50' - E 940' of NW cor. sec. 11, T.27S., R.3E.; above confluence with East Drain. Length, 7.7 miles; gradient, 3.2 feet; water surface 3773.81 feet above sea level on Dec. 3, 1936 when discharge was 3.0 c.f.s.
26-28-3	Nemexas Drain (220). Station S 950' - E 800' of NW cor. sec. 26, T.28S., R.3E.; above confluence with West Drain. Length, 20.2 miles; gradient, 2.3 feet; water surface 3738.43 feet above sea level on Dec. 3, 1936 when discharge was 15.2 c.f.s.
26-28-3	West Drain (221). Station S 1440' - E 50' of NW cor. sec. 26, T.28S., R.3E.; above confluence with Nemexas Drain. Length, 39 miles; gradient, 3.8 feet; water surface 3738.56 feet above sea level on Dec. 3, 1936 when discharge was 34.9 c.f.s.

Surface Waters of the Elephant Butte Project - New Mexico and Texas - 2 -

(Conductance)

Date 1936	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
7-16	21.73	162	7-23	23.51	150	7-29	17.92	150	8- 5	19.04	147*	12-20-2
8-12	28.96	139	8-19	32.84	155	8-26	28.45	150	9- 2	19.00	158	
9- 9	16.46	154	9-30	14.24	159	11-25	11.32	162				
7-15	2.95	159	7-22	3.11	160	7-29	4.0	155	8- 5	4.10	157*	6-22-1
8-12	4.3	156	8-19	4.9	158	8-26	4.6	156	9-30	3.6	154	
11-24	1.75	148										
7-15	9.36	128	7-22	11.43	119	7-29	11.6	119	8- 5	11.1	117*	3-23-1
8-12	13.6	119	8-19	14.4	118	8-26	14.1	118	9-30	9.0	117	
11-24	4.50	122										
7-15	11.95	126	7-22	9.35	131	7-27	9.0	131	8- 5	9.3	131*	11-24-1
8-12	9.9	131	8-19	9.8	131	8-26	9.7	133	9-30	10.4	131	
11-24	6.15	126										
7-15	7.76	149	7-22	7.45	151	7-29	8.9	151	8- 5	8.7	148*	17-24-2
8-12	9.1	153	8-19	11.7	149	8-26	11.9	151	9-30	9.9	148	
11-24	4.89	147										
7-15	- -	142	7-22	142.03	144	7-29	159.22	141	8- 5	150.28	143*	29-25-3
8-12	155.75	142	8-19	158.99	141	8-26	162.49	143	9-30	133.97	145	
11-25	83.96	145										
9-30	7.35	502	10-28	5.61	524	11-25	4.39	512				33-25-3
7-15	6.31	223	7-22	6.6	223	7-29	6.59	223	8- 5	6.88	225	6-26-3
8-12	6.75	222	8-19	6.71	214	8-26	6.78	218	9-30	6.28	220	
11-25	3.81	224										
7-15	45.95	125	7-22	41.81	124	7-29	48.72	121	8- 5	46.81	119*	7-26-3
8-12	46.83	137	8-19	48.47	119	8-26	47.90	120	9-30	35.59	126	
11-25	20.51	133										
7-15	- -	276	7-22	19.48	418	7-29	34.06	274	8- 5	23.08	253*	2-27-3
8-12	- -	329	8-19	21.17	411	8-27	24.72	359	9-30	13.91	474	
11-25	10.19	570										
7-15	8.55	285	7-22	7.38	313	7-29	7.56	289	8- 5	8.02	277*	11-27-3
8-12	6.48	287	8-19	8.56	291	8-26	8.25	278	9-30	5.89	289	
11-25	3.08	309										
7-15	29.73	274	7-22	26.57	274	7-29	26.19	271	8- 5	26.03	268*	26-28-3
8-12	25.73	269	8-19	25.63	264	8-26	23.21	259	9-30	22.03	255	
11-25	16.33	272										
7-15	68.3	170	7-22	60.29	191	7-29	66.35	196	8- 5	73.34	180*	26-28-3
8-12	77.86	181	8-19	74.23	176	8-27	72.16	173	9-30	57.04	196	
11-25	39.5	196										

\*Detailed analysis

Surface Waters of the Elephant Butte Project — New Mexico and Texas.— 3 —

(Conductance)

Index No.	Location and Description
5-29-4	Montoya Drain (Includes flow of Nemexas and West Drains) (222). Station N 1110' - E 300' of SW cor. sec. 5, T.29S., R.4E. Length, 67.6 miles; gradient, 3.4 feet; water surface 3728.69 feet above sea level on Dec. 3, 1936 when discharge was 58.8 c.f.s.
	EL PASO VALLEY, TEXAS (Above Fabens, Texas):
12-32-6	Playa Drain (232). Station S 1750' - E 1400' of NW cor. sec. 12, T.32S., R.6E.; above junction with Franklin Drain. Length, 23.6 miles; gradient, 3.1 feet; water surface 3691.4 feet above sea level on Dec. 9, 1936 when discharge was 20.1 c.f.s.
33-32-7	Franklin Drain (Includes flow of Playa Drain) (233). Station N 1200' - W 700' of SE cor. sec. 33, T.32S., R.7E.; above junction with Middle Drain. Length, 36.3 miles; gradient, 3.4 feet; water surface 3628.7 feet above sea level on Dec. 9, 1936 when discharge was 25.4 c.f.s.
30-33-8	Middle Drain (Includes flow of Playa and Franklin Drains) (234). Station S 200' - E 1350' of NW cor. sec. 30, T.33S., R.8E.; above confluence with River Drain. Length, 55.3 miles; gradient, 3.4 feet; water surface 3611.08 feet above sea level on Dec. 9, 1936 when discharge was 37.9 c.f.s.
30-33-8	River Drain (235). Station S 2500' - E 200' of NW cor. sec. 30, T.33S., R.8E.; above confluence with Middle Drain. Length, 23.4 miles; gradient, 2.7 feet; water surface 3609.8 feet above sea level on Dec. 9, 1936 when discharge was 13.4 c.f.s.
32-33-8	Quadrilla Drain (236). Station N 200' - E 800' of SW cor. sec. 32, T.33S., R.8E.; above outlet to river. Length, 8.6 miles; water surface 3606.4 feet above sea level on Dec. 8, 1936 when discharge was 6.7 c.f.s.
4-34-8	Mesa Drain (237). Station S 700' - E 1000' of NW cor. sec. 4, T.34S., R.8E.; at inlet to Mesa Drain pump. Length, 29.1 miles; gradient, 3.5 feet; water surface 3602.26 feet above sea level on Dec. 8, 1936 when discharge was 8.9 c.f.s.
4-34-8	Fabens Intercepting Drain (238). Station S 700' - E 600' of NW cor. sec. 4, T.34S., R.8E.; at inlet to Mesa Pump. Length, 1.9 miles; gradient, 3.7 feet; water surface 3599.57 feet above sea level on Dec. 8, 1936 when discharge was 0.34 c.f.s.
	EL PASO VALLEY, TEXAS (Island District):
27-34-8	Fabens Drain (239). Station S 1600' - W 2300' of NW cor. sec. 27, T.34S., R.8E. Length, 10.7 miles; gradient, 2.2 feet; water surface 3582.66 feet above sea level on Dec. 8, 1936 when discharge was 9.1 c.f.s.
27-34-8	Island Drain (240). Station S 2300' - E 1300' of NW cor. sec. 27, T.34S., R.8E.; above confluence with Fabens and Border Drains. Length, 13.7 miles; gradient, 3.3 feet; water surface 3581.39 feet above sea level on Dec. 8, 1936 when discharge was 14.7 c.f.s.
27-34-8	Border Drain (241). Station N 800' - E 1400' of SW cor. sec. 27, T.34S., R.8E.; above confluence with Island Drain. Length, 9.3 miles; gradient, 2.8 feet; water surface 3582.41 feet above sea level on Dec. 8, 1936 when discharge was 7.9 c.f.s.

Surface Waters of the Elephant Butte Project -- New Mexico and Texas - 3 -

(Conductance)

Date 1936	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
7-22 8-19	104.61 108.64	258 240	7-29 8-26	108.43 113.16	243 238	8-15 9-30	111.60 93.48	241* 242	8-12 11-25	130.70 63.89	240 255	5-29-4
7-17 8-14 11-25	31.23 28.9 22.2	284 264 264	7-24 8-21	31.3 28.2	265 254	7-29 8-28	25.9 29.3	265* 260	8-7 9-30	29.4 42.6	262 235	12-32-6
7-17 8-14 11-25	39.31 39.4 29.0	707 372 332	7-24 8-21	39.6 39.2	361 337	7-29 8-28	39.0 37.9	376* 364	8-7 9-30	41.0 46.6	348 291	33-32-7
7-17 8-14 11-25	58.0 57.8 36.3	379 388 383	7-24 8-21	65.9 57.9	363 380	7-29 8-28	59.8 58.3	408* 388	8-7 9-30	58.8 57.3	392 349	30-33-8
7-17 8-14 11-25	27.02 27.4 14.7	528 554 485	7-24 8-22	26.5 27.0	504 563	7-29 8-28	25.2 28.8	571* 510	8-7 9-30	29.3 22.3	511 545	30-33-8
7-17 8-14 11-25	9.97 8.52 7.00	189 183 182	7-24 8-21	9.90 9.10	179 185	7-29 8-28	7.25 9.17	185* 181	8-7 9-30	9.2 11.9	178 187	32-33-8
7-17 8-14 11-25	21.24 18.1 11.5	460 418 418	7-24 8-21	19.43 19.5	456 432	7-29 8-28	17.5 16.5	444* 355	8-7 9-30	17.8 16.8	411 445	4-34-8
7-17 8-14 11-25	3.48 3.67 2.49	303 305 302	7-24 8-21	4.46 4.40	307 312	7-29 8-28	4.00 4.14	309* 311	8-7 9-30	3.80 3.90	314 306	4-34-8
7-8 8-11 11-24	18.6 13.5 9.84	246 238 235	7-21 8-18	12.3 12.2	332 240	7-29 8-25	15.8 12.9	242* 238	8-4 9-29	14.0 14.8	242 286	27-34-8
7-18 8-11 11-24	25.07 24.2 17.0	360 702 666	7-21 8-18	23.3 24.1	677 697	7-29 8-25	23.4 27.7	689* 549	8-4 9-29	24.4 24.8	702 588	27-34-8
7-18 8-11 11-24	11.9 8.9 4.9	913 901 855	7-21 8-18	9.0 9.1	756 891	7-29 8-25	10.7 8.94	704* 614	8-4 9-29	9.8 10.2	827 623	27-34-8

\*Detailed analysis

Surface Waters of the Elephant Butte Project -- New Mexico and Texas. - 4 -

(Conductance)

<u>Index No.</u>	<u>Location and Description</u>
EL PASO VALLEY, TEXAS (Tornillo District):	
10-35-9	Alamo Alto Drain (242). Station S 600' - W 1800' of NE cor. sec. 10, T.35S., R.9E. Length, 20.6 miles; gradient, 4.0 feet; water surface 3558.79 feet above sea level on Dec. 8, 1936 when discharge was 7.4 c.f.s.
11-35-9	Tornillo Drain (Includes flow of Border, Island, Fabens and Alamo Drains) (243). Station N 1200' - W 2000' of SE cor. sec. 11, T.35S., R.9E.; above outlet to river. Length, 75.1 miles; gradient, 2.9 feet; water surface 3555.91 feet above sea level on Dec. 8, 1936 when discharge was 59.0 c.f.s.

Surface Waters of the Elephant Butte Project -- New Mexico and Texas - 4 -

(Conductance)

Date 1936	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Date 1936	Disch. c.f.s.	Kx10 <sup>5</sup> @25°C	Index No.
7-18	15.35	367	7-21	13.6	384	7-29	15.7	366*	8- 4	15.8	389	10-35-9
8-11	15.5	383	8-18	16.9	401	8-25	15.9	416	9-29	14.8	407	
11-24	8.48	447										
7-18	32.10	496	7-21	80.2	527	7-29	83.1	467*	8- 4	82.5	490	11-35-9
8-11	76.6	540	8-18	75.9	532	8-25	83.0	486	9-29	91.1	465	
11-24	62.8	472										

\*Detailed analysis

Elephant Butte Project, New Mexico and Texas, Subsoil Waters

(Conductance)

Index No.	Location and Description
<p>Note: In the following descriptions the townships and ranges are referred to the New Mexico principal meridian; the elevations to sea level datum. The location descriptions and the water samples are by the Bureau of Reclamation; the analyses are by the Geological Survey.</p>	
RINCON DIVISION:	
8-18-4	<p>Garfield shallow well (206).  S2290-W410 of NE cor. sec. 8, T.18S., R.4W.  Elev. well top: 4,101.61 feet; ground surface 4,100.27 feet.</p>
35-18-4	<p>Salem shallow well (207).  S10-W580 of NW cor. sec. 35, T.18S., R.4W.  Elev. well top: 4079.97 feet; ground surface 4077.84 feet.</p>
35-19-2	<p>Tomasa shallow well (209).  N2560-W530 of SE cor. sec. 35, T.19S., R.2W.  Elev. well top: 4007.77 feet; ground surface 4006.12 feet.</p>
10-19-3	<p>Hatch shallow well (208).  N140-W960 of SW cor. sec. 10, T.19S., R.3W.  Elev. well top: 4053.43 feet; ground surface 4051.55 feet.</p>
MESILLA VALLEY DIVISION:	
16-22-1	<p>Dona Ana shallow well (223).  N150-W2000 of SE Cor. sec. 16, T.22S., R.1E.  Elev. well top: 3923.77 feet; ground surface 3922.02 feet.</p>
16-23-1	<p>Picacho shallow well (224).  N640-W100 of SE cor. sec. 16, T.23S., R.1E.  Elev. well top: 3897.34 feet; ground surface 3895.04 feet.</p>
35-23-1	<p>Mesilla shallow well (225).  S420-W2170 of NE cor. sec. 35, T.23S., R.1E.  Elev. well top: 3882.42 feet; ground surface, 3880.72 feet.</p>
22-24-2	<p>Shallow well (304).  S120-W100 of NE cor. sec. 22, T.24S., R.2E.  Elev. well top: 3850.74 feet; ground surface 3848.84 feet.</p>
33-24-2	<p>Santa Tomas shallow well (226).  S840-W2390 of NW cor. sec. 33, T.24S., R.2E.  Elev. well top: 3851.25 feet; ground surface 3849.35 feet.</p>
6-25-3	<p>Mesquite shallow well (255).  S2090-W380 of NW cor. sec. 6, T.25S., R.3E.  Elev. well top: 3836.89 feet; ground surface 3835.08 feet.</p>
20-25-3	<p>Vado shallow well (256).  N2640-W1600 of SE cor. sec. 20, T.25S., R.3E.  Elev. well top: 3819.79 feet; ground surface 3819.03 feet.</p>
31-25-3	<p>Shallow well (258).  N2630-W1240 of SW cor. sec. 31, T.25S., R.3E.  Elev. well top: 3807.18 feet; ground surface 3806.24 feet.</p>
33-25-3	<p>Shallow well (257).  S20-W1760 of NW cor. sec. 33, T.25S., R.3E.  Elev. well top: 3816.21 feet; ground surface 3813.41 feet.</p>



## Elephant Butte Project, New Mexico and Texas, Subsoil Waters

(Conductance)

Date 1936	Elev. W. S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W. S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W. S.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. W. S.	Kx10 <sup>5</sup> @25°C	Index No.
8-5		227	8-12	4094.48	275*	8-20	4093.92	224	8-27	4094.67	219	8-18-4
9-2	4094.87	208	9-10	4093.82	202	10-1	4093.47	198	11-27	4092.62	188	
8-5		168	8-12	4071.13	*	8-20	4071.19	205	8-27	4071.14	202	35-18-4
9-2	4071.74	193	9-10	4070.94	194	10-1	4071.47	188	11-27	4071.09	180	
8-5		214	8-12	4000.95	230*	8-20	4001.82	206	8-27	4002.02	201	35-19-2
9-2	4001.97	191	9-10	4001.97	187	10-1	4000.72	184	11-27	4000.07	182	
8-5		288	8-12	4044.20	189	8-20	4044.25	186	8-27	4044.30	185	10-19-3
9-2	4044.50	178	9-10	4044.10	176	10-1	4043.70	171	11-27	4043.70	169	
8-5		150	8-12	3915.02	167*	8-19	3915.22	160	8-26	3915.42	161	16-22-1
9-30	3914.72	143	11-24	3913.92	140							
8-5		300	8-12	3883.62	247*	8-19	3883.62	230	8-26	3883.52	220	16-23-1
9-30	3883.62	179	11-24	3883.42	192							
8-4		196	8-12	3872.52	223*	8-19	3872.52	215	8-26	3872.92	222	35-23-1
9-30	3872.72	194	11-24	3872.32	184							
9-30	3843.34	240	10-27		170	11-24	3842.44	143				22-24-2
8-5	3841.15	140	8-12	3840.95	164*	8-19	3841.95	161	8-26	3841.15	160	33-24-2
9-30	3841.15	140	11-26	3840.05	113							
9-30	3829.78	463	10-28	3829.38	438	11-25	3829.18	436				6-25-3
9-30	3814.03	307	10-28	3813.43	277	11-25	3813.03	264				20-25-3
9-30	3799.81	233	10-28	3799.61	187	11-26	3799.41	183				31-25-3
9-30	3807.91	327	10-28	3807.21	307	11-26	3806.81	337				33-25-3

\*Detailed analyses

82343 O-38-12

Elephant Butte Project, New Mexico and Texas, Subsoil Waters - 2 -

(Conductance)

Index No.	Location and Description
9-26-3	Berino shallow well (259). S15-W2600 of NW cor. sec. 9, T.26S., R.3E. Elev. well top: 3806.23 feet; ground surface 3804.28 feet.
19-26-3	Chamberino shallow well (227). S800-W2280 of NE cor. sec. 19, T.26S., R.3E. Elev. well top: 3801.88 feet; ground surface 3800.15 feet.
28-26-3	Shallow well (260). W15-W2460 of SW cor. sec. 22, T.26S., R.3E. Elev. well top: 3796.07 feet; ground surface 3793.95 feet.
34-26-3	Anthony shallow well (228). W150-W0 of SE cor. sec. 34, T.26S., R.3E. Elev. well top: 3787.04 feet; ground surface 3785.57 feet.
16-27-3	La Union shallow well (229). W20-W1360 of SW cor. sec. 16, T.27 S., R.3E. Elev. well top: 3780.94 feet; ground surface 3780.07 feet.
32-27-3	Shallow well (261). S1350-W2380 of NE cor. sec. 32, T.27S., R.3E. Elev. well top: 3776.19 feet; ground surface 3772.5 feet.
10-28-3	Shallow well (262). W2580-W100 of SE cor. sec. 10, T.28S., R.3E. Elev. well top: 3756.68 feet; ground surface 3754.71 feet.
26-28-3	Montoya shallow well (230). S1830-W110 of NE cor. sec. 26, T.28S., R.3E. Elev. well top: 3749.70 feet; ground surface 3747.02 feet.
6-29-4	Shallow well (263). S2080-W1300 of NE cor. sec. 6, T.29S., R.4E. Elev. well top: 3736.59 feet; ground surface 3735.25 feet.
	EL PASO VALLEY, TEXAS:
7-31-6	Shallow well (264). W1000-W1850 of SE cor. sec. 7, T.31S., R.6E. Elev. well top: 3683.64 feet; ground surface 3682.1 feet.
8-31-6	Shallow well (265). W1650-W600 of SE cor. sec. 8, T.31S., R.6E. Elev. well top: 3687.92 feet; ground surface 3686.5 feet.
31-31-7	Shallow well (266). W1450-W1650 of SW cor. sec. 31, T. 31S., R.7E. Elev. well top: 3663.46 feet; ground surface 3662.5 feet.
12-32-6	Socorro shallow well (267). W1350-W300 of SE cor. sec. 12, T.32S., R.6E. Elev. well top: 3657.95 feet; ground surface 3657.0 feet.
4-32-7	Shallow well (268). W500-W500 of SW cor. sec. 4, T.32S., R.7E. Elev. well top: 3656.24 feet; ground surface 3655.0 feet.
20-32-7	Booth shallow well (244). W1650-W1800 of SW cor. sec. 20, T. 32S., R.7E. Elev. well top: 3649.14 feet; ground surface 3647.20 feet.

Elephant Butte Project, New Mexico and Texas, Subsoil Waters - 2 -

(Conductance)

Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Index No.
9-30	3798.98	296	10-28	3798.48	301	11-26	3798.08	324				9-26-3
7-29		146	8-5	3791.38	149	8-12	3791.95	145*	8-19	3791.85	117	19-26-3
8-26	3791.95	113	9-30	3791.55	105	11-25	3791.05	101				
9-30	3789.45	265	10-28	3788.55	246	11-25	3788.35	253				22-26-3
7-29		336	8-5	3779.54	339	8-12	3779.87	351*	8-19	3780.17	314	34-26-3
8-26	3780.57	259	9-30	3779.97	259	11-25	3779.77	321				
7-29		368	8-5	3770.44	368	8-12	3771.27	489*	8-19	3771.37	484	16-27-3
8-26	3771.37	469	9-30	3770.37	417	11-25	3769.27	383				
9-30	3765.50	261	10-28	3765.00	256	11-25	3764.70	247				32-27-3
9-30	3749.71	403	10-28	3748.91	396	11-25	3748.71	401				10-28-3
7-29		402	8-5	3739.80	385	8-12	3741.10	360*	8-19	3740.72	322	26-28-3
8-26	3740.52	316	9-30	3740.32	302	11-25	3739.32	307				
9-30	3730.95	2541	10-28	3730.35	2573	11-25	3730.25	2608				6-29-4
9-30	3679.94	246	10-28	3679.14	224	11-28	3679.44	250				7-31-6
9-30	3678.02	251	10-28	3677.62	236	11-28	3677.42	219				8-31-6
9-30	3658.46	446	10-28	3657.26	397	11-28	3656.96	403				31-31-7
9-30	3652.95	949	10-28	3651.95	932	11-28	3651.45	899				12-32-6
9-30	3647.74	1619	10-28	3647.14	1531	11-28	3647.34	1348				4-32-7
8-4	3641.04	1006*	8-13	3640.94	995	8-19	3640.94	1008	8-26	3641.04	998	20-32-7
9-30	3641.04	1042	11-28	3640.44	1092							

\*Detailed analyses

Elephant Butte Project, New Mexico and Texas, Subsoil Waters - 3 -

(Conductance)

Index No.	Location and Description
22-32-7	Shallow well (269). S800-W2200 of NE cor. sec. 22, T.32S., R.7E. Elev. well top: 3648.64 feet; ground surface 3647.1 feet.
32-32-7	San Elizario shallow well (245). N2400-W2500 of SE cor. sec. 32, T.32S., R.7E. Elev. well top: 3646.0 feet; ground surface 3644.2 feet.
9-33-7	San Elizario shallow well (270). S400-W100 of NW cor. sec. 9, T.33S., R.7E. Elev. well top: 3638.25 feet; ground surface 3635.8 feet.
24-33-7	North shallow well (246). N2400-W1500 of SE cor. sec. 24, T.33 S., R.7E. Elev. well top: 3621.52 feet; ground surface 3620.0 feet.
35-33-7	Lee Moor shallow well (247). N2500-W2200 of SE cor. sec. 35, T.33S., R.7E. Elev. well top: 3618.53 feet; ground surface 3616.60 feet.
20-33-8	Shallow well (271). S2000-W1500 of NW cor. sec. 20, T.33S., R.8E. Elev. well top: 3619.64 feet; ground surface 3618.2 feet.
6-34-8	Shallow well (272). N2580-W2110 of SW cor. sec. 8, T.34S., R.8E. Elev. well top: 3603.42 feet; ground surface 3600.36 feet.
10-34-8	Shallow well (275). N2400-W600 of SE cor. sec. 10, T.34S., R.8E. Elev. well top: 3597.06 feet; ground surface 3595.9
14-34-8	Milner shallow well (251). S100-W1800 of NW cor. sec. 14, T.34S., R.8E. Elev. well top: 3596.31 feet; ground surface 3594.7 feet.
14-34-8	Shallow well (276). W1800-W2300 of SW cor. sec. 14, T.34S., R.8E. Elev. well top: 3585.64 feet; ground surface 3584.1 feet.
16-34-8	Shallow well (274). S1200-W1900 of NE cor. sec. 16, T.34S., R.8E. Elev. well top: 3598.65 feet; ground surface 3597.2 feet.
16-34-8	Shallow well (303). S2490-W1400 of NW cor. sec. 16, T.34S., R.8E. Elev. well top: 3598.55 feet; ground surface 3597.6 feet.
17-34-8	Shallow well (302). N1000-W860 of SE cor. sec. 17, T.34S., R.8E. Elev. well top: 3598.88; ground surface 3597.2 feet.
20-34-8	Shallow well (273). S1300-W2400 of NW cor. sec. 20, T.34S., R.8E. Elev. well top: 3599.26 feet; ground surface 3597.9 feet.
22-34-8	McMahon shallow well (248). N2100-W1900 of SE cor. sec. 22, T.34S., R.8E. Elev. well top: 3593.8 feet; ground surface 3592.5 feet.

Elephant Butte Project, New Mexico and Texas, Subsoil Waters - 3 -

(Conductance)

Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Index No.
9-28	3640.84	461	10-28	3640.14	456	11-28	3639.94	454				22-32-7
8-4	3637.60	159*	8-13	3638.60	156	8-19	3637.80	172	8-26	3637.30	189	32-32-7
9-30	3637.60	149	11-28	3636.40	155							
9-30	3631.95	791	10-28	3630.75	727	11-28	3630.65	650				9-33-7
8-4	3615.62	897*	8-13	3615.72	897	8-19	3616.32	891	8-26	3616.02	877	24-33-7
9-30	3616.42	848	11-28	3614.72	836							
8-4	3612.53	461*	8-13	3612.53	471	8-19	3612.53	476	8-26	3612.53	475	35-33-7
9-28	3612.53	450	11-28	3611.33	388							
9-28	3612.54	1159	10-28	3611.44	1159	11-28	3611.44	1113				20-33-8
9-28	3591.92	4114	10-28	3597.92	1854	11-28	3597.92	1780				8-34-8
9-28	3591.66	247	10-28	3591.06	232	11-28	3591.06	244				10-34-8
8-4	3590.61	*	8-13	3589.91	306	8-19	3589.51	309	8-26	3590.31	268	14-34-8
9-28	3588.51	258	11-30	3588.40	311							
9-28	3574.44	1069	10-28	3576.94	1081	11-28	3576.94	1023				14-34-8
9-28	3593.15	452	10-28	3592.85	445	11-28	3592.45	464				16-34-8
9-28	3590.95	376	10-28	3592.95	385	11-28	3592.05	386				16-34-8
9-28	3591.38	897	10-28	3590.88	1373	11-28	3590.78	1096				17-34-8
9-28	3591.86	379	10-28	3591.26	311	11-28	3590.96	285				20-34-8
8-4	3587.10	1071*	8-13	3587.40	705	8-19	3587.20	589	8-26	3587.40	570	22-34-8
9-28	3587.50	527	11-28	3586.80	508							

\*Detailed analyses

Elephant Butte Project, New Mexico and Texas, Subsoil Waters - 4 -

(Conductance)

Index No.	Location and Description
24-34-8	Shallow well (277). N900-W600 of SE cor. sec. 24, T.34S., R.8E. Elev. well top: 3587.59 feet; ground surface 3585.8 feet.
24-34-8	Schairer shallow well (250). N200-E1600 of SW cor. sec. 24, T.34S., R.8E. Elev. well top: 3590.07 feet; ground surface 3587.9 feet.
25-34-8	Shallow well (306). S700-W2100 of NE cor. sec. 25, T.34S., R.8E. Elev. well top: 3588.31 feet; ground surface 3586.7 feet.
25-34-8	Shallow well (307). S2400-E1400 of NW cor. sec. 25, T.34S., R.8E. Elev. well top: 3587.62 feet; ground surface 3586.0 feet.
25-34-8	Mebue shallow well (249). N1710-E1170 of SW cor. sec. 25, T.34S., R.8E. Elev. well top: 3586.43 feet; ground surface 3585.30 feet.
26-34-8	Shallow well (278). N400-W400 of SE cor. sec. 26, T.34S., R.8E. Elev. well top: 3587.76 feet; ground surface 3586.5 feet.
35-34-8	Shallow well (279). S800-W1500 of NE cor. sec. 35, T.34S., R.8E. Elev. well top: 3587.76 feet; ground surface 3585.3 feet.
36-34-8	Shallow well (282). N1500-W500 of SE cor. sec. 36, T.34S., R.8E. Elev. well top: 3584.52 feet; ground surface 3583.0 feet.
30-34-9	Shallow well (280). N1500-W800 of SE cor. sec. 30, T.34S., R.9E. Elev. well top: 3581.41 feet; ground surface 3579.9 feet.
30-34-9	Shallow well (301). E160-W2070 of SE cor. sec. 30, T.34S., R.9E. Elev. well top: 3582.22 feet; ground surface 3580.6 feet.
31-34-9	Shallow well (281). S1900-E1000 of NW cor. sec. 31, T.34S., R.9E. Elev. well top: 3583.14 feet; ground surface 3581.9 feet.
31-34-9	Henderson shallow well (252). E100-E160 of SW cor. sec. 31, T.34S., R.9E. Elev. well top: 3582.55 feet; ground surface 3582.40 feet.
31-34-9	Shallow well (287). E1300-E2400 of SW cor. sec. 31, T.34S., R.9E. Elev. well top: 3582.0 feet; ground surface 3580.4 feet.
31-34-9	Shallow well (286). W2100-W1400 of SE cor. sec. 31, T.34S., R.9E. Elev. well top: 3580.08 feet; ground surface 3578.4 feet.
32-34-9	Shallow well (285). S1300-E200 of NW cor. sec. 32, T.34S., R.9E. Elev. well top: 3581.0 feet; ground surface 3579.7 feet.

Elephant Butte Project, New Mexico and Texas, Subsoil Waters - 4 -

(Conductance)

Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Index No.
3-28	3580.29	424	10-28	3579.79	375	11-28	3579.79	354				34-34-8
3-4	3582.46	350*	8-13	3582.76	339	8-19	3582.56	356	8-26	3582.56	342	34-34-8
10-28	3581.77		11-28	3581.57	320							
3-28	3580.31	538	10-28	3579.81	519	11-28	3579.71	503				25-34-8
3-28	3580.72	424	10-28	3580.32	803	11-28	3580.12	784				25-34-8
3-4	3580.21	1098*	8-13	3580.31	1128	8-19	3580.11	1110	8-26	3583.10	1108	25-34-8
10-28	3579.43		11-28	3579.43	1050							
3-28	3580.36	776	10-28	3579.66	459	11-28	3579.76	360				26-34-8
3-28	3580.36	327	10-28	3579.96	302	11-28	3579.96	296				35-34-8
3-28	3577.92	243	10-29	3577.32	238	11-30	3575.82	215				36-34-8
3-28	3574.81	560	10-29	3575.41	544	11-28	3574.01	555				30-34-9
3-28	3576.42	490	10-29	3575.52	473	11-30	3574.92	460				30-34-9
3-28	3575.24	216	10-29	3574.34	194	11-30	3574.04	197				31-34-9
3-4	3576.51	895*	8-13	3576.71	885	8-19	3576.31	909	8-26	3576.81	921	31-34-9
10-29	3571.95		11-30	3575.75	956							
3-28	3572.20	454	10-29	3573.00	474	11-30	3571.10	421				31-34-9
3-28	3573.68	728	10-29	3573.58	735	11-30	3572.28	711				31-34-9
3-28	3573.80	304	10-29	3572.80	300	11-30	3572.40	356				32-34-9

\*Detailed analyses

Elephant Butte Project, New Mexico and Texas, Subsoil Waters - 5 -

(Conductance)

Index No.	Location and Description
32-34-9	Shallow well (284). S300-W1300 of NW cor. sec. 32, T.34S., R.9E. Elev. well top: 3579.0 feet; ground surface 3578.6 feet.
33-34-9	Shallow well (288). N1400-W400 of SW cor. sec. 33, T.34S., R.9E. Elev. well top: 3576.04 feet; ground surface 3573.9 feet.
1-35-8	Shallow well (283). S500-W800 of NE cor. sec. 1, T.35S., R.9E. Elev. well top: 3583.97 feet; ground surface 3582.3 feet.
3-35-9	Shallow well (296). N100-W700 of SE cor. sec. 3, T. 35S., R.9E. Elev. well top: 3566.84 feet; ground surface 3564.7 feet.
4-35-9	Shallow well (292). S400-W1200 of NE cor. sec. 4, T.35S., R.9E. Elev. well top: 3571.25 feet; ground surface 3569.4 feet.
4-35-9	Malone No. 1 shallow well (253). S950-W1650 of NW cor. sec. 4, T.35S., R.9E. Elev. well top: 3573.34 feet; ground surface 3572.40 feet.
4-35-9	Shallow well (309). S2500-W200 of NW cor. sec. 4, T.35S., R.9E. Elev. well top: 3573.81 feet; ground surface 3572.3 feet.
4-35-9	Shallow well (293). N1200-E500 of SW cor. sec. 4, T.35S., R.9E. Elev. well top: 3574.02 feet; ground surface 3572.4 feet.
5-35-9	Shallow well (289). S100-W900 of NE cor. sec. 5, T.35S., R.9E. Elev. well top: 3575.33 feet; ground surface 3573.5 feet.
5-35-9	Shallow well (290). S1500-W2400 of NW cor. sec. 5, T.35S., R.9E. Elev. well top: 3577.17 feet; ground surface 3575.4 feet.
5-35-9	Shallow well (291). N1400-E900 of SW cor. sec. 5, T.35S., R.9E. Elev. well top: 3576.32 feet; ground surface 3575.1 feet.
6-35-9	Shallow well (308). S1500-W2000 of NW cor. sec. 6, T.35S., R.9E. Elev. well top: 3580.82 feet; ground surface 3579.3 feet.
7-35-9	Malone No. 2 shallow well (254). S1000-W400 of NE cor. sec. 7, T.35S., R.9E. Elev. well top: 3576.9 feet; ground surface 3575.5 feet.
8-35-9	Shallow well (295). S1800-W2500 of NW cor. sec. 8, T.35S., R.9E. Elev. well top: 3574.56 feet; ground surface 3572.8 feet.
8-35-9	Shallow well (294). S500-W900 of NE cor. sec. 8, T.35S., R.9E. Elev. well top: 3572.13 feet; ground surface 3570.1 feet.
10-35-9	Shallow well (298). N2000-W700 of SW cor. sec. 10, T.35S., R.9E. Elev. well top: 3567.43 feet; ground surface 3565.4 feet.



Elephant Butte Project, New Mexico and Texas, Subsoil Water - 5 -

(Conductance)

Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Index No.
9-28	3572.20	457	10-29	3571.50	442	11-30	3571.70	444				32-34-9
9-28	3569.34	431	10-29	3568.44	428	11-30	3568.44	442				33-34-9
9-28	3578.74	440	10-29	3577.44	368	11-30	3576.34	363				1-35-8
9-28	3561.04	319	10-29	3560.54	318	11-30	3560.14	349				3-35-9
9-28	3565.95	614	10-29	3565.85	612	11-30	3565.55	585				4-35-9
8-4 10-29	3566.62 3566.34	1395*	8-13 11-30	3566.62 3566.44	1349 951	8-19	3566.42	1404	8-26	3567.72	1405	4-35-9
9-28	3566.51	225	10-29	3566.21	207	11-30	3565.91	208				4-35-9
9-28	3567.22	467	10-29	3564.82	385	11-30	3565.02	388				4-35-9
9-28	3569.43	339	10-29	3568.73	341	11-30	3569.73	335				5-35-9
9-28	3569.97	356	10-29	3569.17	400	11-30	3568.97	434				5-35-9
9-28	3568.62	722	10-29	3568.12	705	11-30	3567.62	705				5-35-9
9-28	3573.52	249	10-29	3572.82	273	11-30	3572.02	233				6-35-9
8-4 9-28	3568.50 3570.30	552* 374	8-13 11-30	3569.40 3568.60	453 516	8-19	3569.40	417	8-26	3569.20	415	7-35-9
9-28	3570.46	322	10-29	3568.66	293	11-30	3568.36	324				8-35-9
9-28	3567.73	313	10-29	3565.33	298	11-30	3565.23	328				8-35-9
9-29	3560.63	262	10-29	3559.73	233	11-30	3558.73	208				10-35-9

Detailed analyses

Elephant Butte Project, New Mexico and Texas, Subsoil Waters - 6 -

(Conductance)

Index No.	Location and Description
10-35-9	Shallow well (297). S1000-W2000 of NE cor. sec. 10, T.35S., R.9E. Elev. well top: 3565.13 feet; ground surface 3563.4 feet.
11-35-9	Shallow well (299). N1700-W1200 of SE cor. sec. 11, T.35S., R.9E. Elev. well top: 3562.1 feet; ground surface 3560.8 feet.
11-35-9	Shallow well (300). N500-W1600 of SE cor. sec. 11, T.35S., R.9E. Elev. well top: 3562.66 feet; ground surface 3561.7 feet.

Elephant Butte Project, New Mexico and Texas, Subsoil Waters - 6 -

(Conductance)

Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Date 1936	Elev. w. s.	Kx10 <sup>5</sup> @25°C	Index No.
9-29	3560.43	392	10-29	3559.33	390	11-30	3559.33	389				10-35-9
9-29	3558.00	697	10-29	3556.30	686	11-30	3556.80	667				11-35-9
9-29	3556.96	1613	10-29	3555.76	1669	11-30	3555.86	1740				11-35-9

San Luis Valley, Colorado, Surface Waters

(Detailed Analyses)

Index No.	Location and Description
	<p><b>Note:</b> In the following descriptions the discharges in cubic feet per second, when reported, were determined at the time of sampling. In addition to the constituents reported in the table, the analyses usually included iron, boron, and fluoride. The values for these constituents are usually low and they are reported with the location description only when they are high enough to warrant mention; in the case of boron when higher than 0.55 ppm. and of fluoride when 1.0 ppm. or more. Except as otherwise noted, the samples and analyses are by the Geological Survey.</p>
	<u>Streams:</u>
5-43-12	North Crestone Creek near Crestone, Colo. (425). Sec. 5, T.4N., R.12E., N.M.P.M.; 1-1/2 miles above Crestone in canyon. G.H. 1.03; Disch. 9.6. Coll. June 24, 1936 by W.W.
4-1-1	Willow Creek, near Crestone, Colo. Sec. 4, T.1N., R.1E., (Baca Grant Survey); 3 miles southeast of Crestone, Colo. G.H. 1.24; Disch. 5.9. Coll. June 24, 1936 by W.W.
9-1-1	Spanish Creek, near Crestone, Colo. About sec. 9, T.1N., R.1E., (Baca Grant Survey); 5 miles southeast of Crestone, Colo. G.H. 1.03; Disch. 2.3. Coll. June 24, 1936 by W.W.
2-1-1	Deadman Creek, near Crestone, Colo. Sec. 2, T.1S., R.1E., (Baca Grant Survey); 8 miles southeast of Crestone, Colo. June 24, 1936, G.H. 0.76; Disch. 5.5. Coll. W.W. November 11, 1936, G.H. 0.68 Coll. R.H.P.
28-1-1	Cottonwood Creek near Crestone, Colo. (430). Sec. 28, T.1N., R.1E., (Baca Grant Survey); at Cottonwood mining camp 6 miles south of Crestone. June 24, 1936, G.H. 1.09, Disch. 5.5. Coll. by W.W.
12-29-72	Ute Creek at Forks, near Ft. Garland, Colo. Sec. 12, T.29S., R.72W., Sixth Prin. Mer.; 150 yards below Forks, 9 miles northeast of Fort Garland, Colo. July 9, 1936, G.H. 0.95. Coll. by R.H.A.
2-30-72	Ute Creek near Fort Garland, Colo. Sec. 2, T.30N., R.72W., Sixth Prin. Mer.; 2-1/2 miles northeast of Fort Garland, Colo. July 8, 1936, G.H. 0.34. Coll. R.H.A. November 11, 1936, G.H. 0.78. Coll. E.F.H.
31-25-73	Sand Creek near Crestone, Colo. Sec. 31, T.25S., R.73W., Sixth Prin. Mer.; on edge of sand dunes, 1 1/4 miles southeast of Crestone, Colo. June 24, 1936, G.H. 1.11, Disch. 13.7. Coll. W.W. July 8, G.H. 0.73, Disch. 7.73. Coll. R.H.P. Nov. 11, 1936, G.H. 0.81. Coll. R.H.P.
23-30-72	Sangre de Cristo Creek near Fort Garland, Colo. (420). Sec. 23, T.30S., R.72W., Sixth Prin. Mer.; at highway bridge 1-1/2 miles east of Fort Garland. July 9, 1936, G.H. 0.87, Disch. 3.18. Nov. 11, G.H. 1.30. Coll. E.R.H.
35-30-73	Sangre de Cristo Creek, above Smith Reservoir, near Blanca, Colo. Sec. 35, T.30S., R.73W., Sixth Prin. Mer.; near highway bridge on county road, 3/4 mile above highwater line of Smith Reservoir, 2 miles south of Blanca, Colo. Coll. July 10, 1936.
2-31-71	Trinchera Creek above Turner's Ranch near Fort Garland, Colo. Sec. 2, T.31S., R.71W., Sixth Prin. Mer.; just above Turner's Ranch, 7 miles southeast of Fort Garland. July 10, 1936, G.H. 0.95, Nov. 11, G.H. 0.96. Coll. E.R.H.
31-30-71	Trinchera Creek above Mountain Home Reservoir near Fort Garland, Colo. (418). Sec. 31, T.30S., R.71W., Sixth Prin. Mer.; 1,000 ft. above Mountain Home Reservoir; 5 miles southeast of Fort Garland. July 10, 1936, G.H. 0.95, Disch. 17. Coll. R.H.A. Nov. 11, G.H. 0.56. Coll. E.R.H.

San Luis Valley, Colorado, Surface Waters

(Detailed Analyses)

Laboratory No.	Conductance Krl05 @25°C	TDS per acre foot	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Fpm	Milligram equivalent per liter								Index No.
						Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	
15446	8.8	.07	14	--	6.5	.65	.12	.11	.02	.77	.68	.01	tr.	5-43-72
15447	6.8	.06	17	--	12	.49	.12	.11	.01	.59	.67	.01	tr.	4-1-1
15448	6.5	.06	17	--	6.5	.45	.13	.11	.02	.56	.69	.01	.01	9-1-1
15449	6.0	.15	21	--	71	.41	.12	.12	.02	.46	.12	.01	tr.	2-1-1
15997	6.7	.06	5	5	5.6	.43	.12	.03	--	.41	.12	.01	.02	
15450	8.0	.07	24	--	16	.44	.12	.17	.02	.52	.69	.01	tr.	28-1-1
15503	7.7	.19	15	2.3	91	.55	.18	.12	.02	.67	.11	.02	tr.	12-25-72
15701	21.1	.19	15	0.4	20	1.70	.30	.29	.05	2.07	.11	.01	.00	2-30-72
15000	12.5	.10	5	2	7.8	.90	.29	.06	--	1.13	.08	.03	.00	
15445	8.0	.14	19	2	61	.40	.25	.14	.02	.57	.11	.01	tr.	31-25-73
15693	7.8	.07	19	1	7.8	.42	.16	.09	.05	.57	.6	.01	.00	
15001	7.3	.06	5	3	5.4	.45	.18	.03	--	.51	.12	.02	.00	
15700	32.5	.35	16	3	62	2.40	.38	.48	.06	3.26	.11	.10	.00	23-30-72
15999	32.3	.28	5	3	26	2.30	.80	.18	--	2.79	.17	.10	.00	
15699	30.1	.28	14	1	28	2.15	.60	.41	.05	3.10	.11	.05	.00	35-30-73
15698	11.8	.10	15	--	--	.70	.35	.15	.03	1.00	.5	.00	.00	2-31-71
15005	11.8	.10	9	2	10	.70	.35	.10	--	1.00	.12	.02	.00	
15502	16.1	.13	13	1.2	15	1.00	.48	.20	.03	1.49	.3	.02	tr.	31-30-71
15004	14.4	.12	7	2	9.8	.90	.44	.10	--	1.28	.12	.03	.00	

\*Includes carbonate (CO<sub>3</sub>)

San Luis Valley, Colorado, Surface Waters - 2 -

(Detailed Analyses)

Index No.	Location and Description
5-31-73	Trinchera Creek below Smith Reservoir near Blanca, Colo. (419). Sec. 5, T.31S., R.73W., Sixth Prin. Mer.; 1 mile below Smith Reservoir in Rattlesnake Canyon 5 miles southwest of Blanca. July 10, 1936, G.H. 0.76, Disch. 6.66. Fluoride, 1.3 ppm. Nov. 11, G.H. 1.50. Coll. E.R.H.
35-3-72	Culebra Creek at San Luis, Colo. (423). Sec. 35, T.3N., R.72W., (Baubien and Miranda Grant Survey); 1 mile above concrete bridge at San Luis. July 16, 1936, G.H. 1.78, Disch. 126. Sample No. 15905 is from seepage spring just above gage and at mouth of Village Creek. Coll. Sept. 4, 1936 by W.G.R.
11-45-6	Saguache Creek near Saguache, Colo. (427). Sec. 11, T.45N., R.6E., N.M.P.M.; 10-1/2 miles northwest of Saguache. Coll. July 16, 1936 by W.D.C.
26-42-6	Carnero Creek near La Garita, Colo. (426). Sec. 26, T.42N., R.6E., N.M.P.M.; at O'Dell Ranch 3 miles northwest of La Garita. Coll. Nov. 9, 1936 by E.R.H. G.H. 0.26.
14-40-4	Rio Grande at Farmers Union Reservoir. Sec. 14, T.40N., R.4W., N.M.P.M.; about 20 miles southwest of Creeds, Colo. Coll. June 17, 1936 by C.S.H.
21-42-3	Clear Creek at Continental Reservoir, Colo. Sec. 21, T.42N., R.3W., N.M.P.M. Coll. June 17, 1936 by C.S.H.
27-42-3	Spring or Clear Creek below Continental Reservoir, Colo. Sec. 27, T.42N., R.3W., N.M.P.M.; 0.5 mile below Continental Dam. Coll. June 17, 1936 by C.S.H.
22-41-2	Clear Creek at Santa Maria Reservoir, Colo. Sec. 22, T.41N., R.2W., N.M.P.M. Coll. June 17, 1936 by C.S.H.
8-41-1	Rio Grande at Wason, Colo. (401). NE 1/4 sec. 8, T.41N., R.1E., N.M.P.M.; at Wason siding 3 miles southeast of Creeds. Dec. 3, 1936, G.H. 0.54 (ice conditions). Coll. J.R.E.
26-41-1	Rio Grande at Wagon Wheel Gap, Colo. Sec. 26, T.41N., R.1E., N.M.P.M.; at side of proposed dam. Coll. June 17, 1936 by C.S.H.
30-40-5	Rio Grande near Del Norte, Colo. Sec. 30, T.40N., R.5E., N.M.P.M.; at head of Rio Grande Canal. Coll. July 15, 1936, No. 15373 by C.S.H. and No. 15373 by W.A.L. (the latter analyzed by the State of Texas).
24-39-7	Rio Grande near Monte Vista, Colo. (402). Sec. 24, T.39N., R.7E., N.M.P.M.; at highway bridge 2 miles north of Monte Vista. Zero of gage is 7,656.78 feet above sea level. No. 15376 from Monte Vista Canal at Gunbarrel Road. Coll. June 16, 1936 by T.W.R. and C.S.H. No. 16118 coll. at river station Dec. 4, 1936 by J.R.E. G.H. 1.12 (ice conditions).
10-37-10	Rio Grande at Alamosa, Colo. (403). Sec. 10, T.37N., R.10E., N.M.P.M.; 1/4 mile northwest of city limits. Zero of gage is 7,533.66 feet above sea level. Coll. July 18, 1936 by L.F.H. and No. 16119 Dec. 4 by J.R.E. G.H. 1.67 (ice conditions).
35-36-11	Rio Grande above mouth of Trinchera Creek near La Sausse, Colo. (404). Sec. 35, T.36N., R.11E., N.M.P.M.; 1/4 mile above mouth of Trinchera Creek, and 5 miles north of La Sausse. Nov. 11, 1936, G.H. 1.67. Coll. by J.R.E.

## San Luis Valley, Colorado, Surface Waters - 2 -

(Detailed Analyses)

Laboratory No.	Conductance Kx10 <sup>5</sup> @25°C	TDS, tons per acre foot	Percent Sodium	Percent Chloride	Silica (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter								Index No.
						Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	
15597	33.1	.29	19	3.1	22	2.25	.49	.57	.07	3.25	.07	.11	.00	5-31-73
16006	28.7	.23	10	2	13	1.95	.72	.29	--	2.59	.27	.07	.00	
15458	20.0	.20	20	4	32	1.25	.44	.38	.05	1.75	.23	.06	.02	35-3-72
15905	33.6	.27	6.3	4.4	15	2.80	.61	.23	--	3.23	.23	.06	.10	
15460	13.0	.14	24	1.5	30	.80	.23	.27	.06	1.16	.15	.02	tr.	11-45-6
15998	19.8	.20	14	3	34	1.25	.47	.29	--	1.62	.31	.06	.00	26-42-6
15393	4.7	--	--	--	--	--	--	--	--	.43	.08	.03	--	14-40-4
15395	4.6	--	--	--	--	--	--	--	--	.48	.04	.03	--	21-42-3
15391	6.2	--	--	--	--	--	--	--	--	.52	.06	.03	--	27-42-3
15394	4.7	--	--	--	--	--	--	--	--	.48	.04	.06	--	22-41-2
16117	12.8	.13	11	2.7	26	.75	.26	.12	--	.85	.23	.03	.00	8-41-1
15396	5.7	--	--	--	--	--	--	--	--	.46	.10	.06	--	26-41-1
15372	16.3	--	--	--	--	--	--	--	--	.79	.29	.20	--	30-40-5
16177	6.48	.07	20	10	--	.44	.22	.17	--	.60	.09	.08	--	
15376	7.7	--	--	--	--	--	--	--	--	.52	.10	.08	--	24-39-7
16118	16.6	.16	15	3.8	27	1.00	.33	.24	--	1.21	.29	.06	.00	
15450	28.6	.26	35	7	33	1.40	.52	.91	.11	2.02	.67	.20	tr.	10-37-10
16110	19.3	.19	18	4.8	28	1.10	.44	.34	--	1.43	.35	.09	.00	
16124	32.6	.30	21	6.8	31	1.80	.74	.68	--	1.67	1.31	.21	.01	35-36-11

San Luis Valley, Colorado, Surface Waters - 3 -

(Detailed Analyses)

Index No.	Location and Description
14-34-11	Rio Grande below Las Sauces, Colo. In SE1/4 sec. 14, T.34N., R.11E., N.M.F.M.; at highway bridge about 3 miles below Las Sauces. Coll. June 18, 1936 by W.A.L. Analyzed by the State of Texas.
31-36-7	Rock Creek near Monte Vista, Colo. (409). Sec. 31, T.36N., R.7E., N.M.F.M.; 11 miles southwest of Monte Vista. Nov. 12, 1936, G.H. 0.30. Coll. E.R.H.
7-37-10	Rock Creek near Alamosa, Colo. (410). SE1/4 sec. 7, T.37N., R.10E., N.M.F.M.; 11 miles southwest of Monte Vista. Nov. 10, 1936, G.H. 0.94. Coll. E.R.H.
21-37-10	Rock Creek near Alamosa, Colo. Sec. 21, T.37N., R.10E., N.M.F.M.; at bridge on highway between La Jara and Alamosa, 0.5 mile north of Waverly Drain. Coll. T.W.R. and C.S.H. June 16, 1936.
1-37-7	Spring Creek, south of Monte Vista, Colo. (410a) Sec. 1, T.37N., R.7E., N.M.F.M.; 7 miles south of Monte Vista at bridge on Gun-barrel Road. No gage. No. 15374 coll. T.W.R. and C.S.H., June 15, 1936; No. 15467 from SI/2 sec. 12, T.37N., R.7E. from broken basalt, many orifices, Temp. 59.5°F. Coll. July 16, 1936 by T.W.R.
11-35-8	Alamosa Creek below Terrace Reservoir, Colo. At east line of sec. 11, T.35N., R.8E., at highway crossing. Coll. June 16, 1936 by T.W.R. and C.S.H.
6-35-10	La Jara Creek below Empire Canal near Sanford, Colo. (416). Sec. 6, T.35N., R.10E., N.M.F.M.; 120 feet below diversion of Empire Canal; 3 miles north of Sanford, Colo. No. 15379 coll. at highway crossing between secs. 16 and 17, T.35N., R.9E., June 16, 1936; No. 15696 coll. at gaging station July 18, 1936 by W.D.C.
6-33-6	Conejos River at Cumbres Pass Road, Colo. NE1/4 sec. 6, T.33N., R.6E., N.M.F.M.; about 18 miles west of Mogote, Colo. Coll. June 14, 1936 by W.A.L. Analyzed by the State of Texas.
9-33-6	Conejos River west of Antonito, Colo. Sec. 9, T.33N., R.6E., N.M.F.M.; in grounds of Menkhaven Ranch. Coll. June 16, 1936 by T.W.R. and C.S.H.
34-33-7	Conejos River near Mogote, Colo. (421). Sec. 34, T.33N., R.7E., N.M.F.M.; at Broils bridge 5 miles west of Mogote, Colo. Nov. 10, 1936, G.H. 1.91. Coll. by R.H.F.
17-33-9	Conejos River north of Conejos, Colo. Sec. 17, T.33N., R.9E., N.M.F.M.; at highway bridge north of Conejos. Coll. June 16, 1936 by T.W.R. and C.S.H.
2-35-11	Conejos River near La Sauces, North Channel (422). Sec. 2, T.35N., R.11E., N.M.F.M.; 50 feet below highway bridge; 1/2 mile above mouth. No. 15475 coll. July 1936; No. 16084 coll. Nov. 9, 1936 by R.H.F. G.H. 1.06.
21-34-10	San Antonio River near Manassa, Colo. Sec. 21, T.34N., R.10E., N.M.F.M.; near mouth of river. No. 15364 coll. June 16, 1936 by T.W.R. and C.S.H.; No. 15466 coll. July 7, by R.H.A. G.H. 0.44.



