UNITED STATES

DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

THIRD PROGRESS REPORT ON THE COOPERATIVE INVESTIGATION OF SPRINGS AND STREAM FLOW IN THE TECOLOTE TUNNEL AREA OF SANTA BARBARA COUNTY, CALIFORNIA

BY

C. E. Burgess

Prepared in cooperation with the
Santa Barbara County Water Agency

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Memorandum concerning the general comments on the
Third Progress Report, Tecolote Tunnel Area

Before covering the more general comments on the Third Progress Report of springs and stream flow in the Tecolote Tunnel Area, it may be desirable to briefly review the purpose of this investigation. Since January 1949, at the request of the Bureau of Reclamation and the Santa Barbara County Water Agency, we have been measuring the discharge of the springs or seeps now being utilized in the Tecolote Tunnel area. In addition, we have been required to furnish the results of these observations to the cooperators and the affected water users on an annual basis. These assembled data will probably be the basis for a report on the influence of the Tecolote Tunnel operations on the flow in the existing springs.

Present indications suggest that this investigation will be continued for a number of years. In order that our work may be effective, it is necessary that a certain amount of current analytical work be obtained as the investigation progresses. Otherwise, at the conclusion of the investigation there will be certain missing data which could and should have been obtained during the period of observation. Consequently the purpose of these progress reports is to obtain analytical suggestions and to protect ourselves against the omission of critical observational data. In each progress report we have tried to cover new phases of the investigation which may have a critical bearing on a final report.

The interpretive analyses of the basic data made by individual investigators may differ greatly due to lack of sufficient information. However, with each additional round of observational data the margin of variation in interpretation is diminished. Ideas expressed in this Third Progress Report may become obsolete by observations made in subsequent years.

Now in regard to specific comment --

1.- As you will note, most of the springs are located in the shallow alluvial deposits of the stream bed. Some of this water enters the channel from subsurface sources some distance upstream while other portions might enter the channel immediately above the point of development. During the summer, large portions of this inflow are intercepted by the evapotranspiration losses as a result of the riparian plant life along the stream channel before reaching the point of diversion. Taylor and Nickle[a] in their Coldwater Canyon Investigation found that these daily losses increased to as

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[a] Taylor, Colin A. and Harry G. Nickle, Investigations in Coldwater Canyon from Water Losses under Natural conditions from wet areas in southern California, Calif. Division of Water Resources Bulletin 44, p. 88, 1933.

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much as 0.50 acre-inch per 1,000 feet of canyon in August. This is equivalent to a continuous flow of 0.02 second-foot per 1,000 feet of canyon or about 9 gallons per minute. As a result, the measured or apparent discharge of the spring may be very much less than the actual discharge. Furthermore, these losses vary with the seasons of the year, being almost zero in winter and increasing to a maximum in August. This is quite evident from the diurnal fluctuation in

nearly every southern California stream flow record.[b] Consequently

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[b] Troxell, Harold C., The Diurnal Fluctuation in the Ground-Water and Flow of the Santa Ana River and its Meaning, Trans. AGU 1936, p. 496.

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the observed flow may differ greatly from the actual subsurface flow to the spring. For these reasons, a spring or seep during the winter period may have its origin or source distributed over a far greater portion of the drainage area than during the hot summer months. As a result, about 30 percent of these springs completely "dry up" during the summer months. Of course, as soon as the stream flow ceases, the observations are no longer effective indices of subsurface flow.

Often the records are further complicated by periodic removal of the very local vegetation or physical changes in the diversion system.

In preparing the Second Progress Report it was believed that a major portion of the seasonal fluctuation in the apparent outflow was due to variabilities in the evapotranspiration losses. Consequently all the springs were cataloged as to range in discharge. The apparent outflow in 3 springs had a minimum discharge equivalent to 80 percent or more of the mean discharge, while 10 springs had a minimum discharge equivalent to 60 percent or more of the mean discharge. The runoff from these 10 springs was assumed to represent the basic trend in subsurface flow. With the advent of another dry year, this selection proved to be too rigid. Consequently a new base was established in developing the Third Progress Report.

This base consisted of records from 22 springs based (a) on the minimum range in seasonal fluctuation and (b) on the physical conditions at the point of diversion and their maintenance.

The reviewer has suggested that the progressive averages be used instead to show this trend in ground-water seepage. This reasoning, however, is defective in that it fails to recognize the fact that the observed flow may be substantially less than the actual seepage. Furthermore, these differences between observed and actual seepage are not constant, but vary with the seasons of the year.

Also the 4th paragraph of the reviewer's comment contains the following sentence: "If straight line trends were computed for those two springs, it is possible that the slopes of the two lines would be nearly identical." The mere suggestion that this trend might be a straight line is entirely unjustified and certainly undesirable at this stage of the investigation.

The selection of the 22 springs was made on the logic that the seasonal fluctuations in the observed flow were the result of both (a) varying evapotranspiration losses and (b) variations in ground-water seepage into the stream-bed alluvium. Where these variations are a minimum, it may be properly assumed that evapotranspiration losses are also a minimum, and that the observed flow more nearly reflects the trend in actual ground-water seepage. Two of these springs were in tunnels or horizontal drill holes in the canyon side walls where evapotranspiration losses should be a ~~very~~ minimum. Also 10 of these springs are hillside seeps at the base of rock formations where the seepage may be only slightly influenced by

evapotranspiration losses. The remaining 10 springs are in stream-bed seeps where the evapotranspiration losses may have been much greater. In our opinion, the basic hydrograph obtained from these 22 springs gives the most logical trend in ground-water seepage in the Tecolote Tunnel Area available at this time.

The 5th paragraph in the reviewer's comment refers to the 2nd paragraph and to several particular sentences on page 10 of the text.—"as is to be expected this (winter runoff) represents considerable more flow in terms of the average daily flow than shown by the basic hydrographs."—The reviewer has commented - "why?" By the mere selective process used in obtaining this basic hydrograph, records showing the widest range in seasonal fluctuation were discarded. Now by including these discarded records in the regional hydrographs the range flow will be much greater than for the basic group. By their inclusion, the variability of the monthly observations is greatly increased. This variability does not represent errors in observations as suggested by the reviewer, although a certain number of observational errors are always present. The last sentence in the paragraph reads "this variability tends to greatly reduce the merits of the entire series of regional hydrograph." We are of the opinion that this statement is essentially correct.

The regional hydrographs are <u>not</u> based on selected springs, but rather on all the springs within the region. The numbers of all the springs were listed in order to eliminate uncertainties in the boundary cases.

2.- Regarding the use of the words "discharge" and "flow." These two terms have been used as synonymous in order to eliminate the over-working of either term. These terms have been used in the basic sense where continual motion is implied.

The word "value" is used as a synonym for quantity. We dislike the use of the word "figure" because of its multiple use as a diagram, a shape or a quantity.

We have gone over page 4 several times and fail to find the reviewer's reference to "runoff," where the term has been used as a rate instead of a volume. The reviewer probably intended to refer to page 14 where the term may have been used incorrectly.

3.- The reviewer's suggestion as to headings is quite acceptable and will be followed in the retyping of the text. (Through error the typist has underlined the first-order headings.)

4.- The reviewer's comments regarding the table of contents is also acceptable.

H. C. Troxell
Sept. 20, 1951

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Third Progress Report on the Cooperative Investigation of Springs and Stream Flow in the Tecolote Tunnel Area of Santa Barbara County, California

INTRODUCTION

This is the third in a series of progress reports giving the results of discharge measurements made at more than 120 locations in the Santa Ynez Mountains between Refugio Canyon on the west to San Marcos Pass and the Painted Cave area on the east. For the purpose of this report, this portion of the Santa Ynez Mountains has been designated the Tecolote Tunnel Area. Flow of the developed springs and the headwater streams within this area, is generally measured monthly. The purpose of this third progress report is to make available factual data of the flow at these points of measurement obtained since the last progress report, issued in June 1950.