## San Luis Valley, Colorado, Surface Waters - 3 -

(Detailed Analyses)

Laboratory No.	Conductance Kx10 <sup>5</sup> @25°C	TDS. tone per acre foot	Per- cent Sodium	Per- cent Chloride	Silica (SiO <sub>2</sub> )	Milligram equivalent per liter								Nitrate (NO <sub>3</sub> )	Index No.
						Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO <sub>3</sub> )	Sulphate (SO <sub>4</sub> )	Chloride (Cl)			
15774	71.5	.72	37	6.3	--	3.57	1.23	2.72	.08	2.70	4.42	.48	tr.	14-34-11	
15002	7.3	.11	12	3	32	.42	.21	.09	--	.62	.37	.02	.00	31-33-7	
15003	52.8	.48	35	9.3	40	2.65	.82	1.90	--	3.05	1.81	.48	.02	7-37-10	
15389	63.8	--	--	--	--	--	--	--	--	3.08	3.34	.79	--	21-37-10	
15374	33.3	--	--	--	--	--	--	--	--	2.79	1.39	.11	--	1-37-7	
15457	31.5	.32	40	5	66	1.40	.52	1.17	.13	2.67	.40	.16	.02		
15378	10.6	--	--	--	--	--	--	--	--	.33	1.12	.11	--	11-35-8	
15379	14.8	--	--	--	--	--	--	--	--	1.64	.52	.06	--	6-35-10	
15696	36.0	.34	38	3.4	21	1.55	.51	1.17	.09	2.09	1.27	.11	.01		
15772	4.64	.05	16.4	9.4	--	.36	.15	.10	--	.43	.05	.05	.00	6-33-6	
15383	5.1	--	--	--	--	--	--	--	--	.39	.36	.06	--	9-33-6	
15083	9.0	.09	4.8	1.2	20	.60	.20	.04	--	.75	.38	.01	.00	34-33-7	
15382	6.0	--	--	--	--	--	--	--	--	.43	.36	.06	--	17-33-9	
15475	22.8	.23	29	3	39	1.20	.39	.57	.10	1.64	.54	.07	tr.	2-35-11	
15084	14.5	.16	18	2.6	32	.90	.34	.27	--	1.25	.21	.04	--		
15384	11.1	--	--	--	--	--	--	--	--	.89	.36	.03	--	21-34-10	
15466	22.2	.20	19	7	26	1.40	.49	.37	.07	1.92	.23	.16	tr.		

\*Includes carbonate (CO<sub>3</sub>)

82343 O-38-13

San Luis Valley, Colorado, Surface Waters - 4 -

(Detailed Analyses)

Index No.	Location and Description
<u>Drains:</u>	
12-41-8	Gibson Drain northeast of Center, Colo. Sec. 12, T.41N., R.2E., N.M.P.M. Coll. June 15, 1936 by W.A.L. Analyzed by the State of Texas.
19-40-11	Farmers Union Drain near Hooper, Colo. (431). Sec. 19, T.40N., R.11E., N.M.P.M.; at county road crossing 6 miles southeast of Hooper. Coll. Nov. 13, 1936 by E.R.H. G.H. 1.83.
13-40-9	San Luis Valley Irrigation District Drain. Sec. 13, T.40N., R.9E., N.M.P.M. Coll. June 18, 1936 by W.A.L. Analyzed by the State of Texas.
28-40-10	San Luis Valley Irrigation District Drain. Sec. 28, T.40N., R.10E., N.M.P.M.; 3 miles north of Mosca, Colo. Coll. June 15, 1936 by W.A.L. Analyzed by the State of Texas.
34-40-11	San Luis Valley Irrigation District Drain near mouth. Sec. 34, T.40N., R.11E., N.M.P.M.; about 1 mile west of San Luis Lake. Coll. June 15, 1936 by T.W.R. and C.S.H.
26-40-11	San Luis Lake, north end (433). Sec. 26, T.40N., R.11E., N.M.P.M.; at north end of San Luis Lake near well (11N2681---R-2). Coll. Nov. 13, 1936 by A.D.G.; Fluoride 1.6 ppm.
35-40-11	San Luis Lake, south end (434). In NW 1/4 of SW 1/4 sec. 35, T.40N., R.11E., at south end of San Luis Lake near well (11N351---S-1). No. EE782, coll. June 15, 1936 by W.A.L.; Analyzed by the State of Texas; No. 15366 coll. June 15, 1936 by T.W.R. and C.S.H.; No. 16030 coll. Nov. 13, 1936 by A.D.G.; Fluoride 1.4 ppm.
5-39-9	Rio Grande Drain west of Mosca, Colo. Sec. 5, T.39N., R.9E., N.M.P.M. Coll. June 18, 1936 by W.A.L. Analyzed by the State of Texas.
34-39-9	Rio Grande Drain near Monte Vista, Colo. (407). Center south line of sec. 34, T.39N., R.9E., N.M.P.M.; about 9 miles east of Monte Vista. Coll. July 18, 1936.
12-37-8	Bowen Drain near Monte Vista, Colo. (408). Sec. 12, T.37N., R.2E., N.M.P.M.; 50 feet below siphon crossing of Empire Canal 10 miles southeast of Monte Vista. No. EE779, coll. June 18, 1936 by W.A.L.; analyzed by the State of Texas; No. 15474 coll. July 7, 1936 by R.H.P.
26-38-9	Bowen Drain at highway, 5 miles northwest of Alamosa, Colo. (408a). Sec. 26, T.38N., R.9E., N.M.P.M.; 5 miles northwest of Alamosa at highway bridge. No gage. Coll. June 27, 1936 by H.A.W.
29-37-10	Waverly Drain near Alamosa, Colo. (412). Sec. 29, T.37N., R.10E., N.M.P.M.; about 3 miles south of Alamosa, at highway crossing from Alamosa to La Jara. No gage. Coll. June 16, 1936 by T.W.R. and C.S.H.; July 14 by T.W.R.; and Nov. 10 by R.H.P.
5-36-9	Carmel Drain above Empire Canal, Colo. Sec. 5, T.36N., R.9E., N.M.P.M. Coll. June 18, 1936 by W.A.L. Analyzed by the State of Texas.

San Luis Valley, Colorado, Surface Waters - 4 -

(Detailed Analyses)

Laboratory No.	Conductance Kx10 <sup>5</sup> @25°C	TDS. tons per acre foot	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Fpm	Milligram equivalent per liter								Index No.
						Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	
EE775	36.6	.31	28	11	--	2.15	.69	1.10	--	2.72	.76	.38	.04	12-41-8
16085	39.8	.38	30	12	36	2.25	.71	1.26	--	2.48	1.23	.48	.01	19-40-11
EE776	43.7	.42	43	12	--	1.83	.74	1.86	.08	2.30	1.65	.56	.01	13-40-9
EE781	53.8	.48	31	12	--	2.82	1.08	1.57	--	2.55	2.45	.70	.00	28-40-10
15317	56.6	--	--	--	--	--	--	--	--	2.88	3.16	.85	--	34-40-11
16089	90.4	.79	66	11	28	1.30	1.97	6.30	--	6.59	1.83	1.07	.00	26-40-11
EE782	102.0	.87	71	12	--	.94	2.36	6.53	1.40	6.72	2.32	1.30	.01	35-40-11
15316	96.2	--	--	--	--	--	--	--	--	6.72	3.06	1.33	--	
16090	77.4	.65	65	13	20	1.20	1.64	5.17	--	5.00	1.92	1.02	.00	
EE778	28.5	.24	26	9	--	1.73	.56	.80	--	2.28	.51	.23	.05	5-39-9
15448	39.4	.37	39	10	43	1.80	.66	1.48	.12	2.68	1.00	.39	tr.	34-39-5
EE779	85.1	.84	30	12	--	5.09	1.54	2.86	--	4.00	4.26	1.12	.06	12-37-8
15444	92.6	.89	31	13	32	5.09	1.73	3.09	.03	3.43	5.27	1.24	.04	
15442	98.1	--	--	--	--	--	--	--	--	2.88	--	.39	--	26-38-5
15318	111.0	--	--	--	--	--	--	--	--	1.97	8.91	1.35	--	29-37-10
15447	174.0	1.70	55	13	29	5.49	2.96	10.35	.14	3.99	13.37	2.51	.01	
16082	148.0	1.74	43	14	41	7.54	3.12	7.99	--	3.15	12.91	2.54	.01	
EE777	112.0	1.18	19	7	--	8.16	2.38	2.48	--	3.00	9.14	.58	.30	5-36-9

\*Includes carbonate (CO<sub>3</sub>)

San Luis Valley, Colorado, Surface Waters - 5 -

(Detailed Analyses)

<u>Index No.</u>	<u>Location and Description</u>
32-37-10	Carmel Drain near Alamosa, Colo. (411). Sec. 32, T.37N., R.10E., N.M.P.M.; about 2-1/2 miles south of Alamosa at highway crossing from Alamosa to La Jara, Colo. No gage. Coll. June 16, 1936 by T.W.R. and C.S.H.; July 14 by T.W.R.
25-36-9	Morgan Drain near La Jara, Colo. (413). Sec. 25, T.36N., R.9E., N.M.P.M.; about 4 miles north of La Jara, at highway crossing between Alamosa and La Jara. No gage. Coll. June 16, 1936 by T.W.R. and C.S.H.; July 14 by T.W.R.
8-35-10	La Jara Drain near Sanford, Colo. (417). Sec. 8, T.35N., R.10E., N.M.P.M.; 400 feet above crossing of Empire Canal; 2 miles north of Sanford. Coll. July 7, 1936 by R.H.P.

San Luis Valley, Colorado, Surface Waters - 5 -

(Detailed Analyses)

Laboratory No.	Conductance K10 <sup>5</sup> @25°C	TDS. tons per acre foot	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter								Index No.
						Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	
1538; 1545;	85.5 119.0	-- 1.24	-- 29	-- 8	-- 16	-- 6.69	-- 2.71	-- 3.65	-- .15	1.18 1.92	7.72 10.06	.68 .90	-- .08	32-37-10
1538; 1569;	310.0 236.0	-- 2.92	-- 23	-- 4.2	-- 35	-- 15.97	-- 6.58	-- 6.52	-- .17	1.25 2.08	28.11 25.77	1.35 1.21	-- .00	25-36-9
1569;	89.7	.86	34	6.2	43	4.59	1.64	2.96	.20	3.23	5.37	.56	.01	8-35-10

\*Includes carbonate (CO<sub>3</sub>)

San Luis Valley, Colorado, Ground Waters

(Detailed analyses)

Index No.	Location and Description
Note: See notes introductory to conductance data on ground waters and to detailed analyses of surface waters. The analyses credited to Siebenthal in the following list have been taken from Geology and water resources of the San Luis Valley, Colo.: U.S. Geol. Survey Water-Supply Paper 240, 1910, and recomputed to conform with the other analyses here reported. Except as otherwise noted, the samples were taken and the analyses were made by the Geological Survey.	
31-46-11	Valley View Hot Springs near Orient, Colo. (Siebenthal). In SW1/4 sec. 31, T.46N., R.11E., (not R.10E., as reported by Siebenthal). Collection date not given; Analyst, Regis Chauvenet.
12-45-9	Mineral Hot Springs, south of Villa Grove, Colo. In NE1/4 sec. 12, T.45N., R.9E. Temp. 134°F. Coll. Aug. 21, 1936 by T.W.R. and H.A.W.
14-44-8	H. B. Woods Artesian well (6K14N1) near Saguache, Colo. In SW1/4 sec. 14, T.44N., R.8E. Five miles southeast of Saguache. Depth, 112 ft.; disch. 2 gpm; Temp. 48.5°F.; (water from Alamosa formation.) Coll. Nov. 25, 1936 by G.M.D.
26-44-8	Shallow well (6K26E1). In SW1/4 of NW1/4 sec. 26, T.44N., R.8E. Temp. 7-22, 57.5°F. Coll. July 22, 1936 by H.A.W.
11-44-9	Frontier Development Co., Artesian well (6L11E1). In NW1/4 sec. 11, T.44N., R.9E. Depth, 244 ft.; diam. 2 in.; disch. 25 gpm. Temp. 48°F. Coll. Nov. 28, 1936 by G.M.D.
35-44-9	J. T. Martin Artesian well (6L35G1). In NE1/4 sec. 35, T.44N., R.9E. Depth, 206 ft.; diam. 2 in.; disch. 20 gpm. Temp. 48°F. (Water from Alamosa formation.) Coll. Dec. 1, 1936 by G.M.D.
7-44-10	Shallow well (6W7R1---X-23). In SE1/4 of SE1/4 sec. 7, T.44N., R.10E. Coll. Nov. 19, 1936 by A.D.G.
31-44-10	C. Biggs Artesian well (6W31K1). In SE1/4 sec. 31, T.44N., R.10E. Depth, 400 ft.; diam. 3 in.; disch. 41.5 gpm. (Water from Alamosa formation at 390 to 400 ft.) Coll. Nov. 25, 1936 by A.D.G. Fluoride 2.6 ppm.
23-43-7	Russell Springs (7J23E1). In NE1/4 sec. 23, T.43N., R.7E. Temp. 60°F. Coll. Aug. 9, 1936 by H.A.W.
4-43-8	Shallow well (7K4N1---E-12). In SW1/4 of SW1/4 sec. 4, T.43N., R.8E. Coll. Nov. 20, 1936 by A.D.G. Fluoride 1.3 ppm.
18-43-8	A. Rosa Bailey Artesian well (7K18E1). In NW1/4 sec. 18, T.43N., R.8E. Depth, 167 ft.; diam. 3 in.; disch. 61 gpm. Temp. 57°F. Coll. Nov. 17, 1936 by H.A.W.
4-43-9	Shallow well (7L4E1---E-5). In SE1/4 of SE1/4 sec. 4, T.43N., R.9E. Coll. Nov. 20, 1936 by A.D.G.
5-43-10	Shallow well (7M5N1---E-1, F-1, X-18). In SW1/4 of SW1/4 sec. 5, T.43N., R.10E. Coll. Nov. 6, 1936 by H.A.W. Fluoride 3.4 ppm.
6-43-10	Denver and Rio Grande Western well (7W6J1). In SE1/4 sec. 6, T.43N., R.10E. Depth, 1045 ft.; diam. 8 in. to 300 ft.; Siebenthal sample not dated; Analyst, Von Schultz and Low. No. 15721. Temp. 67°F. Coll. June 23, 1936. Fluoride 1.3 ppm.

## San Luis Valley, Colorado, Ground Waters

(Detailed Analyses)

Laboratory No.	Conductance Kx10 <sup>5</sup> @25°C	TDS. tons per acre foot	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter									Index No.
						Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO <sub>3</sub> )	Bicarbonate (HCO <sub>3</sub> )	Sulphate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	
Sieb.	--	.42	--	--	18	2.65	1.15	--	.12	4.73	--	1.44	.04	--	31-46-11
15720	100	.90	59	9.8	50	2.99	1.32	5.96	.31	0	5.79	3.56	1.02	0	12-45-9
16121	21.9	.23	32	3.1	37	1.20	.34	.74	--	0	2.00	.19	.07	0	14-44-8
15704	92.7	--	--	--	--	3.99	4.77	--	--	--	10.03	1.00	.08	--	26-44-8
16122	33.2	.29	10	2.1	20	2.15	.82	.34	--	0	2.15	1.08	.07	0	11-44-9
16123	27.4	.26	43	1.1	24	1.25	.32	1.19	--	0	1.64	1.08	.03	0	35-44-9
16069	128	1.30	22	.4	17	7.44	4.03	3.21	--	0	5.61	8.97	.06	0	7-44-10
16124	22.3	.21	74	2.1	21	.46	.16	1.81	--	.20	1.75	.29	.05	0	31-44-10
15782	22.0	.26	32	5.5	13	1.20	.58	.74	.08	0	1.66	.73	.14	0	23-43-7
16079	156	1.40	73	20	32	3.49	.99	11.93	--	0	6.74	6.27	3.33	0	4-43-8
16090	16.2	.21	36	3.6	58	.95	.12	.60	--	.10	1.10	.40	.06	0	18-43-8
16078	38.8	.34	29	4.1	26	2.10	.82	1.22	--	0	3.28	.67	.16	.01	4-43-9
15949	75.7	.71	39	4.1	34	2.25	2.88	3.29	--	0	3.92	3.98	.34	0	5-43-10
Sieb. 15721	-- 28.4	.28 .28	-- 89	-- 5.5	43 50	-- .12	-- .19	2.04 2.39	-- .04	1.93 .53	-- 1.75	-- .40	.08 .16	-- 0	6-43-10

San Luis Valley, Colorado, Ground Waters - 2 -

(Detailed Analyses)

Index No.	Location and Description
6-43-10	Moffat Municipal Artesian well (7M6J2). In SE1/4 sec. 6, T.42N., R.10E. Temp. 52.5°F. Cell. June 15, 1936 by T.W.R. and C.S.H.
7-43-11	Hazard Artesian well (7N7H1). In NE1/4 sec. 7, T.42N., R.11E. (Nash well of Siebenthal). Depth, 865 ft.; (cased to 520 ft.); diam. 3 in. (1 in. at surface); disch. 5.3 gpm. Cell. Nov. 6, 1936 by H.A.W.
8-1-1	San Luis Valley Land & Cattle Co. Artesian well (7N8E1). In NW1/4 sec. 8 T.1N., R.1W. (Baca Grant) (Siebenthal's "well at the sheds" p. 79). Depth, 481 ft.; diam. 3 in.; disch. 8.2 gpm. Temp. 63°F. Cell. Nov. 6, 1936 by H.A.W.
10-43-11	Shallow well (7N10E1). In SE1/4 of SE1/4 sec. 10, T.42N., R.11E. Temp. 11-6, 50°F. Cell. Nov. 6, 1936 by H.A.W.
21-1-1	San Luis Valley Land & Cattle Co. Artesian well (7N21D1). In NW1/4 sec. 21, T.1N., R.1W. (Baca Grant). Diam. 2 in. Temp. 60°F. Cell. Nov. 11, 1936 by J.A.H. Fluoride 2.3 ppm.
25-42-7	Shallow well (9J25A1). In NE1/4 of NE1/4 sec. 25, T.42N., R.7E. Temp. 9-19, 64°F. Cell. Nov. 13, 1936 by G.M.D.
6-42-8	Vic. Crew Artesian well (9K601). In NE1/4 sec. 6, T.42N., R.8E. Depth, 219 ft.; diam. 3 in.; disch. 83 gpm.; W.L. 54 ft. above ground; Temp. 50.5°F. Cell. Oct. 2, 1936 by H.A.W.
11-42-10	Artesian "gas" well (9M11N1). In SW1/4 sec. 11, T.42N., R.10E. Flowing well, brown water with gas. Temp. 55°F. Cell. June 15, 1936 by T.W.R. and C.S.H.
4-1-1	San Luis Valley Land & Cattle Co. Artesian well (9N4C1). In NW1/4 sec. 4, T.1S., R.1W. (Baca Grant). Diam. 2 in.; (1 in. above ground surface). Temp. 58°F. Cell. Nov. 11, 1936 by J.A.H. Fluoride 1.1 ppm.
26-1-1	Artesian well at Antelope Springs (9N26L1). In SW1/4 sec. 26, T.1S., R.1W. (Baca Grant). Diam. 3 in. Temp. 71°F. Cell. Aug. 19, 1936 by A.D.G. Fluoride 5.5 ppm.
27-1-1	Shallow well (9N27Q1---U.S.G.S. 96). In SW1/4 of SE1/4 sec. 27, T.1S., R.1W. (Baca Grant). Cell. Nov. 16, 1936 by A.D.G. Fluoride 1.1 ppm.
31-1-1	January Ranch Artesian well (9N31C1). In NW1/4 sec. 31, T.1S., R.1W. (Baca Grant). Diam. 3 in.; disch. 2.7 gpm. Temp. 48.5°F. Cell. Nov. 6, 1936 by H.A.W.
25-41-7	J. C. Seibert Artesian well (10J25R1). In SE1/4 sec. 25, T.41N., R.7E. Cell. June 15, 1936 by T.W.R. and C.S.H.
27-41-7	Ella Smith Artesian well (10J27A1). In NE1/4 of NE1/4 sec. 27, T.41N., R.7E. Depth, 128 ft.; diam. 2 in.; disch. 2 gpm. Temp. 7-22, 53°F.; 9-18 52°F. Cell. Oct. 14, 1936, by H.A.W.
28-41-7	L. M. Gardner estate Artesian well (10J28A1). In NE1/4 of NE1/4 sec. 28, T.41N., R.7E. Depth, 135 ft.; diam. 2 in. Temp. 7-22, 50.5°F.; 9-18, 50°F. Cell. Oct. 14, 1936 by H.A.W.



San Luis Valley, Colorado, Ground Waters - 2 -

(Detailed Analyses)

Laboratory No.	Conductance Kx10 <sup>5</sup> @25°C	TDS, tons per acre foot	Percent Sodium	Percent Chloride	Silica (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter								Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Index No.
						Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO <sub>3</sub> )	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )				
1537C	20.7	--	--	--	--	--	--	--	--	0	2.07	.15	.17	--	6-43-10	
1594E	14.5	.14	18	1.9	24	1.05	.23	.28	--	0	1.43	.10	.03	0	7-43-11	
16073	20.5	.21	64	3.3	49	.55	.12	1.17	--	.23	1.44	.07	.06	0	8-1-1	
15947	32.0	.32	22	2.6	43	2.35	.64	.84	--	0	3.61	.10	.10	0	10-43-11	
16074	56.4	.51	89	2.2	50	.41	.25	5.59	--	0	5.88	.11	.14	0	21-1-1	
16017	74.6	.65	30	12	46	3.99	1.56	2.36	--	0	5.41	1.56	.93	0	25-42-7	
1583E	18.1	.22	40	3.1	61	.95	.21	.77	--	.13	1.44	.29	.05	.01	6-42-8	
1536E	159	--	--	--	--	--	--	--	--	0	18.13	.08	.82	--	11-42-10	
1607E	54.6	.49	68	5.3	57	1.30	.55	3.95	--	0	5.38	.05	.31	0	4-1-1	
15784	109	1.00	87	2.4	79	.75	.82	10.0	.31	0	11.21	.07	.28	0	26-1-1	
1609E	18.6	.21	75	2.7	45	.36	.10	1.40	--	.23	1.29	.23	.05	0	27-1-1	
1607E	18.6	.19	50	4.2	37	.50	.32	.83	--	0	1.49	.06	.07	0	31-1-1	
1537E	16.6	--	--	--	--	--	--	--	--	0	1.57	.17	.11	0	25-41-7	
15837	17.1	.18	31	6.3	35	1.00	.31	.58	--	0	1.56	.21	.09	.03	27-41-7	
1583E	18.2	.28	28	9.4	34	1.05	.33	.54	--	0	1.51	.23	.13	.05	28-41-7	

San Luis Valley, Colorado, Ground Waters - 3 -

(Detailed Analyses)

Index No.	Location and Description
33-41-7	Claude Burcket well (10J33H1). In SW1/4 of SW1/4 sec. 33, T.41N., R.7E. Depth, 11.5 ft. Temp. 7-17, 51°F.; 9-17, 58°F. Coll. Nov. 16, 1936 by H.A.W. and W.L.L.
6-41-8	Artesian well. In SW1/4 sec. 6, T.41N., R.8E. Coll. June 14, 1936 by W.A.L. Analyzed by the State of Texas.
26-41-9	Shallow well (10L26A1---D-4). In NE1/4 of NE1/4 sec. 26, T.41N., R.9E. Coll. Nov. 18, 1936 by A.D.G.
2-41-10	Shallow well (10M2A1). In NE1/4 of NE1/4 sec. 2, T.41N., R.10E. Coll. Nov. 19, 1936 by H.A.W.
27-41-10	Fred Carson Artesian well (10M27A1). In NE1/4 sec. 27, T.41N., R.10E. At Hooper swimming pool. Depth, (original), 4308 ft.; No. 1536S, Temp. 115°F. Coll. June 15, 1936 by T.W.R. and O.S.H.; No. 15718, Temp. 120°F. Coll. Aug. 19, 1936 by A.D.G. Fluoride 9.0 ppm.
18-41-11	G.W. Clark Artesian well (10N18F1). In NW1/4 sec. 18, T.41N., R.11E. (Siebenthal p.87). Depth, 630 ft.; diam. 3 in.; disch. 14 gpm.; color yellowish brown, abundant gas; Temp. 61°F. Coll. Nov. 6, 1936 by H.A.W. Fluoride 2.4 ppm; boron 0.63 ppm.
14-40-6	Drilled well (11N14B1). In NW1/4 of NE1/4 sec. 14, T.40N., R.6E. Owner not known. Depth reported to be 40 ft.; not artesian; diam. 4 in. Temp. 53°F. Coll. Oct. 12, 1936 by H.A.W.
2-40-7	A.K. Deitrich Artesian well (11J2A1). In NE1/4 of NE1/4 sec. 2, T.40N., R.7E. Depth, 180 ft.; diam. 2 in.; disch. 1 gpm. Temp. 54°F. Coll. Oct. 14, 1936 by H.A.W.
13-40-7	J.C. Hynds Artesian well (11J13C1). In NE1/4 of NW1/4 sec. 13, T.40N., R.7E. Depth, 150 ft.; diam. 2 in. Temp. 53°F. Coll. Oct. 8, 1936 by H.A.W.
13-40-7	Howard Macy Artesian well (11J13R1). In SE1/4 of SE1/4 sec. 13, T.40N., R.7E. Depth, 123 ft.; diam. 2 in. Temp. 50.5°F. Coll. Oct. 14, 1936 by H.A.W.
13-40-7	Howard Macy Artesian well #2 (11J13R2). In SE1/4 of SE1/4 sec. 13, T.40N., R.7E. Depth, 173 ft.; diam. 2 in.; disch. 3 gpm. Temp. 53.5°F. Coll. Oct. 8, 1936 by H.A.W.
14-40-7	J.H. Boats Artesian well (11J14B1). In SE1/4 of SW1/4 sec. 14, T.40N., R.7E. Depth, 145 ft.; diam. 2 in. Non-flowing, W.S. 5.12 ft. below G.S. Temp. 52°F. Coll. Oct. 14, 1936 by H.A.W.
23-40-7	Anna McCormick Artesian well (11J23B1). In SE1/4 of NE1/4 sec. 23, T.40N., R.7E. Depth, 150.5 ft.; diam. 4 in.; W.L. 3.65 ft. below G.S. Temp. 50°F. Coll. Oct. 14, 1936 by H.A.W.
25-40-7	J. W. Schaefer irrigation well (11J25B1). In NW1/4 sec. 25, T.40N., R.7E. Depth, 54 ft. Temp. 50.5°F. Coll. Aug. 24, 1936 by H.A.W.
25-40-7	Roy McConnell Artesian well (11J25B1). In SE1/4 of SE1/4 sec. 25, T.40N., R.7E. Depth, 207 ft.; diam. 2 in. W.S. 1.0 ft. above G.S.; Temp. 51°F. Coll. Oct. 14, 1936 by H.A.W.

## San Luis Valley, Colorado, Ground Waters - 3 -

## (Detailed Analyses)

Laboratory No.	Conductance Kx10 <sup>5</sup> @25°C	TDS, tons per acre foot	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Fm	Milligram equivalent per liter									Index No.
						Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Car- bonate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	
16125	27.5	.26	11	1.0	35	2.05	.57	.34	--	0	2.72	.16	.03	0	33-41-7
EE780	19.1	.15	21	5	--	1.13	.43	.40	.02	tr.	1.70	.19	.09	0	6-41-8
16086	110	1.00	51	11	45	3.74	2.06	6.10	--	0	6.59	4.00	1.30	0	26-41-9
16091	87.9	.75	97	6.9	13	.17	.16	9.55	--	1.13	7.87	.20	.68	0	2-41-10
15368	37.3	--	--	--	--	--	--	--	--	--	2.72	1.35	.28	0	27-41-10
15718	39.2	.46	87	5.6	118	.37	.16	3.48	.14	.60	2.38	.46	.23	0	
15950	191	1.73	93	0.7	58	.47	1.15	21.04	--	0	22.32	.05	.16	0	18-41-11
15883	26.8	.26	18	1.4	29	1.90	.43	.50	--	0	2.57	.20	.03	.01	14-40-6
15845	16.6	.17	21	4.9	33	1.10	.35	.37	--	0	1.52	.21	.08	.01	2-40-7
15839	15.4	.16	19	7.4	34	1.00	.32	.30	--	0	1.29	.21	.09	.03	13-40-7
15840	16.5	.17	20	15	34	1.05	.31	.33	--	0	1.18	.25	.17	.09	13-40-7
15841	18.0	.19	21	22	35	1.10	.38	.39	--	0	1.15	.29	.25	.16	13-40-7
15842	13.0	.16	25	4.3	46	.70	.34	.34	--	0	1.16	.15	.05	.01	14-40-7
15843	22.2	.22	14	17	33	1.50	.43	.32	--	0	1.33	.52	.25	.14	23-40-7
15719	19.2	.18	33	2.6	30	1.05	.30	.61	.07	0	1.67	.21	.04	.01	25-40-7
15844	11.6	.12	21	2.4	29	.75	.25	.26	--	0	1.08	.15	.03	0	25-40-7

San Luis Valley, Colorado, Ground Waters - 4 -

(Detailed Analyses)

<u>Index No.</u>	<u>Location and Description</u>
30-40-7	Chester Mathias irrigation well (11J30G1). In NW1/4 sec. 30, T.40N., R.7E. (Well not completed at time of sampling.) Temp. 62°F. Coll. Aug. 24, 1936 by H.A.W. Fluoride 1.2 ppm.
16-40-8	Shallow well (11K16R1). In SE1/4 of SE1/4 sec. 16, T.40N., R.8E. Coll. Nov. 17, 1936 by H.A.W.
17-40-8	Harlan Scott Artesian well (11K17Q1). In SW1/4 of SE1/4 sec. 17, T.40N., R.8E. Depth, 164 ft.; diam. 2 in.; disch. 16 gpm. Temp. 54°F. Coll. Oct. 19, 1936 by H.A.W.
28-40-8	Chris. Selters irrigation well (11K28M1). In SW1/4 sec. 28, T.40N., R.8E. Depth, 32 ft.; Temp. 60°F. Coll. Aug. 24, 1936 by H.A.W.
7-40-9	Walker Myers Artesian well (11L7E1). In SW1/4 of NW1/4 sec. 7, T.40N., R.9E. Reported depth 250 ft.; cased 220 ft.; diam. 2 in.; disch. 37.5 gpm. Temp. 8-12, 55°F. Coll. Oct. 19, 1936 by H.A.W.
16-40-9	Chas. Speiser Artesian well (11L16D1). In NW1/4 sec. 16, T.40N., R.9E. Depth, 180 ft.; diam. 3 in.; disch. 3 gpm. Temp. 53°F. Coll. Oct. 27, 1936 by H.A.W.
16-40-9	Chas. Speiser Artesian well (11L16D3). In NW1/4 sec. 16, T.40N., R.9E. Depth, 260 ft.; cased to 220 ft.; diam. 2 in.; disch. 3 gpm.; slight sulphur taste; Temp. 56°F. Coll. Oct. 27, 1936 by H.A.W.
16-40-9	Chas. Speiser Artesian well (11L16D4). In NW1/4 sec. 16, T.40N., R.9E. Depth, 710 ft.; cased to 420 ft.; diam. 3 in.; disch. 125 gpm.; slight sulphur taste; Temp. 62°F. Coll. Oct. 27, 1936 by H.A.W.
17-40-9	John Harman irrigation well (11L17N2). In SW1/4 sec. 17, T.40N., R.9E. Depth, 30 ft.; diam. 22 in.; Temp. 59.5°F. Coll. Aug. 24, 1936 by H.A.W.
19-40-9	Carl Saathoff Artesian well (11L19N1). In SW1/4 of SW1/4 sec. 19, T.40N., R.9E. Depth, 303 ft.; cased 245 ft.; diam. 2 in.; disch. 5 gpm. Temp. 56°F. Coll. Oct. 19, 1936 by H.A.W.
2-40-10	Shallow well (11M2D1--C-3, Y-1). In NW1/4 of NW1/4 sec. 2, T.40N., R.10E. Coll. Nov. 14, 1936 by A.D.G.
2-40-10	Mrs. Lutz Artesian well (11M2E1). In NW1/4 sec. 2, T.40N., R.10E. Depth, 200-225 ft.; disch. 3 gpm.; brownish tint. Temp. 58.5°F. Coll. Oct. 13, 1936 by H.A.W. Fluoride 4.3 ppm.
4-40-10	Denver and Rio Grande Artesian well (11M4E1). In NE1/4 sec. 4, T.40N., R.10E. Depth, 614 ft.; diam. 4 in.; Siebenthal data not given; disch. 50 gpm. brown; Analyst. Von Schultz and Low; No. 15440, well shut off. Temp. 60°F. Coll. June 23, 1936 by H.A.W. Fluoride 3.7 ppm.; boren 1.28 ppm.
4-40-10	Colorado Milling and Elevator Co. Artesian well (11M4E2). In NE1/4 sec. 4, T.40N., R.10E. Depth, 740 ft.; diam. 4.5 in.; Siebenthal. Coll. Oct. 14, 1897; disch. 70 gpm., brownish tint. Temp. 69°F. Analyst. Dearborn Drug and Chemical Co. No. 15439, well shut off. Temp. 64°F. Coll. June 23, 1936 by H.A.W. Fluoride 3.1 ppm.; boren 2.34 ppm. No. 15921 after 2-1/2 days of flow, Temp. 70.5°F. Coll. Oct. 26, 1936 by H.A.W. Fluoride 5.8 ppm.; boren 2.34 ppm.

San Luis Valley, Colorado, Ground Waters - 4 -

(Detailed Analyses)

Laboratory No.	Conductance Kilohms @25°C	TDS. tons per acre foot	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter									Index No.
						Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Car- bonate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	
15723	15.8	.17	23	2.9	28	.95	.41	.31	.09	0	1.41	.19	.05	0	30-40-7
16087	44.7	.38	27	5.3	27	2.15	1.32	1.29	--	0	3.97	.52	.25	0	16-40-8
15920	13.1	.15	15	2.2	24	.80	.35	.20	--	0	1.15	.13	.03	0	17-40-8
15725	26.1	.21	31	5.5	30	1.35	.07	.57	.08	0	1.70	.35	.10	.02	28-40-8
15925	14.1	.19	27	2.0	60	1.00	.09	.40	--	0	1.31	.14	.03	0	7-40-9
15927	14.9	.18	32	1.9	53	.95	.11	.50	--	.13	1.28	.11	.03	0	16-40-9
15928	12.8	.16	47	2.3	52	.65	.06	.62	--	.13	1.02	.14	.03	0	16-40-9
15929	13.5	.19	13	2.0	61	.22	.06	.19	--	.47	.72	.23	.03	0	16-40-9
15783	31.8	.30	36	10	37	1.65	.58	1.09	.15	0	2.25	.73	.34	0	17-40-9
15931	12.3	.17	31	2.4	57	.80	.07	.40	--	0	1.11	.12	.03	0	19-40-9
16178	127	1.15	75	13	--	1.95	1.32	10.05	--	0	5.18	6.39	1.75	0	2-40-10
15880	90.6	.83	96	2.5	43	.16	.26	10.63	--	.50	9.31	.73	.28	0	2-40-10
Steb. 15440	169	1.51 1.63	99	.93	38 57	-- .18	-- .10	17.74 21.05	-- .12	17.67 2.63	-- 18.19	-- .08	.06 .20	-- tr.	4-40-10
Steb. 15439 15921	-- 218 227	-- 2.12 2.11	99 98 98	.9 .81 .7	76 63 60	.13 .22 .19	.16 .27 .32	22.61 26.79 27.28	-- .26 --	22.63 3.17 0	-- 24.14 27.21	0 .05 .07	.21 .23 .20	-- tr. 0	4-40-10

San Luis Valley, Colorado, Ground Waters - 5 -

(Detailed Analyses)

Index No.	Location and Description
4-40-10	E.P. Wagner Artesian well (11M4H1). In NE1/4 sec. 4, T.40N., R.10E. Depth, 400 ft.; disch. 0.8 gpm.; light brownish tint; Temp. 56°F. Coll. Oct. 13, 1936 by H.A.W. Fluoride 2.1 ppm.
7-40-10	Cline Maddox Artesian well (11M7W1). In SW1/4 sec. 7, T.40N., R.10E. Depth, 170 ft.; disch. 0.9 gpm.; water clear; Temp. 54°F. Coll. Oct. 13, 1936 by H.A.W.
17-40-10	O.M. Wolfe well (11M17N2). In SW1/4 sec. 17, T.40N., R.10E. Depth, 35 ft. Temp. 59°F. Clear except for flocculent iron rust. Coll. Aug. 24, 1936 by H.A.W.
21-40-10	Shallow well (11M21D1). In NW1/4 of NW1/4 sec. 21, T.40N., R.10E. Coll. Nov. 17, 1936 by A.D.G.
36-40-10	Shallow well (11M36N1--A-2). In SW1/4 of SW1/4 sec. 36, T.40N., R.10E. Coll. Nov. 13, 1936 by A.D.G. Fluoride 1.4 ppm.
4-40-11	J. H. Oliver Artesian well (11N4W1). In SW1/4 sec. 4, T.40N., R.11E. Depth, 270 ft.; cased 230 ft.; diam. 2 in.; disch. 4.6 gpm.; light brown color; with gas; Temp. 56°F. Coll. Oct. 21, 1936 by H.A.W. Fluoride 1.8 ppm.; boron 0.91 ppm.
9-40-11	J. H. Oliver Artesian well (11N9D1). In NW1/4 sec. 9, T.40N., R.11E. Depth, 300-350 ft.; diam. 2 in.; disch. 1.2 gpm.; faint brown color; with gas; Temp. 57°F. Coll. Oct. 22, 1936 by H.A.W. Fluoride 2.8 ppm.; boron 1.4 ppm.
13-40-11	Shallow well (11N13D2--C-11). In NW1/4 of NW1/4 sec. 13, T.40N., R.11N. Coll. Nov. 14, 1936 by A.D.G. Fluoride 3.0 ppm.
26-40-11	Shallow well (11N26E1--B-2). In NW1/4 of NE1/4 sec. 26, T.40N., R.11E. Coll. Nov. 14, 1936 by A.D.G. Fluoride 24 ppm.; boron 0.97 ppm.
32-40-11	Drilled well (11N32E1). In SE1/4 of SE1/4 sec. 32, T.40N., R.11E. Depth, 93.5 ft.; diam. 2 in.; non-flowing artesian well; water slightly brown; coll. Oct. 13, 1936 by A.D.G. Fluoride 4.1 ppm.; boron 0.56 ppm.
33-40-11	Shallow well (11N33N1--A-5). In SW1/4 of SW1/4 sec. 33, T.40N., R.11E. Coll. Nov. 13, 1936 by A.D.G. Fluoride 20 ppm.; boron 2.40 ppm.
35-40-11	Shallow well (11N35L1--S-1). In SW1/4 sec. 35, T.40N., R.11E.; at south end of San Luis Lake. No. 15365 coll. June 15, 1936 by T.W.R. and C.S.H. No. 15705 coll. June 1936.
35-40-11	San Luis Lakes Gun Club Artesian well (11N35E1). In SE1/4 sec. 35, T.40N., R.11E. Depth, 360 ft.; diam. 2 in.; disch. 0.33 gpm.; water clear with some gas; Temp. 57°F. No. 15421 coll. June 15, 1936 by T.W.R. and C.S.H. No. 15922 coll. Oct. 28, 1936 by H.A.W. Fluoride 1.8 ppm.; boron 1.38 ppm.
7-40-12	Shallow well (11Q7E1--C-13). In SE1/4 of SE1/4 sec. 7, T.40N., R.12E. Water light brown color. Coll. Nov. 14, 1936 by A.D.G. Fluoride 1.8 ppm.
12-40-12	Medano Ranch Spring (11Q12L1). In SW1/4 sec. 12, T.40N., R.12E. Probably represents water from Medano Creek. Coll. Aug. 19, 1936 by A.D.G.

San Luis Valley, Colorado, Ground Waters - 5 -

(Detailed Analyses)

Laboratory No.	Conductance Kx10 <sup>5</sup> @25°C	TDS. tons per acre foot	Percent Sodium	Percent Chloride	Silica (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter								Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Index No.
						Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO <sub>3</sub> )	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )				
15881	42.9	.40	94	1.7	48	.09	.20	4.33	--	1.87	2.43	.13	.08	0	4-40-10	
15882	21.9	.24	86	1.8	50	.22	.11	1.94	--	1.03	1.02	.17	.04	0	7-40-10	
15722	40.7	.37	16	15	25	2.25	1.07	.43	.18	0	1.26	1.96	.59	0	17-40-10	
16179	78.4	.70	43	31	--	2.75	1.89	3.43	--	0	4.25	1.31	1.10	1.39	21-40-10	
16018	91.2	.82	71	8.7	38	1.55	1.23	6.94	--	0	6.11	2.69	.85	0	36-40-10	
15923	151	1.38	94	1.3	58	.39	.65	16.88	--	.33	17.15	.12	.23	0	4-40-11	
15924	182	1.63	97	2.5	54	.22	.39	21.05	--	.87	20.00	.10	.54	0	9-40-11	
16081	54.1	.53	39	3.1	70	2.25	1.32	2.27	--	0	5.41	.09	.18	0	13-40-11	
16096	342	3.38	91	2.2	58	1.15	2.47	35.66	--	.67	35.27	1.21	.87	0	26-40-11	
15884	197	1.80	96	2.4	51	.38	.61	22.34	--	.77	21.67	.12	.54	.01	32-40-11	
16019	1560	16.25	99	14	18	.20	1.32	200.19	--	18.70	106.87	46.99	28.06	.04	33-40-11	
15365	414	--	--	--	--	--	--	--	--	0	32.49	11.64	--	--	35-40-11	
15705	479	--	--	--	--	--	--	--	--	--	42.29	--	6.49	--		
15421	--	--	--	--	--	--	--	--	--	0	21.85	.10	.39	--	35-40-11	
15922	192	1.72	95	1.7	59	.31	.82	22.17	--	0	22.70	.12	.39	0		
16080	125	1.33	67	5.9	64	5.89	5.10	10.99	--	0	13.85	1.39	.87	.09	7-40-12	
15785	22.6	.24	33	6.5	44	1.05	.52	.57	.20	0	1.69	.33	.12	.02	12-40-12	

San Luis Valley, Colorado, Ground Waters - 6 -

(Detailed Analyses)

Index No.	Location and Description
17-40-12	Medano Ranch Artesian well (11Q1701). In NW1/4 sec. 17, T.40N., R.12E. Depth, 225-250 ft.; diam. 2 in.; disch. 5.5 gpm.; clear; Temp. 51.5°F. Coll. Oct. 21, 1936 by H.A.W.
17-40-12	Shallow well (11Q1702---C-14). In SW1/4 of NW1/4 sec. 17, T.40N., R.12E. At Medano Ranch headquarters. Temp. 8-19, 60°F. Coll. June 1936.
30-40-12	Soda Lake (11Q30). In SE1/4 sec. 30, T.40N., R.12E. One fourth mile east of San Luis Lake. Coll. Nov. 14, 1936 by T.W.R., E.L., and W.L.L. Fluoride 180 ppm.; boron 7.4 ppm.
10-39-7	John Dennis Artesian well (12J10E1). In SW1/4 of NW1/4 sec. 10, T.39N., R.7E. Depth, 165 ft.; diam. 4 in. for 6 ft. then 2 in.; non-flowing. Temp. 50.5°F. Coll. Oct. 19, 1936 by H.A.W.
12-39-7	Lyman Wright Artesian well (12J12E1). In SE1/4 of SW1/4 sec. 12, T.39N., R.7E. Depth, 138 ft.; diam. 2 in. Flows intermittently. Temp. 48.5°F. Coll. Oct. 14, 1936 by H.A.W.
13-39-7	H. A. Mathias Artesian well (12J13C1). In NE1/4 of NW1/4 sec. 13, T.39N., R.7E. Depth, 159 ft.; diam. 2 in. Flows intermittently. Temp. 48.5°F. Coll. Oct. 13, 1936 by H.A.W.
26-39-7	Frank C. Seyfried Artesian well (12J26D1). In NW1/4 of NW1/4 sec. 26, T.39N., R.7E. Depth, 168 ft.; diam. 2 in. Temp. 48°F. Coll. Oct. 14, 1936 by H.A.W.
36-39-7	Colorado Milling and Elevator Co. Artesian well (12J36H1). In NE1/4 sec. 36, T.39N., R.7E. Depth, 302 ft.; diam. 6 in., 4.5 in., and 3 in.; Siebenthal. Coll. March 1897. Analyst, Dearborn Drug and Chemical Co. No. 15433. Temp. 49°F. Coll. June 27, 1936 by H.A.W.
6-39-8	Van Ostrand Artesian, Recorder, Well (12E601). In NE1/4 of NW1/4 sec. 6, T.39N., R.8E. Depth, 150 ft.; diam. 2 in.; disch. 3 gpm. Temp. 50°F. Coll. Oct. 20, 1936 by H.A.W.
4-39-9	Shallow well (12L4E1---B-8). In SE1/4 of SE1/4 sec. 4, T.39N., R.9E. Coll. Nov. 16, 1936 by A.D.G.
7-39-9	F. Scheal Artesian well (12L7H1). In SW1/4 sec. 7, T.39N., R.9E. Depth, 359 ft.; diam. 2 in.; disch. 25 gpm. Temp. 55.5°F. Coll. Dec. 9, 1936 by G.W.D.
1-39-10	Peltcher Artesian well (12M1E1). In SE1/4 of SE1/4 sec. 1, T.39N., R.10E. Depth, 496 ft.; diam. 5-3/16 in.; disch. 1 gpm.; Brown water; Temp. 53.5°F. Coll. Oct. 13, 1936 by A.D.G. Fluoride 5.0 ppm.; boron 2.91 ppm.
3-39-10	Mosca "Town well". In Sec. 3, T.39N., R.10E. According to Siebenthal depth 400 ft.; date not given; Analyst: W.F. Headen.
3-39-10	Hampton Estate Artesian well (12M3F1). In SW1/4 sec. 3, T.39N., R.10E. Depth, 600 ft.; diam. 4 in.; Siebenthal coll. Feb. 3, 1904; Analyst: Dearborn Drug and Chemical Co. No. 15438, disch. 146 gpm (said to be partially plugged); Temp. 69°F. Coll. June 24, 1936 by H.A.W. Fluoride 3.9 ppm.; boron 2.07 ppm.
16-39-10	Shallow well (12M16W1). In SW1/4 of SW1/4 sec. 16, T.39N., R.10E. Coll. Nov. 17, 1936 by A.D.G.



San Luis Valley, Colorado, Ground Waters - 6 -

(Detailed Analyses)

Laboratory No.	Conductance Kx10 <sup>5</sup> @25°C	TDS. tons per acre foot	Percent Sodium	Percent Chloride	Silica (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter								Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Index No.
						Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO <sub>3</sub> )	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )				
15930	27.7	.29	79	1.6	57	.42	.24	2.41	--	0	2.95	.04	.05	0	17-40-12	
15706	70.3	--	--	--	--	--	--	--	--	--	6.23	--	.45	--	17-40-12	
16077	8170	125.5	100	3.7	320	.13	.82	1795.6	--	1409.67	268.0	42.34	67.07	--	30-40-12	
16021	23.9	.25	10	12	36	1.75	.45	.25	--	0	1.49	.67	.23	.06	10-39-7	
15885	12.1	.09	28	1.7	9.4	.75	.10	.33	--	0	1.10	.05	.02	0	12-39-7	
15888	13.8	.14	12	3.1	27	.85	.29	.16	--	0	1.16	.09	.04	0	13-39-7	
15886	16.3	.18	7.3	4.2	29	1.20	.33	.12	--	0	1.41	.16	.04	.03	26-39-7	
Sieb. 15433	-- 18.1	.21 .32	48 40	9.7 2.7	42 110	.95 1.10	.19 .16	1.04 .78	-- .05	1.90 1.33	0 .51	.05 .10	.21 .06	-- .07	36-39-7	
15926	13.7	.14	14	2.1	34	.90	.31	.20	--	0	1.25	.12	.03	0	6-39-8	
16181	56.6	.56	81	7.0	--	.85	.32	5.11	--	0	5.10	.69	.39	.05	4-39-9	
16180	12.4	.17	41	2.0	--	.80	.08	.62	--	.23	1.07	.17	.03	0	7-39-9	
15887	335	3.16	98	2.3	50	.28	.72	40.55	--	0	40.21	.14	.93	.01	1-39-10	
Sieb. 15438	-- 179	1.48 1.93 1.74	99 98 98	-- 75 .62	64 66 61	.16 .26 .19	.07 .33 .18	16.92 24.87 22.39	.21 -- .20	17.50 25.17 1.70	-- -- 20.46	-- .06 .08	-- .19 .14	-- 0 tr	3-39-10	
16095	149	1.51	28	21	49	8.49	3.37	4.65	--	0	3.43	9.62	3.44	0	16-39-10	

San Luis Valley, Colorado, Ground Waters - 7 -

(Detailed Analyses)

Index No.	Location and Description
26-39-10	Geo. Poen drilled well (12M26E1). In NW1/4 sec. 26, T.39N., R.10E. Siebenthal "Andersen Ranch" well, depth, 500 ft. Coll. Feb. 3, 1904; Analyst: Dearborn Drug and Chemical Co. No. 15703; diam. 2 in.; Water had stood in casing for over 2 years; coll. June 29, 1936 by H.A.W.
35-39-10	Drilled well. In Sec. 35, T.39N., R.10E. Siebenthal: Depth, 500 ft.; owner and date not given; Analyst: W.F. Headen.
13-39-11	Shallow well 1E (12N13E1). In SE1/4 sec. 13, T.39N., R.11E.; in Alkali Lake. Coll. Aug. 3, 1936 by T.W.R. Fluoride 9.0 ppm.
23-39-11	Shallow well, Colorado. (12E23W1). In SW1/4 of SW1/4 sec. 23, T.39N., R.11E. Coll. Nov. 11, 1936 by A.D.G. Fluoride 10.0 ppm.; boron 5.73 ppm.
12-38-8	Canal Seepage at Tule Experiment Station (13K12A1). In NW1/4 sec. 12, T.38N., R.8E. Coll. Aug. 20, 1936 by H.B.W. Fluoride 1.7 ppm.
31-38-8	Vernon Elliott Artesian well (13K31F1). In NW1/4 sec. 31, T.38N., R.8W. Depth, 105 ft.; diam. 2 in.; disch. 10 gpm. Coll. Nov. 18, 1936 by H.A.W.
23-38-9	W.J. Wallace drilled well (13L23W1). In NW1/4 sec. 23, T.38N., R.9E. Depth, 850 ft.; Temp. 57°F. Coll. Oct. 24, 1936 by H.A.W. Fluoride 2.4 ppm.
21-38-10	Blanca Farm Artesian well (13M21H1). In NE1/4 sec. 21, T.38N., R.10E. Depth, 840 ft.; diam. 4 in. to 40 ft. then 3 in. Siebenthal, Coll. Feb. 3, 1904; Analyst: Dearborn Drug and Chemical Co.; No. 15436, Temp. 74°F. Coll. June 24, 1936 by H.A.W. Fluoride 2.3 ppm.
23-38-10	Thraasher Artesian well (13M23W1). In SW1/4 sec. 23, T.38N., R.10E. Depth, 865 ft. cased to 808 ft.; diam. 2 in.; disch. 50 gpm. Temp. 70°F. Coll. Dec. 9, 1936 by G.M.D. Fluoride 3.4 ppm.
35-38-10	Shallow well (13M35D1---Y-18). In NW1/4 of NW1/4 sec. 35, T.38N., R.10E. Coll. Nov. 11, 1936 by A.D.G.
8-38-11	Artesian well (13M8E1). In NW1/4 sec. 8, T.38N., R.11E. Depth, 800 ft.; diam. 3 in.; Siebenthal, Coll. Feb. 3, 1904; disch. 90 gpm.; light yellowish tint; Temp. 71°F. Analyst: Dearborn Drug and Chemical Co. No. 15437, casing top below pool surface, Temp. 76°F. (pool water, probably warmer than well water). Coll. June 24, 1936 by H.A.W. Fluoride 7.2 ppm.
27-38-11	H.D. Berkman Artesian well (13M27R2). In SE1/4 sec. 27, T.38N., R.11E. Depth, 340 ft.; diam. 2 in.; disch. 30 gpm. Temp. 59°F. Coll. Dec. 9, 1936 by G.M.D. Fluoride 3.3 ppm.
2-38-12	C.M. King Artesian well (13Q2V1). In SE1/4 sec. 2, T.38N., R.12E. (See Siebenthal, p.80 for log of well.) Depth, 300 ft.; Temp. 55°F. Coll. Oct. 29, 1936 by H.A.W.
14-38-12	E.T. Dow Artesian well (13Q14E1). In NW1/4 sec. 14, T.38N., R.12E. Depth, 168 ft.; diam. 2 in.; disch. 0.25 gpm. Coll. Nov. 9, 1936 by A.D.G.
14-38-12	E.T. Dow drilled well (13Q14F1). In NW1/4 sec. 14, T.38N., R.12E. Depth, 181 ft. Coll. Nov. 9, 1936 by A.D.G.