On February 17, 1950, construction operations began on Tecolote Tunnel, located near the mid point of this area. The purpose of this tunnel is to divert a portion of the flow in the Santa Ynez River to the city of Santa Barbara and adjacent coastal areas. As it is not known what effect the tunnel might have on the outflow of the springs in this area, the Santa Barbara Water Agency has requested the Geological Survey to obtain records of flow at frequent and regular intervals. The area covered by this study was made sufficiently large to include all the springs that could possibly be affected by the tunnel, as well as springs believed to be outside the zone of influence. These measurements were made under a cooperative agreement between the Geological Survey and the Santa Barbara County Water Agency whereby each paid one half the cost of the investigation. However, the first year's costs of the investigation were completely paid for by the Bureau of Reclamation.

ACKNOWLEDGMENTS

The work and preparation of this report have been under the direct supervision of Douglas R. Woodward, all under the general supervision of R. C. Briggs, District Engineer. The observations of flow from the springs were made by C. E. Burgess and Walter C. Heinrich.

PREVIOUS INVESTIGATIONS

At the request of the Santa Barbara County Water Agency and under a cooperative agreement between that Agency and the Geological Survey, Mr. J. B. Upson of the Ground Water Branch located and measured the flow from 48 springs in the Santa Ynez Mountains between the site of Tecolote Tunnel and the San Marcos Pass road during the period of June to August 1948. In most instances partial chemical analyses were made of these spring waters. During October and November 1948 the Ground Water Branch extended the location and examination of springs to cover the entire Tecolote Tunnel Area. In general these observations included a description of the spring, the geological formation in which the spring is located, and the first discharge measurement, all of which was given in the first progress report.

In February 1946, at the request of the Bureau of Reclamation, the Surface Water Branch began a systematic series of discharge measurements above the points of diversion in Tecolote, Eagle, and Dos Pueblos Canyons. During October 1948 a reconnaissance of all the streams in the Tecolote Tunnel Area was made and a network of gaging sites was established, insofar as practicable, above the known diversions.

During February 1949 these two programs of flow observations were consolidated and turned over to the Surface Water Branch for continuance.

PRECIPITATION

The 1950-51 precipitation at Santa Barbara prior to May 1st has amounted to 11.29 inches or 63 percent of normal. At Santa Maria, about 50 miles to the northwest, the precipitation during this same period was 68 percent of normal. This subnormal precipitation had an adverse influence on 1950-51 spring and stream runoff. Of even greater influence has been the cumulative effect of antecedent dry years. The present dry year has been preceeded by six consecutive dry years. With this sequence of events there has been relatively little recharge to ground water and recent measurements during the past three years show a general decline in the flow of the springs and streams. The distribution of precipitation for the 9-year period of 1942-51 is given in the following table for Santa Barbara and Santa Maria in terms of their average precipitation. Following the usual California practice, the climatological year of July 1 to June 30 has been used in deriving these quantities.

Table 1 - Annual precipitation at Santa Barbara and Santa Maria for the period 1942-51 in percent of average precipitation.

Year	Santa Barbara	Santa Maria
1942-43	133	120
-44	98	101
-45	83	82
-46	62	80
-47	71	58
-48	50	58
-49	59	69
-50	73	65
-51	(63)	(68)

In view of the ever-increasing demands for water, this series of years of subnormal precipitation has created a very critical water-supply situation throughout the coastal area. Because of the extreme gravity of the situation, the city of Santa Barbara in 1951 inaugurated for the first time a program of cloud nucleation.

RUNOFF

The annual runoff in the streams draining the Santa Ynez Mountains have been below normal during the past 7 years as a result of precipitation deficiency. The runoff for the 9-year period since 1941 is given in the following table for certain drainage areas in the Santa Ynez Mountains.

Table 2 - Annual runoff in acre-feet for San Jose, Atascadero, Carpinteria, and Salsipuedes Creeks for the period 1941-50.