## San Luis Valley, Colorado, Ground Waters - 7 -

(Detailed Analyses)

Laboratory No.	Conductance Kx10 <sup>5</sup> @25°C	TDS. tons per acre foot	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter										Index No.
						Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- ium (K)	Car- bonate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )		
Steb. 15703	— 89.7	1.91 .75	95 98	.75 1	50 12	.46 .06	.90 .17	24.13 9.43	— —	25.30 0	— 9.38	0 .20	.19 .08	— 0	26-39-10 26-39-10	
Steb.	—	2.00	94	1.1	54	.48	.99	24.09	—	25.00	—	.04	.28	—	35-39-10	
17724	723	6.59	99	20	88	.14	.36	74.80	5.60	33.27	19.26	11.49	16.39	.02	13-39-11	
16020	1310	13.03	99	17	10	.60	.82	163.17	—	19.03	79.17	38.35	27.50	.01	23-39-11	
15786	40.5	.38	27	2.4	36	2.50	.82	1.09	.15	0	3.97	.35	.11	0	12-38-8	
16089	19.1	.20	17	3.9	45	1.10	.60	.36	—	0	1.79	.17	.04	.04	31-38-8	
16022	53	.54	91	2.2	79	.43	.07	5.36	—	0	5.33	.27	.12	.01	23-38-9	
Steb. 15436	— 32.1	.33 .38	91 91	5.9 1.5	60 80	.26 .26	.03 .05	2.91 3.17	— .05	2.80 .30	— 2.93	.23 .23	.19 .06	— .01	21-38-10 21-38-10	
16185	32.8	.41	90	1.4	—	.32	.10	3.80	—	.43	3.26	.29	.06	0	23-38-10	
16023	66.5	.64	63	8.7	42	1.95	.99	4.96	—	0	5.69	1.48	.68	.01	35-38-10	
Steb. 15437	— 58.8	.54 .62	89 88	23 27	48 62	.48 .55	.22 .18	5.65 5.52	— .05	4.60 0	— 4.21	.25 .09	1.44 1.75	— tr.	8-38-11 8-38-11	
16184	24.6	.25	83	23	—	.42	.08	2.43	—	.26	1.72	.10	.68	0	27-38-11	
16025	9.3	.10	21	3.1	20	.70	.07	.20	—	0	.87	.07	.02	.01	2-38-12	
16186	9.3	.09	15	1.9	—	.75	.13	.15	—	.20	.69	.11	.02	0	14-38-12	
16024	9.1	.10	34	3.3	27	.55	.06	.31	—	.13	.67	.08	.02	.01	14-38-12	

(209)

San Luis Valley, Colorado, Ground Waters - 8 -

(Detailed Analyses)

Index No.	Location and Description
20-38-12	Shallow well (13Q20W1). In SW1/4 of SW1/4 sec. 20, T.38N., R.12E. Temp. 51°F. Coll. Nov. 5, 1936 by H.A.W.
30-38-12	Stone Ranch Artesian well (13Q30R1). In SE1/4 sec. 30, T.38N., R.12E. Diam. 3 in.; disch. 24 gpm. (W.L. 12.5 ft. above G.S.) Temp. 55.5°F. Coll. Nov. 5, 1936 by H.A.W.
7-37-8	Artesian well (14K7E1). In NW1/4 sec. 7, T.37N., R.3E. Coll. June 16, 1936 by T.W.R. and C.S.H.
14-37-8	H. O. Wagner Irrigation well (14K14D1). In NW1/4 sec. 14, T.37N., R.3E. Depth 9.0 ft., diam. 4x6.5 ft. Coll. Nov. 18, 1936 by H.A.W.
25-37-8	L.V. Goff Artesian well (14K25W4). In SW1/4 of NW1/4 sec. 25, T.37N., R. 3E. Depth, 120 ft.; diam. 4 in.; disch. 30 gpm. Temp. 53°F. Coll. Sept. 25, 1936 by H.A.W.
11-37-9	Shallow well (14L11R1). In SE1/4 of SE1/4 sec. 11, T.37N., R.3E. Yellow water Coll. Nov. 12, 1936 by H.A.W. Fluoride 2.4 ppm.
18-37-9	Shallow well (14L18A1). In NW1/4 of NE1/4 sec. 18, T.37N., R.3E. Water yellow and cloudy; coll. Nov. 10, 1936 by H.A.W. Fluoride 3.5 ppm.; boron 3.2 ppm.
3-37-10	T.W. Robinson Artesian well (14M3Q1). In SE1/4 sec. 3, T.37N., R.10E. Depth, 800-900 ft.; diam. 3 in.; Temp. 68°F. Coll. Dec. 10, 1936 by G.M.D. Fluoride 1.9 ppm.
10-37-10	A.R. Norton Artesian well (14M10A1). In NE1/4 sec. 10, T.37N., R.10E. Siebenthal: "Bucher well + 1000 ft." Siebenthal (1) Date of sample not reported, analyst: W.F. Headden; Siebenthal (2) Date of sample and analyst not reported. No. 15434. Depth, (measured in 1935) 833 ft.; diam. 6 in. inside 8 in. Temp. 76°F. Coll. June 24, 1936 by H.A.W. No. 15769, coll. Sept. 25, 1936 by H.A.W.
10-37-10	Alamosa Town well, artesian (14M10D1). In NW1/4 sec. 10, T.37N., R.10E. Depth, 865 ft.; diam. 6 in.; No. 15431, Temp. 72°F. Coll. June 24, 1936 by H.A.W. Fluoride 1.3 ppm; No. 15770, Temp. 73°F. Coll. Sept. 25, 1936 by H.A.W. Fluoride 0.9 ppm.
10-37-10	Alamosa Milling and Elevator Co. Artesian well (14M10E1). In SW1/4 sec. 10, T.37N., R.10E. Siebenthal: Depth, 680 ft. Temp. 69°F. Coll. Apr. 19, 1893; Analyst: Dearborn Drug and Chemical Co. No. 15432, Depth, 700 ft.; diam. 3 in.; disch. 30 gpm. Temp. 70°F. Coll. June 24, 1936 by H.A.W. Fluoride 2.3 ppm.
10-37-10	McNielland Artesian well. In Sec. 10, T. 37N., R. 10E. Siebenthal: Location, depth and date not reported; Analyst: W. F. Headden.
24-37-10	Shallow well (14M24W1). In SW1/4 of SW1/4 sec. 24, T.37N., R.10E. Coll. Nov. 6, 1936 by G.M.D. Fluoride 2.2 ppm.
1-37-11	T.C. Shepard Artesian well (14N1Q1). In SE1/4 sec. 1, T.37N., R.11E. Depth, 115 ft. cased to 40 ft.; diam. 3 in.; disch. 21 gpm. Coll. Oct. 9, 1936 by A.D.G.

San Luis Valley, Colorado, Ground Waters - 8 -

(Detailed Analyses)

Laboratory No.	Conductance, $\text{K}\times 10^5$ @ 25°C	TDS, tons per acre foot	Percent Sodium	Percent Chloride	Silica ( $\text{SiO}_2$ ) Ppm	Milligram equivalent per liter								Chloride (Cl)	Nitrate ( $\text{NO}_3$ )	Index No.
						Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate ( $\text{CO}_3$ )	Bicarbonate ( $\text{HCO}_3$ )	Sulfate ( $\text{SO}_4$ )				
15943	94.8	.80	95	28	38	.33	.16	9.15	--	.33	5.23	1.37	2.68	0	20-38-12	
15945	8.47	.13	50	4.5	47	.38	.06	.44	--	.26	.49	.08	.03	.01	30-38-12	
15375	18.5	--	--	--	--	--	--	--	--	0	1.74	.17	.08	--	7-37-8	
16088	85.3	.81	31	11	44	4.89	1.56	2.92	--	0	4.75	3.52	1.02	.05	14-37-8	
15889	24.2	.28	24	3.4	52	1.45	.35	.56	--	0	1.62	.65	.06	.02	25-37-8	
16031	329	2.97	93	16	30	1.	1.73	34.88	--	0	24.23	7.10	6.15	0	11-37-9	
16028	3040	39	81	23	37	23.86	57.65	355.45	--	0	21.54	316.25	98.99	--	18-37-9	
16126	24.9	.30	80	1.8	71	.34	.20	2.17	--	0	2.33	.23	.05	0	3-37-10	
81eb.	--	.31	88	0	106	.25	.02	1.83	.10	1.03	--	.16	0	--	10-37-10	
81eb.	--	.24	--	--	45	.38	--	1.39	--	1.77	--	--	--	--	10-37-10	
15434	17.5	.28	84	2.9	96	.24	.05	1.52	.04	.60	1.11	.15	.06	tr.	10-37-10	
15769	19	.28	--	--	104	--	--	--	--	--	--	--	--	--		
15431	24.4	.36	80	2	108	.46	.11	2.26	.06	.63	1.85	.16	.06	tr.	10-37-10	
15770	24	.30	--	--	89	--	--	--	--	--	--	--	--	--	10-37-10	
81eb.	--	.27	54	5.3	54	.48	.80	1.52	--	2.40	--	.29	.15	--	10-37-10	
15432	29.5	.35	86	2.5	76	.40	.05	2.74	.07	.23	2.73	.18	.08	tr.	10-37-10	
81eb.	--	.34	89	0	90	.18	.05	1.78	.08	2.50	--	.20	0	--	10-37-10	
15944	91.2	.82	66	5.4	36	2.70	.90	6.85	--	0	8.31	1.46	.56	0	24-37-10	
15906	8.3	.10	40	4.8	27	.43	.07	.34	--	.26	.44	.09	.03	.01	1-37-11	

San Luis Valley, Colorado, Ground Waters - 9 -

(Detailed Analyses)

Index No.	Location and Description
15-37-11	Washington Springs (14N15A1). In NE1/4 sec. 15, T.37N., R.11E. From seepage along base of Hansen Bluff. No. 15390 coll. June 16, 1936 by T.W.R. and H.A.W.; No. 15717 coll. July 16, 1936 by T.W.R. Fluoride 5.5 ppm.
15-37-11	"Spring Mound" near Washington Springs (14N15B1). In NE1/4 sec. 15, T.37N., R.11E. Temp. 69°F. Coll. June 29, 1936 by H.A.W.
19-37-11	Robert C. Taylor Artesian well (14N19H1). In NE1/4 sec. 19, T.37N., R.11E. Depth, 455 ft.; diam. 3 in.; disch. 5 gpm. Coll. Oct. 17, 1936 by A.D.G. Fluoride 5.6 ppm.
19-37-11	Robert C. Taylor Artesian well (14N19H2). In NE1/4 sec. 19, T.37N., R.11E. Depth, 280 ft.; disch. 3 gpm. Coll. Oct. 17, 1936 by A.D.G. Fluoride 2.0 ppm.
6-37-12	T.C. Sheperd Artesian well (14Q6P1). In SW1/4 sec. 6, T.37N., R.12E. Depth, 210 ft.; diam. 2 in. (inside 3 in. to 110 ft.); disch. 50 gpm. Temp. 57°F. Coll. Nov. 3, 1936 by A.D.G.
14-30-73	Ed. T. Dow Artesian well (14S14Q1). In SE1/4 sec. 14, T.30S., R.73W., Sixth Prin. Mer. Depth, 286 ft.; diam. 1.25 in.; disch. 2.2 gpm. Temp. 52.5°F. Coll. Oct. 29, 1936 by H.A.W.
21-36-8	Roy Frazier well (15K21H1). In SE1/4 of NE1/4 sec. 21, T.36N., R.8E. Depth, 105.3 ft.; diam. 3.5 ft. square. Not artesian. Temp. 50°F. Coll. Nov. 13, 1936 by H.A.W.
23-36-8	School District No. 35 well (15K23H1). In SW1/4 of SW1/4 sec. 23, T.36N., R.8E. Depth, 54 ft.; diam. 6 in. Not artesian. Coll. June 16, 1936 by T.W.R. and C.S.H.
26-36-8	L.E. Timmins well (15K26H1). In SE1/4 of NE1/4 sec. 26, T.36N., R.8E. Depth, 17.3 ft.; diam. 3.5 ft. square. Not artesian. Coll. Nov. 18, 1936 by H.A.W.
6-36-9	Axell Arnell Artesian well (15L6K1). In SE1/4 sec. 6, T.36N., R.9E. Depth, 120.8 ft. (reported 240 ft.) cased to 40 ft.; diam. 3 in.; disch. 75 gpm. Temp. 51.5°F. Coll. Oct. 16, 1936 by H.A.W.
7-36-9	D.E. Ryker well (15L7N1). In SW1/4 of SW1/4 sec. 7, T.36N., R.9E. Depth, 23 ft.; diam. 10.5 ft. square. Not artesian. Connected with nearby drain. Temp. 52°F. Coll. Nov. 19, 1936 by H.A.W.
25-36-9	Shallow well (15L25D1). In NW1/4 of NW1/4 sec. 25, T.36N., R.9E. Coll. Nov. 11, 1936 by H.A.W.
25-36-9	Artesian well (15L25L1). In SW1/4 sec. 25, T.36N., R.9E. Coll. June 16, 1936 by T.W.R. and C.S.H.
4-36-10	Shallow well (15M4H1). In SE1/4 of SE1/4 sec. 4, T.36N., R.10E. Coll. Nov. 6, 1936 by G.M.D.
7-36-10	Vane Lutz Artesian well (15N7K1). In SE1/4 sec. 7, T.36N., R.10E. Diam. 6 in. Temp. 56°F. Coll. Sept. 25, 1936 by H.A.W.

## San Luis Valley, Colorado, Ground Waters - 9 -

(Detailed Analyses)

Laboratory No.	Conductance Kx10 <sup>5</sup> @25°C	TDS, tons per acre foot	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Fm	Milligram equivalent per liter									Index No.
						Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Car- bonate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	
15390	602	--	--	--	--	--	--	--	--	38.87	6.59	17.09	--	--	15-37-11
15717	61.9	--	96	5.1	106	.16	.10	6.22	.09	.60	5.25	.23	.34	0	15-37-11
15423	460	--	--	--	--	--	--	--	--	0	1.02	.42	1.75	--	15-37-11
16032	21.9	.22	85	4.9	38	.31	.07	2.08	--	.50	1.44	.11	.12	0	19-37-11
16026	24.5	189	76	4.7	49	.55	.08	1.95	--	0	2.20	.15	.11	.01	19-37-11
15946	9.81	.10	41	3.9	25	.55	.06	.42	--	.16	.75	.08	.03	.01	6-37-12
16034	24.7	.25	11	2.7	35	2.10	.55	.32	--	0	2.62	.27	.07	.01	14-30-73
16183	44.2	.39	21	20	--	2.94	.70	.97	--	0	1.98	1.71	.31	.60	21-36-8
15377	24	--	--	--	--	--	--	--	--	0	.33	2.85	.54	--	23-36-8
16094	54.6	.48	26	7.1	21	3.49	.99	1.57	--	0	4.11	1.50	.08	.35	26-36-8
15890	24.5	.28	17	3.2	60	1.70	.35	.42	--	0	1.57	.81	.06	.02	6-36-9
16033	56.6	.51	26	16	23	3.44	.90	1.51	--	0	2.51	2.37	.54	.42	7-36-9
16027	280	3.64	11	1.9	36	29.65	4.28	4.37	--	0	5.15	32.37	.73	.01	25-36-9
15386	25.1	--	--	--	--	--	--	--	--	0	.79	1.89	.06	--	25-36-9
15942	507	6.35	9.2	27	45	45.52	17.43	6.36	--	0	3.90	46.43	18.95	0	4-36-10
15891	22	.26	24	4.7	60	1.35	.27	.52	--	0	1.18	.85	.08	.02	7-36-10

San Luis Valley, Colorado, Ground Waters - 10 -

(Detailed Analyses)

Index No.	Location and Description
27-36-10	John Russel Artesian well (15M2702). In NE1/4 sec. 27, T.36N., R.10E. Depth, 250 ft., cased to 200 ft.; diam. 3 in.; disch. 1 gpm. Temp. 52°F. Coll. Nov. 11, 1936 by G.M.D.
23-35-8	J. Luis Rivera well (16K23D1). In NW1/4 of NW1/4 sec. 23, T.35N., R.8E. Depth, 60.5 ft.; 4 ft. square. Temp. 9-24, 51°F. Not artesian. Coll. Oct. 15, 1936 by H.A.W.
14-35-9	Colorado Milling and Elevator Co. Artesian well (16L14W1). In SW1/4 sec. 14, T.35N., R.9E. Siebenthal: La Jara Milling and Elevator Co. 340 ft. well; date not reported; Analyst: Dearborn Drug and Chemical Co.; No. 15435, the northernmost of 2 adjacent wells; (it is not known which of the 2 Siebenthal sampled). Depth, 308 ft.; diam. 4.5 in.; Temp. 50°F. Coll. June 26, 1936 by H.A.W.
14-35-9	La Jara Consolidated School Artesian well (16L14P1). In SW1/4 sec. 14, T.35N., R.9E. Depth, 283 ft., cased to 200 ft.; diam. 4 in.; disch. 100 gpm. Temp. 49°F. Coll. Sept. 28, 1936 by H.A.W.
18-35-9	G.O. Kanton Artesian well (16L18R1). In SE1/4 of SE1/4 sec. 18, T.35N., R.9E. Depth, 75 ft.; diam. 2 in. W.S. at G.S.; Temp. 52°F. Coll. Oct. 15, 1936 by H.A.W.
23-35-9	Colorado State Fish Hatchery Artesian well (16L23W1). In SW1/4 sec. 23, T.35N., R.9E. Depth, 200 ft.; diam. 5 in. for 75 ft., 3.5 in. for 75 ft., and 2 in. for 50 ft.; disch. 60 gpm. Temp. 49°F. Coll. Sept. 26, 1936 by H.A.W.
23-35-9	Colorado State Fish Hatchery Artesian well (16L23M2). In SW1/4 sec. 23, T.35N., R.9E. Depth, 360 ft., cased to 320 ft.; diam. 5 in.; disch. 70 gpm. Temp. 49°F. Coll. Sept. 26, 1936 by H.A.W.
31-35-9	Tennis Smith Artesian well (16L31A1). In NE1/4 of NE1/4 sec. 31, T.35N., R.9E. Depth unknown. Diam. 2 in.; disch. 2.9 gpm. No. 15381 coll. June 16, 1936 by T.W.R. and C.S.H.; No. 15895, Temp. 47.5°F. Coll. Oct. 15, 1936 by H.A.W.
31-35-9	Diamond Spring near Capulin, Colo. (16L31P1). In NW1/4 sec. 31, T.35N., R.9E. No. 15380 coll. June 16, 1936 by T.W.R. and C.S.H.; No. 15498, from main channel carrying total flow of springs, Temp. 57°F. Coll. July 11, 1936 by T.W.R.
32-35-9	Frank Morgan Artesian well (16L32P1). In SE1/4 of SW1/4 sec. 32, T.35N., R.9E. Depth, 61 ft.; diam. 2 in. Non-flowing. Temp. 50°F. Coll. Nov. 18, 1936 by H.A.W.
17-35-10	J.W. Dyer Artesian well (16N17H2). In NE1/4 sec. 17, T.35N., R.10E. Depth, 140 ft., cased to 30 ft.; diam. 5 in.; disch. 15 gpm. Temp. 50°F. Coll. Nov. 3, 1936 by G.M.D.
24-35-10	Flowing Artesian well (16N24L1). In NE1/4 of SW1/4 sec. 24, T.35N., R.10E. Owner unknown. Depth unknown. Diam. 3 in. Coll. Aug. 19, 1936 by T.W.F.
7-35-11	Ross Johnson Artesian well (16N7J2). In S1/4 sec. 7, T.35N., R.11E. Depth, 80 ft., cased to 30 ft.; diam. 3 in.; disch. 37 gpm. Temp. 67°F. Coll. Nov. 4, 1936 by G.M.D.
8-35-11	Dexter Spring (16N8A1). In NE1/4 sec. 8, T.35N., R.11E. Siebenthal: date not reported. Analyst: W.F. Headen.



## San Luis Valley, Colorado, Ground Waters - 10 -

## (Detailed Analyses)

Laboratory No.	Conductance, Kx10 <sup>-5</sup> @25°C	TDS, tons per acre foot	Percent Sodium	Percent Chloride	Silica (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter								Index No.	
						Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO <sub>3</sub> )	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)		Nitrate (NO <sub>3</sub> )
16035	24.4	.30	20	1.2	47	1.85	.20	.52	--	0	1.00	1.54	.03	0	27-36-10
15892	19.1	.19	18	4.7	31	1.20	.39	.34	--	0	1.43	.40	.06	.03	23-35-8
Sieb. 15435	--	.21 .22	19 21	5.3 2.8	41 41	1.25 1.30	.25 .33	.35 .38	-- .06	1.03 0	-- 1.13	.75 .81	.10 .06	-- tr.	14-35-9 14-35-9
15893	19.8	.22	12	1.5	44	1.35	.37	.23	--	0	1.13	.79	.02	.01	14-35-9
15894	15	.15	27	1.3	27	.95	.16	.41	--	.20	.87	.42	.02	0	18-35-9
15896	18.8	.21	17	1.6	46	1.05	.47	.32	--	0	1.05	.75	.02	.01	23-35-9
15898	19.6	.21	21	1.6	40	1.10	.41	.39	--	0	1.08	.79	.02	.01	23-35-9
15895 15381	25.6 24.1	.25 --	14 --	13 --	39 --	1.70 --	.53 --	.37 --	-- --	0 0	1.59 1.57	.65 .56	.28 .25	.07 --	31-35-9 31-35-9
15380 15498	32.9 36.3	-- .34	-- 21	-- 4	-- 36	-- 2.35	-- .80	-- .74	-- .08	0 --	2.39 2.61	1.33 1.00	.11 .10	-- .06	31-35-9 31-35-9
16093	20	.20	16	2.4	40	1.35	.44	.33	--	0	1.62	.44	.04	.01	32-35-9
15951	11.7	.15	21	3.3	49	.70	.26	.25	--	0	1.11	.06	.03	.01	17-35-10
15781	16.2	.18	31	2.4	53	.65	.58	.48	.07	0	1.46	.14	.04	0	24-35-10
16036	23.2	.27	44	4	65	.95	.31	.98	--	.13	1.11	.90	.08	.01	7-35-11
Sieb. --	--	.27	65	4.4	72	.47	.10	1.04	--	1.00	--	.52	.07	--	8-35-11

San Luis Valley, Colorado, Ground Waters - 11 -

(Detailed Analyses)

<u>Index No.</u>	<u>Location and Description</u>
18-35-11	McIntire Springs (16N18E1). In NW1/4 sec. 18, T.35N., R.11E. Siebenthal: date not reported. Analyst: W.P. Headen. No. 15726, from main channel representing total flow of springs, Temp. 64°F. Coll. July 11, 1936 by T.W.R.
10-34-9	B. Bake Artesian well (17L10D1). In NW1/4 of NW1/4 sec. 10, T.34N., R.9E. Depth, 68.5 ft.; diam. 2 in.; disch. 2 gpm. Temp. 50°F. Coll. Oct. 15, 1936 by H.A.W.
10-34-9	Mrs. V.F. Hunnicutt Artesian well (17L10R1). In SE1/4 of SE1/4 sec. 10, T.34N., R.9E. Depth, 75 ft.; diam. 2 in.; disch. 0.25 gpm. Temp. 51°F. Coll. Oct. 15, 1936 by H.A.W.
23-34-9	Will Bagwell Artesian well (17L23J1). In SE1/4 sec. 23, T.34N., R.9E. Depth, 80 ft., cased to 45 ft.; diam. 2 in. Temp. 49.5°F. Coll. Sept. 28, 1936 by H.A.W.
29-33-9	Denver and Rio Grande R.R. well at Antonito, Colo. In sec. 29, T.33N., R.9E. Siebenthal: Depth, 242 ft.; date not reported, Analyst: Kennicott Water Softener Co.

San Luis Valley, Colorado, Ground Waters - 11 -  
(Detailed Analyses)

Laboratory No.	Conductance Kx10 <sup>5</sup> @25°C	TDS. tons per acre foot	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Ppm	Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Car- bonate (CO <sub>3</sub> )	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Nitr- ate (NO <sub>3</sub> )	Index No.
Sieb. 15726	-- 20	.24 .23	34 26	-- 2.4	52 49	1.15 1.15	.23 .45	.65 .48	.07 .09	1.50 0	-- 1.44	.58 .54	-- .05	-- 0	18-35-11 18-35-11
15897	19.2	.21	13	37	33	1.20	.38	.24	--	0	.89	.25	.45	.23	10-34-9
15899	21.6	.24	15	42	32	1.30	.41	.30	--	0	.79	.37	.56	.29	10-34-9
15907	24.4	.26	8.4	28	36	1.65	.53	.20	--	0	1.10	.62	.34	.32	23-34-9
Sieb. 15907	--	.40	--	--	40	2.15	.07	.87	--	3.07	--	.04	1.13	--	29-33-9

San Juan River Basin, Colorado, Surface Waters

(Detailed Analyses)

<u>Index No.</u>	<u>Location and Description</u>
12-36-1	San Juan River, West Fork, near Pagosa Springs, Colo. (1) Lat. 37°22'30", long. 106°53'45", NW1/4 sec. 12, T.36N, R.1W, N.M.P.M.; at highway bridge 0.6 mile above mouth, and 10 miles northeast of Pagosa Springs, G.H., 1.52. Coll. Sept. 18, 1936, by W.G.B. Sampled and analyzed by U.S.G.S.
13-35-2	San Juan River, at Pagosa Springs, Colo. (2) Lat. 37°15'55", long. 107°00'40", S1/2 sec. 13, T.35N, R.2W, N.M.P.M.; at lower highway bridge at Pagosa Springs, G.H. (O.S.), 3.18. Coll. June 29, 1936, (after rain) by W.G.B. Sampled and analyzed by U.S.G.S.
1-34-1	Rio Blanco, near Pagosa Springs, Colo. (3) Lat. 37°12'45", long. 106°47'40", center of sec. 1, T.34N, R.1E, N.M.P.M.; at highway bridge 0.4 mile above mouth of White Creek, 12.5 miles southeast of Pagosa Springs. G.H., 1.63. Coll. Sept. 17, 1936, by W.G.B. Sampled and analyzed by U.S.G.S.
6-32-2	Navajo River, near Chrono, Colo. (4) Lat. 37°02'00", long. 106°46'50", SW1/4 sec. 6, T.32N, R.2E, N.M.P.M.; 3.5 miles east of Chrono, G.H., 2.19. Coll. Sept. 16, 1936, by W.G.B. Sampled and analyzed by U.S.G.S.
24-32-1	Navajo River, at Edith, Colo. Lat. 37°00'10", long. 106°04'20", in NW1/4 sec. 24, T.32N, R.1W, N.M.P.M.; at highway bridge a quarter of a mile east of Edith; and one mile above mouth of Coyote Creek. G.H., 1.78. Coll. June 30, 1936, by W.G.B. Sampled and analyzed by U.S.G.S.
21-32-5	San Juan River, at Rosa, New Mex. Lat. 37°00'21", long. 107°24'10", in sec. 21, T.32N, R.5W, N.M.P.M.; at Rosa, about 300 yards above highway bridge and about a quarter of a mile below mouth of Piedra River. G.H. (O.S.), 2.17 - .02. Coll. June 29, 1936, by W.G.B. Sampled and analyzed by U.S.G.S.
7-32-9	Animas River, near Cedar Hill, New Mex. Lat. 37°02'15", long. 107°52'25", in sec. 7, T.32N, R.9W, N.M.P.M.; three quarters of a mile below mouth of Florida River, 2.5 miles above Colorado-New Mexico State Line and 8.5 miles north of Cedar Hill. G.H., 3.22. Coll. June 29, 1936, by W.G.B. Sampled and analyzed by W.G.B.

San Juan River Basin, Colorado, Surface Waters

Laboratory No.	Conductance Kx10 <sup>5</sup> @25°C	TDS. tons per acre foot	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter								Index No.
						Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	
15779	5.5	0.07	30	0	18	.31	.13	.17	.02	.46	.12	.00	.00	12-36-1
15441	15.3	.15	34	3	27	.70	.23	.43	.04	.92	.44	.04	tr	13-35-2
15778	13.9	.14	31	0	26	.85	.22	.43	.04	1.33	.15	.00	.00	1-34-1
15780	14.5	.15	19	7	26	.90	.28	.25	.03	.77	.65	.01	.00	6-32-2
15443	19.8	.21	23	.5	46	1.10	.43	.42	.04	1.23*	.71	.01	.00	24-32-1
15442	21.4	.19	28	2	17	1.15	.44	.56	.05	1.88*	.79	.05	.00	21-32-5
15444	31.2	.26	17	9	6.8	2.10	.51	.48	.05	1.46	1.39	.28	.01	7-32-9

\* Includes carbonate (CO<sub>3</sub>)

Middle Rio Grande Valley, New Mexico, Surface Waters

(Detailed Analyses)

Index No.	Location and Description
	Note: In the following descriptions the townships and ranges are referred to the New Mexico principal meridian; the elevations are by the Geological Survey. The samples with number preceded by <b>EE</b> are those of the State of Texas. Unless otherwise noted, the other analyses are by the Geological Survey. The discharge values in cubic feet per second when reported are based on estimates made at the time of sampling and are subject to revision. The potassium values reported by the State of Texas were not determined but were obtained by difference. In addition to the constituents reported in the table the analyses made by the Geological Survey usually included iron, boron, and fluoride. The values for these constituents are usually low and they are reported with the location description only where they are high enough to warrant mention; in the case of boron when higher than 0.55 ppm. and of fluoride when 1.0 ppm. or more.
34-32-13	Costilla Creek, near Costilla, New Mex. Lat. $36^{\circ}58'$ , long. $105^{\circ}32'$ , in sec. 34, T.32N., R.13E. (projected), in Sangre de Cristo Grant, about half a mile above diversion dam and two miles south of Costilla, Taos County. Zero of gage is feet above sea level. G.H., 1.38. Coll. Sept. 4, 1936 by B.J. and W.L.L. Fluoride 1.1 ppm.
33-29-13	Rio Colorado, near Questa, New Mex. Lat. $36^{\circ}42'$ , long. $105^{\circ}33'$ , in sec. 33, T.29N., R.13E., 1-3/4 miles above mouth of Cabresto Creek and 2 miles east of Questa. Zero of gage is feet above sea level. G.H., 1.85. Coll. Sept. 4, 1936 by B.J. and W.L.L.
28-27-13	Rio Hondo, near Valdez, New Mex. Lat. $36^{\circ}32'20''$ , long. $105^{\circ}33'30''$ , S1/2 sec. 28, T.27N., R.13E., 200 feet above old toll gate, 1-1/2 miles east of Valdez. Coll. Sept. 4, 1936 by B.J. and W.L.L.
31-27-12	Rio Hondo, at Arroyo Hondo, New Mex. Lat. $36^{\circ}30'50''$ , long. $105^{\circ}41'45''$ , E1/2 sec. 31, T.27N., R.12E., on Arroyo Hondo Grant, half a mile above confluence with Rio Grande and 1.5 miles west of Arroyo Hondo. Zero of gage is feet above sea level. G.H., 1.47. Coll. Sept. 4, 1936 by B.J. and W.L.L.
10-26-13	Rio Lucero, near Arroyo Seco, New Mex. (6) Lat. $36^{\circ}30'$ , long. $105^{\circ}32'$ , sec. 10, T.26N., R.13E.; 200 feet above Rio Lucero Division Dam, 2 miles southeast of Arroyo Seco, 4-1/2 miles north of Taos Pueblo. Zero of gage is 8048.92 feet above sea level. G.H., 0.88. Coll. Sept. 4, 1936 by B.J. and W.L.L.
23-25-12	Rio Taos, near Los Cordovas, New Mex. (7) Lat. $36^{\circ}23'$ , long. $105^{\circ}39'$ , N1/2 sec. 23, T.25N., R.12E.; about 50 feet below mouths of Rio Rancho de Taos and Arroyo Seco, 1/2 mile northeast of Los Cordovas, and 4 miles west of Taos. Zero of gage is 6710.59 feet above sea level. G.H., 1.61. Coll. Sept. 4, 1936 by B.J. and W.L.L.
29-23-10	Embudo Creek, near Dixon, New Mex. (9) Lat. $36^{\circ}12'$ , long. $105^{\circ}55'$ , sec. 29, T.23N., R.10E.; 1 mile northwest of Dixon and 1-1/2 miles above confluence with Rio Grande. Zero of gage is 5925.56 feet above sea level. G.H., 2.87. Coll. Sept. 4, 1936 by B.J. and W.L.L.
17-20-10	Rio Santa Cruz, at Cundiyo, New Mex. Lat. $35^{\circ}58'$ , long. $105^{\circ}55'$ , in SE1/4 of NW1/4 sec. 17, T.20N., R.10E.; 135 feet below highway bridge at junction of Rio Medio and Rio Frijoles to form Rio Santa Cruz, and a quarter of a mile northwest of Cundiyo. Zero of gage is feet above sea level. G.H., 1.28. Coll. Sept. 4, 1936 by B.J. and W.L.L.
8-19-9	Nambe Creek, at Pojoaque Highway Bridge near Nambe, New Mex. Lat. $35^{\circ}34'$ , long. $106^{\circ}01'$ , NW1/4 sec. 8, T.19N., R.9E.; 0.2 mile above highway bridge at Pojoaque, about a mile above confluence with Rio Tsaquque, and about 3 miles west of Nambe. Zero of gage is feet above sea level. G.H., 0.95. Coll. Sept. 4, 1936 by B.J. and W.L.L.

Middle Rio Grande Valley, New Mexico, Surface Waters

(Detailed Analyses)

Laboratory No.	Conductance $K \times 10^5$ @25°C	TDS. tons per acre foot	Disch. c.f.s.	Percent Sodium	Percent Chloride	Silica (SiO <sub>2</sub> ) Ppm.	Milligram equivalent per liter								Index No.
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	
15789	14.3	.13	40	19	2	18	.90	.36	.25	.05	1.23	.12	.03	0	34-32-13
15772	22.6	.20	35	9	.4	11	1.60	.52	.17	.03	1.29	1.12	.01	0	33-29-13
15771	12.4	.10	26	11	.8	11	.95	.18	.12	.02	.98	.23	.01	0	28-27-13
15788	25.1	.22	11	17	3.5	18	1.80	.41	.41	.04	2.05	.42	.08	.01	31-27-12
15774	10.7	.09	15	10	0	12	.90	.13	.09	.02	.92	.15	tr	.01	10-26-13
15787	45.0	.41	18	19	3.3	24	2.80	1.32	.91	.07	3.41	1.21	.16	0	23-25-12
15911	35.7	.32	27	9.1	3.1	24	3.14	.64	.38	--	3.61	.40	.11	.02	29-23-10
15777	10.4	.09	15	14	.9	12	.80	.17	.14	.02	.95	.11	.01	0	17-20-10
15776	31.9	.28	7.8	26	2	25	2.35	.32	.87	.06	3.18	.23	.06	.01	8-19-9

Middle Rio Grande Valley, New Mexico, Surface Waters - 2\_-

(Detailed Analyses)

Index No.	Location and Description
24-17-10	Santa Fe Creek, near Santa Fe, New Mex. (11) Lat. 35°41', long. 105°50', in SW1/4 of SW1/4 sec. 24, T.17N., R.10E.; about 300 feet below upper storage reservoir of New Mexico Power Co. and 6 miles east of Santa Fe. Zero of gage is feet above sea level. G.H., 0.83. Coll. Sept. 5, 1936 by B.J. and W.L.L.
-31-3	Rio Chama, near Chama, New Mex. Lat. 36°52', long. 106°35', in Tierra Amarilla Grant, at highway bridge over Rio Chama, about 1/2 mile above confluence with Little Chama River, and about 2 miles south of Chama on U.S. Highway No. 285. No gage. Coll. June 17, 1936 by C.S.H.
17-29-4	Rio Brazos, near Parkview, New Mex. In sec. 17, T.29N., R.4E.; in Tierra Amarilla Grant above junction with Rio Chama. Coll. June 14, 1936 by W.A.L.
-29-4	Rio Chama, at Parkview, New Mex. Lat. 36°43', long. 106°34', in sec. T.29N., R.4E.; in Tierra Amarilla Grant 150 feet above highway bridge, 650 feet below mouth of Rio Brazos and a half a mile northwest of Parkview, Rio Arriba County. Zero of gage is feet above sea level. G.H., 2.21. Coll. July 21, 1936 by T.Y.
33-28-2	Rio Chama, at El Vado Dam, New Mex. Lat. 36°36', long. 106°44', in sec. 33, T.28N., R.2E.; about 13 miles southeast of Tierra Amarilla, New Mex. No. 15398, from above dam. Coll. June 17, 1936 by C.S.H. No. 15397, spring at base of dam. Coll. June 17, 1936 by C.S.H. No. 15553, spring at base of dam. Coll. July 21, 1936 by T.Y. and J.F.T. No. 15554, seepage on east side of valve. Coll. July 21, 1936 by T.Y. and J.F.T. No. EE284, at gaging station 1800 feet below dam. Coll. Feb. 1, 1936 by W.A.L. No. EE311, at gaging station 1800 feet below dam. Coll. May 27, 1936 by W.A.L. No. 15551, at gaging station 1800 feet below dam (5). Zero of gage is feet above sea level. G.H., 5.13. Coll. July 21, 1936 by T.Y. and J.F.T. No. EE1085, at gaging station 1800 feet below dam. Coll. Aug. 4, 1936 by W.A.L.
31-22-8	Rio Chama, near Chamita, New Mex. (10) Lat. 36°06', long. 106°08', S1/2 sec. 31, T.22N., R.8E.; 50 feet below Espanola-Ojo Caliente Highway bridge, 3-3/4 miles northwest of Chamita and 4 miles above confluence with Rio Grande. Zero of gage is 5654.09 feet above sea level. No. EE425 coll. March 11, 1936 by W.A.L. No. EE902 coll. July 20, 1936 by W.A.L. No. 15796, G.H., 2.78, coll. Sept. 4, 1936 by B.J. and W.L.L.
11-20-7	Santa Clara Creek, near Espanola, New Mex. Lat. 35°58', long. 106°11', near SW cor. sec. 11, T.20N., R.7E.; about 5-1/2 miles above the mouth and about 5-1/2 miles southwest of Espanola. Zero of gage is feet above sea level. G.H., 0.90. Coll. Sept. 4, 1936 by B.J. and W.L.L.
7-15-2	Jemez Creek near San Ysidro, New Mex. Sec. 7, T.15N., R.2E.; above the junction of Salado branch. No. EE31 coll. Aug. 29, 1935 by W.A.L. No. EE186 coll. Dec. 13, 1935 by W.A.L. No. EE928 coll. July 21, 1936 by W.A.L.
1-15-1	Jemez Creek, Salado branch near San Ysidro, New Mex. Sec. 1, T.15N., R.1E.; above the junction with Jemez Creek. No. EE929 coll. July 21, 1936 by W.A.L.
32-14-4	Jemez Creek, near Bernalillo, New Mex. (25) Lat. 35°23'40", long. 106°32'25", S1/2 sec. 32, T.14N., R.4E.; about 2 miles above confluence with Rio Grande, and 6.2 miles north of Bernalillo. Zero of gage is 5120.11 feet above sea level. No. 15559 coll. July 12, 1936 by C.H.H. No. EE930 coll. July 21, 1936 by W.A.L.



## Middle Rio Grande Valley, New Mexico, Surface Waters - 2 -

## (Detailed Analyses)

Laboratory No.	Conductance Kx105 @25°C	TDS, tons per acre foot	Disch. c.f.s.	Percent Sodium	Percent Chloride	Silica (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter								Index No.
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	
15775	6.0	.08	7.7	24	0	17	.31	.21	.14	.02	.46	.13	0	0	24-17-10
15396	8.7	--	--	--	--	--	--	--	--	--	.82	.12	.11	--	31-3
EE771	7.9	.08	--	15	4.4	--	.59	.26	.15	0	.80	.06	.04	0	17-29-4
15552	15.7	.16	46	17	.6	29	1.05	.32	.23	.05	1.34	.25	.01	0	29-4
15398	15.9	--	--	--	--	--	--	--	--	--	.87	.50	.03	--	33-28-2
15397	45.0	--	--	--	--	--	--	--	--	--	.16	5.06	.14	--	
15553	47.5	.47	--	10	1.9	11	3.44	.90	.36	.12	.02	4.62	.08	.01	
15554	23.9	.22	--	13	1.7	13	1.60	.53	.26	.07	.70	1.52	.03	.01	
EE204	53.5	.50	11	21	1.8	--	3.22	1.35	1.04	.21	1.30	4.42	.10	0	
EE811	15.5	.14	454	20	6.2	--	.93	.37	.32	0	.95	.56	.07	.03	
15551	28.0	.25	388	18	1.8	16	1.65	.68	.43	.07	1.23	1.46	.03	.02	
EE1085	44.3	.41	397	21	2.6	--	2.37	1.42	1.01	0	1.40	3.13	.10	.02	
EE425	72.8	.71	106	29	4.6	--	4.23	1.63	2.33	.03	2.40	5.43	.35	.04	31-22-8
EE902	43.7	.42	675	21	3.6	--	2.83	.87	.99	.02	1.80	2.74	.15	.02	
15796	64.7	.62	684	15	1.3	12	4.44	1.23	.96	.07	2.03	4.54	.08	.01	
15773	8.8	.14	2.1	46	3	52	.32	.19	.41	.03	.77	.09	.03	0	11-20-7
EE31	46.5	.42	50	45	26	--	1.96	.82	2.29	0	3.15	.54	1.30	0	7-15-2
EE186	78.0	.64	--	56	33	--	2.82	.83	4.55	.08	4.45	1.08	2.75	0	
EE928	86.0	.70	--	57	36	--	2.93	.75	4.92	0	4.90	.63	3.05	.01	
EE929	405.	4.91	--	39	15.5	--	26.30	4.87	19.60	.41	2.75	40.5	7.90	.03	1-15-1
15559	338	3.77	194	46	18	32	18.67	3.29	18.0	.38	2.79	29.81	7.39	.02	32-14-4
EE930	342	3.92	2	41	17	--	20.50	3.68	16.60	.39	3.25	30.80	7.10	.02	

Middle Rio Grande Valley, New Mexico, Surface Waters - 3 -

(Detailed Analyses)

Index No.	Location and Description
31-7-1	Rio Puerco at Rio Puerco, New Mex. (51) Lat. $34^{\circ}47'$ , long. $107^{\circ}00'$ , sec. 31, T.7N., R.1W.; at railroad bridge, 16 miles west of Los Lunas. Zero of gage is 5008.68 feet above sea level. No. 15790, G.H. 0.56, coll. July 23, 1936 by W.H.C. Fluoride, 5.6 ppm. No. 15794, G.H. (outside) 0.54, coll. Sept. 9, 1936 by W.H.C. Fluoride, 2.4 ppm. No. 15870, G.H. 3.58, coll. Sept. 27, 1936 by W.H.C. Fluoride 1.2 ppm.
8-2-1	Rio Puerco at bridge on highway U. S. 85. (101) SW $1/4$ sec. 8, T.2N., R.1E.; 1-1/4 miles southwest of Bernardo, New Mex. and 1.5 miles above junction with Rio Grande. No. EE29 coll. Aug. 8, 1935 by W.A.L. No. EE278 coll. Feb. 21, 1936 by W.A.L. No. 10891 coll. May 8, 1936 by W.B.W. No. EE898 coll. July 9, 1936 by W.A.L. No. EE907 coll. July 13, 1936 by W.A.L. No. 15900 coll. July 15, 1936. No. EE1019 coll. Aug. 22, 1936 by W.A.L. No. 1207 coll. Sept. 28, 1936 by W.A.L. No. 16141 coll. Dec. 1, 1936 by L.J.R. No. 10891, analysed by U.S.B.P.I.; Silt: 96 tone per acre foot.
24-1-1	Rio Salado, near mouth, near San Acacia, New Mex. (81) W $1/2$ sec. 24, T.1N., R.1W.; at highway bridge 2 miles north of San Acacia, about 9 miles southwest of Bernardo, and 3 miles above junction with Rio Grande. No. EE30 coll. Aug. 8, 1935 by W.A.L. No. EE899 coll. July 11, 1936 by W.A.L. No. 15901 coll. July 11, 1936; Fluoride, 2.2 ppm. No. 1084 coll. Aug. 22, 1936 by W.A.L.
13-19-7	Rio Grande at Otowi Bridge, near San Ildefonso, New Mex. Lat. $35^{\circ}49'30''$ , long. $106^{\circ}7'28''$ , sec. 13, T.19N., R.7E.; at Denver and Rio Grande Western Railroad bridge, 2 miles southwest of San Ildefonso and 3 miles below mouth of Tesuque Creek; approximately 5,500 feet above sea level. Zero of gage is 5488.48 feet above sea level. EE904 coll. July 20, 1936 by W.A.L.
17-16-6	Rio Grande at Cochiti, New Mex. (12) Lat. $35^{\circ}38'$ , long. $106^{\circ}19'$ , NW $1/4$ sec. 17, T.16N., R.6E.; at highway bridge 1 mile northeast of Cochiti and 8 miles above mouth of Galisteo Creek. Zero of gage is 5224.76 feet above sea level. No. EE409 coll. March 3, 1936 by W.A.L. No. 15501, G.H., 4.30, coll. July 8, 1936 by W.F.B. No. 16145, G.H., 4.24, coll. Dec. 2, 1936 by C.B.T.
13-15-5	Rio Grande at Pena Blanca, New Mex. (865.9) NW $1/4$ sec. 13, T.15N., R.5E.; above outlet of Pena Blanca R.S.D. Coll. June 22, 1936 by W.A.L.
17-14-5	Rio Grande at San Felipe, New Mex. (21) SW $1/4$ sec. 17, T.14N., R.5E.; at highway bridge 2000 feet below mouth of Tonque Arroyo, 1/2 mile above San Felipe, and about 12 miles northeast of Bernalillo. Zero of gage is 5110.38 feet above sea level. G.H., 4.22. Coll. Aug. 31, 1936 by J.F.D.
3-13-4	Rio Grande at Angostura Diversion Dam, New Mex. (879.5) SW $1/4$ sec. 3, T.13N., R.4E.; near Algodones, New Mex. No. EE32, coll. Sept. 11, 1935 by W.A.L. No. EE93 coll. Oct. 14, 1935 by W.A.L. No. EE116 coll. Nov. 2, 1935 by W.A.L. No. EE167 coll. Dec. 6, 1935 by W.A.L. No. EE274 coll. Feb. 17, 1936 by W.A.L. No. EE574 coll. April 23, 1936 by W.A.L. No. EE901 coll. July 20, 1936 by W.A.L.
24-8-2	Rio Grande at Isleta, New Mex. (48) W $1/2$ sec. 24, T.8N., R.2E.; at highway bridge just east of Isleta, and immediately upstream from Isleta Diversion Dam. No gage. No. EE33 coll. Sept. 10, 1935 by W.A.L. No. EE94 coll. Oct. 15, 1935 by W.A.L. No. EE117 coll. Nov. 1, 1935 by W.A.L. No. EE168 coll. Dec. 6, 1935 by W.A.L. No. EE275 coll. Feb. 18, 1936 by W.A.L. No. EE573 coll. April 23, 1936 by W.A.L. No. EE246 coll. June 24, 1936 by W.A.L. No. EE925 coll. July 22, 1936 by W.A.L. No. 15908 coll. Aug. 31, 1936 by W.H.C. No. 16146, coll. Dec. 3, 1936 by W.H.C.

## Middle Rio Grande Valley, New Mexico, Surface Waters - 3 -

(Detailed Analyses)

Laboratory No.	Conductance Kx105 @25°C	TDS tons per acre feet	Disch. c.f.s.	Percent Sodi- um	Percent Chlor- ide	Sili- ca (SiO <sub>2</sub> ) Fm	Milligram equivalent per liter								Index No.
							Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- ium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlor- ide (Cl)	Ni- trate (NO <sub>3</sub> )	
15790	299	3.24	0.05	47	16	20	12.48	6.00	16.22	.41	3.34	25.65	5.64	.01	31-7-1
15794	262	2.75	0.02	54	14	8.0	9.68	3.62	15.70	.23	2.20	22.71	4.03	.12	
15870	177	1.93	3.5	34	3.6	16	10.23	3.21	6.81	--	2.18	17.28	.73	--	
EE29	235	2.51		43	7.4		11.6	4.19	11.7	0	4.00	21.3	2.00	0	8-2-1
EE278	213	2.27	100	56	13		7.74	3.06	13.2	.29	2.80	18.30	3.10	.09	
10891	196	2.08	25	47	10		9.60	3.54	11.63	--	3.46	18.81	2.32	.07	
EE898	105	.99		43	17		4.80	1.62	4.77	.16	4.35	5.10	1.90	0	
EE907	328	4.10		45	5.6		16.40	5.80	18.00	.08	3.85	34.20	2.20	.03	
15900	330	3.79	48	39	6.3	22	16.72	8.39	15.75	--	2.87	35.27	2.53	--	
EE1019	247	2.84		45	5.1		11.90	4.28	13.20	.22	3.60	24.50	1.50	tr	
EE1207	192	2.08		41	5.9		9.83	3.18	9.00	0	2.00	18.70	1.20	.09	
16141	506	5.92		44	23		23.86	11.43	28.00	0	3.07	45.74	14.27	0	
EE30	289	2.64		47	36		11.80	4.61	14.80	0	8.00	12.10	11.10	0	24-1-1
EE899	260	3.13		39	14		14.80	4.63	12.50	0	3.95	23.50	4.40	0	
EE1084	142	1.40		36	9.4		7.50	2.90	5.93	0	7.20	7.57	1.50	.03	
15901	183	1.86	200	21	9.5	12	11.73	5.92	4.58	--	7.79	12.20	2.12	--	
EE904	60.2	.60	538	25	3.1		3.77	1.07	1.60	.04	2.35	3.93	.20	0	13-19-7
EE409	42.6	.42	1500	30	6.4		2.35	.88	1.35	.05	2.30	2.03	.30	0	17-16-6
15501	33.5	.29	1040	23	3	19	1.90	.67	.70	.05	1.66	1.50	.11	.01	
16145	34.1	.32	839	28	5.9		1.95	.64	.99	0	2.25	1.10	.20	.01	
EE845	36.7	.35		30	5.2		2.18	.64	1.12	.08	2.70	1.11	.20	.01	13-15-5
15791	47.5	.44	1370	26	6.0	9	3.04	.81	1.26	.10	2.54	2.27	.20	.01	17-14-5
EE32	48.1	.48	1000	32	9.0		2.66	1.11	1.77	0	3.00	2.02	.50	0	3-13-4
EE93	42.5	.41	750	31	7.6		2.48	.78	1.47	0	2.70	1.59	.35	0	
EE116	39.4	.36		24	5.0		2.39	.88	.94	.12	2.05	2.06	.20	.02	
EE167	40.6	.37		31	5.6		2.30	.81	1.24	.18	2.70	1.58	.25	0	
EE274	39.1	.34		33	6.0		2.22	.99	1.23	.16	2.40	1.55	.25	0	
EE574	28.1	.23		19	6.4		1.81	.48	.95	0	1.50	1.14	.15	.03	
EE901	41.5	.38		24	6.2		2.53	.81	1.08	0	2.30	1.82	.25	.02	
EE33	59.1	.57	600	38	12		3.19	.86	2.37	.08	2.85	2.90	.75	tr	24-8-2
EE94	57.2	.56	500	35	11		3.14	.83	2.10	.09	3.05	2.46	.65	0	
EE117	49.1	.45		28	7.8		2.94	.90	1.44	.08	2.45	2.49	.40	.02	
EE168	59.2	.53		40	16		2.94	.89	2.51	0	2.90	2.41	1.00	0	
EE275	52.9	.46		43	15		2.63	.59	2.13	.29	2.65	2.14	.85	0	
EE573	31.6	.30		29	9.7		1.86	.55	.85	.16	1.89	1.29	.30	.03	
EE846	43.3	.41	376	36	11		2.33	.63	1.56	.11	2.40	1.53	.50	0	
EE925	57.8	.53	180	34	13		3.09	.89	2.09	0	2.85	2.36	.75	.05	
15908	42.5	.40	1440	25	6.2	25	2.75	.66	1.13	--	2.61	1.64	.25	.03	
16146	50.6	.46	1020	36	12		2.65	.76	1.92	--	2.66	1.98	.65	.01	

\*Includes carbonate (CO<sub>3</sub>)

(225)

Middle Rio Grande Valley, New Mexico, Surface Waters - 4 -

(Detailed Analyses)

Index No.	Location and Description
12-2-1	Rio Grande near Bernardo, New Mex. (78) NW1/4 sec. 12, T.28., R.1W.; at bridge on highway U.S. 60, 2 miles east of Bernardo. Zero of west gage is 4723.98 feet above sea level; that of the east gage, left bank, is 4723.49 feet above sea level. No. EE34, coll. Sept. 10, 1935 by W.A.L. No. EE95, Coll. Oct. 16, 1935 by W.A.L. No. EE118 coll. Nov. 1, 1935 by W.A.L. No. EE276 coll. Feb. 21, 1936 by W.A.L. No. EE572 coll. April 23, 1936 by W.A.L. No. 15469, G.H. 2.83, coll. July 10, 1936 by M.D.D. No. EE926 coll. July 22, 1936 by W.A.L.
1-1-1	Rio Grande at San Acacia, New Mex. (82) NE1/4 sec. 1, T.1S., R.1W.; 1/8 mile downstream from diversion dam, and 3/8 mile east of San Acacia. Zero of west gage is 4652.56 feet, that of east gage is 4663.03 feet, above sea level. No. EE185 coll. Dec. 6, 1935 by W.A.L. No. EE277 coll. Feb. 21, 1936 by W.A.L. No. EE571 coll. April 24, 1936 by W.A.L. No. EE828 coll. June 25, 1936 by W.A.L. No. EE927 coll. July 22, 1936 by W.A.L. No. 15795 coll. Aug. 31, 1936 by C.M.L. No. EE1208 coll. Sept. 28, 1936 by W.A.L. No. 16139, G.H. 3.84, coll. Dec. 1, 1936 by C.M.L. Fluoride, 1.5 ppm.
32-4-1	Rio Grande at San Antonio, New Mex. (987.9) SE1/4 sec. 32, T.4S., R.1W.; at highway bridge 1 mile east of San Antonio. No. EE119 coll. Nov. 5, 1935 by W.A.L. No. EE426 coll. March 8, 1936 by W.A.L. No. EE569 coll. April 24, 1936 by W.A.L. No. EE900 coll. July 11, 1936 by W.A.L. No. EE906 coll. July 23, 1936 by W.A.L.
19-7-1	Rio Grande at San Marcial, New Mex. (1000.6) Sec. 19, T.7S., R.1W.; at railroad bridge 1 mile below San Marcial. Zero of gage is 4455.38 feet above sea level. Coll. July 22, 1936 by W.A.L.
10-13-4	Albuquerque Main Canal, at head, near Algodones, New Mex. (24). NE1/4 sec. 10, T.1N., R.4E.; 1 mile west of Algodones, 6 miles northeast of Bernalillo, and opposite mouth of Jemez Creek. Zero of gage is 5074.68 feet above sea level. G.H., 4.20. Coll. Dec. 1, 1936 by C.H.
2-11-3	Albuquerque Main Canal at Alameda-Corrales road crossing. Sec. 9, T.11N., R.3E.; at well 894.4-11E, for comparison with well sample. Coll. Oct. 30, 1936 by W.L.L. and F.K. Fluoride 1.0 ppm.
17-11-3	Albuquerque Main Canal, at end, near Alameda, New Mex. (36) SE1/4 sec. 17, T.11N., R.3E.; at highway crossing 1-1/2 miles southwest of Alameda, 1 mile downstream from highway bridge over Rio Grande, and about 12 miles below canal head. No gage. Coll. July 7, 1936 by G.F.H.
14-10-2	Arenal Main Canal, at head, near Albuquerque, New Mex. (41) SE1/4 sec. 14, T.10N., R.2E.; about 2 miles west of Albuquerque, 1/4 mile southwest of Atrisco Heading, and 5/8 mile upstream from Old Town Bridge over Rio Grande. Zero of gage is 4947.95 feet above sea level. G.H., 4.46. Coll. Dec. 1, 1936 by G.H.H.
2-8-2	Arenal Main Canal at Los Padillas, New Mex. (47) NE1/4 sec. 2, T.8N., R.2E.; at highway crossing about 1/4 mile southwest of Los Padillas, 3 miles north of Isleta, and about 11 miles below canal head. No gage. Coll. July 7, 1936 by G.F.H.
29-10-3	Barr Canal, at head, near Albuquerque, New Mex. (42) SW1/4 sec. 29, T.10N., R.3E.; about 1 mile south of Albuquerque, and 1/2 mile downstream from east end of main highway bridge over Rio Grande. Zero of gage is 4934.05 feet above sea level. Coll. (from Albuquerque-Barr R.S.D.) Dec. 1, 1936 by W.H.C.
4-5-2	Peralta Main Canal, at end, near Belen, New Mex. (64) NW1/4 sec. 4, T.5N., R.2E.; on left bank of Rio Grande, 2-1/2 miles northeast of Belen, 3-1/2 miles south of Tome, and 2-1/2 miles upstream from highway bridge. Zero of gage is 4807.63 feet above sea level. G.H., 1.66. Coll. July 10, 1936 by J.H.B.

## Middle Rio Grande Valley, New Mexico, Surface Waters - 4 -

## (Detailed Analyses)

Laboratory No.	Conductance Kx10 <sup>5</sup> @25°C	TDS. tons per acre foot	Disch. c.f.s.	Percent Sodi- um	Percent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Fm	Milligrams equivalent per liter								Index No.
							Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	
EE34	76.2	.75	1000	41	15		3.91	1.04	3.50	.01	3.20	4.02	1.20	.04	12-2-1
EE95	77.0	.72	500	41	14		3.94	1.04	3.34	.05	3.40	3.77	1.20	0	
EE118	61.4	.59		34	13		3.39	1.02	2.19	.12	2.90	3.07	.75	tr	
EE276	62.0	.56		42	15		3.13	.82	2.60	.30	3.10	2.70	1.05	0	
EE572	33.9	.36		36	10		2.16	.52	1.42	.07	2.15	1.60	.40	.02	
15469	75.5	.74	864	37	13	50	3.84	1.07	2.74	.10	2.95	4.06	.90	.02	
EE326	90.8	.87	157	42	15		4.37	1.24	4.01	0	3.45	4.66	1.45	.02	
EE185	86.9	.75		47	22		3.54	1.22	4.26	0	3.50	3.51	1.95	0	1-1-1
EE277	77.9	.70		47	18		3.42	1.14	3.80	.19	3.30	3.70	1.55	0	
EE571	45.4	.42	5390	44	14		2.29	.54	2.18	.01	2.10	2.23	.65	.04	
EE628	124	1.17	138	42	18		5.73	1.88	5.35	.20	3.40	7.36	2.40	0	
EE327	97.0	.90	42	44	18		4.43	1.34	4.40	.10	3.30	5.15	1.80	.02	
15795	96.5	.89	200	43	13	14	4.34	1.48	4.26	.14	3.64	5.14	1.35	tr	
EE1208	187	1.94	6860	40	13		10.00	2.72	8.37	0	2.35	16.00	2.60	.05	
16139	89.2	.80	786	48	21		3.59	1.23	4.48	--	3.14	4.10	1.97	.01	
EE119	76.8	.72		40	16		3.83	1.15	3.12	.15	2.95	4.00	1.30	0	32-4-1
EE426	81.1	.73		43	15		3.76	1.33	3.73	.07	2.95	4.60	1.30	.04	
EE569	47.5	.44		44	13		2.33	.54	2.14	.16	2.20	2.30	.65	.02	
EE900	103	.98		38	19		5.05	1.70	4.17	0	2.80	5.98	2.05	.01	
EE906	99.6	.97		43	20		4.54	1.47	4.57	.04	3.30	5.20	2.10	.02	
EE905	109	1.02		48	23		4.49	1.39	5.44	.08	3.25	5.52	2.60	.03	19-7-1
16148	35.1	.32	140	27	5.8		2.00	.64	.99	--	2.20	1.12	.20	.01	10-13-4
15914	38.4	.37		20	4.5	19	2.30	.90	.80	--	2.00	1.77	.18	0	9-11-3
15465	34.2	.35		23	3	45	2.05	.69	.74	.07	1.75	1.60	.10	tr	17-11-3
16147	45.6	.41	42	36	12		2.35	.68	1.69	--	2.51	1.62	.56	0	14-10-2
15461	37.7	.34		27	4	22	2.20	.66	.96	.08	2.02	1.67	.17	.01	2-8-2
16140	73.0	.69	0	31	11		4.19	1.07	2.33	--	3.26	3.44	.85	0	29-10-3
15462	50.4	.47	3.4	28	7	29	2.89	.90	1.39	.11	2.20	2.62	.34	.03	4-5-2

\*Includes carbonate (CO<sub>3</sub>)

Middle Rio Grande Valley, New Mexico, Surface Waters - 5 -

(Detailed Analyses)

Index No.	Location and Description
17-4-2	San Juan Main Canal, at head, near Casa Colorado, New Mex. (72) NEL 1/4 sec. 17, T.4N., R.2E.; 1/8 mile west of highway, 1 mile north of Casa Colorado, and 1-1/4 miles downstream from canal head. Zero of gage is 4772.23 feet above sea level. G.H., 2.04. Coll. Dec. 1, 1936 by L.J.R. Fluoride, 1.2 ppm.
13-15-5	Pana Blanca R.S.D. near Domingo, New Mex. (12a) At gaging station in SW 1/4 sec. 13, T.15N., R.5E.; 1-1/2 miles north of Santo Domingo, on left bank of Rio Grande and 1/4 mile upstream from Galisteo Arroyo. Zero of gage is 5171.17 feet above sea level. G.H., 2.32. Coll. Sept. 1, 1936 by W.F.B.
34-15-5	Upper Santo Domingo East R.S.D., above Santo Domingo I.D., near Santo Domingo, New Mex. (17) SW 1/4 sec. 34, T.15N., R.5E.; 1/2 mile northwest of highway and railroad, 3 miles southwest of Santo Domingo, and 4 miles downstream from mouth of Galisteo Creek. No gage. Coll. July 15, 1936 by W.F.B.
9-14-5	Lower Santo Domingo East R.S.D., at mouth, near San Felipe, New Mex. (18) NW 1/4 sec. 9, T.14N., R.5E.; 2-1/2 miles northeast of San Felipe, and 5-1/2 miles downstream from mouth of Galisteo Creek. Zero of gage is 5134.68 feet above sea level. Coll. July 14, 1936 by W.F.B.
14-15-5	Santo Domingo West R.S.D., near Domingo, New Mex. (14a) At gaging station in SW 1/4 sec. 14, T.15N., R.5E.; 1 mile northwest of Santo Domingo on right bank of Rio Grande and 1/2 mile below mouth of Galisteo Arroyo. No gage. Coll. Sept. 3, 1936 by W.F.B.
34-15-5	Lower Santo Domingo West R.S.D., near Domingo, New Mex. (16a) At gaging station in SW 1/4 sec. 34, T.15N., R.5E.; 3 miles southwest of Santo Domingo on right bank of Rio Grande, and 4 miles downstream from mouth of Galisteo Arroyo. No gage. Coll. Sept. 16, 1936 by J.H.D.
34-15-5	Santo Domingo I.D., at mouth, near Santo Domingo, New Mex. (16) SE 1/2 sec. 34, T.15N., R.5E.; 1/2 mile northwest of highway and railroad, 3 miles southwest of Santo Domingo, and 4 miles downstream from mouth of Galisteo Creek. No. EE372 coll. Mar. 3, 1936 by W.A.L. No. 15557 coll. July 8, 1936 by W.F.B.
2-13-4	Algodones R.S.D. above Yaso I.D. at Algodones, New Mex. (22) SW 1/4 sec. 2, T.13N., R.4E.; about 3/8 mile northwest of highway junction with railroad, about 1/2 mile northwest of Algodones, about 7 miles northeast of Bernalillo. No. EE373 coll. Mar. 3, 1936 by W.A.L. No. EE344 coll. June 22, 1936 by W.A.L. No. 15558 coll. July 17, 1936 by J.H.D. No. EE1335 coll. Oct. 12, 1936 by W.A.L.
30-13-4	Bernalillo R.S.D. above Ranchitos I.D., near Bernalillo, New Mex. (26) SE 1/4 sec. 30, T.13N., R.4E.; at highway crossing 2 miles north of Bernalillo and about 4-1/2 miles downstream from mouth of James Creek. No gage. No. EE110 coll. Oct. 28, 1935 by W.A.L. No. EE238 coll. Jan. 7, 1936 by W.A.L. No. 15560 coll. July 15, 1936 by J.R.B. No. EE1255 coll. Oct. 12, 1936 by W.A.L.
14-12-3	Bernalillo R.S.D., above Bernalillo I.D., near Bernalillo, New Mex. (28) N 1/2 sec. 14, T.12N., R.3E.; 3 miles southwest of Bernalillo, 5-1/2 miles north of Alameda, and 1 mile downstream from Corrales Siphon. Coll. Aug. 14, 1935 by W.A.L.
23-12-3	Bernalillo R.S.D., near Sandia, New Mex. (889.8) At gaging station 1.4 miles above outlet in E 1/2 sec. 23, T.12N., R.3E., 1 mile west of Sandia Pueblo. No. EE47 coll. Sept. 23, 1935 by W.A.L. No. EE427 coll. March 4, 1936 by W.A.L. No. EE835 coll. June 22, 1936 by W.A.L. No. EE1257 coll. Oct. 12, 1936 by W.A.L.

## Middle Rio Grande Valley, New Mexico, Surface Waters - 5 -

## (Detailed Analyses)

Laboratory No.	Conductance Kx10 <sup>5</sup> @25°C	TDS. tons per acre foot	Disch. c.f.s.	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter								Index No.
							Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- ium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	
16142	69.0	.62	1.00	31	2.8		3.39	.99	1.97	--	3.05	3.06	.17	.01	17-4-2
15835	50.8	.50	9.5	31	4	51	2.89	.99	1.65	.13	3.79	1.54	.23	.01	13-15-5
15555	39.9	.37	22	29	4	29	2.40	.60	1.09	.11	2.28	1.71	.17	.01	34-15-5
15556	46.2	.42	2.1	30	6	32	2.55	.90	1.35	.11	2.67	1.89	.28	.01	9-14-5
15910	45.5	.43	1.7	27	4	37	2.80	.76	1.34	--	3.02	1.67	.19	0	14-15-5
15834	37.8	.37	1.5	29	3.8	21	2.40	.59	1.13	.08	2.19	1.79	.16	0	34-15-5
EE372	75.0	.72	8.26	28	4.6		4.93	1.24	2.11	.29	3.45	4.72	.40	0	34-15-5
15557	81.5	.81	5.8	27	4.9	31	5.24	1.40	2.30	.18	3.38	5.27	.45	0	
EE373	58.7	.54	28.3	32	6.8		3.56	.97	1.90	.22	3.70	2.50	.45	tr	2-13-4
EE844	54.4	.52	34.7	33	6.7		3.15	.85	1.72	.22	3.40	2.14	.40	0	
15558	41.1	.38		31	6	35	2.40	.62	1.22	.12	2.48	1.56	.23	.01	
EE1335	61.7	.57	29.1	27	6.7		3.68	1.24	1.86	0	3.65	2.63	.45	0	
EE110	57.5	.51	32.0	36	11		3.09	.80	2.09	.14	3.15	2.32	.65	0	30-13-4
EE238	56.0	.56	27.0	34	13		3.13	.93	2.13	0	3.20	2.18	.80	0	
15560	51.8	.46		36	11	34	2.65	.73	1.78	.13	2.80	1.89	.56	0	
EE1255	56.2	.52	24.0	31	11		3.18	.98	1.90	0	3.00	2.35	.65	0	
EE24	57.7	.56	65.0	35	12		3.01	1.13	2.18	.06	3.05	2.58	.75	0	14-12-3
EE47	58.5	.55	64.0	34	12		3.18	.98	2.15	0	3.25	2.19	.75	0	23-12-3
EE427	53.8	.49	76.2	37	12		2.89	.88	2.18	.04	3.00	2.29	.70	tr	
EE835	47.5	.42	79.8	34	10		2.52	.79	1.69	.01	2.80	1.71	.50	0	
EE1257	61.1	.54	77.6	34	12		3.29	.96	2.19	0	2.90	2.65	.75	0	

\*Includes carbonate (CO<sub>3</sub>)

Middle Rio Grande Valley, New Mexico, Surface Waters - 6 -

(Detailed Analyses)

Index No.	Location and Description
30-13-4	Ranchitos I.D., above wasteway, near Bernalillo, New Mex. (27) SE1/4 sec. 30, T.12N., R.4E.; at highway crossing 2 miles north of Bernalillo, and about 4-1/2 miles downstream from mouth of James Creek. No gage. No. EE161 coll. Dec. 2, 1935 by W.A.L. No. EE280 coll. Feb. 17, 1936 by W.A.L. No. EE1254 coll. Oct. 17, 1936 by W.A.L.
6-12-4	Bernalillo I.D. at head (885.5) Sec. 6, T.12N., R.4E.; saw mill waste. Coll. Nov. 12, 1935 by W.A.L.
14-12-3	Bernalillo I.D., at mouth, near Bernalillo, New Mex. (29) SE1/4 sec. 14, T.12N., R.3E.; 3 miles southwest of Bernalillo, 5-1/2 miles north of Alameda, and 1 mile downstream from Corrales Siphon. No gage. No. EE23 coll. Aug. 14, 1935 by W.A.L. No. EE46 coll. Sept. 23, 1935 by W.A.L. No. EE109 coll. Oct. 28, 1935 by W.A.L.
8-11-3	Upper Corrales R.S.D. near Alameda, New Mex. (31a) At gaging station in NE1/4 sec. 8, T.11N., R.3E.; 1.5 miles west-northwest of Alameda, 1/4 mile upstream from highway bridge. Zero of gage is 4992.08 feet above sea level. No. EE398 coll. Mar. 4, 1936 by W.A.L. No. EE836 coll. June 23, 1936 by W.A.L. No. 15831 coll. Sept. 2, 1936 by G.F.H. No. EE1286 coll. Oct. 12, 1936 by W.A.L.
34-12-3	Corrales I.D., near mouth, near Alameda, New Mex. (30) SW1/4 sec. 34, T.12N., R.3E.; about 0.2 mile southeast of highway, 2 miles north of Alameda, and 7 miles southwest of Bernalillo. No gage. No. EE399 coll. March 4, 1936 by W.A.L. No. EE837 coll. June 23, 1936 by W.A.L. No. EE1260 coll. Oct. 12, 1936 by W.A.L.
5-11-3	San Mateo I.D., at mouth, near Alameda, New Mex. (31) SE1/4 sec. 5, T.11N., R.3E.; at highway crossing about 1-3/4 miles northwest of Alameda, 8 miles north of Albuquerque, and 3/4 mile upstream from highway bridge over Rio Grande. No gage. Coll. Oct. 12, 1936 by W.A.L.
28-11-3	Alameda I.D., near Alameda, New Mex. (897.2) NW1/4 sec. 28, T.11N., R.3E.; at road crossing. Coll. June 18, 1936 by W.A.L.
5-10-3	Alameda I.D. at Griegos Road near Los Griegos, New Mex. (899.0) In NE1/4 sec. 5, T.10N., R.3E.; 4.5 miles above mouth. No gage. No. EE49 coll. Sept. 28, 1935 by W.A.L. No. EE112 coll. Oct. 29, 1935 by W.A.L. No. EE241 coll. Jan. 8, 1936 by W.A.L. No. EE1256 coll. Oct. 12, 1936 by W.A.L.
13-10-2	Alameda I.D., at mouth, near Albuquerque, New Mex. (39) NE1/4 sec. 13, T.10N., R.2E.; at highway crossing, about 1 mile west of Albuquerque, and 0.6 mile north of Old Town Bridge across Rio Grande. Zero of gage is 4947.08 feet above sea level. No. EE26 coll. Aug. 22, 1935 by W.A.L. No. EE401 coll. Mar. 5, 1936 by W.A.L. No. EE1264 coll. Oct. 13, 1936 by W.A.L.
6-10-3	Los Griegos I.D., near Los Candelarias, New Mex. (899.9) At gaging station at mouth of drain in SW1/4 sec. 6, T.10N., R.3E. No. EE403 coll. Mar. 5, 1936 by W.A.L. No. EE1265 coll. Oct. 13, 1936 by W.A.L.
19-11-3	Lower Corrales R.S.D., near mouth, near Alameda, New Mex. (37) NE1/4 sec. 19, T.11N., R.3E.; 3 miles southwest of Alameda, about 5-1/2 miles north of Albuquerque, and 2-1/4 miles downstream from highway bridge over Rio Grande. Zero of gage is 4978.34 feet above sea level. No. EE400 coll. Mar. 4, 1936 by W.A.L. No. 15832, G.H., 2.20, coll. Sept. 2, 1936 by G.F.H. No. EE1287 coll. Oct. 12, 1936 by W.A.L.



## Middle Rio Grande Valley, New Mexico, Surface Waters - 6 -

(Detailed Analyses)

Laboratory No.	Conductance, Kx10 <sup>5</sup> @25°C	TDS, tons per acre foot	Disch., c.f.s.	Percent Sodium	Percent Chloride	Silica (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter								Index No.
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	
EE161	107	1.06	2.02	45	16		4.69	1.84	5.05	.27	5.35	4.65	1.85	—	30-13-4
EE280	107	1.06	1.55	46	16		4.65	1.88	4.90	.55	5.15	4.93	1.90	0	
EE1254	101	.94	2.04	45	16		4.35	1.76	5.00	0	5.00	4.28	1.70	.04	
EE159	188	1.78	0.25	95	25		.46	.48	18.00	.46	6.90	7.70	4.80	0	6-12-4
EE23	85.4	.76	2.85	65	22		2.22	.86	5.65	0	3.60	3.13	1.95	0	14-12-3
EE46	107	.98	2.40	68	25		2.62	.97	7.60	.13	4.70	3.77	2.85	0	
EE109	110	.98	2.07	65	24		3.20	.86	7.67	0	5.00	3.78	2.80	0	
EE398	51.7	.47	38.0	34	13		2.91	.79	1.90	0	2.90	1.97	.70	0	8-11-3
EE836	41.7	.37	40.3	32	9.1		2.34	.63	1.42	0	2.90	1.49	.40	0	
15831	50.5	.48		31	8	29	2.94	.77	1.57	.11	2.46	2.44	.42	0	
EE1286	56.7	.52	34.1	31	11		3.26	.90	1.88	0	2.55	2.76	.67	0	
EE399	72.8	.71	1.59	32	10		4.30	1.15	2.52	.05	3.50	3.72	.80	0	34-12-3
EE837	77.0	.71	2.93	31	8.2		4.85	1.06	2.46	.15	4.25	3.57	.70	0	
EE1260	81.1	.76	1.33	31	9		5.01	1.17	2.83	0	4.20	3.89	.80	0	
EE1262	149	1.44	0.27	47	9.6		6.44	2.50	7.86	0	5.65	9.40	1.60	0	5-11-3
EE839	96.2	.92	10.0	33	9.4		5.97	1.20	3.34	.15	5.10	4.56	1.00	0	28-11-3
EE49	97.5	.94	10.0	32	11		6.26	1.32	3.45	.12	5.30	4.65	1.20	0	5-10-3
EE112	90.0	.87	8.0	31	11		5.56	1.37	3.06	.04	4.69	4.28	1.10	0	
EE41	101	1.01	7.0	32	11		6.31	1.64	3.58	.09	5.00	5.32	1.30	0	
EE1256	102	.98	17.0	32	11		6.27	1.55	3.64	0	5.20	4.91	1.20	0	
EE26	113	1.07	40.1	35	12		6.57	1.74	4.45	0	5.40	5.77	1.50	0	13-10-2
EE401	113	1.14	12.6	34	12		6.73	1.72	4.24	.18	5.25	6.07	1.55	0	
EE1264	96.5	.88	26.4	35	11		5.35	1.44	3.80	0	4.80	4.74	1.20	0	
EE403	110	1.13	4.0	34	11		6.65	1.75	4.29	0	5.25	5.98	1.45	0	6-10-3
EE1265	113	1.07	5.67	36	11		6.54	1.67	4.56	0	5.40	5.93	1.40	tr	
EE400	52.8	.51	11.2	33	12		3.02	.79	1.91	0	2.90	2.10	.70	0	19-11-3
15832	51.1	.48		32	8	26	2.94	.78	1.61	.11	2.61	2.31	.45	0	
EE1287	55.5	.48	16.4	30	9.4		3.12	.82	1.73	0	2.70	2.40	.53	0	

\*Includes carbonate (CO<sub>3</sub>)

Middle Rio Grande Valley, New Mexico, Surface Waters - 7 -

(Detailed Analyses)

Index No.	Location and Description
13-10-2	Albuquerque R.S.D., at mouth, near Albuquerque, New Mex. (40) NW1/4 sec. 13, T.10N., R.2E.; about 1-1/2 miles west of Albuquerque, 1/2 mile upstream from Atrisco Diversion, and 1 mile upstream from Old Town Bridge over Rio Grande. Zero of gage is 4951.86 feet above sea level. No. EE25 coll. Aug. 22, 1935 by W.A.L. No. EE48 coll. Sept. 24, 1935 by W.A.L. No. EE111 coll. Oct. 29, 1935 by W.A.L. No. EE237 coll. Jan. 6, 1936 by W.A.L. No. EE838 coll. June 23, 1936 by W.A.L. No. 15470 coll. July 7, 1936 by G.F.H. No. EE1261 coll. Oct. 13, 1936 by W.A.L.
12-6-2	Albuquerque-Barr R.S.D., near Isleta, New Mex. (912.5) At gaging station in NW1/4 sec. 12, T.8N., R.2E.; 0.5 mile above outlet. No. EE402 coll. Mar. 5, 1936 by W.A.L. No. EE841 coll. June 22, 1936 by W.A.L. No. EE1288 coll. Oct. 13, 1936 by W.A.L.
7-9-3	San Jose I.D., near mouth, near Albuquerque, New Mex. (43) NW1/4 sec. 7, T.9N., R.3E.; at highway crossing 4 miles south of Albuquerque, 3 miles northeast of Pajarito, 0.6 mile above junction with Albuquerque-Barr R.S.D. and 1/2 mile east of Rio Grande. No gage. Coll. Mar. 5, 1936 by W.A.L.
24-9-2	Atrisco R.S.D. at Pajarito, New Mex. (45) SW1/4 sec. 24, T.9N., R.2E.; 1/4 mile east of Pajarito, about 7 miles south of Albuquerque, about 4 miles upstream from railroad bridge across Rio Grande. No gage. Coll. July 7, 1936 by G.F.H.
12-6-2	Atrisco R.S.D., near Isleta, New Mex. (912.6) At gaging station in NW1/4 sec. 12, T.8N., R.2E.; 0.6 mile above outlet. No. EE27 coll. Aug. 22, 1935 by W.A.L. No. EE50 coll. Sept. 25, 1935 by W.A.L. No. EE113 coll. Oct. 30, 1935 by W.A.L. No. EE239 coll. Jan. 6, 1936 by W.A.L. No. EE612 coll. June 23, 1936 by W.A.L. No. EE1282 coll. Oct. 14, 1936 by W.A.L.
11-9-2	Armiño I.D., near Armiño, New Mex. (906.1) At gaging station in NW1/4 sec. 11, T.9N., R.2E.; at junction with Isleta Drain, 3 miles southwest of Armiño. Coll. Oct. 14, 1936 by W.A.L.
2-6-2	Los Padillas, I.D., near Los Padillas, New Mex. (911.6) At gaging station in NW1/4 sec. 2, T.8N., R.2E.; 0.3 mile above mouth. Coll. Oct. 14, 1936 by W.A.L.
35-10-2	Isleta I.D., near Armiño, New Mex. (904.4) In NW1/4 sec. 35, T.10N., R.2E.; 13.6 miles above outlet. No gage. No. EE74 coll. Sept. 25, 1935 by W.A.L. No. EE115 coll. Oct. 30, 1935 by W.A.L. No. EE240 coll. Jan. 10, 1936 by W.A.L.
2-9-2	Isleta I.D., near Armiño, New Mex. (906.0) In SW1/4 sec. 2, T.9N., R.2E.; above entrance to Armiño I.D. and 11.8 miles above outlet. No gage. No. EE374 coll. Feb. 22, 1936 by W.A.L. No. EE842 coll. June 19, 1936 by W.A.L.
22-9-2	Isleta I.D., near Pajarito, New Mex. (46) SE1/4 sec. 22, T.9N., R.2E.; at highway crossing 1 mile west of Pajarito, 0.2 mile west of highway crossing over Arenal Main Canal, and about 6-1/2 miles north of Isleta. No gage. Coll. July 7, 1936 by G.F.H.
23-6-2	Isleta I.D., at Isleta, New Mex. (49) E1/2 sec. 23, T.8N., R.2E.; in southwest edge of Isleta, 1/4 mile east of main highway and 1/2 mile west of Isleta Diversion Dam and highway bridge over Rio Grande. Zero of gage is 4875.21 feet above sea level. No. EE28 coll. Aug. 22, 1935 by W.A.L. No. EE1281 coll. Oct. 14, 1936 by W.A.L.

## Middle Rio Grande Valley, New Mexico, Surface Waters - 7 -

## (Detailed Analyses)

Laboratory No.	Conductance Kx10 <sup>3</sup> @25°C	TDS tons per acre feet	Disch. c.f.s.	Percent Sedi-um	Percent Chlo-ride	Sili- ca (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter							Index No.	
							Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)		Ni- trate (NO <sub>3</sub> )
EE25	49.6	.49	121.1	37	12	25	2.58	.93	2.04	0	2.75	2.09	.65	0	13-10-2
EE48	53.8	.47	111.7	34	11		3.02	.72	1.84	.11	2.75	2.34	.60	0	
EE111	55.3	.50	100.3	33	11		3.11	.82	1.91	.05	2.70	2.54	.65	0	
EE237	54.4	.57	86.0	33	12		3.15	.91	2.02	0	3.00	2.31	.75	--	
EE638	41.5	.37	74.6	32	9.1		2.30	.69	1.37	.03	2.50	1.49	.40	0	
15470	40.9	.37		33	9	2.20	.59	1.30	.08	2.39	1.52	.37	tr	0	
EE1261	52.8	.48	57.1	31	11	3.07	.86	1.76	0	2.70	2.30	.60	0		
EE402	72.5	.70	81.5	36	15	25	3.95	1.11	2.70	.13	3.50	3.24	1.15	0	12-8-2
EE841	74.5	.70	68.9	38	15		3.77	1.15	2.85	.15	3.55	3.17	1.20	0	
EE1288	71.5	.62	81.7	36	14		3.84	1.06	2.73	0	3.40	3.14	1.05	0	
EE404	81.3	.79	1.54	25	16	4.95	1.83	2.30	0	3.00	4.40	1.40	0	7-9-3	
15471	46.2	.42		35	9	25	2.45	.65	1.61	.08	2.55	1.81	.45	tr	24-9-2
EE27	53.7	.50	73.5	36	13	25	2.77	1.01	2.07	.02	2.80	2.32	.75	0	12-8-2
EE50	56.0	.50	53.9	34	12		3.26	.73	1.94	.12	2.80	2.55	.70	0	
EE113	57.3	.52	49.1	34	11		3.17	.86	2.08	.01	2.75	2.67	.70	0	
EE239	57.8	.55	45.1	34	12		3.26	.99	2.16	0	3.05	2.54	.75	0	
EE512	47.6	.43	45.8	38	9.8		2.52	.65	1.86	.07	2.70	1.90	.50	0	
EE1282	54.7	.49	42.7	33	10	3.10	.86	1.92	0	2.75	2.45	.58	0		
EE1285	99.4	.95	4.57	36	12	5.77	1.29	3.88	.11	4.50	5.25	1.30	tr	11-9-2	
EE1284	95.5	.91	4.40	37	11	5.37	1.31	3.89	.11	4.95	4.58	1.15	0	2-8-2	
EE74	83.5	.83	5.0	42	12	25	4.25	1.14	3.87	.10	3.90	4.36	1.10	0	35-10-2
EE115	80.0	.78	6.5	39	11		4.15	1.23	3.38	.05	3.75	4.06	1.00	0	
EE240	74.6	.77	5.0	40	11		4.02	1.05	3.28	.10	3.60	3.90	.95	0	
EE374	81.3	.76	6.75	41	12	25	4.27	1.03	3.52	.21	4.00	3.98	1.05	0	2-9-2
EE842	90.1	.87	11.1	44	11		4.33	1.07	4.16	.16	4.15	4.47	1.10	0	
15472	98.6	.95		30	11	28	6.14	1.40	3.09	.12	4.21	5.41	1.13	tr	22-9-2
EE28	85.0	.81	50.3	37	11	28	4.64	1.14	3.38	0	4.00	4.11	1.00	0	23-8-2
EE1281	85.5	.79	39.1	36	11		4.79	1.22	3.33	.06	4.25	4.10	1.05	0	

\*Includes carbonate (CO<sub>3</sub>)

Middle Rio Grande Valley, New Mexico, Surface Waters - 8 -

(Detailed Analyses)

Index No.	Location and Description
1-8-2	Barr I.D., at mouth, near Isleta, New Mex. (44) SE1/4 sec. 1, T.8N., R.2E.; 1/4 mile west of highway, 1-1/4 miles southeast of Los Padillas, 2-3/4 miles northeast of Isleta, and 1-1/4 miles upstream from railroad bridge over Rio Grande. No gage. No. EE73 coll. Sept. 24, 1935 by W.A.L. No. EE114 coll. Oct. 29, 1935 by W.A.L. No. EE242 coll. Jan. 8, 1936 by W.A.L. No. EE840 coll. June 22, 1936 by W.A.L. No. EE1263 coll. Oct. 13, 1936 by W.A.L.
23-8-2	Indian I.D., near Isleta, New Mex. (914.6) At metering station in NE1/4 sec. 23, T.8N., R.2E. No gage. Coll. Oct. 14, 1936 by W.A.L.
34-5-2	Isleta R.S.D., above Isleta I.D., near Isleta, New Mex. (50) NE1/4 sec. 34, T.8N., R.2E.; about 0.2 mile southeast of main highway, 2-1/4 miles southwest of Isleta, and 2-1/4 miles downstream from Isleta Diversion Dam. Zero of gage is 4868.86 feet above sea level. G.H. 1.48. No. 15909 coll. Aug. 31, 1936 by W.H.C. No. EE1299 coll. Oct. 14, 1936 by W.A.L.
14-7-2	Otero I.D., near mouth, near Peralta, New Mex. (52) SW1/4 sec. 14, T.7N., R.2E.; 3/4 mile southwest of Peralta, 1/2 mile east of Rio Grande. Zero of gage is 4846.19 feet above sea level. No. EE378 coll. Mar. 6, 1936 by W.A.L. No. EE1290 coll. Oct. 16, 1936 by W.A.L.
26-7-2	Upper Peralta R.S.D., at mouth, near Los Lunas, New Mex. (53) NE1/4 sec. 26, T.7N., R.2E.; 1-1/2 miles northeast of Los Lunas, 2 miles southwest of Peralta, east side of Rio Grande and 3/4 mile upstream from highway bridge at Los Lunas. Zero of gage is 4846.87 feet above sea level. No. EE381 coll. Mar. 6, 1936 by W.A.L. No. EE823 coll. June 23, 1936 by W.A.L. No. 15829, G.H. 1.79, coll. Aug. 31, 1936 by M.D.D. No. EE1291 coll. Oct. 16, 1936 by W.A.L.
27-7-2	Upper Belen R.S.D., above Los Lentos I.D., at Los Lunas, New Mex. (55) N1/2 sec. 27, T.7N., R.2E.; 1/2 mile northeast of Los Lunas, on west side of Rio Grande, and 1/4 mile upstream from highway bridge at Los Lunas. No gage. No. EE51 coll. Sept. 25, 1935 by W.A.L. No. EE37 coll. Oct. 30, 1935 by W.A.L. No. EE225 coll. Jan. 11, 1936 by W.A.L. No. 15830, G.H. 2.08, coll. Aug. 31, 1936 by M.D.D.
4-6-2	Upper Belen R.S.D., near Los Lunas, New Mex. (924.2) In NE1/4 sec. 4, T.6N., R.2E.; 2.3 miles above outlet and above Hunning Lateral Wasteway. No gage. No. EE813 coll. June 24, 1936 by W.A.L. No. EE1295 coll. Oct. 15, 1936 by W.A.L.
9-6-2	Upper Belen R.S.D., near Los Chaves, New Mex. (925.6) At metering station in W1/2 sec. 9, T.6N., R.2E.; 0.9 miles above outlet. No. EE41 coll. Aug. 20, 1935 by W.A.L. No. EE428 coll. Mar. 6, 1936 by W.A.L. No. EE1294 coll. Oct. 15, 1936 by W.A.L.
27-7-2	Los Lentos I.D., at mouth, at Los Lunas, New Mex. (54) NW1/4 sec. 27, T.7N., R.2E.; 1/2 mile northeast of Los Lunas and 1/4 mile upstream from highway bridge at Los Lunas. No gage. No. EE42 coll. Aug. 20, 1935 by W.A.L. No. EE52 coll. Sept. 25, 1935 by W.A.L. No. EE98 coll. Oct. 30, 1935 by W.A.L. No. EE226 coll. Jan. 11, 1936 by W.A.L. No. EE826 coll. June 24, 1936 by W.A.L. No. EE1293 coll. Oct. 15, 1936 by W.A.L.
20-5-2	Lower Belen R.S.D., near Belen, New Mex. (67a) At gaging station in SE1/4 sec. 20, T.5N., R.2E.; 1 mile below highway bridge and 0.5 mile above outlet. Zero of gage is 4791.14 feet above sea level. No. EE407 coll. Mar. 6, 1936 by W.A.L. No. EE815 coll. June 24, 1936 by W.A.L. No. 15826, G.H. 1.34, coll. Sept. 2, 1936 by M.D.D. No. EE1296 coll. Oct. 15, 1936 by W.A.L.

## Middle Rio Grande Valley, New Mexico, Surface Waters - 8 -

(Detailed Analyses)

Laboratory No.	Conductance Kx10 <sup>5</sup> @25°C	TDS, tons per acre foot	Disch. c.f.s.	Percent Sodium	Percent Chloride	Silica (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter							Index No.	
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)		Nitrate (NO <sub>3</sub> )
EE73	119	1.18	12.2	43	21		5.67	1.81	5.69	0	4.70	5.61	2.80	0	1-6-2
EE114	119	1.12	9.6	42	23		5.70	1.66	5.35	.09	4.25	5.60	2.95	0	
EE242	124	1.26	6.84	42	24		6.08	1.91	5.76	0	4.80	5.68	3.25	tr	
EE840	120	1.14	12.2	45	21		5.37	1.66	5.80	.01	4.30	5.79	2.70	.05	
EE1263	121	1.11	7.32	43	21		5.63	1.75	5.58	0	4.75	5.39	2.75	0	
EE1263	60.3	.54	8.6	33	11		3.45	.91	2.16	0	3.15	2.63	.72	tr	23-6-2
15909	55.4	.53	5.0	31	10	34	3.19	.82	1.83	--	2.62	2.64	.56	0	34-6-2
EE1299	59.7	.53	11.7	33	10		3.37	.93	2.06	0	2.80	2.88	.65	--	
EE378	96.1	.87	1.92	32	13		5.91	1.44	3.40	.08	4.50	4.88	1.45	0	14-7-2
EE1290	102	.93	3.52	35	16		5.90	1.37	3.87	0	4.30	5.08	1.75	0	
EE361	58.2	.49	23.2	32	12		3.35	.87	1.97	.05	3.05	2.44	.75	0	26-7-2
EE823	49.8	.44	12.9	32	11		2.81	.75	1.67	.01	2.70	1.94	.60	0	
15829	55.0	.52	19	32	11	33	3.19	.82	1.78	.14	2.89	2.37	.65	0	
EE1291	55.0	.54	20.4	31	11		3.45	.87	1.99	0	2.90	2.66	.70	0	
EE51	58.2	.51	17.0	32	12		3.08	1.13	1.99	.04	3.05	2.44	.75	0	27-7-2
EE97	59.3	.56	17.0	33	12		3.42	.88	2.13	0	2.95	2.64	.75	0	
EE225	60.6	.60	31.5	32	11		3.51	.96	1.91	.23	3.20	2.66	.75	0	
15830	60.4	.56		34	10	29	3.34	.82	2.04	.12	3.02	2.66	.65	.01	
EE813	72.7	.70	16.4	38	11		3.95	.94	2.74	.22	3.50	3.45	.90	0	4-6-2
EE1295	70.2	.67	20.0	34	11		3.96	.96	2.58	0	3.35	3.25	.85	0	
EE41	59.8	.56	55.0	39	13		3.27	.85	2.57	.10	3.25	2.64	.90	0	9-6-2
EE428	65.2	.60	34.2	32	12		3.87	1.05	2.33	.02	3.40	2.97	.90	0	
EE1294	67.8	.63	28.5	34	12		3.84	.93	2.46	0	3.25	3.12	.85	0	
EE42	122.	1.21	3.8	40	12		6.52	1.48	5.26	.17	5.25	6.58	1.60	0	27-7-2
EE52	121.	1.17	3.4	40	12		6.53	1.53	5.37	0	5.35	6.30	1.65	0	
EE98	119	1.17	2.93	39	12		6.54	1.64	5.16	.15	5.20	6.64	1.65	0	
EE226	118	1.25	3.38	40	12		6.37	1.65	5.03	.37	5.35	6.52	1.55	0	
EE826	119	1.16	4.67	41	11		6.30	1.51	5.16	.20	5.20	6.52	1.45	0	
EE1293	118	1.09	3.51	41	12		6.31	1.42	5.27	0	5.10	6.37	1.50	tr	
EE407	109	1.09	33.5	48	15		4.83	1.28	5.53	.05	3.95	5.94	1.80	0	20-5-2
EE815	105	.99	11.4	49	16		4.46	1.27	5.33	.16	3.80	5.65	1.80	0	
15826	123	1.19	38	52	17	39	4.99	1.48	6.87	.15	4.29	6.83	2.26	0	
EE1296	126	1.14	35.4	51	17		5.13	1.63	6.93	0	4.20	7.11	2.30	0	

\*Includes carbonate (CO<sub>3</sub>)

Middle Rio Grande Valley, New Mexico, Surface Waters - 9 -

(Detailed Analyses)

Index No.	Location and Description
3-6-2	San Fernandes I.D., near mouth, near Tome, New Mex. (57) W1/2 sec. 3, T.6N., R.2E.; at highway crossing 3/8 mile east of river, 2-1/2 miles north of Tome, 2 miles south of Los Lunas. Zero of gage is 4832.14 feet above sea level. Coll. Oct. 16, 1936 by W.A.L.
17-6-2	Harlan I.D. near Lee Chavez, New Mex. (926.1) At gaging station in NE1/4 sec. 17, T.6N., R.2E. No. EE514 coll. June 24, 1936 by W.A.L. No. EE1302 coll. Oct. 15, 1936 by W.A.L.
4-5-2	Tome I.D., at mouth, near Belen, New Mex. (63) NE1/4 sec. 4, T.5N., R.2E.; at highway crossing 3 miles northeast of Belen, 3-1/2 miles south of Tome, and 1/2 mile east of Rio Grande. Zero of gage is 4806.79 feet above sea level. No. EE43 coll. Aug. 20, 1935 by W.A.L. No. EE54 coll. Sept. 26, 1935 by W.A.L. No. EE100 coll. Oct. 31, 1935 by W.A.L. No. EE228 coll. Jan. 9, 1936 by W.A.L. No. EE524 coll. June 23, 1936 by W.A.L. No. EE1301 coll. Oct. 16, 1936 by W.A.L.
34-7-2	Lower Peralta R.S.D. near Los Lunas, New Mex. (923.5) In W1/2 sec. 34, T.7N., R.2E.; 10.1 miles above outlet. No gage. No. EE99 coll. Oct. 31, 1935 by W.A.L. No. EE227 coll. Jan. 9, 1936 by W.A.L.
4-5-2	Lower Peralta R.S.D., near Adelino, New Mex. (930.4) In NW1/4 sec. 4, T.5N., R.2E.; 2.6 miles above outlet. No gage. Coll. June 23, 1936 by W.A.L.
16-5-2	Lower Peralta R.S.D., opposite Belen, New Mex. (66a) At gaging station in NW1/4 sec. 16, T.5N., R.2E.; 1 mile upstream from highway bridge. Zero of gage is 4795.72 feet above sea level. No. EE53 coll. Sept. 26, 1935 by W.A.L. No. EE405 coll. Mar. 5, 1936 by W.A.L. No. 15833, G.H. 4.06, coll. Oct. 1, 1936 by M.D.D. No. EE1292 coll. Oct. 15, 1936 by W.A.L. No. EE1298 coll. Oct. 16, 1936 by W.A.L.
8-5-2	Los Chavez I.D., at mouth, at Belen, New Mex. (69) S1/2 sec. 8, T.5N., R.2E.; 3/4 mile northeast of Belen, about 1/8 mile west of Rio Grande, 1/4 mile east of highway, and 1-1/4 miles upstream from highway bridge over Rio Grande. No gage. No. EE408 coll. Mar. 6, 1936 by W.A.L. No. EE527 coll. June 24, 1936 by W.A.L. No. EE1289 coll. Oct. 15, 1936 by W.A.L.
25-4-1	Boques I.D., near mouth, near Boques, New Mex. (70) SE1/4 sec. 25, T.4N., R.1E.; at highway crossing 2 miles south of Boques, 3/8 mile east of main highway and railroad, and 1-1/4 miles southwest of highway bridge over Rio Grande. No gage. No. EE406 coll. Mar. 6, 1936 by W.A.L. No. EE516 coll. June 25, 1936 by W.A.L. No. EE1303 coll. Oct. 19, 1936 by W.A.L.
20-4-2	Casa Colorado I.D. near Casa Colorado, New Mex. (939.5) At gaging station in NW1/4 sec. 20, T.4N., R.2E.; at outlet of drain. Coll. Oct. 16, 1936 by W.A.L.
29-4-2	Upper San Juan R.S.D., near mouth, near Casa Colorado, New Mex. (73) W1/2 sec. 29, T.4N., R.2E.; at highway crossing just east of highway bridge over Rio Grande, 2 miles southeast of Boques, 1-1/4 miles south of Casa Colorado, and about 4 miles downstream from San Juan Headling. Zero of gage is 4766.32 feet above sea level. No. EE382 coll. Mar. 6, 1936 by W.A.L. No. EE519 coll. June 24, 1936 by W.A.L. No. 15500, G.H. 4.28, coll. July 10, 1936 by M.D.D.
36-4-1	Sabinal R.S.D., near Boques, New Mex. (71) NE1/4 sec. 36, T.4N., R.1E.; on west side of Rio Grande above Boques I.D., 2-1/2 miles south of Boques, 1/2 mile east of main highway and railroad, and about 1-1/2 miles downstream from highway bridge over Rio Grande. No gage. No. EE377 coll. Mar. 6, 1936 by W.A.L. No. EE817 coll. June 25, 1936 by W.A.L. No. 15828, G.H. 2.77, coll. Aug. 31, 1936 by L.J.R. No. EE1326 coll. Oct. 19, 1936 by W.A.L.