Water year	San Jose Creek	Atascadero Creek	Carpinteria Creek	Salsipuedes Creek
1941-42	765	220	316	10,650
-43	2,970	4,880	6,340	10,710
-44	1,070	2,280	1,680	8,870
-45	500	850	1,100	600
-46	390	265	208	630
-47	580	1,080	546	870
-48	30	40	4.8	402
-49	278	189	17.1	1,710
-50	269	183	152	1,280
Estimated mean for the 25-year period, 1920-45	1,110	1,500	1,700	5,600

The San Jose Creek drainage area on the south side of the Santa Ynez Mountains is the only one of this group within the Tecolote Tunnel Area. The longer time-runoff distribution in this drainage area should be somewhat similar to that for the outflow of the springs in the Tecolote Tunnel Area.

Following the annual runoff for individual years from 1941-42 to 1949-50, the last line of table 2 gives an estimated value of the mean runoff for the 25-year period of 1920-45 obtained by a correlation with the Santa Ynez River records. On the basis of this estimated mean value the annual runoff of San Jose Creek for the 1949 and 1950 water years was 25 and 24 percent respectively of the mean. The flow from the three other areas indicates varying degrees of subnormal runoff for these two water years.

Similar runoff data are not available for the incompleted current water year of 1951, but the data thus far obtained suggest subnormal runoff. Current records for other southern California areas indicate that the cumulated runoff as of May 31, 1951, was 8 percent of normal for Santa Ysabel Creek in San Diego County and 16 percent of normal for Arroyo Seco in Los Angeles County. The runoff for the 1951 water year should be of this order in the Tecolote Tunnel Area.

In the appraisal of the current flow data obtained at the springs in the Tecolote Tunnel Area, full cognizance should be taken of the previous precipitation and runoff given in tables 1 and 2.

Location and Distribution of Measuring Sites

The map on plate 1 in the back of this report shows the location and distribution of more than 120 points of measurements in the Tecolote Tunnel Area. The number shown at each site corresponds to the station number used throughout this and previous progress reports. A suggestion of the topography is given to this map by showing the 500 foot contours.

Records

The results of all discharge measurements of springs and streams in the Tecolote Tunnel Area from the beginning of the investigation through April 1951 are given in table 3 bound in the back portion of this report. On separate pages for each station are the chronological listing of discharge measurements, preceded by short paragraphs that give the location, altitude and description of the station, information concerning diversions in the case of stream stations, and reference to previous measurements not listed. Each measuring site is identified by a station number that corresponds to the location number shown on the map, plate.1.

It is contemplated that, as further measurements are made, the results will be tabulated on the proper pages of table 3, and the future progress reports will be in the form of a supplement to the present report.

Runoff Distribution

During the very dry winter period January through March 1951, the observations obtained of more than 120 springs and streams listed in table 3 indicate a combined flow or total discharge of 4.03 second-feet. In the preceding year for the same time period the combined flow was 9.78 second-feet. The 1951 winter runoff therefore represents a decline of 5.73 second feet, or 59 percent, from the 1950 winter runoff. The precipitation during this 1950 winter period was 60 percent of average at Santa Barbara and 64 percent of average at Santa Maria. In 1951 the precipitation during this three month period decreased to 45 percent of average at Santa Barbara and 48 percent of average at Santa Maria. As a consequence of this subnormal precipitation, surface runoff was small. During these winter months the runoff is believed to be an index of ground-water storage conditions within the Santa Ynez Mountain, as the modifying influences due to evapotranspiration losses are generally small.

In the intervening summer month of August 1950 the combined outflow decreased to 2.16 second-feet. The change in flow between winter and summer months results in part from the increased natural water losses in the area. During the preceding August 1949 the combined flow was somewhat smaller, amounting to 1.48 second-feet.

The outflow from an individual spring and its time distribution is often the result of a complex array of influences, such as the uniformity of the ground-water recharge, the characteristics of the hydraulic system supplying the spring, the natural water losses between the area of recharge and point of development, the care and methods used in the development and maintenance of the spring, and to many more obscure and unknown factors. Consequently the range in outflow between winter and summer periods is often quite variable in adjacent springs. Often improvements in the method of spring diversion will completely change its flow characteristics. A flow of less than 2.1 gallons per minute during the winter and spring of 1950 in the Ovington spring (station 97) increased to more than 5 gallons per minute following the improvements made in the method of development during the summer.

Basic Runoff Distribution

The rather simple distribution of the total combined flow masks a wide variation in the outflow characteristics of the individual springs. A sample of this variability was shown on figure 2 of the second progress report for two springs in the same general area having about the same average discharge. In one instance the flow in the Ogram Spring (station 7), in the Coldwater sandstone, ranged from about 15 gallons per minute in the winter of 1949 to 0.2 gallons per minute in the following summer. During this same period the Holmes spring (station 18), also in the Coldwater sandstone about 1.5 miles to the west and at an altitude about 650 feet lower, ex-

perienced a very much smaller range in flow of 6.3 gallons per minute on June 23, 1949 to 4.7 gallons per minute on November 1, 1949. It is quite evident that where the seasonal fluctuation is believed to be due to evapotranspiration losses, the smaller range in flow from the second spring represents the better index of trend in the observed mountain ground-water seepage. Consequently the flow from 22 springs with characteristics similar to that shown by the Holmes spring have been used as a basis for establishing a trend in flow. This group consists of springs 16, 18, 20, 30, 31, 33, 35, 62, 63, 66, 81, and 90 on the southern slopes of the Santa Ynez Mountains and springs 94, 103, 121, 123, 131, 135, 143, 148, and 151 on the northern slopes of these mountains.

To establish this basic distribution, the observed discharges at each point of measurement were given a dimensionless characteristic by expressing each in terms of the average observed discharge for the period of record. The fact that the period of record contains three winter periods and but two summer periods will not materially change the interrelationship of the individual observations. The monthly median of these 22 records has been assumed to be the indicator of the basic trend in runoff distribution. These data are shown in the form of a hydrograph for the period of January 1949 through April 1951 on figure 1. The quartiles have been added to this hydrograph as a measure of the variability of the basic data. These quartiles are generally from 10 to 40 percent greater or smaller than the monthly median. This hydrograph is intended to supersede those shown on figure 4 of the second progress report for spring types A, B, and C.

During the period of record, the maximum median monthly runoff for these 22 selected springs was 1.57 times the average observed discharge during March 1949. The median flow for the entire four winter months of January through April 1949 was 1.25 times this same average daily discharge. As indicated in

Figure 1

Basic hydrograph of flow in springs in the Tecolote Tunnel Area for the period of January 1949 to April 1951