## Middle Rio Grande Valley, New Mexico, Surface Waters - 9 -

(Detailed Analyses)

Laboratory No.	Conductance Kcl05 @25°C	TDS. tons per acre feet	Disch. c.f.s.	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter								Index No.
							Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Fi- trate (NO <sub>3</sub> )	
EE1297	64.0	.57	1.93	25	14		4.18	.99	1.73	0	3.20	2.72	.95	0	3-6-2
EE814	190	1.92	1.08	42	26		10.00	2.36	8.84	.05	4.85	10.90	5.50	0	17-6-2
EE1302	183	1.74	1.47	41	26		9.49	2.37	8.22	.14	4.35	10.70	5.15	.02	
EE43	157	1.55	37.5	45	16		7.31	2.42	7.94	.02	5.45	9.34	2.90	0	4-5-2
EE54	155	1.54	36.2	46	17		7.17	2.26	8.13	0	5.35	9.30	2.90	0	
EE100	153	1.52	25.2	45	17		7.03	2.48	7.74	0	5.00	9.31	2.85	0	
EE228	147	1.57	22.2	44	16		7.21	2.58	7.35	.21	5.35	9.25	2.75	0	
EE824	149	1.51	33.6	44	15		6.99	2.36	7.24	0	5.20	8.75	2.55	0	
EE1301	148	1.39	24.6	44	15		6.93	2.32	7.14	.03	5.20	8.75	2.45	.02	
EE99	76.0	.73	8.0	35	15		4.28	1.16	2.94	0	3.35	3.62	1.25	0	34-7-2
EE227	83.0	.82	5.0	34	14		4.83	1.24	2.86	.29	3.95	4.02	1.25	--	
EE825	63.1	.58	40.0	33	12		3.61	.88	2.10	.15	3.20	2.74	.80	0	4-5-2
EE53	67.8	.70	143.9	34	13		3.88	.88	2.30	.18	3.15	3.14	.95	0	16-5-2
EE405	85.2	.82	69.6	37	14		4.47	1.32	3.46	.02	3.70	4.32	1.30	0	
15833	97.8	.91	94	40	15		4.89	1.48	4.04	.17	3.90	5.04	1.55	0	
EE1292	79.0	.70	74.3	35	14		4.50	1.09	2.98	0	3.55	3.74	1.20	0	
EE1296	93.0	.87	74.3	39	14		4.80	1.42	3.91	.09	3.95	4.67	1.40	0	
EE408	220	2.20	11.9	59	18		7.43	2.43	14.4	0	6.00	13.80	4.45	0	8-5-2
EE827	204	1.99	12.9	60	18		6.69	2.13	13.20	.13	5.75	12.50	3.90	0	
EE1289	210	2.05	13.6	61	18		6.84	2.18	14.10	0	5.70	13.20	4.20	.01	
EE406	218	2.15	7.13	52	24		8.56	3.09	12.80	.05	5.20	13.50	5.80	0	25-4-1
EE816	204	2.01	19.7	50	23		8.58	2.64	11.00	.14	5.40	11.80	5.15	.01	
EE1303	219	2.07	10.5	53	23		8.52	2.94	12.70	.04	5.80	12.70	5.65	.05	
EE1300	90.8	.82	0.8	35	15		4.91	1.49	3.45	0	3.95	4.38	1.50	0	20-4-2
EE382	67.3	.58	10.2	34	13		3.75	1.08	2.35	.12	3.35	3.00	.95	0	29-4-2
EE819	65.8	.59	6.08	36	13		3.45	1.09	2.39	.12	3.25	2.85	.95	0	
15500	65.1	.60	10	34	13		3.44	.99	2.22	.11	3.08	2.79	.90	tr	
EE377	72.6	.65	30.1	36	13		4.02	1.14	2.70	.14	3.45	3.50	1.05	0	36-4-1
EE817	71.9	.65	25.6	36	14		3.82	1.16	2.71	.04	3.40	3.28	1.05	0	
15828	70.3	.66		35	13		3.79	1.15	2.48	.14	3.20	3.27	.99	.01	
EE1326	64.2	.60	44.0	34	12		3.57	.91	2.26	.10	3.00	2.99	.85	0	

\*Includes carbonate (CO<sub>3</sub>)

Middle Rio Grande Valley, New Mexico, Surface Waters - 10 -

(Detailed Analyses)

Index No.	Location and Description
36-4-1	Sabinal R.S.D., near Bosque, New Mex. (941.6) NE1/4 sec. 36, T.4N., R.1E.; below mouth of Bosque I.D. Coll. Oct. 19, 1936 by W.A.L.
1-2-1	Lower San Juan R.S.D., near Las Nutrias, New Mex. (77) In NW1/4 sec. 1, T.2N., R.1E.; above outlet to Las Nutrias I.D. No gage. No. EE820 coll. June 25, 1936 by W.A.L. No. 15499, G.H., 1.94, coll. July 10, 1936 by M.D.D.
12-2-1	Lower San Juan R.S.D., near Bernardo, New Mex. (949.8) In NW1/4 sec. 12, T.2N., R.1E.; at east end of Bernardo Bridge and 0.2 mile above outlet. No gage. No. EE380 coll. Mar. 6, 1936 by W.A.L. No. EE1333 coll. Oct. 19, 1936 by W.A.L.
36-3-1	Las Nutrias I.D., near Las Nutrias, New Mex. (76) SE1/4 sec. 36, T.3N., R.1E.; 1-3/4 miles southwest of Las Nutrias, 0.2 mile west of road, 1/2 mile east of Rio Grande, and 1-1/4 miles north of Bernardo Bridge over Rio Grande. No. EE379 coll. Mar. 6, 1936 by W.A.L. No. EE818 coll. June 24, 1936 by W.A.L. No. EE1334 coll. Oct. 19, 1936 by W.A.L.
11-2-1	San Francisco R.S.D., near Bernardo, New Mex. (79) At gaging station in NE1/4 sec. 11, T.2N., R.1E.; at west end of Bernardo Bridge, 3 miles above outlet. Zero of gage is 4715.30 feet above sea level. No. EE44 coll. Aug. 21, 1935 by W.A.L. No. EE75 coll. Sept. 27, 1935 by W.A.L. No. EE101 coll. Nov. 1, 1935 by W.A.L. No. EE229 coll. Jan. 10, 1936 by W.A.L. No. EE822 coll. June 25, 1936 by W.A.L. No. 15827, G.H. 4.42, coll. Aug. 31, 1936 by L.J.R. No. EE1327 coll. Oct. 19, 1936 by W.A.L.
34-3-1	Bernardo Lake (948.0) E1/2 sec. 34, T.3N., R.1E. Coll. Nov. 1, 1935 by W.A.L.
34-3-1	Bernardo I.D., near Bernardo, New Mex. (74) NE1/4 sec. 34, T.3N., R.1E.; above lake just east of main highway and railroad, 1-3/4 miles, by highway, northeast of Bernardo, on east edge of village of Picacho, about 1/2 mile west of Rio Grande, and 2 miles northwest of Bernardo Bridge, over Rio Grande. No gage. No. EE45 coll. Aug. 21, 1935 by W.A.L. No. EE76 coll. Sept. 27, 1935 by W.A.L. No. EE230 coll. Jan. 10, 1936 by W.A.L. No. EE1331 coll. Oct. 19, 1936 by W.A.L.
10-2-1	Bernardo I.D., near Bernardo, New Mex. (949.9) At gaging station in NE1/4 sec. 10, T.2N., R.1E.; 1.2 miles above outlet. No. EE821 coll. June 25, 1936 by W.A.L. No. EE1332 coll. Oct. 19, 1936 by W.A.L.
11-1-1	San Acacia I.D., near San Acacia, New Mex. (83) E1/2 sec. 11, T.1S., R.1W.; above Alamillo Acequia Wasteway, at bend of drain between highway and railroad, 1-1/2 miles south of San Acacia. No gage. No. EE35 coll. Aug. 29, 1935 by W.A.L. No. EE77 coll. Oct. 5, 1935 by W.A.L. No. EE104 coll. Oct. 30, 1935 by W.A.L. No. EE232 coll. Jan. 11, 1936 by W.A.L. No. EE830 coll. June 26, 1936 by W.A.L.
11-1-1	San Acacia I.D., near San Acacia, New Mex. (965.4) At gaging station in SE1/4 sec. 11, T.1S., R.1W.; 0.5 miles above mouth. Coll. Oct. 19, 1936 by W.A.L.
12-1-1	San Acacia I.D., at mouth, near San Acacia, New Mex. (965.7) In SW1/4 sec. 12, T.1S., R.1W.; at outlet of drain. No gage. Coll. Mar. 9, 1936 by W.A.L.



## Middle Rio Grande Valley, New Mexico, Surface Waters - 10 -

(Detailed Analyses)

Laboratory No.	Conductance Kx10 <sup>5</sup> @25°C	TDS. tens per acre foot	Disch. c.f.s.	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter								Index No.
							Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	
KE1325	105	.98	54.5	45	18		4.82	1.42	5.12	0	3.70	5.47	2.05	0	36-4-1
KE820	65.1	.58	15.9	41	12		3.13	.93	2.74	.08	3.20	2.83	.85	0	1-2-1
15499	64.7	.59		39	13	37	3.14	.99	2.52	.11	2.98	2.83	.90	tr	
KE360	58.2	.69	35.0	42	15		3.71	1.15	3.50	.07	3.40	3.78	1.25	0	12-2-1
KE1333	79.0	.72	32.0	43	15		3.59	1.19	3.44	.19	3.35	3.76	1.30	0	
KE379	92.8	.84	9.60	47	15		3.97	1.32	4.04	0	3.45	5.02	1.45	0	36-3-1
KE818	98.9	.92	11.1	49	15		4.04	1.37	5.05	.17	3.69	5.33	1.65	0	
KE1334	96.7	.85	9.45	49	15		3.93	1.39	4.88	.20	3.55	5.25	1.60	0	
KE44	73.1	.71	7.6	55	16		2.55	.96	4.12	.09	3.29	3.22	1.25	0	11-2-1
KE75	77.0	.73	6.0	51	16		3.04	1.06	4.25	0	3.45	3.51	1.35	0	
KE101	77.2	.73	6.29	51	17		2.98	1.08	4.16	0	3.25	3.56	1.40	0	
KE229	75.7	.73	6.44	51	16		2.95	1.06	4.09	.15	3.40	3.50	1.35	0	
KE822	70.1	.64	5.15	54	16		2.45	.94	3.82	.11	3.10	3.07	1.15	0	
15827	73.6	.69	5.0	50	17		2.89	.99	3.78	.14	3.26	3.25	1.30	0	
KE1327	74.1	.68	5.35	50	17	33	2.95	.95	3.84	.02	3.10	3.36	1.30	0	
KE102	248	2.52	5.0	51	27		7.85	5.80	13.90	.15	3.95	16.40	7.35	0	34-3-1
KE45	231	2.30	5.0	51	25		7.30	5.13	13.20	.08	4.00	15.30	6.50	tr	34-3-1
KE76	248	2.50	5.0	52	26		7.85	5.62	14.40	.13	4.10	16.60	7.30	0	
KE230	245	2.46	7.0	52	27		7.60	5.60	14.00	.35	4.10	16.10	7.35	0	
KE1331	228	2.24	5.0	52	26		6.99	4.97	12.60	.34	3.90	14.60	6.40	0	
KE821	232	2.29	10.1	53	29		7.23	4.68	13.20	.24	3.70	14.40	7.25	tr	10-2-1
KE1332	212	2.04	10.4	53	28		6.56	4.31	11.70	.28	3.60	12.90	6.35	0	
KE35	313	2.86	4.0	58	52		9.23	4.26	19.00	0	3.30	12.30	16.70	tr	11-1-1
KE77	310	3.80	2.6	58	51		9.58	4.34	18.80	.03	3.45	12.60	16.70	0	
KE104	308	2.82	4.0	59	52		9.13	4.34	19.10	.08	3.25	12.30	17.10	0	
KE232	304	2.86	5.7	60	51		8.80	4.20	19.30	.25	3.25	12.60	16.70	tr	
KE830	310	2.81	4.6	59	51		9.05	4.15	18.50	.22	3.20	12.30	16.40	.02	
KE1339	224	1.98	7.9	57	46		6.89	3.01	13.10	0	3.40	9.08	10.50	.02	11-1-1
EP430	220	1.98	9.6	56	46		7.16	3.06	13.00	0	3.45	9.05	10.50	0	12-1-1

\*Includes carbonate (CO<sub>3</sub>)

82343 O-38-16

Middle Rio Grande Valley, New Mexico, Surface Waters - 11 -

(Detailed Analyses)

Index No.	Location and Description
24-1-1	Chamisal I.D., at mouth, near San Acacia, New Mex. (84) SW1/4 sec. 24, T.1S., R.1W.; west of Rio Grande, and 3-1/2 miles south of San Acacia. No gage. No. EE189 coll. Dec. 6, 1935 by W.A.L. No. EE436 coll. Mar. 9, 1936 by W.A.L. No. EE531 coll. June 26, 1936 by W.A.L. No. 15473 coll. July 8, 1936 by J.H.B. No. EE1338 coll. Oct. 19, 1936 by W.A.L.
12-1-1	Lemitar R.S.D., near Chamisal, New Mex. (965.7) In SW1/4 sec. 12, T.1S., R.1W.; above junction of San Acacia, I.D. and 8.3 miles above outlet. No gage. Coll. Oct. 5, 1935 by W.A.L.
36-1-1	Lemitar R.S.D., above Lemitar Wasteway, near Lemitar, New Mex. (85) SE1/4 sec. 36, T.1S., R.1W.; on west side of Rio Grande, 0.6 mile east of railroad, 1-1/4 miles northeast of Lemitar, and 5-1/2 miles south of San Acacia. No gage. Coll. Aug. 31, 1936 by C.W.L.
18-2-1	Lemitar R.S.D., near Pueblitos, New Mex. (971.9) At gaging station in NW1/4 sec. 18, T.2S., R.1E., 1.5 miles above outlet. No. EE37 coll. Aug. 29, 1935 by W.A.L. No. EE103 coll. Nov. 1, 1935 by W.A.L. No. EE188 coll. Dec. 6, 1935 by W.A.L. No. EE231 coll. Jan. 1, 1936 by W.A.L. No. EE429 coll. Mar. 10, 1936 by W.A.L. No. EE829 coll. June 26, 1936 by W.A.L. No. EE1336 coll. Oct. 19, 1936 by W.A.L.
4-2-1	Polvadera I.D., near mouth, at Lemitar, New Mex. (86) SW1/4 sec. 1, T.2S., R.1W.; at crossing of Socorro Main Canal north, just east of railroad, 1/2 mile west of Rio Grande, and 3/8 mile northeast of Lemitar. No gage. No. EE36 coll. Aug. 29, 1935 by W.A.L. No. EE78 coll. Oct. 5, 1935 by W.A.L. No. EE233 coll. Jan. 11, 1936 by W.A.L. No. EE431 coll. Mar. 9, 1936 by W.A.L. No. 15463 coll. July 10, 1936 by J.H.B. No. EE1337 coll. Oct. 19, 1936 by W.A.L.
7-3-1	Socorro R.S.D., near Socorro, New Mex. (977.6) In SW1/4 sec. 7, T.3S., R.1E.; 4.5 miles above outlet. No gage. Coll. June 30, 1936 by W.A.L.
20-3-1	Socorro R.S.D., near Socorro, New Mex. (88) NW1/4 sec. 20, T.3S., R.1E.; above Luis Lopez "C" I.D., on west side of Rio Grande, about 1/2 mile east of railroad, and 2 miles southeast of Socorro. No gage. No. EE40 coll. Sept. 5, 1935 by W.A.L. No. EE84 coll. Oct. 2, 1935 by W.A.L. No. EE120 coll. Nov. 2, 1935 by W.A.L. No. EE190 coll. Dec. 7, 1935 by W.A.L. No. EE283 coll. Feb. 18, 1936 by W.A.L. No. 15702 coll. July 12, 1936 by C.W.L.
7-3-1	Luis Lopez "C" I.D., above Socorro, New Mex. (977.0) In NW1/4 sec. 7, T.3S., R.1E.; above entrance of Lopezville Drain and 2.8 miles above outlet. No gage. Coll. June 30, 1936 by W.A.L.
18-3-1	Luis Lopez "C" I.D., near Cuba, New Mex. (978.8) In SW1/4 sec. 18, T.3S., R.1E.; 1 mile above mouth. No gage. No. EE39 coll. Sept. 5, 1935 by W.A.L. No. EE96 coll. Oct. 2, 1935 by W.A.L. No. EE169 coll. Nov. 2, 1935 by W.A.L.
20-3-1	Luis Lopez "C" I.D., at mouth, near Socorro, New Mex. (89) NW1/4 sec. 20, T.3S., R.1E.; west of Rio Grande, about 1/2 mile east of railroad and 2 miles southeast of Socorro. Zero of gage is 4573.24 feet above sea level. No. EE281 coll. Jan. 10, 1936 by W.A.L. No. EE282 coll. Feb. 18, 1936 by W.A.L. No. 15464 coll. July 10, 1936 by J.H.B.
31-3-1	Luis Lopez "B" I.D., at mouth, near Socorro, New Mex. (91) SE1/4 sec. 31, T.3S., R.1E.; west of Rio Grande, 1/4 mile east of railroad, 4 miles south of Socorro, and 6 miles north of San Antonio. Zero of gage is 4560.48 feet above sea level. No. EE57 coll. Sept. 7, 1935 by W.A.L. No. EE83 coll. Oct. 5, 1935 by W.A.L. No. EE106 coll. Oct. 30, 1935 by W.A.L. No. EE235 coll. Jan. 7, 1936 by W.A.L. No. EE433 coll. Mar. 11, 1936 by W.A.L. No. EE834 coll. July 5, 1936 by W.A.L. No. EE1341 coll. Oct. 21, 1936 by W.A.L.

## Middle Rio Grande Valley, New Mexico, Surface Waters - 11 -

(Detailed Analyses)

Laboratory No.	Conductance Kx10 <sup>5</sup> 25°C	TDS. tons per acre foot	Disch. c.f.s.	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter							Index No.			
							Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)		Ni- trate (NO <sub>3</sub> )		
EE189	134	1.16	3.76	28	42	26	7.78	2.28	3.90	.06	3.60	4.47	5.95	0	24-1-1		
EE436	134	1.19	3.88	29	43		8.04	2.24	4.12	0	3.60	4.50	6.10	0			
EE831	138	1.24	1.96	30	43		7.88	2.07	4.00	.19	3.50	4.58	6.10	tr			
15473	137	1.24	1.5	29	43		7.79	2.22	4.04	.13	3.34	4.56	6.06	.01			
EE1338	139	1.22	2.32	31	42		7.85	2.17	4.45	0	3.65	4.69	6.10	.01			
EE79	103	1.10	1.0	38	17	15	5.27	1.91	4.41	0	3.80	5.72	1.95	0	12-1-1		
15792	145	1.28		49	35		5.49	2.14	7.09	.17	3.28	6.22	5.25	0		36-1-1	
EE37	131	1.17	28.9	44	30		5.57	1.92	5.99	0	3.45	5.95	3.95	tr			18-2-1
EE103	136	1.25	33.0	44	31		5.96	2.16	6.38	.12	3.40	6.72	4.50	0			
EE188	141	1.27	35.9	46	31		5.77	2.20	6.88	0	3.55	6.58	4.60	0			
EE231	139	1.29	38.6	47	33	5.84	2.12	6.86	.13	3.55	6.50	4.90	0				
EE429	139	1.29	34.8	46	34	5.92	2.06	6.92	0	3.60	6.29	5.00	0	1-2-1			
EE829	131	1.19	29.8	47	32	5.27	1.87	6.23	.21	3.50	5.78	4.30	tr		7-3-1		
EE1336	129	1.13	35.6	44	29	5.39	2.31	6.06	0	3.60	6.13	4.00	0				
EE36	196	1.78	0.8	44	44	7.91	3.48	8.73	.18	4.10	7.20	9.00	--				
EE78	196	1.83	0.2	46	45	7.69	3.31	9.45	0	3.85	7.56	9.20	0				
EE233	196	1.91	1.36	45	42	8.11	3.42	9.13	.29	4.60	7.55	8.80	0				
EE431	196	1.80	0.91	45	42	8.29	3.33	9.35	0	4.50	7.62	8.85	0	7-3-1			
15463	197	1.80	2.4	44	38	8.58	3.12	8.96	.20	4.69	8.31	7.84	.01				
EE1337	195	1.75	1.58	46	40	7.95	3.13	9.27	.04	4.55	7.72	8.10	.02				
EE832	77.2	.73	20.0	43	16	3.64	1.01	3.32	.20	2.90	3.97	1.30	0				
EE40	86.6	.79	24.0	41	18	3.97	1.52	3.88	0	3.00	4.70	1.65	0		20-3-1		
EE84	92.6	.88	17.0	43	17	4.27	1.39	4.13	.08	2.85	5.37	1.65	0				
EE120	92.4	.87	25.0	43	18	4.33	1.39	4.11	.12	2.70	5.90	1.75	0				
EE190	90.4	.83	20.0	43	16	4.29	1.38	4.02	.19	3.05	5.23	1.60	0				
EE283	90.5	.86	22.0	42	18	4.45	1.30	3.86	.29	3.25	4.90	1.75	0				
15702	80.6	.72		40	17	3.59	1.23	3.17	.11	2.98	3.66	1.35	0	7-3-1			
EE833	79.5	.79	9.0	31	14	4.73	1.14	2.51	.17	3.25	4.10	1.20	0				
EE39	71.0	.65	12.0	33	14	4.11	1.03	2.47	.09	3.10	3.55	1.05	tr		18-3-1		
EE96	70.8	.67	12.0	31	12	4.16	1.11	2.38	0	3.30	3.48	.95	0				
EE169	67.8	.63	12.0	31	12	4.06	1.08	2.24	.10	3.20	3.38	.90	0				
EE281	67.6	.67	13.6	34	13	3.99	.99	2.32	.22	3.15	3.37	1.00	0	20-3-1			
EE282	66.3	.67	14.0	34	13	3.93	.99	2.22	.29	3.15	3.28	1.00	0				
15464	77.1	.71	23	31	13	4.49	1.15	2.39	.11	3.11	3.93	1.04	.01				
EE57	58.7	.52	2.1	32	17	3.36	.85	1.92	.09	3.05	2.12	1.05	0		31-3-1		
EE83	59.4	.53	2.2	31	16	3.37	1.03	2.01	0	3.09	2.28	1.05	0				
EE106	57.8	.55	2.76	31	16	3.39	.99	1.90	.08	3.10	2.26	1.00	0				
EE235	55.5	.55	3.06	33	15	3.15	.99	1.90	.19	3.15	2.13	.95	0				
EE433	54.3	.49	2.99	32	16	3.17	.87	1.89	.04	2.95	2.07	.95	0				
EE834	75.0	.70	2.00	34	13	4.13	1.06	2.56	.18	2.75	4.18	1.00	tr	20-3-1			
EE1341	57.2	.48	2.65	32	16	3.16	.93	1.90	.02	2.90	2.16	.95	0				

\*Includes carbonate (CO<sub>3</sub>)

(241)

Middle Rio Grande Valley, New Mexico, Surface Waters - 12 -

(Detailed Analyses)

<u>Index No.</u>	<u>Location and Description</u>
32-4-1	Luis Lopez "A" I.D., at mouth, near San Antonio, New Mex. (94) NE1/4 sec. 32, T.4S., R.1E.; at crossing of Socorro Main Canal South, 1/4 mile west of Rio Grande, 3/4 mile east of main highway and 3/4 mile northeast of San Antonio. Zero of gage is 4536.36 feet above sea level. No. EE38 coll. Sept. 5, 1935 by W.A.L. No. EE62 coll. Oct. 4, 1935 by W.A.L. No. EE107 coll. Oct. 29, 1935 by W.A.L. No. EE236 coll. Jan. 8, 1936 by W.A.L. No. EE434 coll. Mar. 12, 1936 by W.A.L. No. EE908 coll. July 5, 1936 by W.A.L. No. EE1342 coll. Oct. 21, 1936 by W.A.L.
32-4-1	San Antonio R.S.D., at San Antonio, New Mex. (93) NE1/4 sec. 32, T.4S., R.1E.; above Luis Lopez "A", I.D., west of Rio Grande, about 3/4 mile upstream from San Antonio Highway Bridge, and 3/4 mile northeast of San Antonio. No gage. Coll. Sept. 1, 1936 by C.M.L.
32-4-1	San Antonio R.S.D., near San Antonio, New Mex. (987.9) At gaging station in SE1/4 sec. 32, T.4S., R.1E., 5.7 miles above outlet. No. EE81 coll. Oct. 4, 1935 by W.A.L. No. EE105 coll. Nov. 1, 1935 by W.A.L. No. EE234 coll. Jan. 8, 1936 by W.A.L. No. EE432 coll. Mar. 12, 1936 by W.A.L. No. EE909 coll. July 5, 1936 by W.A.L. No. EE1340 coll. Oct. 21, 1936 by W.A.L.
20-5-1	San Antonio R.S.D., near San Antonio, New Mex. (991.2) In NE1/4 sec. 20, T.5S., R.1E.; above entrance to Elmsendorf I.D. and 2.4 miles above outlet. No gage. Coll. Sept. 7, 1935 by W.A.L.
8-5-1	Elmsendorf I.D., near San Antonio, New Mex. (989.6) Near W1/4 cor. sec. 8, T.5S., R.1E.; 1.9 miles above mouth. No gage. No. EE80 coll. Oct. 4, 1935 by W.A.L. No. EE108 coll. Nov. 1, 1935 by W.A.L. No. EE191 coll. Dec. 5, 1935 by W.A.L.
20-5-1	Elmsendorf I.D., at mouth, near San Antonio, New Mex. (95) NE1/4 sec. 20, T.5S., R.1E.; west of Rio Grande, 1 mile east of main highway and railroad, and 3-1/2 miles south of San Antonio. Zero of gage is 4519.32 feet above sea level. No. EE56 coll. Sept. 7, 1935 by W.A.L. No. EE435 coll. Mar. 12, 1936 by W.A.L.

## Middle Rio Grande Valley, New Mexico, Surface Waters - 12 -

(Detailed Analyses)

Laboratory No.	Conductance Kilohms @25°C	TDS, tons per acre foot	Disch. c.f.s.	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Ppm	Milligram equivalent per liter							Ni- trate (NO <sub>3</sub> )	Index No.
							Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)		
EE38	263	2.35	9.7	71	49		5.73	2.11	19.30	.09	5.25	8.55	13.4	.03	32-4-1
EE82	274	2.46	8.2	73	50		5.33	2.14	20.6	0	5.20	8.90	14.05	0	
EE107	266	2.34	8.88	72	50		5.67	2.06	19.60	.12	5.00	8.85	13.60	0	
EE236	244	2.35	10.3	71	49		5.79	2.11	19.10	.34	5.35	8.57	13.40	.02	
EE434	265	2.32	10.6	71	49		5.95	1.99	19.20	.26	5.30	8.60	13.50	0	
EE908	237	2.08	8.40	70	46		5.33	1.88	16.30	.29	4.75	8.05	11.00	0	
EE1342	258	2.19	9.23	71	48		5.55	1.94	18.60	.02	5.05	8.52	12.50	.04	
15793	86.5	.77		52	18	16	3.19	.99	4.48	.14	3.02	4.16	1.55	0	32-4-1
EE81	162	1.51	32.0	65	38		4.32	1.55	10.9	0	4.00	6.31	6.40	0	32-4-1
EE105	159	1.43	30.0	63	37		4.50	1.85	10.40	.05	4.00	6.35	6.15	0	
EE234	147	1.49	30.9	64	37		4.36	1.57	10.40	.37	4.20	6.30	6.20	0	
EE432	158	1.41	33.9	64	38		4.49	1.50	10.40	.05	4.05	6.14	6.25	0	
EE909	145	1.25	26.0	65	36		4.03	1.36	9.21	.15	3.85	5.65	5.25	0	
EE1340	150	1.31	30.1	63	35		4.26	1.43	9.59	.07	3.90	6.03	5.40	.02	
EE55	155	1.35	38.0	66	39		4.10	1.30	10.30	.11	4.00	5.66	6.15	tr	20-5-1
EE80	126	1.32	0.7	47	16		5.76	1.77	6.60	0	4.65	7.01	2.30	0	8-5-1
EE108	133	1.27	0.7	48	26		5.84	1.64	6.87	.05	3.70	7.00	3.70	tr	
EE191	116	1.13	0.7	49	23		5.09	1.51	6.28	0	3.85	6.05	2.95	0	
EE56	101	.93	9.5	49	17		4.32	1.15	5.14	.16	3.80	5.15	1.80	.02	20-5-1
EE435	113	1.06	1.93	46	23		5.17	1.44	5.61	.01	4.00	5.38	2.85	0	

\*Includes carbonate (CO<sub>3</sub>)

Middle Rio Grande Valley, New Mexico, Subsoil Waters

(Detailed Analyses)

Index No.	Location and Description
<p>Note: The water samples here reported are from observation wells listed in the table of conductance data (Group 2) for this area and the designations in parentheses are those used as line and well numbers in that table. The townships and ranges are referred to the New Mexico principal meridian. The locations of the wells are only approximate as to position within the quarter section. The elevations are from bench marks established by the Middle Rio Grande Conservancy District. The expressions "R.P.", "G.S." and "W.S." imply respectively: Reference Point, Ground Surface, and Water Surface. The samples and analyses are by the Geological Survey.</p>	
2-13-4	(879.8-1E) Located N660' - W660' of SW cor., Sec. 2, T.13N., R.4E. Elevations: R.P. 5084.18; G.S. 5084.0; W.S. 5080.72. Coll. Oct. 29, 1936 by P.K.
30-13-4	(884.8-2E) Located N1320' - W1320' of SE cor., Sec. 30, T.13N., R.4E. Elevations: R.P. 5051.45; G.S. 5051.2; W.S. 5046.10. Coll. Nov. 3, 1936 by P.K.
30-13-4	(884.8-4E) Located N1000' of SE cor., Sec. 30, T.13N., R.4E. Elevations: R.P. 5051.09; G.S. 5050.9; W.S. 5046.37. Coll. Oct. 29, 1936 by P.K.
1-12-3	(886.9-2E) Located S1320' - W1320' of NE cor., Sec. 1, T.12N., R.3E. Elevations: R.P. 5038.41; G.S. 5038.4; W.S. 5033.93. Coll. Oct. 29, 1936 by P.K.
6-12-4	(886.9-6E) Located N660' - W1320' of SE cor., Sec. 6, T.12N., R.4E. Elevations: R.P. 5041.84; G.S. 5040.9; W.S. 5033.58. Coll. Nov. 3, 1936 by P.K.
23-12-3	(889.6-1E) Located S1320' - W1320' of NE cor., Sec. 23, T.12N., R.3E. Elevations: R.P. 5022.62; G.S. 5021.0; W.S. 5020.95. Coll. Oct. 29, 1936 by P.K.
24-12-3	(889.6-4E) Located S1320' - W2680' of NW cor., Sec. 24, T.12N., R.3E. Elevations: R.P. 5025.19; G.S. 5025.1; W.S. 5019.35. Coll. Nov. 3, 1936 by P.K.
26-12-3	(890.8-3W) Located S1320' - W1980' of NE cor., Sec. 26, T.12N., R.3E. Elevations: R.P. 5018.27; G.S. 5018.2; W.S. 5014.47. Coll. Nov. 3, 1936 by P.K.
26-12-3	(890.8-4W) Located S1320' - W2640' of NW cor., Sec. 26, T.12N., R.3E. Elevations: R.P. 5018.28; G.S. 5018.2; W.S. 5013.83. Coll. Oct. 29, 1936 by P.K.
35-12-3	(892.5-1E) Located near south line of Sec. 35, T.12N., R.3E. Elevations: R.P. 5007.79; G.S. 5007.2; W.S. 5004.82. Coll. Oct. 29, 1936 by P.K.
34-12-3	(892.5-2W) Located N1320' - W660' of SE cor., Sec. 34, T.12N., R.3E. Elevations: R.P. 5008.96; G.S. 5008.9; W.S. 5003.86. Coll. Nov. 3, 1936 by P.K.
34-12-3	(892.5-5W) Located in center of Sec. 34, T.12N., R.3E. Elevations: R.P. 5006.37; G.S. 5005.9; W.S. 5000.98. Coll. Oct. 29, 1936 by P.K.
8-11-3	(894.4-3W) Located W1320' of center of east line of Sec. 8, T.11N., R.3E. Elevations: R.P. 4995.04; G.S. 4994.8; W.S. 4992.72. Coll. Oct. 29, 1936.
8-11-3	(894.4-1E) Drive point penetrating 15 ft. below water surface. Located W500' of center of east line of Sec. 8, T.11N., R.3E. Elevations: R.P. 4992.94; G.S. 4992.9; W.S. 4990.59. Coll. Oct. 29, 1936 by P.K.
9-11-3	(894.4-11E) Located W1980' - W2640' of SW cor., Sec. 9, T.11N., R.3E., in center of Albuquerque Main Canal. Elevations: R.P. 4997.62. Coll. Oct. 30, 1936 by W.L.V. and P.K.
9-11-3	(894.4-13E) Located W1320' - W1980' of SE cor., Sec. 9, T.11N., R.3E. Elevations: R.P. 4993.65; G.S. 4993.6; W.S. 4991.74. Coll. Oct. 28, 1936 by P.K.
10-11-3	(894.4-17E) Located W1320' - W1980' of SE cor., Sec. 10, T.11N., R.3E. Elevations: R.P. 4998.21; G.S. 4998.5; W.S. 4993.75. Coll. Oct. 28, 1936 by P.K.

Middle Rio Grande Valley, New Mexico, Subsoil Waters

(Detailed Analyses)

Laboratory and Field No.	Con- duct- ance Kx10 <sup>5</sup> Sec <sup>-2</sup> °C	TDS, tons per acre foot	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Fm	Fluo- ride (F) Fm	Milligram equivalent per liter								Index No.
							Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Pota- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	
16014 (87B.5-1E)	92.0	.83	47	15	67	.5	3.94	1.15	4.39	.21	5.74	2.52	1.47	.01	2-13-4
15938 (884.5-2E)	115	1.08	56	8	33	.6	4.14	1.32	7.05	--	5.47	6.02	.99	0	30-13-4
16059 (884.5-4E)	145	1.35	42	9.4	49	2.5	6.49	2.63	6.17	.33	7.15	7.06	1.49	0	30-13-4
16013 (886.9-2E)	116	1.08	25	11	24	.3	7.69	1.89	2.83	.31	5.77	5.56	1.35	0	1-12-3
15937 (886.9-6E)	126	1.16	63	7	51	1.2	3.59	1.48	8.79	--	8.57	4.27	.96	0	6-12-4
16009 (889.6-1E)	47.1	.40	45	8.9	13	.9	2.10	.69	2.04	.25	3.97	.60	.45	0	23-12-3
15936 (889.6-4E)	112	1.10	29	7	38	.2	7.49	1.56	3.68	--	6.82	4.96	.62	.32	24-12-3
16012 (890.5-3W)	168	1.66	35	13	32	.4	10.28	2.14	6.52	.17	7.02	9.58	2.59	0	26-12-3
15904 (890.5-4W)	118	1.16	58	24	36	2.2	4.29	1.07	7.49	--	4.66	5.02	1.47	1.58	26-12-3
15902 (892.5-1E)	118	1.16	41	13	31	.4	5.89	1.97	5.50	--	5.92	5.64	1.78	0	35-12-3
16060 (892.5-2W)	44.1	.38	29	7.5	17	.2	2.60	.70	1.22	.10	2.82	1.35	.34	0	34-12-3
15903 (892.5-5W)	119	1.10	35	7	36	1.1	6.59	2.96	5.10	--	11.57	1.96	1.04	.02	34-12-3
15917 (894.4-3W)	74.0	.64	35	13	27	1.0	3.59	1.64	2.80	--	5.77	1.19	.99	.03	8-11-3
16008 (894.4-1E)	49.7	.43	36	11	13	.5	2.60	.76	1.74	.12	2.69	1.89	.56	0	8-11-3
15915 (894.4-11E)	41.6	.38	23	5.4	17	1.2	2.40	.90	.99	--	2.13	1.87	.23	0	9-11-3
15940 (894.4-13E)	162	1.58	52	13	21	.4	6.49	2.22	9.46	--	6.46	9.26	2.43	0	9-11-3
15916 (894.4-17E)	97.0	.91	33	4.8	29	1.9	5.69	1.40	3.55	--	6.28	3.75	.51	0	10-11-3

Middle Rio Grande, New Mexico, Subsoil Waters - 2 -

(Detailed Analyses)

Index No.	Location and Description
31-11-3	(898.5-2E) Located S330' - E660' of NW cor., Sec. 31, T.11N., R.3E. Elevations: R.P. 4973.26; G.S. 4972.0; W.S. 4968.91. Coll. Oct. 28, 1936 by P.K.
32-11-3	(898.5-6W) Located S2310' - E1980' of NW cor., Sec. 32, T.11N., R.3E. Elevations: R.P. 4973.84; G.S. 4973.8; W.S. 4968.29. Coll. Nov. 3, 1936 by P.K.
32-11-3	(898.5-9E) Located N2640' of SE cor., Sec. 32, T.11N., R.3E. Elevations: R.P. 4974.16; G.S. 4974.1; W.S. 4968.24. Coll. Oct. 28, 1936 by P.K.
12-10-2	(900.4-3E) Located in center of Sec. 12, T.10N., R.2E. Elevations: R.P. 4959.67; G.S. 4959.3; W.S. 4954.71. Coll. Oct. 27, 1936 by P.K.
7-10-3	(900.4-7E) Located in center of Sec. 7, T.10N., R.3E. Elevations: R.P. 4961.12; G.S. 4960.8; W.S. 4953.36. Coll. Oct. 28, 1936 by P.K.
7-10-3	(900.4-10E) Located S1320' of NW cor., Sec. 7, T.10N., R.3E. Elevations: R.P. 4963.58; G.S. 4962.3; W.S. 4956.08. Coll. Oct. 28, 1936 by P.K.
8-10-3	(900.4-12E) Located S1980' - W1980' of NW cor., Sec. 8, T.10N., R.3E. Elevations: R.P. 4963.98; G.S. 4962.1; W.S. 4958.88. Coll. Nov. 3, 1936 by P.K.
26-10-2	(903.2-10W) Located N1980' - E1980' of SW cor., Sec. 26, T.10N., R.2E. Elevations: R.P. 4938.94; G.S. 4939.3; W.S. 4933.90. Coll. Nov. 4, 1936 by P.K.
30-10-3	(903.2-2W) Located S1980' - E1320' of NW cor., Sec. 30, T.10N., R.3E. Elevations: R.P. 4943.5; G.S. 4943.5; W.S. 4939.59. Coll. Oct. 29, 1936 by P.K.
5-9-3	(905.3-5E) Located N1320' - E500' of SW cor., Sec. 5, T.9N., R.3E. Elevations: R.P. 4934.79; G.S. 4934.7; W.S. 4929.55. Coll. Oct. 30, 1936 by W.L.L. and P.K.
13-9-2	(907.3-4W) Located S1320' of NW cor., Sec. 13, T.9N., R.2E. Elevations: R.P. 4919.68; G.S. 4919.6; W.S. 4915.88. Coll. Oct. 29, 1936 by P.K.
14-9-2	(907.3-8W) Located S1320' - E660' of NW cor., Sec. 14, T.9N., R.2E. Elevations: R.P. 4921.29; G.S. 4919.8; W.S. 4914.09. Coll. Nov. 4, 1936 by P.K.
24-9-2	(908.1-4E) Located W800' of NW cor., Sec. 24, T.9N., R.2E. Elevations: R.P. 4917.15; G.S. 4917.0; W.S. 4913.65. Coll. Oct. 30, 1936 by W.L.L. and P.K.
19-9-3	(908.1-8E) Located E1100' of NW cor., Sec. 19, T.9N., R.3E. Elevations: R.P. 4922.10; G.S. 4922.1; W.S. 4915.65. Coll. Nov. 4, 1936 by P.K.
35-9-2	(911.2-5W) Located N2640' of SW cor., Sec. 35, T.9N., R.2E. Elevations: R.P. 4897.98; G.S. 4897.9; W.S. 4894.73. Coll. Oct. 30, 1936 by P.K.
1-8-2	(911.2-2W) Located S660' - E1980' of NW cor., Sec. 1, T.8N., R.2E. Elevations: R.P. 4900.99; G.S. 4900.9; W.S. 4896.96. Coll. Nov. 4, 1936 by P.K.
1-8-2	(911.2-5E) Located W500' of NW cor., Sec. 1, T.8N., R.2E. Elevations: R.P. 4901.19; G.S. 4900.8; W.S. 4898.07. Coll. Nov. 4, 1936 by P.K.
6-8-3	(911.2-9E) Located E800' of NW cor., Sec. 6, T.8N., R.3E. Elevations: R.P. 4900.46; G.S. 4900.3; W.S. 4897.31. Coll. Oct. 30, 1936 by W.L.L. and P.K.



Middle Rio Grande Valley, New Mexico, Subsoil Waters - 2 -

(Detailed Analyses)

Laboratory and Field No.	Con- ductance Kx10 <sup>5</sup> @25°C	TDS, tons per acre- foot	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Ppm	Fluo- ride (F) Ppm	Milligram equivalent per liter								Index No.
							Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	
15933 (898.5-2E)	154	1.61	33	4	20	0	10.53	1.64	5.92	--	6.28	10.99	.82	0	31-11-3
15935 (898.5-6E)	110	1.03	58	10	48	1.4	3.49	1.48	6.79	--	5.57	4.91	1.21	0	32-11-3
16010 (898.5-9E)	94.4	.89	27	9.3	29	.3	5.49	1.89	2.52	.16	4.38	4.96	.96	0	32-11-3
15919 (900.4-3E)	83.4	.75	41	8.3	20	2.5	3.69	1.48	3.63	--	5.38	2.56	.73	0	12-10-2
16007 (900.4-7E)	170	1.78	30	4.2	23	.6	10.38	3.78	5.61	.38	6.69	12.55	.85	0	7-10-3
15918 (900.4-10E)	213	1.99	63	20	21	.8	5.64	2.80	14.47	--	7.33	16.93	4.60	.01	7-10-3
15934 (900.4-12E)	153	1.42	48	14	32	1.0	6.09	2.71	8.10	--	7.36	7.12	2.37	0	8-10-3
16068 (903.2-10W)	68.6	.63	27	9.3	14	.6	4.29	.90	1.88	--	3.80	2.58	.37	.29	26-10-2
16063 (903.2-2W)	176	1.70	55	13	27	2.1	6.79	1.56	10.18	.18	6.74	9.62	2.43	.12	30-10-3
16011 (905.3-5E)	89.0	.82	63	9.0	55	1.3	2.45	.99	5.78	.18	5.10	3.44	.85	0	5-9-3
16062 (907.3-4W)	202	2.10	45	8.5	25	1.2	10.03	2.71	10.26	.25	6.70	14.68	1.97	.01	13-9-2
16067 (907.3-8W)	108	.98	46	10	22	.9	4.34	1.81	5.21	--	4.70	5.43	1.16	.02	14-9-2
15939 (908.1-4E)	115	1.08	23	23	42	0	7.64	1.97	2.91	--	5.28	4.31	2.93	0	24-9-2
16058 (908.1-8E)	1160	13.06	62	43	61	3.8	28.95	25.00	87.41	1.61	8.88	72.66	60.92	.31	19-9-3
15973 (911.2-5W)	131	1.19	74	12	19	.7	2.65	.90	10.17	--	4.69	7.35	1.64	0	35-9-2
16061 (911.2-2W)	99.8	.95	28	13	27	1.2	6.54	1.32	2.96	.10	5.03	4.52	1.38	0	1-8-2
16057 (911.2-5E)	132	1.33	32	20	21	.6	5.64	2.30	4.74	.22	3.41	8.35	2.99	.01	1-8-2
15932 (911.2-9E)	95.3	.88	31	32	62	.3	5.19	1.48	2.96	--	3.54	2.94	3.13	0	6-8-3

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 3 -

(Detailed Analyses)

Index No.	Location and Description
35-8-2	(917.8-3B) Located in SW1/4 Sec. 35, T.2N., R.2E. Elevations: R.P. 4869.16; G.S. 4869.1; W.S. 4864.48. Coll. Nov. 6, 1936 by H.G.L.
36-8-2	(917.8-6B) Located in SE1/4 Sec. 36, T.2N., R.2E. Elevations: R.P. 4869.82; G.S. 4869.8; W.S. 4862.22. Coll. Nov. 6, 1936 by H.G.L.
10-7-2	(919.2-2W) Located in NW1/4 Sec. 10, T.7N., R.2E. Elevations: R.P. 4861.94; G.S. 4861.9; W.S. 4859.39. Coll. Nov. 7, 1936 by H.G.L.
15-7-2	(920.5-1W) Located in center Sec. 15, T.7N., R.2E. Elevations: R.P. 4856.07; G.S. 4856.0; W.S. 4850.27. Coll. Nov. 5, 1936 by H.G.L.
15-7-2	(920.5-1E) Located in SE1/4 Sec. 15, T.7N., R.2E. Elevations: R.P. 4856.61; G.S. 4856.6; W.S. 4852.36. Coll. Nov. 6, 1936 by H.G.L.
13-7-2	(920.5-7E) Located in SE1/4 Sec. 13, T.7N., R.2E. Elevations: R.P. 4854.81; G.S. 4854.80; W.S. 4848.51. Coll. Nov. 6, 1936 by H.G.L.
28-7-2	(922.3-4W) Located in NE1/4 Sec. 28, T.7N., R.2E. Elevations: R.P. 4850.42; G.S. 4850.4; W.S. 4842.95. Coll. Oct. 30, 1936 by H.G.L.
26-7-2	(922.3-2E) Located in SW1/4 Sec. 26, T.7N., R.2E. Elevations: R.P. 4844.46; G.S. 4844.4; W.S. 4839.33. Coll. Oct. 30, 1936 by H.G.L.
25-7-2	(922.3-7E) Located in SE1/4 Sec. 25, T.7N., R.2E. Elevations: R.P. 4843.01; G.S. 4843.0; W.S. 4836.47. Coll. Nov. 5, 1936 by H.G.L.
5-6-2	(924.8-4W) Located in SE1/4 Sec. 5, T.6N., R.2E. Elevations: R.P. 4836.14; G.S. 4836.1; W.S. 4830.24. Coll. Oct. 30, 1936 by H.G.L.
4-6-2	(924.8-2W) Located in SW1/4 Sec. 4, T.6N., R.2E. Elevations: R.P. 4835.11; G.S. 4835.1; W.S. 4832.11. Coll. Oct. 31, 1936 by H.G.L.
1-6-2	(924.8-7E) Located in SW1/4 Sec. 1, T.6N., R.2E. Elevations: R.P. 4834.65; G.S. 4834.6; W.S. 4829.92. Coll. Nov. 5, 1936 by H.G.L.
16-6-2	(926.3-1E) Located in NW1/4 Sec. 16, T.6N., R.2E. Elevations: R.P. 4832.08; G.S. 4832.0; W.S. 4827.53. Coll. Nov. 6, 1936 by H.G.L.
14-6-2	(926.3-7E) Located in NW1/4 Sec. 14, T.6N., R.2E. Elevations: R.P. 4830.22; G.S. 4830.2; W.S. 4820.27. Coll. Nov. 5, 1936 by H.G.L.
19-6-2	(927.9-6W) Located in SE1/4 Sec. 19, T.6N., R.2E. Elevations: R.P. 4824.98; G.S. 4824.9; W.S. 4817.36. Coll. Nov. 5, 1936 by H.G.L.
28-6-2	(927.9-3E) Located in NE1/4 Sec. 28, T.6N., R.2E. Elevations: R.P. 4822.42; G.S. 4822.4; W.S. 4813.84. Coll. Nov. 6, 1936 by H.G.L.
4-5-2	(930.2-3E) Located in NE1/4 Sec. 4, T.5N., R.2E. Elevations: R.P. 4813.43; G.S. 4813.4; W.S. 4807.99. Coll. Nov. 6, 1936 by H.G.L.
6-5-2	(931.2-5W) Located in SW1/4 Sec. 6, T.5N., R.2E. Elevations: R.P. 4809.36; G.S. 4809.3; W.S. 4803.91. Coll. Oct. 29, 1936 by H.G.L.
8-5-2	(931.2-1W) Located in NE1/4 Sec. 8, T.5N., R.2E. Elevations: R.P. 4806.26; G.S. 4806.2; W.S. 4802.48. Coll. Oct. 29, 1936 by H.G.L.
19-5-2	(933.6-8W) Located in NW1/4 Sec. 19, T.5N., R.2E. Elevations: R.P. 4798.74; G.S. 4798.7; W.S. 4792.56. Coll. Nov. 3, 1936 by H.G.L.

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 3 -  
(Detailed Analyses)

Laboratory and Field No.	Con- duct- ance Kx10 <sup>5</sup> @25°C	TDS per acre foot	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Fm	Fluo- ride (F) Fm	Milligram equivalent per liter								Index No.
							Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	
15968 (917.8-3E)	418	4.80	44	17	42	0	19.82	9.54	22.67	--	7.31	35.98	8.74	0	35-8-2
15969 (917.8-6E)	68.6	.60	34	8.0	17	.8	3.79	.90	2.41	--	3.70	2.79	.56	.01	36-8-2
16040 (919.1-2W)	79.3	.67	33	11	19	.3	4.24	1.15	2.63	--	4.26	2.89	.85	0	10-7-2
16064 (920.5-1W)	73.1	.65	26	12	14	.5	4.44	1.23	1.87	.12	3.43	3.25	.93	0	15-7-2
15963 (920.5-1E)	79.2	.71	33	12	26	1.5	4.44	1.32	2.84	--	4.98	2.50	1.04	0	15-7-2
15964 (920.5-7E)	116	1.08	47	11	26	1.7	4.79	1.73	5.79	--	6.75	4.12	1.35	0	13-7-2
16038 (922.3-4W)	137	1.21	48	18	49	1.0	5.74	2.06	7.18	--	9.26	2.96	2.71	0	28-7-2
16066 (922.3-2E)	101	.91	61	5.7	26	1.7	5.74	2.80	2.65	.38	7.90	3.16	.68	0	26-7-2
16043 (922.3-7E)	326	3.31	60	12	44	2.5	10.18	4.52	22.12	--	9.79	22.32	4.46	.12	25-7-2
15976 (924.8-4W)	152	1.44	56	11	30	2.0	5.39	1.89	9.36	--	5.87	8.83	1.83	0	5-6-2
15975 (924.8-2W)	134	1.31	38	9.2	40	1.7	7.59	1.81	5.66	--	6.47	7.12	1.38	0	4-6-2
15982 (924.8-7E)	206	2.07	47	8.9	35	4.0	8.09	4.61	11.15	--	9.26	12.26	2.12	0	1-6-2
15971 (926.3-1E)	68.6	.61	31	7.7	10	4.0	3.99	.99	2.28	--	4.62	1.87	.56	0	16-6-2
15972 (926.3-7E)	284	2.67	80	10	27	4.0	4.49	1.97	25.47	--	15.74	12.70	3.27	.01	14-6-2
15981 (927.9-6W)	1800	22.25	81	12	26	6.0	27.95	17.93	197.13	--	9.33	205.28	28.06	.02	19-6-2
15970 (927.9-3E)	66.4	.59	29	7.4	12	1.5	3.99	1.15	2.14	--	3.95	2.71	.54	0	28-6-2
15966 (930.2-3E)	181	1.72	37	21	19	1.2	8.19	3.45	6.89	--	5.31	9.24	3.89	.03	4-5-2
15967 (931.2-5W)	313	2.89	91	15	21	12	2.20	.90	31.47	--	15.10	13.76	5.08	0	6-5-2
16072 (931.2-1W)	176	1.67	44	11	13	1.0	8.39	2.80	8.62	--	8.10	9.51	2.14	.01	8-5-2
16044 (933.6-8W)	209	1.83	80	24	30	.9	2.99	1.32	16.98	--	7.77	8.31	5.16	0	19-5-2

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 4 -

(Detailed Analyses)

Index No.	Location and Description
21-5-2	(933.6-1W) Located in SW1/4 Sec. 21, T.5N., R.2E. Elevations: R.P. 4796.52; G.S. 4796.5; W.S. 4794.47. Coll. Nov. 3, 1936 by N.G.L.
21-5-2	(936.0-5W) Located in SE1/4 Sec. 31, T.5N., R.2E. Elevations: R.P. 4785.96; G.S. 4785.9; W.S. 4781.10. Coll. Nov. 3, 1936 by N.G.L.
32-5-2	(936.0-2W) Located in SW1/4 Sec. 32, T.5N., R.2E. Elevations: R.P. 4787.62; G.S. 4787.6; W.S. 4783.00. Coll. Nov. 2, 1936 by N.G.L.
12-4-1	(937.4-5W) Located in NE1/4 Sec. 12, T.4N., R.1E. Elevations: R.P. 4780.23; G.S. 4780.2; W.S. 4772.88. Coll. Nov. 4, 1936 by N.G.L.
7-4-2	(937.4-3W) Located in NE1/4 Sec. 7, T.4N., R.2E. Elevations: R.P. 4780.01; G.S. 4780.0; W.S. 4773.43. Coll. Nov. 5, 1936 by N.G.L.
8-4-2	(937.4-3E) Located in center of SE1/4 Sec. 8, T.4N., R.2E. Elevations: R.P. 4779.92; G.S. 4779.9; W.S. 4774.97. Coll. Nov. 2, 1936 by N.G.L.
25-4-1	(940.6-7W) Located in NE1/4 Sec. 25, T.4N., R.1E. Elevations: R.P. 4765.91; G.S. 4766.9; W.S. 4759.46. Coll. Nov. 4, 1936 by N.G.L.
30-4-2	(940.6-2W) Located in NE1/4 Sec. 30, T.4N., R.2E. Elevations: R.P. 4767.45; G.S. 4767.4; W.S. 4762.08. Coll. Nov. 4, 1936 by N.G.L.
29-4-2	(940.6-1E) Located in NW1/4 Sec. 29, T.4N., R.2E. Elevations: R.P. 4768.59; G.S. 4768.5; W.S. 4765.23. Coll. Nov. 4, 1936 by N.G.L.
24-3-1	(945.3-2E) Located in NW1/4 Sec. 24, T.3N., R.1E. Elevations: R.P. 4743.79; G.S. 4743.7; W.S. 4737.79. Coll. Nov. 4, 1936 by N.G.L.
24-3-1	(945.3-3E) Located in NE1/4 Sec. 24, T.3N., R.1E. Elevations: R.P. 4743.31; G.S. 4743.3; W.S. 4736.95. Coll. Nov. 4, 1936 by N.G.L.
36-3-1	(948.5-2E) Located in SE1/4 Sec. 36, T.3N., R.1E. Elevations: R.P. 4731.73; G.S. 4731.7; W.S. 4727.68. Coll. Nov. 2, 1936 by N.G.L.
36-3-1	(948.5-3E) Located in SE1/4 Sec. 36, T.3N., R.1E. Elevations: R.P. 4732.41; G.S. 4732.4; W.S. 4728.71. Coll. Nov. 4, 1936 by N.G.L.
11-2-1	(949.8-3W) Located in NW1/4 Sec. 11, T.2N., R.1E. Elevations: R.P. 4724.57; G.S. 4724.5; W.S. 4720.50. Coll. Nov. 4, 1936 by N.G.L.
11-2-1	(949.8-2W) Located in NE1/4 Sec. 11, T.2N., R.1E. Elevations: R.P. 4724.91; G.S. 4724.9; W.S. 4721.56. Coll. Nov. 4, 1936 by N.G.L.
16-2-1	(951.7-2W) Located in SE1/4 Sec. 16, T.2N., R.1E. Elevations: R.P. 4724.64; G.S. 4724.6; W.S. 4718.97. Coll. Nov. 2, 1936 by N.G.L.
14-2-1	(951.7-2E) Located in SW1/4 Sec. 14, T.2N., R.1E. Elevations: R.P. 4718.50; G.S. 4718.5; W.S. 4717.04. Coll. Nov. 2, 1936 by N.G.L.
1-1-1	(964-2W) Located N2640' - E1320' of SW cor., Sec. 1, T.1S., R.1W. Elevations: R.P. 4659.48; G.S. 4659.4; W.S. 4655.39. Coll. Dec. 2, 1936 by W.E.H.
24-1-1	(967.1-2W) Located E1320' - E1320' of NW cor., Sec. 24, T.1S., R.1W. Elevations: R.P. 4646.99; G.S. 4646.9; W.S. 4642.26. Coll. Dec. 2, 1936 by W.E.H.
1-2-1	(969.95-4W) Located S660' - E1320' of NW cor., Sec. 1, T.2S., R.1W. Elevations: R.P. 4625.85; G.S. 4625.8; W.S. 4622.38. Coll. Dec. 2, 1936 by W.E.H.

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 4 -

(Detailed Analyses)

Laboratory and Field No.	Con- duct- ance Kx105 @25°C	TDS, tons per acre foot	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Fm	Fluo- ride (F) Fm	Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	Index No.
16042 (933.6-1W)	92.7	.84	29	20	31	0	4.99	1.97	2.83	--	4.10	3.73	1.95	.01	21-5-2
15980 (936.0-5W)	355	3.27	49	46	29	1.0	15.47	4.11	19.16	--	6.95	13.95	17.77	.02	31-5-2
16041 (936.0-2W)	157	1.44	56	15	35	1.8	5.54	1.97	9.41	--	7.06	7.22	2.54	.01	32-5-2
16039 (937.4-5W)	777	6.95	87	52	10	1.0	7.04	3.54	68.37	--	5.61	32.40	40.89	--	12-4-1
16037 (937.4-3W)	258	2.66	36	18	52	0	12.53	6.33	10.86	--	9.03	15.43	5.22	.04	7-4-2
16016 (937.4-3W)	222	2.17	48	12	50	.4	10.08	3.29	11.87	.28	10.64	11.85	3.10	0	8-4-2
16015 (940.6-7W)	165	1.57	41	6.9	33	.8	8.04	3.45	7.74	.20	11.26	6.87	1.35	0	25-4-1
15978 (940.6-2W)	113	.97	37	14	30	1.7	4.69	2.71	4.33	--	5.92	4.06	1.66	0	30-4-2
15974 (940.6-1E)	224	2.27	33	16	42	2.2	10.18	7.07	8.42	--	7.38	14.07	4.09	.01	29-4-2
16065 (945.3-2E)	81.4	.67	37	11	43	2.7	3.24	2.30	2.96	.26	7.47	.37	.99	0	24-3-1
16046 (945.3-3E)	302	2.92	65	25	7.2	.6	7.74	3.70	21.23	--	3.54	20.78	8.32	0	24-3-1
16045 (948.5-2E)	90.9	.72	57	25	17	1.3	2.94	.99	5.13	--	2.75	3.98	2.26	0	36-3-1
16071 (948.5-3E)	263	2.14	73	52	3.4	2.6	4.14	1.56	18.33	--	2.52	9.26	13.11	0	36-3-1
15965 (949.8-3W)	1010	10.45	64	52	22	2.8	24.61	18.17	74.85	--	5.33	51.51	60.64	0	11-2-1
16070 (949.8-2W)	205	1.72	84	37	28	2.7	2.55	.76	16.88	--	5.54	7.04	7.47	0	11-2-1
15977 (951.7-2W)	694	7.63	74	27	10	5.0	12.48	9.13	60.45	--	4.18	55.59	22.00	.03	16-2-1
15979 (951.7-2E)	211	1.73	45	79	8.0	1.1	7.79	3.12	8.94	--	2.00	2.12	15.65	.02	14-2-1
16133 (964-2W)	105	.91	48	22	--	0.4	4.89	1.40	5.92	--	6.47	3.04	2.68	0	1-1-1
16134 (967.1-2W)	84.8	.79	35	10	--	0.5	4.89	1.23	3.34	--	4.46	3.98	.99	0	24-1-1
16135 (969.95-4W)	91.0	.79	69	19	--	1.0	2.30	.75	6.68	--	4.75	3.04	1.89	0	1-2-1

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 5 -

(Detailed Analyses)

Index No.	Location and Description
18-2-1	(972-2W) Located 8660' - W660' of NW cor., Sec. 18, T.28., R.1E. Elevations: R.P. 4616.23; G.S. 4616.2; W.S. 4615.91. Coll. Dec. 1, 1936 by W.E.H.
24-2-1	(973-2W) Located 81320' - E2640' of NW cor., Sec. 24, T.28., R.1W. Elevations: R.P. 4614.27; G.S. 4614.2; W.S. 4612.44. Coll. Dec. 1, 1936 by W.E.H.
25-2-1	(974-1W) Located 8660' - W660' of NE cor., Sec. 25, T.28., R.1W. Elevations: R.P. 4607.21; G.S. 4607.2; W.S. 4604.06. Coll. Dec. 1, 1936 by W.E.H.
12-3-1	(977-9W) Located 8660' - W1980' of NE cor., Sec. 12, T.3S., R.1W. Elevations: R.P. 4589.71; G.S. 4589.5; W.S. 4585.40. Coll. Dec. 1, 1936 by W.E.H.
7-3-1	(977-3W) Located 8200' - E2640' of NW cor., Sec. 7, T.3S., R.1E. Elevations: R.P. 4591.75; G.S. 4591.4; W.S. 4586.83. Coll. Dec. 1, 1936 by W.E.H.
30-3-1	(980-3W) Located 81320' - W1320' of NE cor., Sec. 30, T.3S., R.1E. Elevations: R.P. 4575.24; G.S. 4575.3; W.S. 4573.16. Coll. Dec. 1, 1936 by W.E.H.
25-3-1	(980-2W) Located 81000' of NW cor., Sec. 25, T.3S., R.1E. Elevations: R.P. 4576.83; G.S. 4576.8; W.S. 4573.41. Coll. Dec. 1, 1936 by W.E.H.
30-3-1	(980.4-6W) Located 81320' - W1320' of SE cor., Sec. 30, T.3S., R.1E. Elevations: R.P. 4573.87; G.S. 4573.8; W.S. 4569.70. Coll. Dec. 1, 1936 by W.E.H.
30-3-1	(980.4-4W) Located 81980' - W660' of SE cor., Sec. 30, T.3S., R.1E. Elevations: R.P. 4575.03; G.S. 4575.0; W.S. 4571.08. Coll. Dec. 1, 1936 by W.E.H.
29-3-1	(980.4-1W) Located 81980' - E660' of SW cor., Sec. 29, T.3S., R.1E. Elevations: R.P. 4574.41; G.S. 4574.4; W.S. 4571.89. Coll. Dec. 1, 1936 by W.E.H.
20-4-1	(985.2-1W) Located E2640' - W600' of SE cor., Sec. 20, T.4S., R.1E. Elevations: R.P. 4552.19; G.S. 4552.1; W.S. 4546.29. Coll. Dec. 2, 1936 by W.E.H.
17-5-1	(990.8-2W) Located 8660' - W1320' of SW cor., Sec. 17, T.5S., R.1E. Elevations: R.P. 4523.69; G.S. 4523.6; W.S. 4521.63. Coll. Dec. 2, 1936 by W.E.H.
31-5-1	(993.1-6W) Located 81320' of NE cor., Sec. 31, T.5S., R.1E. Elevations: R.P. 4513.91; W.S. 4512.46. Coll. Dec. 3, 1936 by W.E.H.
32-5-1	(993.1-2W) Located 81320' of NE cor., Sec. 32, T.5S., R.1E. Elevations: R.P. 4515.09; G.S. 4515.0; W.S. 4514.10. Coll. Dec. 3, 1936 by W.E.H.
12-6-1	(995.1-5W) Located at NE cor., Sec. 2, T.6S., R.1W. Elevations: R.P. 4506.47; G.S. 4506.0; W.S. 4504.13. Coll. Dec. 3, 1936 by W.E.H. Iron 5.3 ppm.
7-6-1	(995.1-3W) Located 81320' of NE cor., Sec. 7, T.6S., R.1E. Elevations: R.P. 4505.51; G.S. 4505.5; W.S. 4504.92. Coll. Dec. 3, 1936 by W.E.H.
24-6-1	(997.2-3W) Located at NW cor., Sec. 24, T.6S., R.1W. Elevations: R.P. 4495.41; G.S. 4495.4; W.S. 4493.96. Coll. Dec. 3, 1936 by W.E.H.

Middle Rio Grande Valley, New Mexico, Subsoil Waters - 5 -

(Detailed Analyses)

Laboratory and Field No.	Con- ductance Kx10 <sup>5</sup> @25°C	TDS per cent Sodi- um	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Fpm	Fluo- ride (F) Fpm	Milligram equivalent per liter								Index No.
							Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Hi- trate (NO <sub>3</sub> )	
16136 (972-2W)	61.1	.49	83	22	--	0.2	.45	.55	4.87	--	3.49	1.08	1.27	.02	18-2-1
16137 (973-2W)	170	1.73	50	9.4	--	0.2	6.19	3.21	9.31	--	2.08	14.87	1.75	0	24-2-1
16138 (974-1W)	177	1.69	38	21	--	1.8	9.53	2.88	7.69	--	6.93	8.85	4.23	0	25-2-1
16151 (977-9W)	53.3	.46	34	13	--	.4	3.04	.67	1.94	--	3.34	1.56	.73	0	12-3-1
16150 (977-3W)	65.5	.57	32	9.7	--	.4	3.89	1.07	2.33	--	5.39	1.17	.71	0	7-3-1
16152 (980-3W)	339	3.02	65	19	--	.2	8.44	5.18	25.84	--	8.10	23.96	7.39	0	30-3-1
16153 (980-2W)	111	1.00	41	17	--	0	5.79	1.56	5.19	--	5.90	4.50	2.14	0	29-3-1
16130 (980.4-6W)	38.9	.34	36	12	--	0.2	2.00	.62	1.50	--	2.82	.81	.48	0	30-3-1
16129 (980.4-4W)	80.9	.75	33	14	--	0.8	4.44	1.48	2.98	--	6.29	1.33	1.24	0	30-3-1
16131 (980.4-1W)	79.0	.71	25	11	--	0.4	5.29	1.23	2.21	--	4.84	2.94	.93	0	29-3-1
16154 (985.2-1W)	475	4.34	62	56	--	.4	15.77	3.87	31.74	--	7.23	15.22	28.91	0	20-4-1
16155 (990.8-2W)	51.1	.42	43	22	--	.4	2.30	.64	2.21	--	2.92	1.08	1.13	0	17-5-1
16132 (993.1-6W)	141	1.22	81	38	--	1.8	1.95	.82	12.04	--	6.33	2.75	5.64	0	31-5-1
16156 (993.1-2W)	176	1.52	86	24	--	.8	1.40	1.07	15.70	--	5.29	8.47	4.37	0	32-5-1
16157 (995.1-5W)	3717	38.90	81	66	--	2.0	37.43	45.15	372.20	--	4.39	150.05	305.53	--	12-6-1
16158 (995.1-3W)	104	.82	93	54	--	.4	.45	.19	9.15	--	2.64	1.81	4.74	.58	7-6-1
16149 (997.2-3W)	266	2.38	94	29	--	6.8	1.30	.53	26.51	--	9.08	10.72	8.18	0	24-6-1

\*Includes carbonate (CO<sub>3</sub>)

Middle Rio Grande Valley, New Mexico, Underground Waters

(Detailed Analyses)

Index No.	Location and Description
	Note: These samples represent water that lies deeper than the subsoil waters of the valley. Unless the depth of well is stated, it may be assumed that the depth is 20 to 50 feet. The townships and ranges are referred to the New Mexico principal meridian. The samples with numbers preceded by "EE" are those of the State of Texas. The others are by the Geological Survey.
6-16-1	Artesian well north of San Ysidro, N. Mex. In eastern part of Ojo del Espiritu Santo Grant, approximately Sec.6, T.16N., R.1E. (Note: This is probably the well described as "Kaseman No.2" by Benick in W.S.P.680, p.83; and as artesian well at site No.5 by Clark in Bull.163, University of New Mexico). Coll. Dec.13, 1935 by W.A.L.
6-12-4	New Mexico Lumber Co. well at Peraltillo, N. Mex. Sec.6, T.12N., R.4E. Drilled well, 40 ft. deep. Coll. Dec.14, 1936 by W.L.L. and B.R.T.
9-11-3	Jack Means sand point well near Alameda, N. Mex. Sec.9, T.11N., R.3E. Depth 34 ft.; diam. 2 in.; located in corral.No.15912. Coll. Oct. 30, 1936 by W.L.L. and P.K.
9-11-3	Jack Means domestic well near Alameda, N. Mex. Sec.9, T.11N., R.3E. Depth 32 ft.; diam. 2 in.; located in yard north of house. No.15913. Coll. Oct. 30, 1936 by W.L.L. and P.K.
9-11-3	J. H. Lane domestic well near Alameda, N. Mex. Sec.9, T.11N., R.3E. Depth 35 ft.; located in house. No. 15941. Coll. Nov. 3, 1936 by P.K.
10-11-3	Domestic well in Alameda, N. Mex. (894.6 - No.1). SE1/4 of SW1/4 Sec.10, T.11N., R.3E., 500 ft. west of Alameda Interior Drain. Coll. Nov. 14, 1935 by W.A.L.
31-11-3	Domestic well in Los Griegos, N. Mex. (898.6 - No.5). NE1/4 of SW1/4 Sec.31, T.11N., R.3E., northeast of intersection of Griegos Road and Rio Grande Boulevard. Coll. Dec.3, 1935 by W.A.L.
20-10-3	Municipal water supply of Albuquerque, N. Mex. No. EE 663, Coll. May 28, 1936 by W.A.L.
20-10-3	Municipal wells, Albuquerque, N. Mex. No.4 located at Tijeras and Broadway Streets, drilled April, 1933; depth 717 ft.; diam. 8 in. No.16189. Coll. Dec.14, 1936 by W.L.L. and B.R.T. No.2 located at City Machine Shop, Broadway and Mountain Road, drilled in 1932; depth 446 ft.; diam. 8 in. No.16187. Coll. Dec.14, 1936 by W.L.L. and B.R.T. No.3 located at City Machine Shop, Broadway and Mountain Road, depth 56 ft. (estimated); diam. 8 in. No.16188. Coll. Dec.14, 1936 by W.L.L. and B.R.T.
32-10-3	Domestic well south of Albuquerque, N. Mex. (904.4 - No.2). Sec.32, T.10N., R.3E., near head of San Jose Interior Drain, 600 ft. west of center of section. Coll. Dec.3, 1935 by W.A.L.
14-7-2	Domestic well southwest of Peralta, N. Mex. (920.7 - No.7). S1/2 Sec.14, T.7N., R.2E.; 300 ft. east of gaging station on Otero Interior Drain. Coll. Dec.4, 1935 by W.A.L.
27-7-2	Domestic well north of Los Lunas, N. Mex. (922.0 - No.6). NW1/4 of NW1/4 Sec.27, T.7N., R.2E.; 500 ft. west of Los Lunas Interior Drain. Coll. Dec.4, 1935 by W.A.L.
19-6-2	Domestic well west of Los Chavez, N. Mex. (927.8 - No.13). Near center SE1/4 Sec.19, T.6N., R.2E.; 1300 ft. west of Los Chavez Interior Drain. Coll. April 10, 1936 by W.A.L.
18-5-2	New Mexico Power Co. well at Belen, N. Mex. Public supply for Belen; depth 260 ft.; diam. 7-5/8 in. Coll. Dec.14, 1936 by W.L.L. and B.R.T.



## Middle Rio Grande Valley, New Mexico, Underground Waters

(Detailed Analyses)

Laboratory No.	Conductance, $\text{K}\times 10^5$ @25°C	TDS, Tons per acre foot	Percent Sodium	Percent Chloride	Silica (SiO <sub>2</sub> ) Ppm	Fluoride (F) Ppm	Milligram equivalent per liter							Nitrate (NO <sub>3</sub> )	Index No.
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)		
EE 187	1530	15.70	86	47	--	--	19.30	5.60	158.00	.20	23.50	74.10	85.50	0	6-16-1
16177	129	1.19	56	14	--	0.6	4.64	1.56	8.01	--	8.72	3.54	1.92	0	6-12-4
15912	53.5	.48	8.2	12	27	.7	3.89	1.07	.44	--	2.54	2.17	.65	0	9-11-3
15913	73.8	.70	12	11	26	1.4	5.59	1.23	.92	--	3.39	3.41	.87	0	9-11-3
15941	67.1	.62	18	11	24	0	4.84	.99	1.25	--	3.29	3.00	.79	0	9-11-3
EE 160	74.8	.75	24	10	--	--	5.43	1.12	1.81	.27	4.35	3.38	.90	--	10-11-3
EE 183	128	1.25	50	9.4	--	--	5.97	1.45	7.54	0	7.15	6.34	1.40	tr	31-11-3
EE 663	47.8	.45	39	11	--	--	2.13	.99	1.90	.14	2.90	1.70	.55	.01	20-10-3
16189	40.9	.43	43	8.9	--	0.3	1.65	.76	1.84	--	2.64	1.21	.37	.01	20-10-3
16187	38.4	.40	44	6.2	--	0.7	1.35	.90	1.76	--	2.66	1.06	.25	0	
16188	58.2	.57	26	11	--	0.2	3.59	.99	1.61	--	2.69	2.81	.68	0	
EE 182	97.2	.87	35	19	--	--	5.07	1.83	3.46	.18	3.30	5.24	2.00	0	32-10-3
EE 163	103	.94	58	16	--	--	3.87	.90	6.35	.22	4.60	4.94	1.80	0	14-7-2
EE 162	86.0	.83	36	20	--	--	5.00	1.11	3.12	.18	3.60	3.96	1.85	0	27-7-2
EE 508	104	.98	76	18	--	--	2.03	.73	8.35	.34	5.85	3.55	1.10	.95	19-6-2
16182	76.5	.69	79	7.5	--	0.6	1.00	.60	6.01	--	2.70	4.31	.51	.06	18-5-2

Middle Rio Grande Valley, New Mexico, Underground Waters - 2 -

(Detailed Analyses)

Index No.	Location and Description
20-5-2	Domestic well southeast of Belen, N. Mex. (933.5 - No.8). SW1/4 of NW1/4 Sec.20, T.5N., R.2E.; on north side of road. Coll. Dec.5, 1935 by W.A.L.
20-4-2	Domestic well near Casa Colorado, N. Mex. (939.4 - No.11). NE1/4 Sec.20, T.4N., R.2E.; west of road. Coll. Dec.6, 1935 by W.A.L.
24-4-1	School well at Bosque, N. Mex. (939.6 - No.12). SW1/4 of NE1/4 Sec.24, T.4N., R.1E.; north of road and east of Bosque Interior Drain. Coll. April 10, 1936 by W.A.L.
36-4-1	Domestic well south of Bosque N. Mex. (941.5 - No.10). NW1/4 of NE1/4 Sec.36, T.4N., R.1E.; 500 ft. northwest of gaging station on Bosque Interior Drain. Coll. Dec. 16, 1935 by W.A.L.
7-3-2	Domestic well south of San Juan, N. Mex. (943.8 - No.14). E1/2 Sec.7, T.3N., R.2E.; between acequia and road 0.5 mile south and 0.25 mile east of head of Las Nutrias Interior Drain. Coll. April 10, 1936 by W.A.L.
23-3-1	Domestic well in Abeytas, N. Mex. (946.1 - No.15). Near center Sec.23, T.3N., R.1E.; west of highway. Coll. April 10, 1936 by W.A.L.
10-2-1	Domestic well east of Bernardo, N. Mex. (949.9 - No.9). E1/2 Sec.10, T.2N., R.1E.; north side of highway U.S. 60; 0.5 mile east of railroad. Coll. Dec. 6, 1935 by W.A.L.
2-1-1	Domestic well southwest of San Acacia, N. Mex. (964.0 - B). NE1/4 Sec.2, T.1S., R.1W.; 100 ft. southwest of intersection of San Acacia road with highway U.S. 85. Coll. Dec. 9, 1935 by W.A.L.
14-1-1	Domestic well in Chamisal, N. Mex. (966.6 - F). S1/2 Sec.14, T.1S., R.1W.; 500 ft. west of railroad. Coll. March 28, 1936 by W.A.L.
2-2-1	Domestic well in Lemitar, N. Mex. (970.6 - E). SW1/4 of SE1/4 Sec.2, T.2S., R.1W.; south side of town. Coll. March 28, 1936 by W.A.L.
27-2-1	Spring in hills east of Puelitos, N. Mex. (974.4 - K). E1/2 Sec.27, T.2S., R.1E.; 3 miles east and 1 mile south of Puelitos. Coll. April 24, 1936 by W.A.L.
25-2-1	Domestic well in Escondido, N. Mex. (974.5 - H). SW1/4 of SE1/4 Sec.25, T.2S., R.1W. Coll. March 28, 1936 by W.A.L.
36-2-1	New Mexico Transient Hospital well (975.0 - L). NE1/4 of NW1/4 Sec.36, T.2S., R.1W.; west of highway U.S. 85. Coll. Feb. 21, 1936 by W.A.L.
1-3-1	Domestic well north of Florida, N. Mex. (975.8 - C). NE1/4 of NE1/4 Sec.1, T.3S., R.1W.; 300 ft. west of railroad. Coll. Dec. 8, 1935 by W.A.L.
15-3-1	Municipal water supply of Socorro, N. Mex. (978.8 - M). Sec.15, T.3S., R.1E.; springs located 2.5 miles southwest of Socorro. No. EE 376. Coll. Feb. 17, 1936 by W.A.L. No. 16144 from stand pipe in town. Coll. Dec. 4, 1936 by W.E.H. No. 16143 from spring at head. Coll. Dec. 4, 1936 by W.E.H.
7-4-1	Domestic well south of Luis Lopez, N. Mex. (982.9 - D). NW1/4 of NW1/4 Sec.7, T.4S., R.1E.; 100 ft. south of school house on east side of highway U.S. 85. Coll. Dec. 10, 1935 by W.A.L.

Middle Rio Grande Valley, New Mexico, Underground Waters - 2 -

(Detailed Analyses)

Laboratory No.	Conductance K10 <sup>5</sup> 25°C	TDS Tons per acre foot	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Ppm	Fluo- ride (F) Ppm	Milligram equivalent per liter								Index No.
							Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	
EE 164	135	1.44	33	15	--	--	8.80	1.79	4.77	.49	6.30	7.15	2.40	0	20-5-2
EE 184	328	3.05	76	40	--	--	4.04	4.36	26.20	.05	3.15	17.60	13.40	.50	20-4-2
EE 507	294	3.17	56	33	--	--	9.49	5.40	18.50	.11	4.20	22.40	6.90	0	24-4-1
EE 166	142	1.37	38	11	--	--	8.17	2.27	6.03	.29	8.05	6.91	1.80	0	36-4-1
EE 509	64.1	.63	41	7.8	--	--	3.13	1.00	2.80	.11	3.30	3.19	.55	0	7-3-2
EE 510	166	1.56	78	4.7	--	--	2.51	1.46	14.10	.23	6.75	10.70	.85	0	23-3-1
EE 165	233	2.18	67	33	--	--	4.65	3.46	16.50	.14	3.55	13.00	8.20	0	10-2-1
EE 279	392	3.47	72	61	--	--	6.75	4.25	28.90	0	4.60	10.80	24.40	0	2-1-1
EE 512	340	3.29	44	44	--	--	15.90	5.27	16.90	0	6.70	14.40	16.80	0	14-1-1
EE 511	421	4.44	65	28	--	--	12.60	4.12	31.50	0	8.60	26.20	12.10	1.25	2-2-1
EE 666	87.6	.87	28	5.7	--	--	4.45	2.73	2.66	.20	4.25	5.22	.55	.02	27-2-1
EE 664	37.1	.32	38	11	--	--	1.93	.60	1.35	.20	2.60	1.02	.45	.01	25-2-1
EE 375	36.1	.34	33	10	--	--	2.07	.59	1.16	.15	2.70	.87	.40	tr	36-2-1
EE 192	43.0	.38	52	13	--	--	1.77	.43	2.08	.29	2.55	1.42	.60	--	1-3-1
EE 376	34.0	.32	67	11	--	--	.93	.33	2.39	.14	2.75	.62	.40	.02	15-3-1
16144	34.7	.31	65	10	--	.9	.90	.39	2.37	--	2.61	.62	.37	.01	
16143	34.8	.31	64	11	--	1.0	.90	.39	2.32	--	2.56	.62	.37	.01	
EE 193	120	1.12	57	20	--	--	4.29	1.40	7.15	.37	5.55	5.02	2.60	.04	7-4-1

Middle Rio Grande Valley, New Mexico, Underground Waters - 3 -

(Detailed Analyses)

<u>Index No.</u>	<u>Location and Description</u>
30-4-1	Domestic well north of San Antonio, N. Mex. (986.3 - A). E1/2 Sec. 30, T.4S., R.1E.; on west side of highway U.S. 85. Coll. Dec. 6, 1935 by W.A.L.
7-5-1	Domestic well west of San Antonio, N. Mex. (989.6 - J). Near center Sec. 7, T.5S., R.1E.; about 0.5 mile west of railroad. Coll. April 23, 1936 by W.A.L.

Middle Rio Grande Valley, New Mexico, Underground Waters - 3 -

(Detailed Analyses)

Laboratory No.	Conductance K10 <sup>5</sup> @25°C	TDS. Tons per acre foot	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Ppm	Fluo- ride (F) Ppm	Milligram equivalent per liter								Index No.
							Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Bicar- bon- ate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	
EE 170	209	2.01	78	11	--	--	3.79	1.37	18.20	.14	9.15	11.70	2.65	0	30-4-1
EE 665	45.5	.42	62	16	--	--	1.45	.40	2.65	.15	2.95	1.14	.75	.01	7-5-1

Elephant Butte Project, New Mexico and Texas, Surface Waters

(Detailed Analyses)

Index No.	Location and Description
<p>Note: In the following descriptions the Townships and Ranges are referenced to the New Mexico Principal Meridian. The data as to location and elevation are by the Bureau of Reclamation, and all samples were collected by that Bureau. The samples with numbers preceded by "EE" were analyzed by the State of Texas, the others were analyzed by the Geological Survey.</p>	
<u>Irrigation Waters:</u>	
25-13-4	Rio Grande at Elephant Butte Dam outlet, New Mexico. Pool below dam in Sec. 25, T.13S., R.4W.; at 4255 ft. above sea level. Collected by W.A.L.
36-16-5	Rio Grande at Percha Dam, New Mexico. N950 ft., W1450 ft. of SE cor. Sec. 36, T.16S., R.5W. Crest of dam is 4146.27 ft. above sea level. Collected by W.A.L., except No. 15759 by M.E.B.
13-24-1	Rio Grande at Mesilla Dam, New Mexico. S240 ft., E1320 ft. of NW cor. Sec. 13, T.24S., R.1E.; the diversion into Eastside and Westside Canals of Mesilla Valley. Collected by W.A.L., except No. 15761 by E.S.M.
9-29-4	Rio Grande at El Paso gaging station, Texas. SE1/4 Sec. 9, T.29S., R.4E. Zero of gage is 3720.65 ft. above sea level. Collected by W.A.L.
11-32-6	Rio Grande at Riverside Canal head, Texas. N2000 ft., E1950 ft. of SW cor. Sec. 11, T.32S., R.6E. Zero of gage is 3658.58 ft. above sea level. Collected by J.S.
12-35-9	Tornillo Canal at head of Hudepeth Canal, Texas. SW1/4 Sec. 12, T.35S., R.9E. Collected by W.A.L.
<p>Rio Grande at Fort Quitman gaging station, Texas. Located at lower end of El Paso Valley, 1.5 miles below old Fort Quitman and 11.5 miles south of Finlay, Texas. Zero of gage is 3454.06 ft. above sea level. Collected by W.A.L.</p>	
<u>Drainage Waters:</u>	
26-28-3	West Drain, Mesilla Valley, New Mexico. S1440 ft., E50 ft. of NW cor. Sec. 26, T.28S., R.3E., above confluence with Nemexas Drain. Collected by W.A.L.
32-33-8	Middle Drain, El Paso Valley, Texas. SW1/4 Sec. 32, T.33S., R.8E., below confluence with River Drain. Collected by W.A.L.

## Elephant Butte Project, New Mexico and Texas, Surface Waters

(Detailed Analyses)

Laboratory No.	Date	Conductance Kx10 <sup>5</sup> @25°C	TDS tons per acre foot	Disch. c.f.s.	Percent Sodium	Percent Chloride	Milligram equivalent per liter							Index No.	
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)		Nitrate (NO <sub>3</sub> )
	1936														
EE 970	7-10	85.9	.80	2116	45	16	3.65	1.19	3.93	.10	2.60	4.62	1.45	0	25-13-4
EE 974	7-24	84.1	.79	2356	44	16	3.63	1.22	3.82	.02	2.60	4.49	1.40	0	
EE1020	8-7	80.5	.76	—	43	17	3.47	1.31	3.62	.03	2.65	4.78	1.40	0	
EE1043	8-21	78.7	.70	—	43	17	3.43	1.24	3.58	0	2.70	4.15	1.35	.02	
EE1157	9-4	78.4	.71	—	43	17	3.45	1.21	3.52	0	2.60	4.15	1.40	tr	
EE1206	9-18	79.1	.69	—	43	17	3.45	1.22	3.53	0	2.60	4.19	1.35	tr	
EE1330	10-2	78.6	.72	12	43	17	3.45	1.18	3.54	0	2.50	4.28	1.35	.02	
EE 971	7-14	75.4	.67	—	42	19	3.59	.98	3.24	.04	3.00	3.38	1.45	.02	36-16-5
EE 935	8-1	83.4	.78	—	44	18	3.62	1.27	3.79	.09	2.80	4.37	1.60	0	
15759	8-5	81.8	.74	2145	45	18	3.44	1.23	3.57	.18	2.61	4.25	1.52	.01	
EE1021	8-15	81.1	.77	—	45	17	3.47	1.29	3.72	.11	2.85	4.24	1.50	0	
EE1155	9-1	80.2	.71	—	46	19	3.37	1.15	3.71	.09	* 2.60	4.12	1.60	0	
EE1154	9-15	79.8	.71	—	45	19	3.43	1.11	3.67	.06	* 2.60	4.12	1.55	0	
EE 931	7-11	91.8	.87	3500	45	19	3.94	1.24	4.21	.07	* 2.90	4.74	1.80	.02	13-24-1
EE 936	7-29	85.9	.82	1514	45	18	3.77	1.29	4.08	0	* 2.90	4.56	1.65	0	
15761	8-6	86.3	.78	—	46	19	3.64	1.15	3.87	.15	2.74	4.50	1.68	0	
EE1156	8-26	84.8	.77	—	44	19	3.75	1.19	3.92	0	2.80	4.39	1.65	0	
EE1153	9-16	86.7	.75	—	43	19	3.85	1.28	3.90	0	2.75	4.46	1.75	0	
EE1244	9-30	99.8	.86	—	43	26	4.53	1.37	4.50	0	3.40	4.33	2.65	.02	
EE1022	8-12	85.2	.78	—	44	18	3.66	1.31	3.93	0	* 2.75	4.50	1.66	tr	
EE 932	7-12	110	1.03	3003	50	26	4.24	1.45	5.63	0	2.90	5.50	2.90	.01	9-29-4
EE1152	8-30	111	.98	—	51	28	4.09	1.43	5.77	0	3.00	5.15	3.10	.02	
15727	7-29	117	1.05	439	51	27	4.59	1.56	6.26	.17	3.38	5.66	3.24	.06	11-32-6
EE 967	7-14	170	1.52	207	56	39	5.63	1.98	9.60	0	3.65	6.77	6.75	.04	12-35-3
EE 969	7-28	278	2.49	62.8	59	50	8.63	3.15	16.70	0	4.50	9.75	14.20	.01	
EE1018	8-11	194	1.66	176	55	41	6.24	2.29	10.40	0	3.90	7.31	7.65	.02	
EE1148	9-6	192	1.71	—	55	41	6.58	2.33	11.00	0	4.15	7.54	8.10	.02	
EE1151	8-25	157	1.43	—	53	37	5.53	2.00	8.60	0	3.60	6.51	5.90	.05	
EE1228	9-30	187	1.66	144	59	40	6.35	2.29	10.70	0	4.10	7.43	7.65	.04	
EE1323	10-6	237	2.20	94.5	56	44	7.33	2.84	13.90	.04	4.80	8.95	10.90	.06	
EE 933	7-15	260	2.28	275	59	53	7.42	3.00	15.30	.02	3.55	8.78	13.60	.01	
EE1146	8-25	252	2.19	—	58	52	7.83	2.78	14.80	.03	3.80	8.34	13.30	0	
EE1147	9-2	200	1.80	—	58	47	6.23	2.37	11.70	0	3.40	7.32	9.90	0	
EE1149	9-3	189	1.69	—	57	46	6.09	2.20	10.90	0	3.35	6.92	8.85	.06	
EE 966	7-15	166	1.52	68.3	58	29	5.29	1.97	10.00	0	4.50	7.70	5.05	0	26-28-3
EE 968	7-29	193	1.80	66.3	61	30	5.67	2.28	12.30	0	5.30	8.78	6.15	0	
EE1017	8-12	177	1.60	77.9	58	30	5.55	2.23	10.90	0	4.90	8.02	5.60	tr	
EE1150	8-26	163	1.51	—	56	29	5.41	2.05	9.66	0	4.55	7.60	5.00	0	
EE1258	9-16	194	1.85	—	58	31	6.27	2.39	12.20	0	5.30	8.92	6.50	0	
EE1329	9-30	199	1.82	57.04	59	31	6.37	2.31	12.50	0	5.30	9.20	6.60	0	
EE1205	9-22	409	3.60	—	59	57	12.60	4.71	24.90	.16	5.65	12.50	24.20	.02	32-33-8
EE1321	10-5	431	3.82	74.25	60	59	12.80	5.03	26.90	0	5.10	13.10	26.50	.05	

\*Carbonate (CO<sub>3</sub>) present.

Elephant Butte Project, New Mexico and Texas, Surface Waters - 2 -

(Detailed Analyses)

Index No.	Drainage Waters: (Cont'd)	Location and Description
4-34-6	Quadrilla Drain, El Paso Valley, Texas. N200 ft., E500 ft. of SW cor. Sec.4, T.34S., R.6E. Collected by W.A.L.	
4-34-6	Mesa Drain, El Paso Valley, Texas. S700 ft., E1000 ft. of NW cor. Sec.4, T.34S., R.6E., at outlet to river. Collected by W.A.L.	
4-34-6	Fabens Intercepting Drain, El Paso Valley, Texas. S700 ft., E600 ft. of NW cor. Sec.4, T.34S., R.6E., at outler to river. Collected by W.A.L.	



Elephant Butte Project, New Mexico and Texas, Surface Waters - 2 -

(Detailed Analyses)

Laboratory No.	Date	Conductance, Kx10 <sup>5</sup> @25°C	TDS, tons per acre foot	Disch. c.f.s.	Percent Sodium	Percent Chloride	Milligram equivalent per liter							Index No.	
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)		Nitrate (NO <sub>3</sub> )
KEL203	9-22	189	1.67	--	56	38	6.28	2.25	11.10	0	4.40	7.60	7.45	.02	4-34-8*
KEL320	10-5	194	1.64	9.68	57	39	6.40	2.22	11.50	.02	4.60	7.65	7.85	.04	
KEL259	9-22	417	3.90	--	64	50	11.60	4.27	28.20	0	6.00	16.00	21.90	tr	4-34-8
KEL319	10-5	454	4.23	14.10	64	50	12.70	4.73	30.60	.17	6.30	17.60	24.30	tr	
KEL204	9-22	306	2.76	--	49	49	12.50	4.05	15.90	0	5.25	11.10	15.90	.05	4-34-8
KEL322	10-5	310	2.82	3.37	49	50	12.80	3.91	16.00	.01	5.30	11.20	16.20	.02	

**Elephant Butte Project, New Mexico and Texas, Subsoil Waters**

**(Detailed Analyses)**

<u>Index No.</u>	<u>Location and Description</u>
<p>Note: The water samples here reported are from observation wells listed in the table of conductance data (Group II) for this area. The Townships and Ranges are referred to the New Mexico principal meridian. The location data, elevations in feet above sea level and water samples are by the Bureau of Reclamation; the analyses are by the Geological Survey. The expressions "G.S." and "W.S." imply respectively: Ground Surface and Water Surface.</p>	
<b>RINCON DIVISION:</b>	
8-18-4	Garfield well (206) S2290' - W410' of NE cor. sec. 8, T.18S., R.4W. Elev. well top: 4101.61; G.S. 4100.27; W.S. 4095.48. Coll. Aug. 12, 1936 by M.B.B.
35-18-4	Salem well (207) S10' - E580' of NW cor. sec. 35, T.18S., R.4W. Elev. well top: 4079.97; G.S. 4077.84; W.S. 4071.13. Coll. Aug. 12, 1936 by M.B.B.
35-19-2	Tommaso well (209) N2560' - W530' of SE cor. sec. 35, T.19S., R.2W. Elev. well top: 4007.77; G.S. 4006.12; W.S. 4000.95. Coll. Aug. 12, 1936 by M.B.B.
10-19-3	Hatch well (208) N140' - E960' of SW cor. sec. 10, T.19S., R.3W. Elev. well top: 4053.43; G.S. 4051.55; W.S. 4044.20. Coll. Aug. 12, 1936 by M.B.B.
<b>MESILLA VALLEY DIVISION:</b>	
16-22-1	Dona Ana well (223) N150' - W2000' of SE cor. sec. 16, T.22S., R.1E. Elev. well top: 3923.77; G.S. 3922.02; W.S. 3915.02. Coll. Aug. 12, 1936 by F.D.P.
16-23-1	Picacho well (224) N640' - W100' of SE cor. sec. 16, T.23S., R.1E. Elev. well top: 3897.34; G.S. 3895.04; W.S. 3883.62. Coll. Aug. 12, 1936 by F.D.P.
35-23-1	Mesilla well (225) S420' - W2170' of NE cor. sec. 35, T.23S., R.1E. Elev. well top: 3882.42; G.S. 3880.72; W.S. 3872.52. Coll. Aug. 12, 1936 by F.D.P.
33-24-2	Santa Tomas well (226) S840' - E2390' of NW cor. sec. 33, T.24S., R.2E. Elev. well top: 3851.25; G.S. 3849.35; W.S. 3840.95. Coll. Aug. 12, 1936 by E.S.M.
19-26-3	Chamberino well (227) S800' - E2280' of NE cor. sec. 19, T.26S., R.3E. Elev. well top: 3801.88; G.S. 3800.15; W.S. 3791.95. Coll. Aug. 12, 1936 by E.S.M.
34-26-3	Anthony well (228) N150' - W0' of SE cor. sec. 34, T.26S., R.3E. Elev. well top: 3787.04; G.S. 3785.57; W.S. 3779.87. Coll. Aug. 12, 1936 by E.S.M.
16-27-3	La Union well (229) N20' - E1360' of SW cor. sec. 16, T.27S., R.3E. Elev. well top: 3780.94; G.S. 3780.07; W.S. 3771.27. Coll. Aug. 12, 1936 by E.S.M.
26-28-3	Montoya well (230) S1830' - W110' of NE cor. sec. 26, T.28S., R.3E. Elev. well top: 3749.70; G.S. 3747.02; W.S. 3742.10. Coll. Aug. 12, 1936 by E.S.M.
<b>EL PASO VALLEY, TEXAS:</b>	
20-32-7	Jooth well (244) N1650' - E1800' of SW cor. sec. 20, T.32S., R.7E. Elev. well top: 3649.14; G.S. 3647.20; W.S. 3641.04. Coll. Aug. 4, 1936 by G.L.
32-32-7	San Elisario well (245) N2400' - W2500' of SE cor. sec. 32, T.32S., R.7E. Elev. well top: 3646.0; G.S. 3644.2; W.S. 3637.60. Coll. Aug. 4, 1936 by G.L.

## Elephant Butte Project, New Mexico and Texas, Subsoil Waters

## (Detailed Analyses)

Laboratory No.	Conductance Kx105 @25°C	TDS, tons per acre	Per- cent Sodi- um	Per- cent Chlo- ride	Sili- ca (SiO <sub>2</sub> ) Ppm	Fluo- ride (F) Ppm	Milligram equivalent per liter								Index No.
							Calci- um (Ca)	Magne- sium (Mg)	Sodi- um (Na)	Potas- sium (K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- phate (SO <sub>4</sub> )	Chlo- ride (Cl)	Ni- trate (NO <sub>3</sub> )	
15604	266	2.70	46	24	18	--	13.08	3.37	13.87	.33	6.05	16.78	7.33	.18	8-18-4
15605	212	2.10	30	29	27	--	12.83	3.95	6.87	.26	6.90	10.08	7.05	tr	35-18-4
15768	227	2.13	33	43	21	0	12.88	3.45	7.57	.38	5.10	8.99	10.44	0	35-19-2
15760	185	1.70	77	17	27	1.4	3.39	1.15	15.05	.28	7.08	9.20	3.44	0	10-19-3
15762	164	1.50	49	27	32	1.4	6.64	2.30	8.18	.46	5.31	7.35	4.74	0	16-22-1
15708	240	2.11	87	17	25	3.2	2.30	1.15	22.05	.26	14.59	6.91	4.37	0	16-23-1
15710	217	2.06	43	25	26	0.2	9.58	4.03	9.87	.31	6.16	11.66	5.98	0	35-23-1
15709	161	1.47	39	25	24	0.1	8.19	2.38	6.44	.24	5.77	7.35	4.46	0	33-24-2
15707	141	1.28	38	29	19	0.3	6.89	2.30	5.35	.33	3.44	7.14	4.23	0	19-26-3
15737	344	3.24	65	31	28	1.8	7.39	5.43	23.48	.84	5.47	19.80	11.59	0	34-26-3
15738	488	5.07	47	26	41	2.0	21.31	10.12	27.35	.51	11.57	31.73	15.51	0	16-27-3
15739	359	3.02	77	52	17	1.1	5.69	2.63	27.70	.49	6.75	10.47	19.04	0	26-28-3
15743	976	8.84	71	68	18	.8	20.06	10.53	73.17	.61	6.15	27.34	70.85	0	20-32-7
15744	160	1.34	60	34	15	1.0	4.69	1.56	8.87	.46	3.57	6.68	5.39	0	32-32-7

Elephant Butte Project, New Mexico and Texas, Subsoil Waters - 2 -

(Detailed Analyses)

Index No.	Location and Description
24-33-7	North well (246) N2400' - W1500' of SE cor. sec. 24, T.33S., R.7E. Elev. well top: 3621.52; G.S. 3620.0; W.S. 3615.62. Coll. Aug. 4, 1936 by G.L.
35-33-7	Lee Moor well (247) N2500' - W2200' of SE cor. sec. 35, T.33S., R.7E. Elev. well top: 3618.53; G.S. 3616.60; W.S. 3612.53. Coll. Aug. 4, 1936 by G.L.
14-34-8	Milner well (251) S100' - E1800' of NW cor. sec. 14, T.34S., R.8E. Elev. well top: 3596.31; G.S. 3594.7; W.S. 3590.61. Coll. Aug. 4, 1936 by G.L.
22-34-8	McMahon well (248) N2100' - W1900' of SE cor. sec. 22, T.34S., R.8E. Elev. well top: 3593.8; G.S. 3592.5; W.S. 3587.10. Coll. Aug. 4, 1936 by G.L.
24-34-8	Schairer well (250) N200' - E1600' of SW cor. sec. 24, T.34S., R.8E. Elev. well top: 3590.07; G.S. 3587.90; W.S. 3582.46. Coll. Aug. 4, 1936 by G.L.
25-34-8	Mebus well (249) N1710' - E1170' of SW cor. sec. 25, T.34S., R.8E. Elev. well top: 3586.43; G.S. 3585.30; W.S. 3580.21. Coll. Aug. 4, 1936.
31-34-9	Henderson well (252) N100' - E160' of SW cor. sec. 31, T.34S., R.9E. Elev. well top: 3582.55; G.S. 3582.40; W.S. 3576.51. Coll. Aug. 4, 1936 by G.L.
4-35-9	Malone well No. 1 (253) S950' - E1650' of NW cor. sec. 4, T.35S., R.9E. Elev. well top: 3573.34; G.S. 3572.40; W.S. 3566.62. Coll. Aug. 4, 1936 by G.L.
7-35-9	Malone well No. 2 (254) S1000' - W400' of NE cor. sec. 7, T.35S., R.9E. Elev. well top: 3576.90; G.S. 3575.50; W.S. 3568.50. Coll. Aug. 4, 1936 by G.L.

Elephant Butte Project, New Mexico and Texas, Subsoil Waters - 2 -

(Detailed Analyses)

Laboratory No.	Conductance Kx105 @25°C	TDS. tons per acre foot	Percent Sodium	Percent Chloride	Silica (SiO <sub>2</sub> ) Fm	Fluoride (F) Fm	Milligram equivalent per liter								Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Index No.
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO <sub>3</sub> )	Sulphate (SO <sub>4</sub> )					
15745	892	8.00	50	68	45	1.8	34.74	13.40	47.88	.61	6.95	23.84	65.77	0	24-33-7		
15764	458	4.40	86	23	27	3.7	5.09	2.22	42.96	.23	11.67	26.96	11.79	0	35-33-7		
15767	410	3.70	56	52	22	0.8	14.37	4.85	23.70	.66	5.62	15.14	22.84	.05	14-34-8		
15765	1050	9.65	86	59	16	2.2	11.03	5.02	97.84	.17	9.69	37.45	67.26	.06	22-34-8		
15766	345	3.05	56	52	21	1.2	11.58	3.87	20.35	.36	4.92	12.49	18.67	.02	24-34-8		
15746	1090	9.72	76	68	21	1.6	18.02	8.88	87.36	.46	6.34	30.54	77.36	.04	25-34-8		
15797	901	8.36	81	52	23	1.8	9.78	8.47	78.38	.36	6.08	40.04	50.77	.01	31-34-9		
15798	1390	14.45	72	47	11	5.0	29.60	16.37	117.08	.41	4.29	82.34	76.57	0	4-35-9		
15799	546	5.15	46	55	13	3.0	19.42	12.25	26.66	.38	5.11	21.07	32.43	0	7-35-9		

The Drains of the Elephant Butte Project — New Mexico and Texas

(Total Dissolved Solids in tons per acre foot)

Index No.	Location and Description
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Note: In the following descriptions the townships and ranges are referred to the New Mexico principal meridian; the elevations to sea level datum. The length of drain is the mileage contributing the discharge above the gaging station. The gradient in feet per mile is that of the water surface and is only approximate. The elevation is that of the water surface at the gaging station on the date named when the discharge was as reported. The location descriptions, the water samples, and the analyses are by the Bureau of Reclamation.