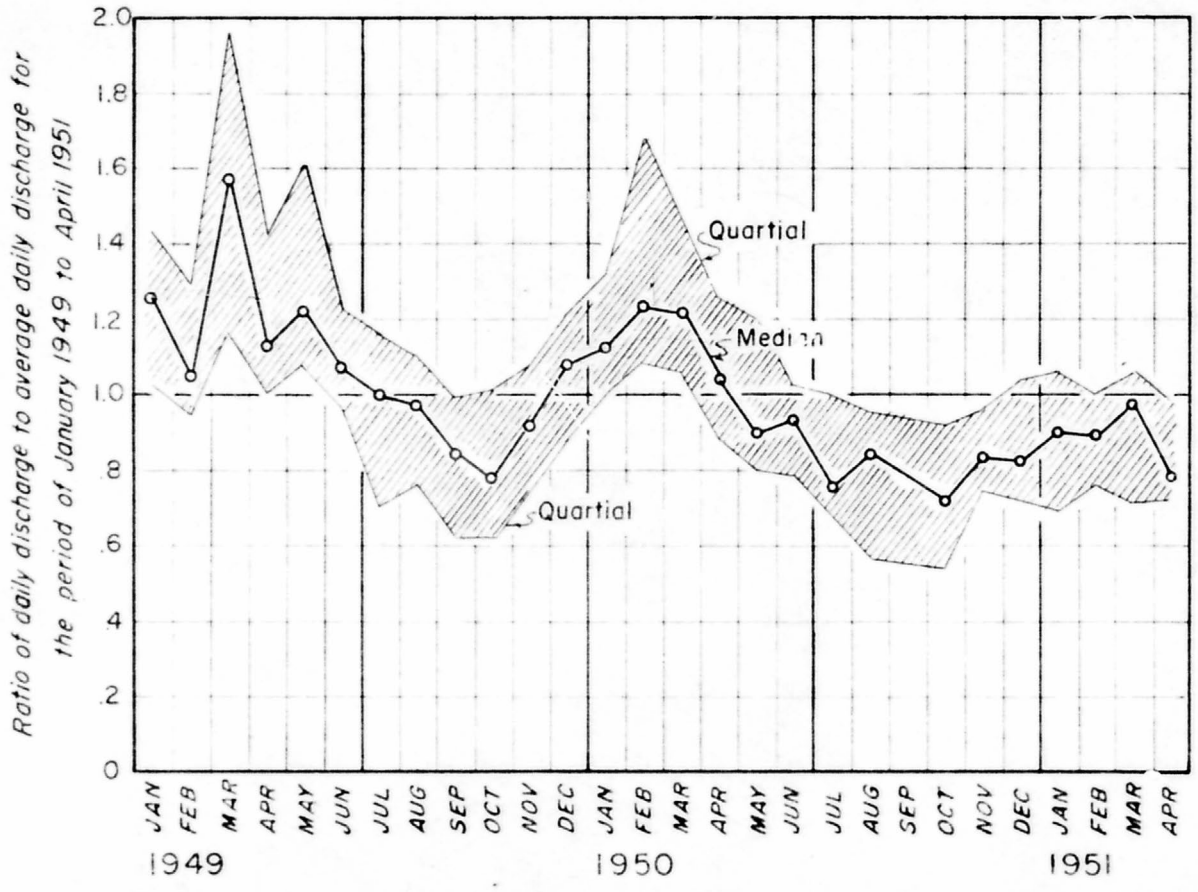


figure 1, the winter flow during the following 5-month winter period December 1949 to April 1950 decreased to a median value of 1.14 times the average daily discharge. This represents a decline of 11 percent of the average daily discharge. However this decline may not be highly significant, as the 1949 observations were incomplete.

By the winter of 1951 the median flow declined to 0.88 times the average daily discharge for the 5-month winter period December 1950 to April 1951. This further decrease in winter runoff is equivalent to 26 percent of the average daily discharge. The trend shown here appears to be very much more significant than that shown for the combined discharge cited earlier.

During the summers of both 1949 and 1950, the minimum observed flow occurred in the month of October. In 1949 the flow for the 4-month period July through October was 0.90 times the average daily discharge, which declined to 0.77 in 1950. Although the summer flow cannot always be considered as a reliable index of trend, it does however in this case agree with the trend shown by the winter flow.

Regional Runoff Distribution

The regional distribution of the flow was presented in figure 3 of the Second Progress Report in the form of seven hydrographs. In preparing similar data for this report a slightly different regional segregation has been used. The method of presentation is also somewhat different in that the monthly median and quartile values have been used instead of the monthly means. Furthermore, the data have been plotted on a semilogarithmic projection so that uniform distances of the quartile points represent identical divergence in percent of the median values.

Four regional hydrographs of the flow in springs on the south side of the Santa Ynez Mountains are shown in figure 2 for the period January 1949 to April 1951. Similarly, three regional hydrographs of the flow in springs on the north side of the Santa Ynez Mountains are shown in figure 3. As already indicated, the fact that this time period contains three winter periods and but two summer periods may have some influence on the magnitude of the average daily discharge but not on the shape or trend of the hydrographs.

Painted Cave Region - This is a comparatively small region about 5 to 6 miles east of Tecolote Tunnel. Most of the springs under observation are in the Coldwater sandstone at altitudes of 1,720 to 2,700 feet with an average of 2,300 feet above sea level. The hydrograph on figure 2 is based on the observations obtained at stations 2-11, 13, and 14.