RINCÓN DIVISION, NEW MEXICO:

- |         |   |
|---------|---|
| 6-19-3  | Garfield Drain (202).<br>Station S 1880' - W 900' of NE cor. sec. 6, T.19S., R.3W.; near outlet to river. Length, 12.4 miles; water surface 4060.32 feet above sea level on Dec. 1, 1936 when discharge was 8.7 c.f.s.                      |
| 13-19-3 | Hatch Drain (203).<br>Station N 1150' - E 300' of SW cor. sec. 13, T.19S., R.3W.; near outlet to river. Length, 10.8 miles; gradient, 3.1 feet; water surface 4034.28 feet above sea level on Dec. 1, 1936 when discharge was 6.6 c.f.s.    |
| 28-19-2 | Angostura Drain (204).<br>Station S 460' - W 1200' of NE cor. sec. 28, T.19S., R.2W.; near outlet to river. Length, 4.1 miles; gradient, 2.6 feet; water surface 4012.48 feet above sea level on Dec. 1, 1936 when discharge was 1.3 c.f.s. |
| 12-20-2 | Rincon Drain (205).<br>Station S 600' - W 2300' of NE cor. sec. 12, T.20S., R.2W.; near outlet to river. Length, 14.4 miles; gradient, 3.1 feet; water surface 3993.77 feet above sea level on Dec. 1, 1936 when discharge was 7.9 c.f.s.   |

The Drains of the Elephant Butte Project -- New Mexico and Texas

(Total Dissolved Solids in tons per acre foot)

Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.	Index No.
2- 1-21	9.0	.98	10-10-24	6.3	1.09	1- -28	8.8	1.09	10- 3-32	19.1	1.50	6-19-3
3- 2-21	11.5	1.11	12- 8-24	15.3	1.09	4- 3-28	13.8	.82	1-30-33	9.8	1.36	
4- 1-21	12.5	1.31	3-19-25	15.1	1.22	7-10-28	15.9	1.09	1-31-34	9.6	1.40	
5- 2-21	13.0	.82	10- 8-25	12.8	1.36	10- 3-28	12.0	1.36	4-28-34	20.6	1.22	
7- 1-21	14.4	1.25	1- 9-26	9.9	1.22	4-11-30	12.5	1.09	7-27-34	25.1	1.22	
7-31-21	14.6	1.47	4- 9-26	13.7	1.09	10- 9-30	13.9	1.22	10-23-34	9.3	.95	
9- 3-21	12.5	1.17	7- -26	22.1	.82	1-29-31	9.0	1.36	1-30-35	8.4	1.22	
10- 1-21	11.0	1.31	10- -26	11.8	1.36	4-30-31	15.8	1.36	4-25-35	11.3	1.22	
22 - -	-	1.31	12- -26	11.0	1.22	7- 2-31	29.7	1.36	7-20-35	18.0	1.36	
22 - -	-	1.44	1-19-27	9.2	1.22	10- 1-31	19.9	1.36	10-30-35	7.5	1.36	
22 - -	-	1.17	4- -27	17.5	1.36	1-28-32	13.3	1.36	1-30-36	8.97	1.36	13-19-3
3- 3-24	-	.95	7- 1-27	15.0	1.36	4-10-32	16.8	1.36	4-29-36	16.4	1.36	
7-14-24	7.9	.95	9- 7-27	15.9	1.36	7- 2-32	20.2	1.36	10-28-36	8.7	.68	
7-10-24	24.3	.27	4- -27	13.5	1.36	1-28-31	8.7	1.09	7-26-34	24.4	1.36	
7-14-24	24.3	.82	7- -27	15.6	1.50	4-30-31	16.9	1.09	10-23-34	10.1	1.36	
10-10-24	14.8	1.09	9- -27	12.9	1.50	7-13-31	20.0	1.36	1-30-35	7.5	1.36	
12-23-24	8.0	1.36	1-24-28	9.3	1.36	10- 1-31	15.04	1.50	4-25-35	12.2	1.22	
3-19-25	16.1	.27	4- 3-28	11.7	1.22	1-28-32	8.3	1.09	7-25-35	17.4	1.50	
10- 1-25	15.0	1.22	7-10-28	12.5	1.09	4-10-32	18.0	1.22	10-30-35	8.8	1.50	
4-10-26	13.8	1.22	10-17-28	9.1	1.36	7- 2-32	20.6	1.22	1-30-36	6.57	1.22	
7- -26	20.6	1.50	1-31-29	11.1	1.36	10- 3-32	16.7	1.36	4-30-36	13.9	1.22	28-19-2
12- -26	9.0	1.09	4-12-30	14.1	1.09	1-30-33	8.0	1.09	7-29-36	17.9	1.36	
1- -27	8.9	1.63	10-9-30	12.0	1.50	4-28-34	24.0	1.09	10-28-36	8.3	1.09	
4-10-26	5.3	.82	4- 3-28	8.1	.82	10- 1-31	2.11	.82	1-30-35	1.5	1.36	
7- 3-26	9.9	1.36	7-10-28	4.3	.82	1-28-32	0.72	1.09	4-25-35	3.6	1.63	
9- -26	4.45	1.22	10- 4-28	2.6	.82	4-10-32	3.1	.68	7-25-35	3.4	1.22	
12- -26	4.3	.68	1- -29	1.6	.54	7- 2-32	4.8	.95	10-30-35	1.0	1.36	
1- 3-27	3.0	.82	4-11-30	2.6	.82	10- 3-32	2.0	.95	1-30-36	0.82	1.36	
4- -27	8.8	.82	10- 9-30	1.0	1.36	1-30-33	1.0	1.09	4-30-36	3.3	1.50	
7- 7-27	6.7	.68	1-28-31	0.96	.82	4-28-34	8.5	1.50	10-28-36	1.95	1.22	
9- -27	5.7	.68	4-30-31	3.1	.54	7-26-34	6.5	1.50				12-20-2
1- -28	2.2	1.09	7- 3-31	3.0	1.50	10-23-34	2.9	2.18				
1- 8-25	2.6	.82	9- -27	11.4	1.77	7- 3-31	22.5	1.09	1-30-35	6.4	1.63	
3-19-25	3.9	.95	1-17-28	6.8	.68	10- 1-31	21.55	1.90	4-25-35	16.1	1.22	
10-7-25	9.1	.54	4-1-28	10.4	.68	1-28-32	7.49	1.22	7-25-35	14.1	1.36	
4- 9-26	11.9	1.36	7- 1-28	24.3	1.22	4-10-32	21.0	.95	10-30-35	8.3	1.50	
7- 5-26	28.1	.95	10- 4-28	20.8	1.36	7- 2-32	21.2	.54	1-30-36	7.46	1.63	
10- -26	8.0	1.09	1-10-29	11.61	1.22	10- 3-32	17.7	1.36	4-30-36	16.9	1.50	
12- -26	8.8	1.09	4-11-30	20.8	1.36	1-30-33	7.5	1.09	10-28-36	10.1	1.50	
1-19-27	7.3	1.50	10- 9-30	12.0	1.36	4-28-34	25.6	1.22				
4-13-27	12.4	.95	1-29-31	8.3	1.09	7-26-34	25.1	1.90				
7- 1-27	11.2	1.09	4-30-31	18.3	1.63	10-23-34	9.2	1.63				

The Drains of the Elephant Butte Project -- New Mexico and Texas - 2 -

(Total Dissolved Solids in tons per acre foot)

<u>Index No.</u>	<u>Location and Description</u>
MESILLA VALLEY DIVISION, NEW MEXICO AND TEXAS:	
6-22-1	Selden Drain (211). Station S 1130' - E 2330' of NW cor. sec. 6, T.22S., R.1E.; near outlet to river. Length, 4.6 miles; gradient, 3.1 feet; water surface 3974.74 feet above sea level on Dec. 1, 1936 when discharge was 1.7 c.f.s.
3-23-1	Leasburg Drain (212). Station S 1110' - E 2200' of NW cor. sec. 3, T.23S., R.1E.; above inlet to Del Rio Drain. Length, 12.3 miles; gradient, 4.2 feet; water surface 3899.31 feet above sea level on Dec. 1, 1936 when discharge was 2.3 c.f.s.
11-24-1	Pisacho Drain (213). Station S 10' - E 1180' of NW cor. sec. 11, T.24S., R.1E.; above outlet to river. Length, 7.2 miles; gradient, 2.8 feet; water surface 3871.09 feet above sea level on Dec. 2, 1936 when discharge was 6.5 c.f.s.



The Drains of the Elephant Butte Project -- New Mexico and Texas - 2 -

(Total Dissolved Solids in tons per acre foot)

Date	Disch. c.f.s.	T.D.S.	Date	Disch. c.f.s.	T.D.S.	Date	Disch. c.f.s.	T.D.S.	Date	Disch. c.f.s.	T.D.S.	Index No.
2- 2-21	1.6	1.33	4- 2-24	5.1	1.90	11- 2-27	3.5	1.63	7-12-32	8.5	1.50	6-22-1
3- 7-21	2.4	1.22	7- 5-24	12.1	1.77	1- 5-28	2.0	1.50	10- 6-32	7.0	1.50	
4- 5-21	3.0	1.14	10- 4-24	7.4	1.77	4- 9-28	3.0	1.36	1-24-33	2.0	1.50	
6- 8-21	4.8	1.09	12-29-24	4.3	1.09	7- 9-28	4.0	1.63	4-25-34	7.7	1.36	
8- 8-21	5.4	.98	1-24-25	2.4	1.36	10- 2-28	4.5	1.09	7-26-34	8.9	1.50	
9- 6-21	5.6	1.11	4- 4-25	6.3	1.36	1- 2-29	2.0	1.36	10-17-34	4.3	1.50	
10- 6-21	4.2	1.17	7- 7-25	10.1	1.50	4- 2-29	3.0	1.36	1-28-35	0.1	1.22	
4-10-22	6.0	1.55	10- 7-25	5.1	1.36	4-17-30	4.0	1.22	4-24-35	2.7	1.36	
4-10-22	6.0	1.17	1- 5-26	2.3	1.09	10- 2-30	10.8	1.22	7-31-35	6.1	1.50	
7- 7-22	8.8	1.80	4- 5-26	3.0	1.36	1-26-31	3.0	1.50	10-30-35	2.9	1.09	
7- 7-22	8.8	1.47	7-15-26	8.0	1.63	4-13-31	7.2	1.50	1-30-36	1.2	1.09	
1-15-23	3.8	1.36	10-11-26	4.6	1.50	7-13-31	8.6	1.50	4-29-36	3.0	1.36	
4-30-23	9.2	2.31	1- 7-27	1.8	1.36	10- 5-31	8.3	1.36	10-28-36	2.84	1.36	
7-25-23	10.8	2.31	4- 7-27	3.1	1.36	1-29-32	2.4	1.50				
1-18-24	2.9	1.90	7- 3-27	7.8	1.63	4- 9-32	3.1	1.77				
8- 1-19	4.3	2.49	7- 7-22	-	1.01	4- 2-26	10.5	.95	4-11-32	10.6	.95	3-23-1
11- 1-19	10.5	1.70	1-15-23	11.5	.87	7-15-26	21.7	1.09	7-13-32	15.5	.95	
11-15-19	8.6	1.88	4-30-23	27.3	1.09	10- 4-26	12.4	1.09	10- 6-32	16.0	.95	
12- 3-19	8.5	1.40	7- 5-23	31.1	1.36	1- 3-27	10.0	1.09	1-24-33	3.8	.82	
2- 1-20	9.0	1.39	1-18-24	7.31	.82	4- 6-27	11.7	.95	4-25-34	11.5	1.22	
3-30-20	18.4	1.56	4- 8-24	13.52	.95	4- 6-28	22.0	.83	7-26-34	19.8	.95	
4-27-20	18.0	1.43	7- 8-24	23.2	.95	7- 5-28	26.2	.68	10-17-34	10.2	.95	
2- 2-21	7.0	1.09	10- 6-24	20.4	1.50	10- 2-28	22.9	1.09	1-26-35	2.2	.95	
3- 8-21	14.0	.90	12-20-24	10.4	.82	1- 4-29	9.3	1.09	4-24-35	6.4	.95	
4- 5-21	30.5	1.03	1-19-25	9.8	.82	4- 1-29	12.3	1.22	7-31-35	11.3	.95	
5- 6-21	42.0	1.03	1-24-25	9.6	.95	4-16-30	9.9	.95	10-30-35	4.8	1.22	
6- 8-21	33.0	.95	1-29-25	8.2	1.09	10- 7-30	16.0	.82	1-30-36	2.0	1.09	
7- 7-21	23.9	.87	4- 4-25	20.4	.95	1-26-31	4.7	.82	4-29-36	8.8	.95	
8- 8-21	22.0	1.33	7- 7-25	27.4	.95	4-13-31	13.5	1.09	7-29-36	11.6	1.22	
9- 6-21	15.2	.95	10- 3-25	17.6	.95	7-13-31	15.3	.82	10-28-36	7.72	.95	
10- 6-21	10.8	.95	1- 8-26	8.7	.82	10- 5-31	16.0	.82				
4-10-22	-	.79	3- 1-26	10.8	.82	1-29-32	4.7	.95				
4-14-22	5.5	2.02	10- 7-25	12.3	1.09	4-21-30	15.5	1.22	4-26-34	12.5	1.09	11-24-1
4-14-22	5.5	2.18	1- 9-26	7.3	1.09	10- 3-30	11.4	1.22	7-26-34	10.5	1.09	
7- 5-22	13.1	1.36	4- 2-26	8.4	1.09	1-26-31	7.8	1.22	10-17-34	7.6	1.22	
1-15-23	12.5	.98	7-15-26	16.6	1.22	4-13-31	12.4	.82	1-26-35	7.3	1.09	
4-24-23	11.3	.95	10-11-26	11.1	1.36	7-13-31	11.7	1.36	4-24-35	6.1	1.09	
7- 5-23	13.3	1.09	1- 3-27	6.7	1.22	10- 5-31	9.7	1.22	7-31-35	7.5	1.22	
1-14-24	9.49	.82	4- 6-27	9.4	1.09	1-29-32	6.8	.95	10-30-35	6.2	1.09	
4- 7-24	9.5	.82	11- 2-27	8.8	.82	4- 9-32	9.9	.95	1-30-36	5.55	1.09	
7- 8-24	13.2	.95	4- 9-28	8.0	1.09	7-12-32	11.1	1.22	4-29-36	9.9	1.63	
10- 4-24	9.9	.82	7- 5-28	9.6	1.09	10- 6-32	8.9	1.22	7-29-36	9.0	1.22	
12-30-24	9.5	.82	10- 2-28	9.1	1.22	1-24-33	5.3	1.09	10-28-36	7.23	1.09	
4- 3-25	11.9	.82	1- 3-23	5.7	1.22	4-29-33	9.3	1.16				
7- 7-25	16.5	.95	4- 1-29	7.8	1.09	7- 8-33	10.1	.93				

The Drains of the Elephant Butte Project -- New Mexico and Texas - 3 -

(Total Dissolved Solids in tons per acre foot)

Index No.	Location and Description
17-24-2	<p>Mesilla Drain (214).                      Station S 2410' - E 1620' of NW cor. sec. 17, T.24S., R.2E.; above inlet to Del Rio Drain.                      Length, 17.1 miles; gradient, 4.3 feet; water surface 3842.81 feet above sea level on Dec. 2, 1936 when discharge was 3.4 c.f.s.</p>
29-25-3	<p>Del Rio Drain (Includes flow of Leasburg and Mesilla Drains) (215).                      Station S 890' - E 1170' of NW cor. sec. 29, T.25S., R.3E.; above outlet to river. Length, 73.1 miles; gradient, 3.9 feet; water surface 3813.52 feet above sea level on Dec. 2, 1936 when discharge was 83.8 c.f.s. (On March 14, 1934 Mesilla Drain was cut into Del Rio Drain and Leasburg was cut in on March 14, 1935).</p>
6-26-3	<p>Chamberino Drain (219).                      Station N 460' - W 2640' of SE cor. sec. 6, T.26S., R.3E.; above confluence with La Mesa Drain. Length, 5.3 miles; gradient, 4.1 feet; water surface 3800.71 feet above sea level on Dec. 3, 1936 when discharge was 3.5 c.f.s.</p>

The Drains of the Elephant Butte Project -- New Mexico and Texas - 3 -

(Total Dissolved Solids in Tons per acre foot)

Date	Disch. c.f.s.	T.D.S.	Date	Disch. c.f.s.	T.D.S.	Date	Disch. c.f.s.	T.D.S.	Date	Disch. c.f.s.	T.D.S.	Index No.
4-15-19	8.5	1.64	1-18-24	3.49	1.50	11- 2-27	10.3	1.22	1-30-32	2.0	1.22	17-24-2
8- 1-19	10.0	1.86	4- 7-24	4.76	1.50	1- 6-28	4.0	1.36	4-11-32	5.6	1.09	
11- 1-19	9.2	1.91	7- 8-24	21.3	1.09	3- 1-28	6.1	.95	7-14-32	17.2	1.22	
11-15-19	9.9	1.41	10-20-24	14.5	1.36	4-13-28	11.0	1.09	10- 6-32	15.6	1.22	
12- 3-19	8.5	1.72	12-20-24	6.8	1.22	6- 8-28	17.8	1.25	1-24-33	2.8	1.22	
12-15-19	10.8	1.69	1-26-25	4.7	1.36	7- 9-28	18.4	1.09	4-26-34	12.9	1.22	
1- 1-20	11.0	1.93	4- 4-25	8.5	1.22	10- 2-28	20.2	1.36	7-26-34	18.9	1.22	
2- 1-20	9.0	1.69	7- 6-25	26.2	1.22	1- 4-29	5.4	1.36	10-18-34	14.2	1.22	
3-31-20	18.4	1.63	1- 7-26	4.9	1.22	4- 2-29	9.1	1.09	1-26-35	3.5	1.50	
4-27-20	18.0	1.72	4- 3-26	4.0	1.36	4-29-30	9.8	1.09	4-24-35	6.1	1.50	
6-3-20	28.0	1.66	7-14-26	18.3	1.50	10- 6-30	14.3	1.36	7-31-35	10.8	1.50	29-25-3
7-29-20	25.8	1.78	10- 2-26	14.8	1.50	1-26-31	2.2	1.22	10-30-35	5.1	1.36	
1-16-23	10.2	1.44	1- 7-27	4.7	1.09	4-13-31	8.1	1.22	1-30-36	2.24	1.36	
9- 5-23	18.1	1.36	4- 7-27	6.5	1.36	7-13-31	15.4	.95	4-29-36	6.0	1.22	
10- 1-23	15.7	1.36	7- 9-27	18.0	1.36	10- 5-31	14.7	1.36	10-28-36	6.53	1.36	
5- 7-21	4.5	4.43	1-19-24	56.17	1.09	4-25-27	92.9	1.09	1-30-32	54.2	.95	
6- 9-21	4.6	4.14	4- 5-24	66.11	1.36	8- 8-27	89.9	1.09	4-11-32	73.5	1.22	
7- 6-21	7.0	3.32	4-17-24	65.15	1.22	11- 4-27	71.3	1.09	7-13-32	90.5	1.22	
8- 9-21	10.5	3.24	7- 9-24	90.9	1.09	1- 7-28	53.1	1.36	10- 6-32	83.2	1.36	
9- 9-21	16.0	2.07	10- 7-24	83.8	1.09	4-17-28	80.7	1.36	1-25-33	57.1	1.36	
10- 8-21	12.0	2.53	12-31-24	65.5	1.09	7-18-28	100.5	.95	4-26-34	129.4	1.36	6-26-3
1-14-22	13.8	2.32	1-27-25	52.1	1.09	10- 3-28	89.5	1.22	7-27-34	133.1	1.36	
1-14-22	13.8	1.82	4- 7-25	83.5	.95	1- 4-29	47.1	1.09	10-18-34	88.2	1.22	
4-11-22	28.0	1.63	7- 8-25	106.1	1.09	4- 2-29	65.9	1.22	1-25-35	63.4	1.22	
4-11-22	28.0	1.82	10-1-25	78.5	1.09	4-28-30	87.2	1.50	4-24-35	98.0	.95	
7- 5-22	37.5	1.63	1- 8-26	54.6	1.09	6-10-30	75.3	1.36	7-31-35	128.6	1.22	
10-20-22	45.5	1.69	4- 3-26	65.9	1.22	1-28-31	50.8	1.50	10-30-35	92.5	1.22	
1-16-23	39.9	1.58	7-14-26	104.2	1.22	4- 6-31	84.1	1.36	4-29-36	113.1	1.22	
7- 3-23	84.2	1.50	10- 7-26	70.1	1.36	6-24-31	101.8	1.22	10-28-36	97.9	1.22	
10-10-23	76.5	1.36	1- 7-27	58.6	.82	10- 5-31	72.2	1.09				
4-15-19	3.2	3.30	8- 9-21	9.4	1.33	4- 3-26	5.9	2.31	4-11-32	2.5	2.31	6-26-3
11- 1-19	9.1	2.31	9- 9-21	8.6	1.03	7-14-26	9.2	2.45	7-13-32	4.0	2.31	
11-15-19	8.5	2.20	10- 8-21	6.8	2.18	10-11-26	6.0	2.72	10- 6-32	3.0	1.77	
12- 3-19	5.3	2.08	4-11-22	9.0	2.28	1- 7-27	4.2	2.31	1-25-33	1.5	2.58	
12-15-19	6.8	2.09	7- 5-22	10.8	2.58	4-23-27	5.1	2.45	4-26-34	7.5	1.63	
1- 1-20	5.8	1.96	10-20-22	8.5	2.70	8- 8-27	4.7	2.58	7-27-34	11.7	2.04	
2- 1-20	6.2	1.68	1-16-23	5.3	2.58	11- 5-27	6.0	2.45	10-18-34	5.7	2.04	
3-31-20	6.9	2.29	4-17-23	9.4	2.45	1- 7-28	3.4	2.58	1-25-35	3.9	2.31	
5-15-20	9.5	2.18	7- 6-23	7.6	2.72	4-17-28	6.0	2.04	4-24-35	5.2	1.77	
6- 5-20	9.6	2.12	1-18-24	3.16	2.58	7- 9-28	6.5	2.45	7-31-35	5.0	2.18	
8- 3-20	9.6	2.49	7- 8-24	6.6	2.04	10- 3-28	5.4	2.45	1-30-36	3.9	2.18	6-26-3
8-18-20	9.5	2.41	10-20-24	8.0	2.58	1- 4-29	2.0	2.45	1-30-36	2.47	1.90	
2- 1-21	6.4	2.00	12-13-24	4.5	1.90	4- 2-29	3.0	1.77	4-29-36	3.5	1.90	
3- 1-21	7.0	2.07	1-22-25	3.0	2.45	4-28-30	4.0	2.04	7-29-36	6.6	2.04	
4- 4-21	7.5	1.17	4- 7-25	7.3	2.31	4- 6-31	2.0	2.18	10-28-36	4.83	2.04	
5- 7-21	9.5	1.06	7- 8-25	8.2	2.45	7- 7-31	3.0	1.22				
6- 9-21	11.5	.95	10- 1-25	7.9	2.31	10-15-31	2.0	2.31				
7- 6-21	8.6	2.04	1- 8-26	5.3	2.58	1-30-32	1.0	2.58				

The Drains of the Elephant Butte, Project -- New Mexico and Texas - 4 -

(Total Dissolved Solids in tons per acre foot)

Index No.	Location and Description
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- |         |  |
|---------|--|
| 7-26-3  | La Mesa Drain (218).<br>Station S 100' - E 1810' of NW cor. sec. 7, T.26S., R.3E.; above confluence with Chamberino Drain. Length, 21.8 miles; gradient, 3.8 feet; water surface 3801.65 feet above sea level on Dec. 3, 1936 when discharge was 18.9 c.f.s. |
| 2-27-3  | East Drain (216).<br>Station N 1050' - E 1620' of SW cor. sec. 2, T.27S., R.3E.; above confluence with Anthony Drain. Length, 22.9 miles; gradient, 3.8 feet; water surface 3773.81 feet above sea level on Dec. 3, 1936 when discharge was 8.7 c.f.s.       |
| 11-27-3 | Anthony Drain (217).<br>Station S 50' - E 940' of NW cor. sec. 11, T.27 S., R.3E.; above confluence with East Drain. Length, 7.7 miles; gradient, 3.2 feet; water surface 3773.81 feet above sea level on Dec. 3, 1936 when discharge was 3.0 c.f.s.         |

The Drains of the Elephant Butte Project -- New Mexico and Texas - 4 -

(Total Dissolved Solids in tons per acre foot)

Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.	Index No.
4-15-19	13.4	.99	8- 9-21	32.0	1.31	7- 8-25	37.1	.95	1-26-31	21.4	1.22	7-26-3
11- 1-19	12.7	1.44	9- 9-21	34.0	1.09	10- 7-25	28.5	1.09	4- 6-31	42.7	.95	
11-15-19	13.6	1.33	10- 8-21	30.0	1.14	1- 8-26	25.2	.95	6-24-31	56.7	1.22	
12- 3-19	8.0	1.27	1-14-22		1.09	7-14-26	40.0	1.36	10- 5-31	36.0	1.09	
12-15-19	9.7	1.26	1-14-22		.90	10-11-26	30.3	1.36	1-30-32	17.8	1.22	
1- 1-20	9.8	1.35	4-11-22	33.0	.86	1- 7-27	19.3	1.09	4-11-32	45.2	1.09	
2- 1-20	11.2	1.12	4-11-22	33.0	1.09	4-25-27	29.5	.95	7-13-32	62.5	1.09	
3-31-20	13.0	1.28	7- 5-22	39.5	1.12	8- 6-27	35.5	1.22	10- 6-32	43.8	.82	
5-11-20	22.0	1.11	10-20-22	42.4	1.06	8-30-27	38.5	1.36	1-25-33	21.6	1.22	
6- 5-20	22.4	1.21	1-16-23	25.7	.95	11- 2-27	24.4	.68	4-28-34	57.4	.95	
7-15-20	26.5	1.10	7- 5-23	29.6	.27	11- 4-27	24.1	.82	7-27-34	55.2	1.09	
7-29-20	28.0	1.51	10-10-23	24.8	.82	1- 7-28	15.9	1.09	10-18-34	29.4	1.09	
8-18-20	28.0	1.26	1-12-24	18.14	.82	4-17-28	31.0	.95	1-25-35	14.1	1.22	
2- 1-21	20.7	.87	4-15-24	27.22	.41	7-18-28	34.3	1.09	4-24-35	29.3	.95	
3- 8-21	25.4	1.01	7- 8-24	32.3	1.09	10- 3-28	32.5	1.22	7-31-35	43.2	1.09	
5- 7-21	25.0	1.09	9-25-24	30.3	.27	1- 4-29	25.7	1.09	1-30-36	18.8	1.22	
5-27-21	29.0	1.77	10- 7-24	30.5	1.36	4- 2-29	40.9	1.09	4-29-36	40.6	.95	
6- 9-21	31.0	1.06	1-27-25	18.9	1.09	4-28-30	35.2	.82				
7- 6-21	32.0	1.17	4- 7-25	32.7	.82	10- 6-30	34.7	.95				
10-23-18	11.3	6.46	7- 6-21	14.6	5.85	7- 8-25	35.0	2.58	6-25-31	32.4	2.99	2-27-3
4-15-19	9.6	6.25	8- 9-21	17.0	6.20	1- 8-26	13.7	5.57	10- 6-31	24.8	4.62	
8- 1-19	9.4	7.11	9- 9-21	18.0	5.52	4- 3-26	23.2	2.04	1-30-32	12.7	4.90	
11- 1-19	8.6	6.74	10- 8-21	11.0	6.04	7-14-26	39.0	3.94	4- 8-32	18.3	2.18	
11-15-19	7.8	6.42	1-14-22	5.0	2.23	10-11-26	19.9	5.98	7-13-32	31.5	2.72	
12- 3-19	8.7	6.68	7- 5-22	13.0	6.31	1-17-27	13.9	5.85	10- 6-32	27.4	2.72	
12-15-19	7.9	6.48	7- 5-22	13.0	6.74	4-25-27	24.2	2.18	1-25-33	11.3	4.76	
1- 1-20	9.9	6.26	10-20-22	13.6	6.91	8- 8-27	25.1	3.94	4-27-34	32.8	3.13	
2- 7-20	8.8	6.02	1-16-23	7.5	6.55	11- 4-27	17.0	2.31	7-27-34	40.0	3.54	
3-31-20	13.8	7.40	4- 5-23	14.7	4.62	1- 7-28	13.0	5.71	10-18-34	16.5	4.22	
5-15-20	16.5	5.93	7- 5-23	37.1	4.35	4-17-28	17.5	1.22	1-25-35	9.9	5.03	
6- 5-20	12.6	6.68	10-10-23	14.9	5.03	7-18-28	30.0	1.77	4-24-35	20.0	3.54	
7-29-20	11.2	3.46	1-19-24	14.52	6.12	10- 3-28	32.0	2.45	7-31-35	20.2	2.72	
8-16-20	15.4	6.93	4-17-24	24.8	6.12	1- 4-29	13.0	5.71	10-30-35	11.7	4.76	
2- 1-21	3.9	5.33	7-22-24	25.8	1.63	4- 2-29	22.0	1.90	1-30-36	9.76	1.22	
3- 8-21	14.4	5.36	10- 7-24	27.6	1.77	4-28-30	24.0	1.90	4-29-36	20.0	2.31	
4- 4-21	12.8	5.16	12-13-24	15.6	2.72	10- 6-30	26.6	2.45	10-28-36	13.0	5.17	
5- 7-21	13.2	6.39	1-27-25	13.3	5.30	1-26-31	8.4	5.03				
6- 9-21	13.6	6.69	4-27-25	30.3	2.72	4- 6-31	21.0	2.99				
6-20-18	10.0	7.23	7- 6-21	10.5	2.48	7- 8-25	11.3	2.18	6-25-31	9.1	2.04	11-27-3
4-15-19	5.4	3.06	8- 9-21	10.0	2.48	10- 1-25	7.7	2.04	10- 6-31	8.0	2.18	
8- 1-19	4.8	3.41	9- 9-21	11.4	2.10	1- 9-26	4.0	2.45	1- 3-32	2.9	2.45	
11- 1-19	6.3	3.22	10- 8-21	8.0	2.72	4- 3-26	7.5	2.45	4- 8-32	7.0	2.58	
11-15-19	3.3	3.03	1- 4-22	10.0	4.40	7-14-26	12.6	2.18	7-13-32	10.4	1.90	
12- 3-19	3.5	3.17	1-14-22	8.0	5.63	10-11-26	4.9	2.72	10- 6-32	8.5	2.31	
12-15-19	2.4	2.98	7- 5-22	16.2	2.19	1- 7-27	2.8	2.18	1-25-33	2.9	2.04	
1- 1-20	2.6	3.21	7- 5-22	16.2	2.31	4-25-27	7.8	2.45	4-27-34	4.3	1.50	
2- 1-20	2.1	3.24	10-20-22	11.4	2.31	8- 8-27	7.5	2.04	7-27-34	9.7	2.04	
3-31-20	6.7	2.40	1-16-23	5.5	2.37	11- 5-27	4.0	2.72	10-18-34	3.3	2.31	
5-15-20	14.6	1.99	4-17-23	12.1	2.98	1- 7-28	3.3	3.13	1-25-35	1.4	2.04	
6- 5-20	11.8	2.16	7-15-23	13.0	2.45	4-17-28	7.6	2.45	4-24-35	4.6	1.90	
7-15-20	10.0	2.39	10-10-23	8.7	2.58	7-18-28	7.1	2.31	7-31-35	6.3	1.90	
7-29-20	12.5	2.46	1-19-24	2.98	2.58	10- 3-28	5.5	2.04	10-30-35	3.8	2.18	
8-18-20	11.8	2.73	4- 2-24	8.21	1.90	1- 4-29	2.4	2.99	1-30-36	1.9	2.31	
2- 1-21	5.0	2.34	7- 9-24	10.5	1.50	4- 2-29	6.7	2.72	4-29-36	9.4	2.72	
2- 8-21	6.8	2.28	10- 7-24	5.8	2.31	4-28-30	8.4	2.45	7-29-36	7.6	2.58	
4- 4-21	10.0	2.04	12-13-24	4.7	1.36	10- 6-30	7.4	1.90	10-28-36	4.33	2.31	
5- 7-21	14.8	2.31	1-27-25	4.5	2.72	1-26-31	4.4	2.58				
6- 9-21	10.5	2.04	4- 7-25	9.6	2.18	4- 6-31	7.3	2.72				

The Drains of the Elephant Butte Project -- New Mexico and Texas - 5 -

(Total Dissolved Solids in tons per acre foot)

Index No.	Location and Description
26-28-3	<p>Nemexas Drain (220).                      Station S 950' - E 800' of NW cor. sec. 26, T.28S., R.3E.; above confluence with West Drain. Length, 20.2 miles; gradient, 2.3 feet; water surface 3738.43 feet above sea level on Dec. 3, 1936 when discharge was 15.2 c.f.s.</p>
26-28-3	<p>West Drain (221).                      Station S 1440' - E 50' of NW cor. sec. 26, T.28S., R.3E.; above confluence with Nemexas Drain. Length, 39 miles; gradient, 3.8 feet; water surface 3738.56 feet above sea level on Dec. 3, 1936 when discharge was 34.9 c.f.s.</p>
5-29-4	<p>Montoya Drain (Includes flow of Nemexas and West Drains) (222).                      Station N 1110' - E 300' of SW cor. sec. 5, T.29S., R.4E. Length, 67.6 miles; gradient, 3.4 feet; water surface 3728.69 feet above sea level on Dec. 3, 1936 when discharge was 58.8 c.f.s. (On March 12, 1929 Nemexas and West Drains were cut into Montoya Drain by siphon under river).</p>

The Drains of the Elephant Butte Project -- New Mexico and Texas - 5 -

(Total Dissolved Solids in tons per acre foot)

Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.	Index No.
6-28-18	11.9	4.01	7- 6-21	37.0	2.96	1-28-25	18.7	2.72	1-26-31	13.5	2.45	26-28-3
10-23-18	14.0	3.05	8- 9-21	33.0	2.99	4- 7-25	35.7	2.72	4- 6-31	22.9	1.36	
11- 1-19	9.9	3.18	9- 9-21	-	2.79	7- 8-25	31.9	2.85	6-25-31	26.8	2.72	
11-15-19	10.6	2.84	10- 8-21	-	3.07	10- 1-25	30.5	2.72	10- 6-31	20.2	2.31	
12- 3-19	8.2	2.92	1-14-22	-	2.83	1- 8-26	17.2	2.86	1-30-32	12.2	2.86	
12-15-19	9.1	2.94	1-14-22	-	2.50	4- 3-25	26.6	2.86	7-13-32	20.4	2.58	
1- 6-20	20.2	2.74	7- 5-22	-	3.21	7-14-26	29.2	2.86	10- 6-32	33.3	2.45	
1-20-20	24.5	2.99	10-20-22	-	2.34	10- 7-26	28.2	2.72	1-25-33	15.7	2.58	
2- 2-20	24.0	3.11	10-20-22	-	2.96	1- 7-27	22.6	2.58	4-26-34	30.4	2.45	
3- 1-20	25.0	3.07	1-15-23	20.4	1.63	4-25-27	30.8	2.45	7-27-34	32.0	2.72	
4- 5-20	24.0	3.07	1-16-23	20.4	2.23	8- 6-27	34.5	2.18	10-18-34	14.2	2.31	
5-17-20	26.0	2.97	4-17-23	32.9	2.99	11- 5-27	27.3	2.04	1-25-35	9.7	2.45	
5-17-20	26.0	3.03	4-17-23	32.9	2.45	1- 7-28	18.4	2.45	4-24-35	13.7	2.99	
5-31-20	26.6	3.01	7- 5-23	30.0	2.58	4-17-28	36.1	2.72	7-31-35	21.2	2.45	
6-14-20	26.8	3.17	10-10-23	27.5	2.86	7-18-28	35.2	2.72	10-30-35	12.4	2.31	
7-29-20	28.4	3.28	3-28-24	24.44	3.40	8- 3-28	35.1	2.45	1-30-36	9.1	2.45	
12-30-20	34.2	2.87	7- 7-24	26.7	2.72	1- 4-29	17.4	2.58	4-29-36	20.6	2.58	
4- 4-21	33.8	3.02	7- 9-24	31.8	2.86	4- 1-29	32.0	2.58	10-28-36	18.6	2.18	
5- 7-21	33.4	3.02	7- 7-24	26.7	2.72	2-28-30	26.2	2.31				
6- 9-21	33.4	2.42	12-13-24	22.9	2.99	10- 6-30	16.8	2.31				
6-20-18	13.5	1.22	5-14-21	37.9	1.30	10- 4-25	27.8	1.22	6-25-31	70.0	.95	26-28-3
9-23-18	13.5	1.42	6- 9-21	19.9	1.69	4- 3-26	24.8	1.90	10- 6-31	45.4	1.50	
8- 1-19	15.3	1.39	7- 6-21	22.4	1.80	7-16-26	50.9	2.18	1-30-32	20.5	1.90	
11- 1-19	6.6	2.73	8- 9-21	19.6	1.95	10-11-26	34.3	1.36	4- 8-32	56.5	1.22	
11-15-19	7.7	1.23	9- 9-21	17.7	1.50	1- 7-27	28.5	1.50	7-13-32	70.5	1.22	
12- 3-19	5.9	1.35	10- 8-21	-	1.52	4-23-27	57.6	1.36	10- 6-32	52.3	1.77	
12-15-19	4.6	1.30	1-14-22	-	1.99	8- 6-27	61.0	1.22	1-25-33	27.3	1.77	
1- 2-20	22.0	2.10	1-16-23	18.8	1.63	11- 4-27	36.2	1.63	4-26-34	66.5	1.36	
2- 2-20	28.5	2.26	4-17-23	33.6	1.22	1- 7-28	24.4	1.77	7-27-34	70.0	1.36	
3- 1-20	30.5	2.25	7- 5-23	34.1	2.45	4-17-28	46.2	1.36	10-18-34	57.0	1.50	
4- 5-20	29.0	2.22	10-10-23	27.8	1.50	7-18-28	55.3	.82	1-25-35	37.9	3.81	
5-18-20	35.4	2.05	1-12-24	12.18	1.77	10- 3-28	58.5	1.36	4-24-35	59.7	1.36	
5-31-20	39.5	1.66	3- 8-24	24.15	1.36	1- 4-29	23.8	1.77	7-31-35	69.0	1.36	
6-14-20	34.0	1.74	7- 9-24	35.9	1.36	2-12-29	25.2	1.36	10-30-35	44.8	1.63	
7-29-20	35.0	1.40	10- 7-24	30.8	1.09	4- 1-29	51.7	1.50	1-30-36	28.6	1.77	
12- 3-20	19.2	1.82	12-13-24	18.8	1.09	4-28-30	49.0	1.36	4-29-36	61.0	1.50	
4- 4-21	34.0	1.50	1-28-25	18.4	1.90	10- 6-30	48.8	1.77	10-28-36	45.5	1.63	
4-27-21	28.2	1.50	4- 7-25	48.2	.95	1-26-31	21.0	1.77				
5- 7-21	37.2	1.36	7- 8-25	71.0	1.50	4- 6-31	44.8	1.50				
11- 1-19	1.3	4.57	9- 9-21	-	5.23	1- 8-26	7.0	5.85	6-25-31	108.8	6.26	5-29-4
11-15-19	1.5	4.56	10- 8-21	-	4.16	4- 3-26	11.8	6.54	10- 6-31	76.4	2.18	
12- 3-19	1.7	4.57	1-14-22	1.5	4.30	7-16-26	11.2	6.67	1- 3-32	62.1	2.45	
12-15-19	1.6	4.77	1-14-22	1.5	4.76	10-11-26	8.3	6.40	4- 8-32	89.6	1.63	
1- 6-20	1.8	4.82	7- 5-22	3.0	6.40	1- 7-27	7.3	6.26	7-13-32	106.5	1.90	
2- 2-20	1.5	4.87	10-20-22	3.0	5.06	4-25-27	11.9	6.26	10- 6-32	100.6	2.45	
3- 1-20	1.9	4.85	1-16-23	6.5	5.68	8-30-27	13.0	5.31	1-25-33	45.9	2.18	
4- 5-20	2.4	5.17	4-17-23	10.7	6.40	11- 5-27	9.4	5.72	4-26-34	123.8	1.63	
5-11-20	3.4	5.26	7- 5-23	9.9	6.67	4- 6-28	12.5	5.17	7-27-34	125.5	2.04	
5-17-20	3.4	5.15	1-21-24	8.77	6.81	7-18-28	14.2	5.58	10-18-34	68.4	1.90	
5-31-20	3.4	4.93	3-28-24	10.72	5.58	10- 3-28	12.5	3.95	1-25-35	51.0	2.31	
7-29-20	1.3	4.96	7- 9-24	11.7	6.13	1- 4-29	7.6	5.72	4-24-35	78.8	2.18	
12-23-20	2.4	4.15	10- 7-24	7.2	5.85	2- 5-29	9.7	4.90	7-31-35	97.7	2.04	
4- 4-21	2.6	4.36	12-13-24	9.6	5.72	4- 2-29	97.3	2.31	10-30-35	65.3	2.31	
5- 7-21	1.6	6.51	1-28-25	7.8	5.85	4-28-30	96.5	2.31	1-30-36	44.5	2.31	
6- 9-21	2.5	6.54	4- 7-25	16.1	6.81	10- 6-30	83.2	2.18	4-29-36	93.9	4.04	
7- 6-21	2.5	5.31	7-28-25	11.1	5.72	1-26-31	42.2	2.72	7-29-36	108.4	2.18	
8- 9-21	3.4	4.36	10- 1-25	9.3	6.81	4- 6-31	95.6	2.18	10-28-36	75.2	2.04	

The Drains of the Elephant Butte Project -- New Mexico and Texas - 6 -

(Total Dissolved Solids in tons per acre foot)

<u>Index No.</u>	<u>Location and Description</u>
	EL PASO VALLEY, TEXAS, ( above Fabens, Texas).
12-32-6	<p>Playa Drain (232).                      Station S 1750' - E 1400' of NW cor. sec. 12, T.32S., R.6E.; above junction with Franklin Drain. Length, 23.6 miles; gradient, 3.1 feet; water surface 3651.4 feet above sea level on Dec. 9, 1936 when discharge was 20.1 c.f.s.</p>
33-32-7	<p>Franklin Drain (Includes flow of Playa Drain) (233).                      Station W 1200' - W 700' of SE cor. sec. 33, T.32S., R.7E.; above junction with Middle Drain. Length, 36.3 miles; gradient, 3.4 feet; water surface 3628.7 feet above sea level on Dec. 9, 1936 when discharge was 25.4 c.f.s.</p>
30-33-8	<p>Middle Drain (Includes flow of Playa and Franklin Drains) (234).                      Station S 200' - E 1350' of NW cor. sec. 30, T.33S., R.8E.; above confluence with River Drain. Length, 55.3 miles; gradient, 3.4 feet; water surface 3611.08 feet above sea level on Dec. 9, 1936 when discharge was 37.9 c.f.s.</p>



The Drains of the Elephant Butte Project -- New Mexico and Texas - 6 -

(Total Dissolved Solids in tons per acre foot)

Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.	Index No.
3-24-22	16.0	4.27	12-26-24	11.6	2.18	3-29-28	30.43	2.58	1- 4-33	27.0	1.90	12-32-6
3-24-22	16.0	4.30	1-19-25	11.3	2.86	7-12-28	31.36	2.72	4-30-34	38.1	2.04	
3-24-22	16.0	4.11	4- 1-25	14.2	2.72	10-11-28	27.65	2.31	7-25-34	46.8	1.90	
3-24-22	16.0	3.97	9-24-25	13.9	3.27	1-15-29	26.63	2.45	10-24-34	32.9	2.04	
11-18-22	3.13	1- 4-26	11.0	2.99	5-12-30	31.99	2.18	1-28-35	28.0	1.90		
11-18-22	3.06	5-20-26	13.5	3.13	11- 3-30	28.0	2.72	4-12-35	33.9	2.18		
1-20-23	12.40	3.48	7- 2-26	11.06	2.99	1-31-31	27.7	2.45	7-29-35	37.9	2.31	
6-13-23	15.12	2.86	10-28-26	16.37	2.58	5- 6-31	30.6	2.04	10-30-35	24.7	2.31	
12-15-23	15.7	2.99	3- 8-27	23.08	2.18	7-29-31	39.4	1.90	1-29-36	24.0	2.18	
2- 5-24	10.86	2.86	6-18-27	24.88	2.58	1-29-32	30.1	1.90	4-30-36	29.0	2.45	
4- 4-24	11.5	2.18	8-24-27	37.77	2.18	5-10-32	32.5	4.76	7-29-36	25.9	3.27	
7- 9-24	14.8	3.27	11-16-27	26.18	2.86	8- 1-32	43.3	1.77	10-28-36	21.5	2.31	
9-26-24	13.61	2.86	1-19-28	28.19	2.58	10-27-32	34.3	1.90				
8- 1-19	13.0	5.80	6-24-21	13.8	3.45	1- 9-25	16.6	3.26	5- 6-31	42.4	2.58	33-32-7
11- 1-19	9.2	5.47	7-23-21	13.8	5.28	4- 1-25	21.3	3.67	7-29-31	50.1	2.86	
11-15-19	9.0	5.28	8-26-21	16.5	3.95	7- 3-25	23.1	4.49	1-30-32	37.8	2.13	
12- 3-19	8.5	5.13	9-30-21	18.8	4.87	9-25-25	25.4	4.35	5-10-32	51.7	2.72	
12-15-19	8.5	5.54	12- 2-21	20.0	5.06	1-14-26	20.2	3.70	8- 1-32	62.0	2.45	
1- 6-20	9.5	3.95	7-26-22	22.9	4.27	7- 2-26	20.16	4.22	10-27-32	50.8	2.58	
1-19-20	9.0	5.06	7-26-22	22.9	4.22	10-28-26	29.41	3.53	1- 4-33	38.7	2.45	
2- 2-20	8.0	5.16	10-18-22	20.2	3.59	3- 8-27	32.10	2.99	10-24-34	60.5	2.45	
5-11-20	10.8	6.47	1-20-23	19.75	5.14	6-18-27	37.04	3.54	7-25-34	64.3	2.72	
5-11-20	11.8	5.28	2-10-23	21.35	4.08	8-24-27	47.74	2.99	10-24-34	42.5	2.72	
5-17-20	11.0	5.35	3-23-23	18.12	3.81	11-16-27	34.00	3.26	1-28-35	34.3	2.31	
6- 1-20	10.9	5.06	6- 6-23	23.09	5.17	1-19-28	34.97	2.86	4-12-35	39.7	2.58	
6-18-20	10.4	5.00	10-15-23	23.50	4.08	3-29-28	36.44	2.99	7-29-35	51.8	2.58	
7-13-20	9.6	4.66	10-15-23	23.50	4.62	7-12-28	43.92	3.40	10-30-35	33.5	3.13	
7-28-20	11.2	4.82	2- 5-24	13.40	3.13	10-11-28	43.35	2.99	1-29-36	27.5	2.72	
12-24-20	11.5	1.50	3-28-24	19.74	2.99	1-15-29	33.51	2.72	4-30-36	39.0	2.99	
1-20-21	11.0	3.20	7- 9-24	24.3	4.35	4-26-30	56.37	2.86	7-29-36	39.0	3.27	
3-25-21	13.0	3.51	7- 9-24	24.3	3.81	5-12-30	49.52	2.72	10-28-36	26.5	2.99	
4- 8-21	15.9	2.58	9-27-24	25.78	4.35	11- 3-30	47.4	2.86				
5-27-21	15.7	3.62	12-27-24	17.6	3.26	1-31-31	41.6	2.86				
8- 1-19	29.9	6.50	7-23-21	30.4	4.81	12-27-24	27.2	3.67	5- 6-31	64.5	3.26	30-33-8
11- 1-19	20.8	2.84	8-26-21	27.4	4.00	4- 1-25	36.1	4.35	7-29-31	75.1	3.40	
11-15-19	17.2	5.42	9-30-21	28.0	4.22	7- 3-25	30.6	4.89	1- 2-32	45.8	3.40	
12- 3-19	22.0	5.58	12- 2-21	24.5	5.47	9-25-25	50.8	4.62	1-30-32	43.1	2.72	
12-15-19	18.0	5.54	3-17-22	-	4.87	1-14-26	27.74	4.49	5-10-32	75.2	5.71	
1- 6-20	17.8	5.58	3-19-22	-	4.68	5-21-26	45.86	5.71	8- 1-32	93.4	2.72	
1-19-20	17.5	5.75	3-24-22	-	5.20	7- 2-26	48.24	4.35	10-27-32	61.6	2.86	
2- 3-20	21.8	5.75	7-28-22	-	5.46	3- 8-27	45.07	3.81	1- 6-33	48.4	2.72	
4- 6-20	19.5	6.54	7-28-22	-	5.06	6-18-27	58.30	3.26	4-30-34	79.8	2.58	
5-11-20	25.4	4.06	9-23-22	-	5.44	8-23-27	68.78	4.08	7-25-34	97.0	2.99	
5-18-20	28.5	5.35	9-23-22	-	5.54	10-16-27	37.00	6.39	10-24-34	69.5	3.26	
6- 1-20	29.0	4.52	11-16-22	-	4.16	1-19-28	39.00	3.67	1-28-35	47.4	2.86	
6-18-20	38.0	4.45	1-20-23	25.63	5.22	3-29-28	50.16	3.81	4-12-35	48.9	2.86	
7-13-20	28.5	5.02	3-23-23	32.21	4.21	6- 1-28	66.14	3.48	7-29-35	71.7	3.13	
7-28-20	33.0	3.75	6- 1-23	-	4.49	7-11-28	72.52	3.94	10-30-35	48.4	2.13	
12-24-20	24.4	3.74	6- 6-23	47.35	4.89	10-11-28	59.51	3.81	1-29-36	36.2	3.26	
3-25-21	26.9	4.24	10-15-23	34.33	4.76	1-18-29	43.18	3.40	4-30-36	49.1	3.13	
4- 8-21	31.8	4.13	1-31-24	22.87	4.22	4-26-30	73.9	3.26	7-29-36	59.8	3.67	
4-27-21	21.0	4.00	3-28-24	31.67	3.81	9- 5-30	83.1	2.88	10-28-36	40.9	3.54	
5-27-21	35.0	3.62	7-22-24	39.4	4.35	11- 3-30	56.4	3.26				
6-24-21	32.0	4.24	9-27-24	40.21	6.25	1-31-31	27.7	2.45				

The Drains of the Elephant Butte Project -- New Mexico and Texas - 7 -

(Total Dissolved Solids in tons per acre foot)

<u>Index No.</u>	<u>Location and Description</u>
30-33-8	River Drain (235). Station S 2500' - E 200' of NW cor. sec. 30, T.33S., R.8E.; above confluence with Middle Drain. Length, 23.4 miles; gradient, 2.7 feet; water surface 3609.8 feet above sea level on Dec. 8, 1936 when discharge was 13.4 c.f.s.
32-33-8	Quadrilla Drain (236). Station N 200' - E 800' of SW cor. sec. 32, T.33S., R.8E.; above outlet to river. Length, 8.6 miles; water surface 3606.4 feet above sea level on Dec. 8, 1936 when discharge was 6.7 c.f.s.
4-34-8	Mesa Drain (237). Station S 700' - E 1000' of NW cor. sec. 4, T.34S., R.8E.; at inlet to Mesa Drain pump. Length, 29.1 miles; gradient, 3.5 feet; water surface 3602.26 feet above sea level on Dec. 8, 1936 when discharge was 8.9 c.f.s.
4-34-8	Fabens Intercepting Drain (238). Station S 700' - E 600' of NW cor. sec. 4, T.34S., R.8E. at inlet to Mesa Pump. Length, 1.9 miles; gradient, 3.7 feet; water surface 3599.57 feet above sea level on Dec. 8, 1936 when discharge was 0.94 c.f.s.  EL PASO VALLEY, TEXAS (Island District)
27-34-8	Fabens Drain (239). Station S 1600' - W 2300' of NE cor. sec. 27, T.34S., R.8E.; Length, 10.7 miles; gradient, 2.2 feet; water surface 3582.66 feet above sea level on Dec. 8, 1936 when discharge was 9.1 c.f.s.

The Drains of the Elephant Butte Project -- New Mexico and Texas - 7 -

(Total Dissolved Solids in tons per acre foot)

Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.	Date	Disch. C.F.S.	T.D.S.	Index No.
1-31-24	15.94	3.40	10-28-26	12.97	4.35	11- 3-30	14.7	3.67	10-24-34	18.9	4.89	30-33-8
3-28-24	13.91	3.40	3- 8-27	17.27	4.22	1-31-31	14.1	2.86	1-28-35	11.0	3.13	
7- 9-24	22.54	3.67	6-18-27	20.12	2.45	5- 6-31	21.4	4.49	4-12-35	17.2	3.54	
9-26-24	17.26	4.22	8-24-27	20.68	5.44	7-29-31	30.1	4.35	7-29-35	23.1	4.35	
12-27-24	14.6	3.54	11-16-27	10.89	4.62	1- 2-32	12.1	3.67	10-30-35	13.9	3.94	
1-19-25	12.1	3.40	1-19-28	15.66	4.35	1-29-32	11.2	3.40	1- 9-36	11.0	3.54	
4- 1-25	14.4	3.67	3-29-28	18.58	4.35	5-10-32	23.9	4.62	4-30-36	22.5	4.89	
7- 3-25	24.2	4.57	7-11-28	21.35	5.98	8- 1-32	28.5	3.94	7-29-36	25.2	5.17	
9-25-25	19.3	4.63	10-11-28	17.43	4.49	10-27-32	20.3	2.67	10-28-36	16.3	5.03	
1-14-26	14.08	3.61	1-15-29	10.72	3.95	1- 6-33	9.8	4.08				
5-21-26	33.20	4.49	4-26-30	28.06	4.49	4-30-34	24.9	4.08				
7- 2-26	27.79	4.35	5-12-30	28.51	4.62	7-25-34	32.6	4.62				
5- 6-31	9.5	2.58	8- 1-32	5.15	1.22	1-28-35	2.5	1.50	4-30-36	9.75	1.77	32-33-8
7-29-31	5.9	1.63	10-27-32	4.84	1.36	4-12-35	4.69	1.50	7-29-36	7.25	1.63	
1- 2-32	4.8	1.50	4-30-34	5.1	1.50	7-29-35	11.8	1.63	10-28-36	6.56	1.50	
1-30-32	4.03	1.50	7-29-34	8.2	1.63	10-30-35	6.5	1.63				
5-10-32	7.14	1.77	10-25-34	3.0	2.04	1-29-36	6.09	1.63				
6-21-18	12.1	3.97	4- 8-21	15.5	1.47	9-27-24	16.68	2.31	1-31-31	4.8	3.95	4-34-8
8- 1-19	29.9	2.64	4-27-21	19.8	1.55	12-27-24	10.3	1.63	5- 6-31	14.9	2.86	
11- 1-19	9.8	3.49	5- 7-21	43.5	1.36	1-19-25	5.5	2.99	7-29-31	19.3	3.67	
11-15-19	8.4	3.03	6-24-21	15.5	2.15	4- 1-25	36.1	1.36	1- 2-32	60.2	3.94	
12- 3-19	8.4	2.94	7-23-21	36.5	3.32	7- 3-25	29.9	2.04	1-30-32	5.59	3.81	
12-15-19	8.8	2.92	8-26-21	40.5	1.52	9-25-25	15.6	2.99	5-10-32	19.7	3.81	
1- 6-20	8.2	3.06	9-30-21	22.5	1.96	1-14-26	5.56	3.13	8- 1-32	20.4	3.21	
1-19-20	6.4	3.06	12- 2-21	4.2	2.77	5-21-26	13.43	2.99	10-27-32	15.6	2.86	
2- 2-20	5.8	3.09	3-24-22	33.0	1.35	10-28-26	13.16	4.08	1- 6-33	8.17	3.94	
3- 4-20	13.6	2.22	3-24-22	33.0	1.50	1- 8-27	7.35	3.81	4-30-34	13.0	3.21	
5- 6-20	16.5	2.44	7-26-22	28.0	2.42	6-18-27	14.86	3.27	7-29-34	20.7	3.13	
5-11-20	16.8	2.60	7-26-22	28.0	2.42	8-24-27	16.42	3.21	10-24-34	11.5	3.67	
5-18-20	17.0	2.97	10-10-22	10.5	2.04	11-16-27	5.58	3.40	1-28-35	6.56	3.21	
6- 1-20	16.5	3.02	10-10-22	10.5	1.96	1-19-28	5.73	3.21	4-12-35	9.79	3.67	
7-13-20	14.1	2.73	11-16-22	9.8	2.12	3-29-28	8.86	3.54	7-29-35	13.0	3.40	
7-28-20	14.5	2.38	1-20-23	5.51	1.90	7-11-28	15.86	3.54	10-30-35	10.2	3.81	
10-24-20	23.5	2.84	3-23-23	13.14	1.77	10-11-28	9.61	2.86	1- 3-36	6.09	3.40	
1-20-21	4.5	2.53	6- 1-23	18.25	2.99	1-15-29	6.14	3.21	4-30-36	16.2	3.81	
3-25-21	10.0	2.58	1-31-24	3.0	4.90	4-26-30	28.4	2.58	7-29-36	17.5	3.94	
4- 4-21	20.8	.95	7- 9-24	23.67	2.18	11- 3-30	9.5	4.08	10-28-36	12.5	3.94	
1-31-31	2.8	2.04	1- 6-33	2.16	2.58	4-12-35	1.48	2.99	7-29-36	4.05	2.58	4-34-8
5- 6-31	4.0	1.36	4-23-34	2.4	2.58	7-29-35	1.63	4.88	10-28-36	12.32	2.72	
5-10-32	4.22	2.58	7-25-34	2.25	2.86	10-10-35	1.75	2.72				
8- 1-32	2.0	2.45	10-24-34	1.44	2.45	1-29-36	0.97	2.72				
10-27-32	2.0	2.72	1-28-35	1.5	2.04	4-30-36	5.37	1.50				
9-30-21	--	1.09	7- 3-25	9.6	1.90	1-15-29	6.27	2.31	4-23-34	14.5	2.31	27-34-8
2- 2-21	--	1.09	9-25-25	10.5	2.18	2-28-29	24.16	4.22	7-25-34	14.1	2.58	
9- 1-22	--	2.53	1-14-26	8.36	2.99	2-28-29	24.16	4.35	10-24-34	7.07	2.04	
9- 1-22	--	2.31	5-20-26	12.24	3.40	4-26-30	18.4	2.72	1-28-35	6.17	2.04	
2-10-23	12.5	1.22	7- 2-26	25.17	2.04	11- 3-30	8.4	2.18	4-12-35	12.3	1.90	
6- 8-23	38.4	2.18	10-29-26	8.53	2.58	1-30-31	7.8	1.90	7-29-35	15.1	2.04	
9- 7-23	15.5	2.86	3- 1-27	7.49	2.72	5- 6-31	11.7	1.36	10-29-35	10.4	2.58	
2- 4-24	8.96	2.72	5-27-27	8.0	2.86	7-29-31	12.5	2.31	3-11-36	8.85	2.04	
4- 4-24	18.42	1.50	8-24-27	21.85	3.27	1- 2-32	9.0	2.18	4-30-36	12.4	2.31	
7-22-24	--	1.77	11-16-27	8.56	2.45	1-29-32	6.09	2.18	7-29-36	15.8	2.18	
9-26-24	--	1.22	1-19-28	6.69	2.31	5-10-32	16.6	1.77	11- 3-36	8.45	2.04	
12-27-24	12.0	1.36	3-29-28	11.11	2.72	8- 5-32	18.3	2.45				
1-19-25	7.8	1.90	7-12-28	12.36	2.86	10-27-32	11.6	2.31				
4- 1-25	17.8	2.72	10-11-28	16.88	2.04	1- 6-33	4.3	2.45				

The Drains of the Elephant Butte Project -- New Mexico and Texas - 8 -

(Total Dissolved Solids in tons per acre foot)

Index No.	Location and Description
27-34-8	<p>Island Drain (240).                      Station S 2300' - E 1300' of NW cor. sec. 27, T.34S., R.3E.; above confluence with Fabens and Border Drains. Length, 13.7 miles, gradient, 3.3 feet; water surface 3581.39 feet above sea level on Dec. 8, 1936 when discharge was 14.7 c.f.s.</p>
27-34-8	<p>Border Drain (241).                      Station N 800' - E 1400' of SW cor. sec. 27, T.34S., R.3E.; above confluence with Island Drain. Length, 9.3 miles; gradient, 2.8 feet; water surface 3582.41 feet above sea level on Dec. 8, 1936 when discharge was 7.9 c.f.s.</p>
10-35-9	<p>EL PASO VALLEY, TEXAS (Tornillo District).                      Alamo Alto Drain (242).                      Station S 600' - W 1800' of NE cor. sec. 10, T.35S., R.9E. Length, 20.6 miles, gradient, 4.0 feet; water surface 3558.79 feet above sea level on Dec. 8, 1936 when discharge was 7.4 c.f.s.</p>
11-35-9	<p>Tornillo Drain (Includes flow of Border, Island, Fabens, and Alamo Drains) (243).                      Station N 1200' - W 2000' of SE cor. sec. 11, T.35S., R.9E.; above outlet to river. Length, 75.1 miles; gradient, 2.9 feet; water surface 3555.91 feet above sea level on Dec. 8, 1936 when discharge was 59.0 c.f.s. (On November 2, 1928 Border, Island, and Fabens drains were cut into Tornillo drain by siphon under river).</p>

The Drains of the Elephant Butte Project -- New Mexico and Texas - 8 -

(Total Dissolved Solids in tons per acre foot)

Date	Disch. C.f.s.	T.D.S.	Date	Disch. C.f.s.	T.D.S.	Date	Disch. C.f.s.	T.D.S.	Date	Disch. C.f.s.	T.D.S.	Index No.
11- 1-19	9.5	6.12	6-24-21	11.5	4.98	1-19-25	7.9	5.98	5- 6-31	24.7	3.40	27-34-8
11-15-19	9.8	10.23	7-23-21	22.4	3.53	4- 1-25	15.5	8.84	7-29-31	23.8	7.34	
12- 3-19	10.2	5.08	8-26-21	16.8	3.59	7- 3-25	19.2	10.07	1- 2-32	13.3	6.25	
12-15-19	11.4	5.33	9-30-21	18.6	3.48	9-25-25	13.6	4.62	1-29-32	9.3	5.03	
1- 6-20	12.0	5.33	12- 2-21	19.8	3.29	8-26-26	21.83	9.11	5-10-32	26.7	6.94	
1-19-20	9.9	4.99	3-17-22	16.7	4.95	11- 5-26	19.01	5.85	8- 5-32	25.7	6.40	
2- 2-20	9.9	4.58	3-17-22	16.7	4.51	3- 1-27	9.48	5.98	10-27-32	20.0	6.12	
3- 4-20	10.9	4.03	3-17-22	16.7	4.30	3-27-27	9.48	8.56	1- 6-33	11.7	4.49	
4- 6-20	9.9	4.94	7-21-22	9.5	4.65	8-24-27	15.79	7.46	4-23-34	17.6	2.98	
5-11-20	12.0	4.56	7-21-22	9.5	5.03	11-16-27	9.32	6.49	7-25-34	20.2	4.76	
5-18-20	18.0	4.17	10-10-22	12.5	5.33	1-19-28	8.84	5.98	10-24-34	14.0	5.71	
6-15-20	10.6	3.93	10-10-22	12.5	5.22	3-29-28	13.80	7.20	1-28-35	10.7	4.76	
6-18-20	10.6	4.45	1-20-23	12.45	5.17	6- 1-28	18.11	6.60	4-12-35	15.9	4.35	
7-13-20	11.4	4.13	10-15-23	--	6.26	7-12-28	22.36	8.98	7-29-35	17.6	7.88	
12-24-20	8.0	4.09	2-10-24	--	3.81	10-11-28	15.96	5.98	10-29-35	15.1	7.21	
1-20-21	7.6	6.73	4- 4-24	--	7.34	1-15-29	7.81	7.75	1-27-36	12.3	5.58	
3-25-21	13.8	4.57	7- 9-24	27.14	4.90	4-26-30	21.44	6.94	4-30-36	21.8	6.53	
4- 8-21	14.2	4.41	9-26-24	15.5	7.34	5-20-30	17.98	8.56	7-29-36	23.4	5.98	
4-27-21	14.6	4.90	12-27-24	9.7	5.85	11- 3-30	13.3	2.18	11- 3-36	18.1	3.53	
5-27-21	12.4	4.60	12-27-24	9.7	4.62	1-30-31	10.6	4.76				
8-31-22	--	12.65	12-27-24	1.9	10.87	3-29-28	3.50	10.47	4-23-34	7.51	7.62	27-34-8
8-31-22	--	12.24	1-19-25	1.8	10.87	7-12-28	7.07	12.37	7-25-34	8.5	9.38	
10- 6-22	--	13.57	4- 1-25	6.7	8.71	10-11-28	8.73	11.02	10-24-34	5.59	7.89	
10- 6-22	--	13.65	7- 3-25	8.0	13.05	1-15-29	5.26	10.07	1-28-35	3.62	7.48	
12- 1-22	4	11.91	9-25-25	6.0	14.16	4-26-30	5.04	10.60	4-12-35	7.13	5.71	
12- 1-22	--	11.94	1-14-26	3.63	11.15	5-12-30	6.07	9.94	7-27-35	8.48	9.25	
6- 8-23	8.78	11.15	5-20-26	8.89	13.68	11- 3-30	4.2	10.07	10-29-35	5.52	8.98	
10-15-23	4.6	11.96	8-26-26	8.28	13.19	1-30-31	2.5	8.98	2-13-36	3.27	7.76	
2- 4-24	1.84	14.56	10-29-26	3.73	12.10	7-29-31	6.4	9.25	4-30-36	7.10	7.07	
4- 4-24	3.4	10.87	3- 1-27	2.24	11.02	1- 2-31	2.3	9.52	7-29-36	10.7	6.12	
6-21-24	5.90	16.60	7-27-27	7.43	11.28	1-29-32	2.15	8.30	11- 3-36	8.86	4.49	
6-21-24	5.90	12.65	8-24-27	6.06	5.71	8- 5-32	7.34	9.25				10-35-9
7- 9-24	6.00	11.69	11-16-27	2.68	10.87	10-27-32	4.81	9.12				
9-26-24	4.8	11.43	1-19-28	1.20	10.74	1- 6-33	1.98	8.98				
7- 9-24	--	5.58	5-27-27	13.12	4.49	1-30-31	7.0	4.08	10-24-34	11.2	3.81	
9-27-24	4.67	7.48	8-24-27	12.68	3.26	5- 6-31	15.2	3.81	1-28-35	5.93	3.94	
1-19-25	6.0	4.35	11-16-27	9.50	3.67	7-29-31	19.3	3.67	4-12-35	7.46	3.81	
4- 1-25	10.3	5.17	1-19-28	8.73	3.40	1- 2-32	8.9	3.94	7-27-35	12.45	4.08	
7-10-25	12.5	5.17	3-29-28	14.84	3.67	1-29-32	8.3	3.81	10-29-35	11.4	2.45	
9-28-25	9.5	4.90	7-12-28	19.28	3.54	5-10-32	12.4	3.40	1-27-36	5.32	3.67	
1- 7-26	7.9	4.35	10-11-28	15.09	3.94	8- 5-32	18.3	3.81	4-30-36	12.3	3.40	
5-20-26	14.0	4.62	1-15-29	8.78	4.08	10-27-32	12.1	3.67	7-29-36	15.8	3.13	
7- 2-26	34.88	4.62	4-26-30	18.18	4.08	1- 9-33	9.2	3.26	11- 3-36	8.9	3.94	
10-29-26	12.17	4.49	5-12-30	16.76	3.81	4-23-34	15.7	3.40				11-35-9
3- 2-27	11.12	4.35	11- 3-30	8.7	4.62	7-29-34	19.4	3.54				
4-17-27	10.94	1.90	5-20-26	30.30	4.90	1-15-29	54.06	5.58	1- 6-33	57.4	3.13	
6- 1-23	13.39	2.04	7- 2-26	32.48	4.62	5- 1-30	75.70	5.84	4-26-34	78.0	3.94	
10-24-23	14.87	3.94	11- 5-26	19.70	4.22	5-12-30	85.88	2.45	7-25-34	84.6	5.03	
4- 1-24	23.35	3.54	3- 2-27	16.39	4.08	11- 3-30	59.7	4.49	10-24-34	49.1	4.35	
7- 9-24	28.43	2.18	5-27-27	26.10	4.76	1-30-31	50.18	2.45	1-28-35	42.9	3.94	
9-27-24	22.93	5.44	8-24-27	37.66	3.26	5- 6-31	92.0	4.49	4-12-35	56.1	3.94	
12-27-24	18.1	3.26	11-19-27	20.35	3.54	7-29-31	83.8	4.62	7-27-35	67.0	5.16	
1-19-25	19.5	3.81	1-19-28	15.18	3.54	1- 2-32	49.7	4.62	8-1-35	84.9	3.81	
4- 1-25	25.8	5.17	3-29-28	33.77	4.22	1-29-32	47.7	4.08	10-29-35	61.3	5.30	
7- 3-25	28.3	3.40	6- 1-28	34.64	4.16	5-10-32	75.3	5.16	11-15-35	58.3	4.76	
9-28-25	17.6	4.49	7-12-28	32.42	4.48	8- 5-32	91.9	4.49	1-27-36	45.9	3.81	
1-14-26	16.44	4.22	10-11-28	29.62	6.12	10-27-32	68.6	4.35	4-30-36	74.4	4.49	
									7-29-36	83.1	3.94	
									11- 3-36	63.8	4.08	

The Drains of the Elephant Butte Project--New Mexico and Texas

(Detailed Analyses)

Index No.	Location and Description
<p>Note: In the following descriptions the Townships and Ranges are referred to the New Mexico Principal Meridian; the elevations to sea level datum. The length of drain is the mileage contributing the discharge above the gaging station. The gradient in feet per mile is that of the water surface and is only approximate. The elevation is that of the water surface at the gaging station on the date named when the discharge was as reported. The location descriptions and the water samples are by the Bureau of Reclamation. The analyses of the samples prior to 1936 are by the Bureau of Plant Industry; those for 1936 are by the Geological Survey.</p>	
<p>RINCON DIVISION, NEW MEXICO:</p>	
6-19-3	<p>Garfield Drain (202). Station S 1880' - W 900' of NE cor. sec. 6, T.19S., R.3W.; near outlet to river. Length, 12.4 miles; gradient, 3.1 feet; water surface 4060.32 feet above sea level on Dec. 1, 1936 when discharge was 8.7 c.f.s.</p>
13-19-3	<p>Hatch Drain (203). Station N 1150' - E 300' of SW cor. sec. 13, T.19S., R.3W.; near outlet to river. Length, 10.8 miles; gradient, 3.1 feet; water surface 4034.28 feet above sea level on Dec. 1, 1936 when discharge was 6.6 c.f.s.</p>
28-19-2	<p>Angostura Drain (204). Station S 460' - W 1200' of NE cor. sec. 28, T.19S., R.2W.; near outlet to river. Length, 4.1 miles; gradient, 2.6 feet; water surface 4012.48 feet above sea level on Dec. 1, 1936 when discharge was 1.3 c.f.s.</p>
12-20-2	<p>Rincon Drain (205). Station S 600' - W 2300' of NE cor. sec. 12, T.20S., R.2W.; near outlet to river. Length, 14.4 miles; gradient, 3.1 feet; water surface 3993.77 feet above sea level on Dec. 1, 1936 when discharge was 7.9 c.f.s.</p>
<p>MESILLA VALLEY DIVISION, NEW MEXICO AND TEXAS:</p>	
6-22-1	<p>Selden Drain (211). Station S 1130' - E 2330' of NW cor. sec. 6, T.22S., R.1E.; near outlet to river. Length, 4.6 miles; gradient, 3.1 feet; water surface 3934.74 feet above sea level on Dec. 1, 1936 when discharge was 1.7 c.f.s.</p>
3-23-1	<p>Leasburg Drain (212). Station S 1110' - E 2200' of NW cor. sec. 3, T.23S., R.1E.; above inlet to Del Rio Drain. Length, 12.3 miles; gradient, 4.2 feet; water surface 3899.31 feet above sea level on Dec. 1, 1936 when discharge was 2.3 c.f.s.</p>

The Drains of the Elephant Butte Project—New Mexico and Texas

Laboratory No.	Date of Sample	Dis-charge c.f.s.	Conductance Kx10 <sup>5</sup> @25°C	TDS. Tons per acre foot	Per-cent Sodium	Per-cent Chloride	Analysis						Chloride (Cl)	Nitrate (NO <sub>3</sub> )	Index No.
							Milligram equivalents per liter								
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )				
549	1-31-29	7.6	128	1.22	47	26	5.25	2.05	6.47	4.70	5.52	3.55	—	6-19-3	
	7-5-29	18.0	148	1.31	33	24	7.50	2.00	4.75	3.33	6.54	3.38	—		
	10-5-29	14.4	114	1.34	49	31	5.25	2.14	7.62	3.94	6.34	4.73	—		
	1-24-30	7.4	131	1.15	47	24	5.70	1.23	6.07	9.85	1 tr	3.15	—		
	7-19-30	14.3	142	1.31	44	23	7.50	1.07	6.61	5.11	6.52	3.55	—		
	4-28-33	22.1	142	1.34	43	24	6.60	3.07	7.32	6.00	6.99	4.00	—		
7562	7-28-33	25.0	144	1.30	45	23	6.85	1.94	7.38	5.45	6.85	3.66	tr		
8040	8-3-33	16.5	142	1.35	41	21	7.07	2.35	6.80	5.65	6.91	3.43	0		
8280	1-31-34	10.9	159	1.58	41	22	8.27	2.26	7.43	5.20	8.60	3.97	tr		
15600	8-5-36	12.86	148	1.43	46	23	6.79	2.14	7.35	5.08	7.56	3.72	.01		
548	1-31-29	10.3	130	1.20	42	28	6.30	1.81	5.95	4.70	5.42	3.94	—	13-19-3	
	7-5-29	20.3	148	1.29	36	23	7.50	2.00	5.44	4.72	6.84	3.38	—		
	10-5-29	13.4	121	1.45	34	34	8.55	2.22	5.47	4.33	6.39	5.52	—		
	1-24-30	8.3	141	1.25	41	26	7.50	1.23	6.16	5.50	5.45	3.94	—		
	7-19-30	15.7	132	1.25	42	25	8.20	0.74	6.53	5.51	6.41	3.95	—		
	4-28-33	19.7	125	1.16	31	21	6.75	2.69	4.19	4.00	6.83	2.80	—		
7561	7-28-33	18.1	140	1.38	37	23	7.37	2.39	5.65	4.95	7.06	3.51	tr		
8039	11-8-33	11.8	143	1.43	37	22	7.88	2.12	6.22	4.10	8.19	3.62	0		
8279	1-31-34	9.6	143	1.40	40	22	7.25	2.30	6.58	5.54	6.85	3.58	tr		
15601	8-5-36	18.35	149	1.44	39	22	7.99	2.22	6.26	4.85	7.91	3.61	.01		
547	1-31-29	1.8	83.5	.79	50	26	4.05	0.58	4.56	3.90	2.92	2.37	—	28-19-2	
	7-5-29	3.4	97.3	.87	35	23	5.55	1.23	3.63	3.94	4.10	2.57	—		
	10-5-29	1.65	87.1	1.01	44	38	5.25	1.81	5.52	3.94	3.91	4.73	—		
	1-24-30	.8	94	.83	38	20	5.10	1.00	3.79	3.94	3.95	2.00	—		
	7-19-30	2.3	96	.80	37	19	6.00	0.58	3.86	4.33	4.14	1.97	—		
	4-28-33	2.33	107	1.01	35	23	5.85	2.17	4.25	3.60	5.87	2.80	—		
7560	7-28-33	4.4	130	1.22	35	20	7.00	2.17	4.89	5.20	6.12	2.84	tr		
8038	11-8-33	4.6	132	1.42	40	20	6.95	2.16	6.01	5.80	6.31	3.00	tr		
8278	1-30-34	2.81	137	1.32	38	22	7.25	2.10	6.01	5.49	6.37	3.30	tr		
15602	8-5-36	3.53	126	1.19	40	21	6.49	1.89	5.39	4.43	6.43	2.82	tr		
7563	1-31-29	10.2	118	1.08	43	31	5.55	1.56	5.44	3.90	4.71	3.94	—	12-20-2	
	7-5-29	28.1	125	1.19	—	17	6.00	1.73	—	4.60	1.00	1.18	—		
	10-5-29	23.2	148	1.52	48	33	7.05	1.65	8.09	3.94	7.35	5.52	—		
	1-24-30	7.6	129	1.12	58	34	4.05	1.23	7.35	2.36	5.94	4.33	—		
	7-19-30	21.4	117	1.08	34	26	7.05	1.81	4.58	4.33	5.56	3.55	—		
	4-28-33	23.9	160	1.62	54	33	6.00	2.43	9.87	4.00	8.30	6.00	—		
7563	7-28-33	27.0	161	1.53	47	29	6.88	2.21	7.96	4.25	7.95	5.10	tr		
8041	11-8-33	8.8	157	1.49	50	29	6.80	1.49	8.07	4.35	7.34	4.81	0		
8281	1-30-34	11.2	152	1.46	40	28	6.75	3.16	6.77	4.17	7.64	4.84	.01		
15603	8-5-36	19.04	148	1.39	43	24	7.14	2.06	6.65	4.34	7.70	3.81	.01		
553	2-11-29	2.0	148	1.26	—	38	5.25	2.14	8.99	3.92	6.15	6.31	—	6-22-1	
	7-5-29	5.0	161	1.45	—	42	6.75	1.57	7.53	3.94	5.21	6.70	—		
	10-5-29	4.0	148	1.37	51	43	6.00	1.97	8.35	3.94	5.28	7.10	—		
	1-29-30	2.0	142	1.27	—	36	5.40	1.81	8.20	5.11	4.77	5.53	—		
	7-7-30	11.1	209	1.72	—	42	5.10	2.22	13.21	4.72	7.95	3.86	—		
	4-29-33	7.0	149	1.52	—	42	6.60	2.56	9.95	4.80	6.31	8.00	—		
7566	7-28-33	7.0	169	1.51	51	37	6.37	2.23	8.82	4.60	6.31	6.49	tr		
8044	11-10-33	5.0	157	1.43	50	33	6.78	1.69	8.46	4.40	7.03	5.62	.01		
8284	1-29-34	3.0	151	1.33	47	33	6.18	2.05	7.25	4.27	6.13	5.21	tr		
15606	8-5-36	4.1	155	1.42	43	29	7.24	2.22	7.04	4.85	6.93	4.74	.02		
7566	2-11-29	7.8	106	1.02	—	24	4.85	1.00	7.26	4.33	5.62	3.16	—	3-23-1	
	7-5-29	22.9	98.6	.95	—	21	5.40	1.40	4.25	3.94	4.74	2.37	—		
	10-10-29	11.6	92.5	1.01	44	24	5.55	1.65	5.76	5.71	4.10	3.15	—		
	1-29-30	4.5	117	.92	—	26	3.90	1.32	5.93	3.94	4.11	2.76	—		
	7-7-30	15.0	109	.83	—	22	4.65	2.22	3.93	4.33	4.10	2.37	—		

The Drains of the Elephant Butte Project--New Mexico and Texas

(Detailed Analyses)

Index No.	Location and Description
2-27-3	East Drain (216). Station N 1050' - E 1620' of SW cor. sec. 2, T.27S., R.3E.; above confluence with Anthony Drain. Length, 22.9 miles; gradient, 3.8 feet; water surface 3773.81 feet above sea level on Dec. 3, 1936 when discharge was 8.7 c.f.s.
11-27-3	Anthony Drain (217). Station S 50' - E 940' of NW cor. sec. 11, T.27S., R.3E.; above confluence with East Drain. Length, 7.7 miles; gradient, 3.2 feet; water surface 3773.81 feet above sea level on Dec. 3, 1936 when discharge was 3.0 c.f.s.
26-28-3	Nemexas Drain (220). Station S 950' - E 800' of NW cor. sec. 26, T.28S., R.3E.; above confluence with West Drain. Length, 20.2 miles; gradient, 2.3 feet; water surface 3738.43 feet above sea level on Dec. 3, 1936 when discharge was 15.2 c.f.s.
26-28-3	West Drain (221). Station S 1440' - E 50' of NW cor. sec. 26, T.28S., R.3E.; above confluence with Nemexas Drain. Length, 39 miles; gradient, 3.8 feet; water surface 3738.56 feet above sea level on Dec. 3, 1936 when discharge was 34.9 c.f.s.
5-29-4	Montoya Drain (includes flow of Nemexas and West Drains) (222). Station N 1110' - E 300' of SW cor. sec. 5, T.29S., R.4E. Length, 67.6 miles; gradient, 3.4 feet; water surface 3728.69 feet above sea level on Dec. 3, 1936 when discharge was 58.8 c.f.s.
EL PASO VALLEY, TEXAS (above Fabens, Texas).	
12-32-6	Flaya Drain (232). Station S 1750' - E 1400' of NW cor. sec. 12, T.32S., R.6W.; above junction with Franklin Drain. Length, 23.6 miles; gradient, 3.1 feet; water surface at 3651.4 feet above sea level on Dec. 9, 1936 when discharge was 20.1 c.f.s.



The Drains of the Elephant Butte Project--New Mexico and Texas

Laboratory No.	Date of Sample	Discharge c.f.s.	Conductance Kx10 <sup>5</sup> @25°C	TDS. Pons per acre foot	Percent Sodium	Percent Chloride	Milligram equivalents per liter						Index No.	
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)		Nitrate (NO <sub>3</sub> )
555 7568 8046 8286 15715	2-12-29	11.5	599	5.74	--	58	10.10	7.25	48.30	9.45	18.30	37.90	--	2-27-3
	7- 8-29	32.7	249	2.60	--	49	7.50	3.13	18.48	5.51	9.40	14.20	--	
	10- 8-29	16.0	566	5.53	75	51	10.80	6.41	52.54	8.65	25.60	35.50	--	
	1-28-30	8.7	616	5.14	--	64	7.05	1.23	51.62	6.29	15.36	38.25	--	
	7- 9-30	27.0	264	2.62	--	46	6.75	4.03	19.50	5.90	10.58	13.80	--	
	4-28-33	27.3	406	3.58	--	54	6.90	3.33	32.75	6.00	13.78	23.20	--	
	7568	41.6	315	2.79	61	46	6.93	5.60	20.46	6.10	11.37	15.00	tr	
	8046	11-14-33	15.8	580	5.12	73	10.57	6.11	44.42	9.60	19.33	32.75	0	
	8286	2- 2-34	14.9	575	5.32	71	10.55	6.84	41.89	9.47	18.60	32.22	.05	
15715	8- 5-36	23.08	249	2.12	67	5.29	2.96	16.09	4.90	9.18	10.86	.01		
556 7569 8047 8287 15716	2-12-29	2.3	313	3.05	--	51	8.60	4.61	21.47	3.93	13.00	17.75	--	11-27-3
	7- 8-29	12.9	255	2.15	--	46	8.50	3.13	14.22	6.30	7.70	11.85	--	
	10- 8-29	12.3	218	2.12	57	41	8.25	2.47	14.03	5.90	8.60	10.25	--	
	1-28-30	4.8	266	2.35	--	49	4.50	3.21	20.49	5.51	8.89	13.80	--	
	7- 9-30	9.7	274	2.26	--	46	6.00	4.53	16.90	6.69	8.12	12.62	--	
	4-28-33	6.9	246	2.18	--	45	5.55	3.84	17.17	6.40	8.46	12.00	--	
	7569	7-26-33	8.0	260	2.19	59	7.35	3.70	15.70	7.20	8.34	11.94	tr	
	8047	11-14-33	4.8	261	2.31	62	7.23	3.36	16.93	7.60	8.58	11.71	tr	
	8287	2- 2-34	3.5	274	2.45	61	7.33	3.72	18.09	7.51	8.65	12.52	tr	
15716	8- 5-36	8.02	269	2.36	61	7.14	3.86	16.96	6.84	8.93	12.55	0		
560 7573 8051 8291 15712	2-12-29	16.8	274	2.62	--	45	8.25	2.63	18.67	5.50	10.80	13.25	--	26-28-3
	7- 8-29	34.4	274	2.50	--	47	9.35	3.30	15.95	5.90	9.90	13.80	--	
	10- 8-29	24.9	247	2.31	60	47	7.05	3.71	16.29	4.72	9.73	12.60	--	
	1-28-30	17.5	308	2.45	--	47	6.75	1.48	22.07	5.90	10.20	14.20	--	
	7- 8-30	27.9	273	2.43	--	44	7.95	3.70	18.67	7.08	9.83	13.41	--	
	4-28-33	22.4	295	2.64	67	45	6.90	3.58	21.40	6.00	11.48	14.40	--	
	7573	7-26-33	28.9	285	2.51	62	7.75	3.52	18.25	6.25	10.62	13.18	tr	
	8051	11-14-33	18.8	287	2.56	66	7.70	2.86	19.81	6.70	11.40	13.04	tr	
	8291	2- 2-34	17.3	287	2.57	63	7.45	3.81	19.58	6.67	10.83	13.00	tr	
15712	8- 5-36	26.03	269	2.36	64	7.04	2.80	17.07	6.25	10.41	10.86	.01		
561 7574 8052 8292 15800	2-12-29	25.2	159	1.47	--	29	5.60	1.32	9.19	5.11	6.32	4.68	--	26-28-3
	7- 8-29	74.0	139	1.36	--	26	7.10	1.65	7.68	3.94	8.15	4.34	--	
	10- 8-29	47.0	164	1.66	51	31	7.50	1.82	9.63	4.72	8.33	5.90	--	
	1-28-30	17.5	224	1.87	--	43	4.05	2.80	15.19	5.90	6.68	9.46	--	
	7- 8-30	70.2	163	1.54	--	33	4.20	2.55	10.93	5.11	6.66	5.91	--	
	4-28-33	72.8	151	1.43	57	31	5.10	2.05	9.40	4.40	6.95	5.20	--	
	7574	7-26-33	79.8	161	1.48	56	5.18	2.34	9.46	4.70	7.29	5.10	--	
	8052	11-14-33	33.6	197	1.79	61	5.80	2.50	13.08	5.70	9.25	6.57	tr	
	8292	2- 2-34	23.6	212	1.87	61	5.98	2.93	13.73	5.98	9.53	7.17	tr	
15800	8- 5-36	73.3	183	1.61	59	5.39	2.22	10.83	4.74	8.16	5.73	.01		
562 7575 8053 8293 15713	7- 8-29	132.4	231	2.18	60	43	8.00	2.30	15.35	4.72	9.88	11.05	--	5-29-4
	10- 8-29	83.9	237	2.23	58	46	8.40	2.22	14.95	5.50	8.24	11.83	--	
	1-28-30	44.3	322	2.63	--	50	6.90	2.80	21.24	6.69	8.87	15.38	--	
	7- 8-30	112.0	255	2.27	--	44	7.55	2.47	16.90	5.51	9.58	11.83	--	
	4-28-33	102.2	244	2.26	76	45	4.80	1.66	20.47	5.20	9.73	12.00	--	
	7575	7-26-33	121.0	261	2.28	65	6.77	2.71	17.24	5.40	9.78	11.64	tr	
	8053	11-14-33	58.6	276	2.47	67	7.00	2.78	15.49	6.00	11.16	12.19	0	
	8293	2- 2-34	44.6	288	2.59	65	6.93	3.65	20.40	6.18	11.40	13.05	.01	
	15713	8- 5-36	111.6	238	2.10	64	6.29	2.63	15.52	5.31	9.89	9.31	.01	
563	2-28-29	28.2	232	2.38	--	56	10.05	2.72	16.24	5.11	7.72	16.18	--	12-32-6
	7- 9-29	32.3	264	2.18	--	58	9.00	4.44	13.58	4.72	6.75	15.55	--	
	10- 6-29	29.0	237	2.19	58	53	8.55	3.04	15.77	5.61	7.15	14.60	--	
	1-27-30	18.8	274	2.39	--	53	8.55	4.03	15.66	6.06	7.20	14.98	--	
	9- 5-30	38.5	217	2.06	--	49	7.50	3.37	13.13	5.11	7.06	11.83	--	

The Drains of the Elephant Butte Project--New Mexico and Texas

(Detailed Analyses)

<u>Index No.</u>	<u>Location and Description</u>
12-32-6	Playa Drain (232) (Cont'd). Station S 1750' - N 1400' of NW cor. sec. 12, T.32S., R.6E.; above junction with Franklin Drain. Length, 23.6 miles; gradient, 3.1 feet; water surface 3651.4 feet above sea level on Dec. 9, 1936 when discharge was 20.1 c.f.s.
33-32-7	Franklin Drain (Includes flow of Playa Drain) (233). Station S 1200' - W 700' of SE cor. sec. 33, T.32S., R.7E.; above junction with Middle Drain. Length, 36.3 miles; gradient, 3.4 feet; water surface 3628.7 feet above sea level on Dec. 9, 1936 when discharge was 25.4 c.f.s.
30-33-8	Middle Drain (Includes flow of Playa and Franklin Drains) (234). Station S 200' - E 1350' of NW cor. sec. 30, T.33S., R.8E.; above confluence with River Drain. Length, 55.3 miles; gradient, 3.4 feet; water surface 3611.08 feet above sea level on Dec. 9, 1936 when discharge was 37.9 c.f.s.
30-33-8	River Drain (235). Station S 2500' - E 200' of NW cor. sec. 30, T.33S., R.8E.; above confluence with Middle Drain. Length, 23.4 miles; gradient, 2.7 feet; water surface 3609.8 feet above sea level on Dec. 9, 1936 when discharge was 13.4 c.f.s.
32-33-8	Quadrilla Drain (236). Station N 200' - E 800' of SW cor. sec. 32, T.33S., R.8E.; above outlet to river. Length, 8.6 miles; water surface 3606.4 feet above sea level on Dec. 8, 1936 when discharge was 6.7 c.f.s.
4-34-8	Mesa Drain (237). Station S 700' - E 1000' of NW cor. sec. 4, T.34S., R.8E.; at inlet to Mesa Drain pump. Length, 29.1 miles; gradient, 3.5 feet; water surface 3602.26 feet above sea level on Dec. 8, 1936 when discharge was 8.9 c.f.s.
4-34-8	Fabens Intercepting Drain (238). Station S 700' - E 600' of NW cor. sec. 4, T.34S., R.8E.; at inlet to Mesa Pump. Length, 1.9 miles; gradient, 3.7 feet; water surface 3599.57 feet above sea level on Dec. 8, 1936 when discharge was 0.34 c.f.s.

## The Drains of the Elephant Butte Project--New Mexico and Texas

Laboratory No.	Date of Sample	Discharge c.f.s.	Conductance K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> @25°C	TDS. Tons per acre foot	Percent Sodium	Percent Chloride	Milligram equivalents per liter							Index No.
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )	
563	4-25-33	41.1	218	1.99	59	48	7.05	2.69	13.73	4.80	7.47	11.20	--	12-32-6
7576	7-27-33	43.6	209	1.85	57	45	6.17	3.00	12.32	4.85	6.98	9.62	--	
8054	11-9-33	30.6	216	1.92	59	45	6.53	2.73	13.25	4.90	7.39	10.04	.04	
8294	2-2-34	27.7	215	1.87	56	45	6.45	3.50	12.56	5.05	7.28	10.13	.02	
15728	7-29-36	25.9	260	2.29	60	48	7.44	3.54	16.18	4.92	8.91	13.11	0	
	2-28-29	31.5	250	2.72	--	59	9.30	6.76	17.28	5.50	8.09	19.75	--	33-32-7
	7-9-29	51.7	370	3.16	--	60	13.50	2.47	21.02	5.51	9.40	22.08	--	
	10-6-29	31.2	322	2.99	59	59	10.50	3.70	20.44	5.50	8.64	20.50	--	
	1-27-30	29.3	322	2.77	--	56	8.40	4.20	19.34	5.90	8.29	17.75	--	
	9-5-30	63.2	239	1.99	--	50	7.95	3.70	12.03	5.11	6.74	11.83	--	
564	4-25-33	46.5	282	2.53	63	54	7.50	3.46	18.58	4.80	8.74	16.00	--	
7577	7-27-33	66.8	288	2.47	60	52	8.42	3.41	17.28	5.15	8.77	15.30	.04	
8055	11-9-33	50.3	286	2.52	61	51	8.37	3.32	17.93	5.30	9.40	15.33	.04	
8295	2-2-34	44.0	268	2.36	59	52	7.83	3.88	17.05	5.20	8.57	14.96	.03	
15729	7-29-36	39.0	368	3.25	61	55	10.43	4.36	23.35	5.57	11.62	21.15	.01	
	2-28-29	48.7	351	3.14	--	61	10.50	3.95	24.62	5.50	9.92	23.65	--	30-33-8
	7-9-29	67.3	423	3.81	--	60	13.80	3.51	25.15	5.51	12.15	26.80	--	
	10-6-29	49.9	411	3.26	53	60	15.35	3.13	20.88	5.11	10.60	23.65	--	
	1-27-30	38.2	370	3.21	--	57	10.05	2.22	27.60	5.90	11.10	22.87	--	
	9-5-30	83.1	307	2.88	--	57	11.56	2.47	23.36	5.51	10.58	21.29	--	
565	4-25-33	79.4	308	2.79	66	55	8.25	3.58	22.26	5.20	10.09	18.80	--	
7578	7-27-33	102.0	325	2.70	59	54	9.83	3.90	19.09	5.30	10.23	17.94	.01	
8056	11-9-33	63.3	322	2.82	59	53	9.85	3.93	19.97	5.45	10.49	17.61	.04	
8296	2-2-34	48.7	316	2.81	58	53	9.57	4.40	19.38	5.54	10.02	17.45	.04	
15730	7-29-36	59.8	397	3.54	58	56	12.08	4.85	24.61	5.62	12.64	23.66	0	
	2-28-29	13.9	417	3.76	--	61	13.80	3.95	27.40	5.90	11.60	27.65	--	30-33-8
	7-9-29	32.1	463	4.09	--	64	16.95	5.51	26.32	5.51	12.12	31.15	--	
	10-6-29	17.8	329	3.39	50	58	17.60	2.96	20.64	5.90	11.30	24.00	--	
	1-27-30	12.5	398	3.28	--	56	12.00	5.18	22.12	6.29	10.93	22.08	--	
	9-5-30	25.5	423	4.40	--	62	18.00	2.96	28.45	5.51	13.14	30.76	--	
566	4-25-33	25.3	420	3.90	63	60	11.85	5.76	29.31	6.40	12.52	28.00	--	
7579	7-27-33	26.8	491	4.25	59	57	15.25	5.50	29.66	5.90	13.97	31.17	tr	
8057	11-9-33	16.2	362	3.21	59	55	11.50	4.00	22.23	5.70	11.64	20.90	tr	
8297	2-2-34	16.5	321	2.89	57	52	10.32	4.08	19.82	5.69	10.61	17.40	.01	
15731	7-29-36	25.2	565	5.10	59	64	18.07	6.50	34.83	5.79	15.91	38.10	.01	
569	4-25-33	9.76	161	1.53	63	39	4.65	2.05	11.76	4.40	6.86	7.20	--	32-33-8
7580	7-27-33	8.4	172	1.60	57	38	5.60	2.03	10.04	4.50	6.61	6.73	.01	
8058	11-9-33	5.1	219	1.89	68	26	5.28	2.03	16.15	4.45	12.58	6.14	0	
8298	2-2-34	3.8	163	1.45	57	37	5.15	2.12	10.15	4.22	6.45	6.36	tr	
15732	7-29-36	7.25	183	1.63	55	36	6.39	2.30	10.52	4.33	7.77	6.91	0	
	2-28-29	10.9	239	2.10	--	46	6.75	2.47	16.35	4.72	9.00	11.85	--	4-34-8
	7-9-29	11.0	336	3.05	--	48	10.50	3.05	22.95	5.90	13.25	17.35	--	
	10-6-29	7.3	322	2.67	47	44	8.90	3.30	20.00	5.90	12.10	14.20	--	
	1-27-30	4.8	352	3.12	--	51	9.30	4.69	24.39	6.29	12.37	19.72	--	
	9-5-30	27.8	380	3.85	--	50	13.20	3.95	28.23	6.29	16.61	22.48	--	
570	4-25-33	17.2	394	3.83	67	48	10.35	4.86	30.47	6.00	17.68	22.00	--	
7581	7-27-33	27.5	351	3.13	61	46	10.50	3.86	22.50	5.90	14.02	16.98	.01	
8059	11-9-33	12.9	390	3.53	63	46	11.05	4.33	25.92	6.70	15.39	19.52	0	
8299	2-2-34	9.13	312	2.84	56	48	11.00	3.46	18.62	5.54	11.72	15.82	tr	
15733	7-29-36	17.5	438	4.00	64	50	12.18	4.85	29.44	6.03	17.28	23.69	0	
571	4-25-33	4.35	262	2.47	55	50	9.00	4.99	16.95	5.20	10.14	15.60	--	4-34-8
7582	7-27-33	4.0	292	2.65	48	49	12.10	3.81	14.57	5.40	10.21	15.06	tr	
8060	11-9-33	3.1	272	2.48	49	47	11.22	3.45	13.90	5.15	10.02	13.61	0	
8300	2-2-34	2.1	313	2.84	53	48	11.13	4.54	17.82	5.44	11.86	15.77	tr	
15734	7-29-36	4.00	305	2.77	48	49	12.83	4.03	15.44	5.20	11.37	15.93	.01	

The Drains of the Elephant Butte Project--New Mexico and Texas

(Detailed Analyses)

<u>Index No.</u>	<u>Location and Description</u>
<b>EL PASO VALLEY, TEXAS (Island District).</b>	
27-34-8	Fabens Drain (239). Station S 1600' - W 2300' of NE cor. sec. 27, T.34S., R.8E. Length, 10.7 miles; gradient, 2.2 feet; water surface 3582.66 feet above sea level on Dec. 8, 1936 when discharge was 9.1 c.f.s.
27-34-8	Island Drain (240). Station S 2300' - E 1300' of NW cor. sec. 27, T.34S., R.8E.; above confluence with Fabens and Border Drains. Length, 13.7 miles; gradient, 3.3 feet; water surface 3581.39 feet above sea level on Dec. 8, 1936 when discharge was 14.7 c.f.s.
27-34-8	Border Drain (241). Station N 800' - E 1400' of SW cor. sec. 27, T.34S., R.8E.; above confluence with Island Drain. Length, 9.3 miles; gradient, 2.8 feet; water surface 3582.41 feet above sea level on Dec. 8, 1936 when discharge was 7.9 c.f.s.
<b>EL PASO VALLEY, TEXAS (Tornillo District).</b>	
10-35-9	Alamo Alto Drain (242). Station S 600' - W 1800' of NE cor. sec. 10, T.35S., R.9E. Length, 20.6 miles; gradient, 4.0 feet; water surface 3558.79 feet above sea level on Dec. 8, 1936 when discharge was 7.4 c.f.s.
11-35-9	Tornillo Drain (Includes flow of Border, Island, Fabens, and Alamo Drains) (243). Station N 1200' - W 2000' of SE cor. sec. 11, T.35S., R.9E.; above outlet to river. Length, 75.1 miles; gradient, 2.9 feet; water surface 3555.91 feet above sea level on Dec. 8, 1936 when discharge was 59.0 c.f.s.

The Drains of the Elephant Butte Project—New Mexico and Texas

Laboratory No.	Date of sample	Discharge c.f.s.	Conductance per acre @25°C	TDS. Tons per acre foot	Percent Sodium	Percent Chloride	Milligram equivalents per liter								Index No.
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Nitrate (NO <sub>3</sub> )		
572	7-9-29	16.4	308	2.56	--	59	12.15	4.20	14.98	4.35	8.45	18.55	--	27-34-8	
	11-6-29	9.8	370	2.74	49	63	13.85	2.97	16.19	5.11	7.00	20.90	--		
	1-27-30	8.4	296	2.19	--	58	9.15	3.21	14.79	4.72	6.66	15.77	--		
	9-5-30	10.8	435	3.74	--	47	13.50	4.94	25.95	5.90	16.80	21.69	--		
	4-27-33	11.9	275	2.46	59	56	9.00	3.84	18.32	5.20	8.36	17.60	--		
	7-27-33	13.8	313	2.72	55	57	11.38	3.02	17.20	5.00	8.57	18.09	.01		
8061	11-9-33	11.2	247	2.19	55	49	8.98	2.77	13.88	4.85	8.32	12.71	0	27-34-8	
8301	2-8-34	6.9	209	1.82	54	44	7.48	2.35	11.75	4.27	7.69	9.56	tr		
15735	7-29-36	15.8	237	2.12	52	45	9.28	2.63	12.91	5.02	8.70	11.28	.01		
574	2-28-29	16.1	1144	9.60	--	84	41.55	6.42	76.04	5.11	15.10	103.80	--		27-34-8
	7-9-29	21.5	926	7.26	--	81	34.50	4.94	54.36	4.72	13.38	75.70	--		
	10-6-29	13.1	822	6.55	58	78	27.75	7.25	47.76	5.11	13.15	64.50	--		
	1-27-30	8.7	740	6.19	--	76	18.00	11.11	46.04	5.90	12.07	57.18	--		
	9-5-30	23.5	195	1.91	--	48	9.00	2.30	12.69	5.51	7.04	11.44	--		
	4-27-33	16.1	648	5.94	63	77	16.80	10.50	47.86	4.80	12.36	58.00	--		
7585	7-27-33	22.3	673	6.32	60	77	21.83	5.28	40.17	5.25	11.93	50.65	tr	27-34-8	
8063	11-9-33	16.5	486	4.33	61	68	15.23	4.01	29.78	5.15	10.86	33.32	0		
8303	2-8-34	11.3	899	8.04	68	74	23.88	5.71	63.84	4.56	19.99	68.78	tr		
15736	7-29-36	23.4	669	5.92	61	75	21.86	5.51	42.05	4.66	12.89	52.01	.01		
573	2-28-29	3.3	987	9.36	--	76	29.40	6.76	73.54	5.50	20.34	83.36	--		27-34-8
	7-9-29	8.77	1230	4.44	--	78	36.00	6.17	79.63	5.51	21.25	95.04	--		
	11-6-29	3.9	871	8.98	65	76	33.00	6.16	72.60	5.61	20.65	85.50	--		
	1-27-30	2.8	1057	9.02	--	79	22.50	7.41	75.49	5.51	17.07	82.82	--		
	9-5-30	5.2	1348	9.36	--	77	32.90	9.22	74.20	5.90	20.90	89.52	--		
	4-27-33	8.93	850	8.05	67	77	19.50	11.25	63.38	4.80	16.53	72.80	--		
7584	7-27-33	8.1	1003	9.29	66	75	28.80	7.08	68.58	5.30	20.39	78.88	tr	27-34-8	
8062	11-9-33	9.25	506	4.36	66	65	14.05	3.77	34.10	4.75	13.41	33.70	0		
8302	2-14-34	3.99	905	8.05	68	74	24.27	6.04	62.15	4.61	19.93	69.02	tr		
15740	7-29-36	10.7	688	5.59	65	71	20.06	4.85	45.66	4.95	15.57	50.62	.02		
575	2-28-29	14.1	406	3.74	--	59	14.25	5.51	25.19	5.50	13.00	26.45	--		10-35-9
	7-9-29	15.8	475	4.25	--	60	17.55	4.94	24.82	5.51	13.40	28.40	--		
	11-6-29	10.7	493	4.19	54	60	17.55	6.65	29.01	5.61	15.70	31.90	--		
	1-27-30	6.1	462	3.90	--	62	9.00	3.95	32.58	5.15	13.99	28.39	--		
	9-5-30	21.0	492	3.98	--	61	14.55	6.17	35.08	5.90	13.07	29.18	--		
	4-27-33	14.2	389	3.82	63	59	12.30	4.10	28.29	5.20	13.09	26.40	--		
7586	7-27-33	19.0	376	3.28	58	56	12.12	4.20	21.85	5.15	11.80	21.84	tr	10-35-9	
8064	11-9-33	7.9	374	3.31	59	54	11.92	4.20	22.41	5.25	12.49	21.18	0		
8304	2-8-34	5.92	265	2.36	61	47	8.23	2.62	17.15	5.05	9.42	13.05	tr		
15741	7-29-36	15.7	362	3.17	58	54	11.38	4.28	21.57	4.79	12.30	20.45	.01		
576	2-28-29	87.28	649	5.76	--	75	25.50	6.17	41.40	4.72	12.75	53.60	--		11-35-9
	7-9-29	85.4	592	5.72	--	73	24.00	3.70	39.57	4.72	13.40	49.15	--		
	10-6-29	48.9	617	5.14	60	73	21.35	3.30	37.60	5.50	11.45	45.30	--		
	1-27-30	41.8	528	4.74	--	69	16.50	5.51	34.27	5.51	12.12	38.65	--		
	9-5-30	97.7	492	4.36	--	70	19.50	4.94	31.84	5.51	11.33	39.44	--		
	4-27-33	78.3	494	4.41	61	68	15.00	6.40	33.75	4.80	12.75	37.60	--		
7587	7-27-33	79.0	506	4.57	59	67	16.23	4.69	29.30	5.25	11.63	34.44	.03	11-35-9	
8065	11-9-33	67.9	442	3.91	59	63	14.10	4.29	26.96	5.10	11.68	28.42	0		
8305	2-8-34	60.3	390	3.39	57	61	12.38	4.92	23.13	4.95	10.95	24.43	tr		
15742	7-29-36	83.1	457	3.89	60	65	14.77	4.19	27.53	4.79	11.62	30.40	.01		

\*Carbonate present

1H<sub>2</sub>S present

2Includes 14 cfs waste water from Rio Grande at Leesburg

# List of Collectors

Initials	Name	Agency
R.H.A.	R. H. Armstrong	Geological Survey, United States Department of the Interior
M.B.B.	M. B. Bonar	Bureau of Reclamation, United States Department of the Interior
J.H.B.	J. B. Bliss	Geological Survey
T.G.B.	W. G. Bretsch	Geological Survey
W.F.B.	Wm. F. Busch	Geological Survey
W.H.C.	W. H. Chambers, Jr.	Geological Survey
J.T.D.	J. T. Donnelly	Geological Survey
G.W.D.	Gail M. Dyer	Geological Survey
M.D.D.	M. D. Dykers	Geological Survey
R.B.E.	R. B. Elms	United States Department of Agriculture
J.R.E.	J. R. Erickson	Geological Survey
A.D.G.	Archie Di Giacomo	Geological Survey
L.F.H.	L. F. Hanks	Geological Survey
E.E.H.	E. E. Harris, Jr.	Geological Survey
J.A.H.	J. A. Hedges	United States Department of Agriculture
G.F.H.	Geo. F. Hennings	Geological Survey
W.E.H.	W. E. Herkenhoff	Geological Survey
C.S.H.	C. S. Howard	Geological Survey
C.H.H.	C. H. Howell	Geological Survey
B.J.	Berkeley Johnson	Geological Survey
P.K.	Paul Kitts	Geological Survey
W.A.L.	W. A. Laflin	The State of Texas
C.M.L.	C. M. LaLonde	Geological Survey
W.L.L.	W. L. Lamer	Geological Survey
G.L.	G. Lopes	Bureau of Reclamation
N.G.L.	Nestor G. Lovato	Geological Survey
E.S.M.	E. S. Mayfield	Bureau of Reclamation
R.H.P.	R. H. Peters	Geological Survey
F.D.P.	F. D. Postle	Bureau of Reclamation
L.J.R.	L. J. Reiland	Geological Survey
T.W.R.	Thos. W. Robinson	Geological Survey
J.S.	J. Stallings	Bureau of Reclamation
B.R.T.	B. R. Thompson	Geological Survey
J.F.T.	J. F. Thompson	Middle Rio Grande Conservancy District
C.B.T.	C. B. Toolley	Geological Survey
H.A.W.	H. A. Waite	Geological Survey
T.E.Y.	T. E. Yates	Geological Survey

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