In that evapotranspiration losses are generally at a minimum during the winter, the observed flow is more nearly a measure of the actual subsurface flow. During the first winter period of this investigation there were not sufficient observations to obtain the regional average daily discharge. However, in the second winter period of December 1949 through April 1950 there were sufficient measurements to warrant the computing of a regional average, which amounted to 1.55 times the average discharge. This is considerably larger than the 1.14 times the average discharge of the basic hydrograph for this winter period. This wide difference in individual values is of course to be expected as the regional group includes the results from all the springs in the region and is therefore less selective.

During the last winter period of December 1950 to April 1951 the regional discharge amounted to 0.66 times the average discharge. This represents a decline of 89 percent in winter runoff in the last two winter periods. This decline amounts to 3.4 times that of the basic group.

Figure 2

Regional hydrographs of flow in springs on the south side of the Santa Ynez Mountains in the Tecolote Tunnel Area for the period of January 1949 to April 1951

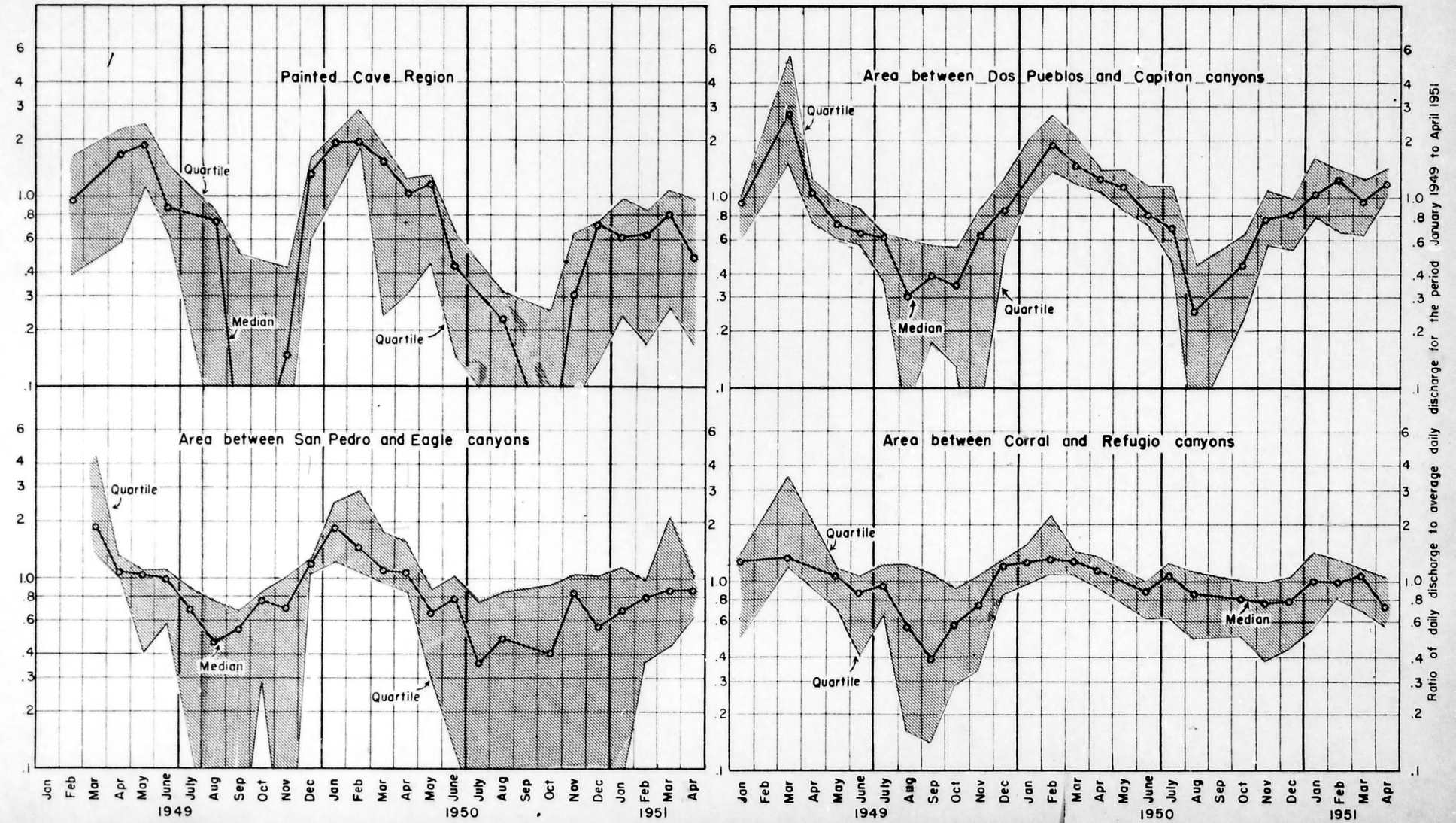
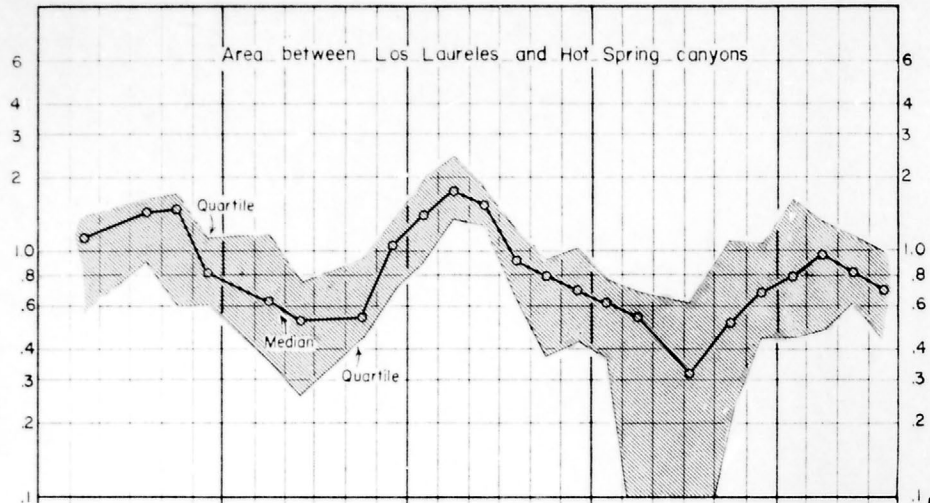
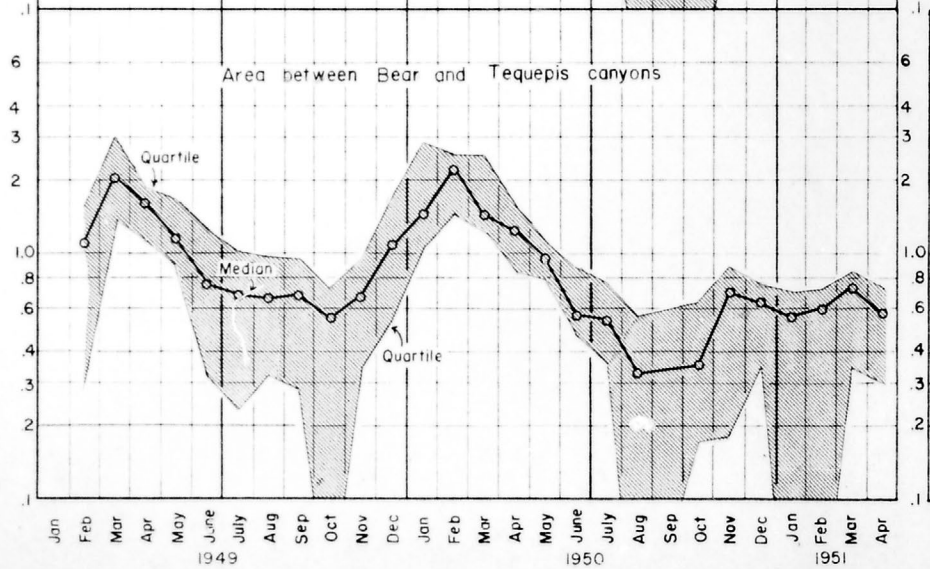
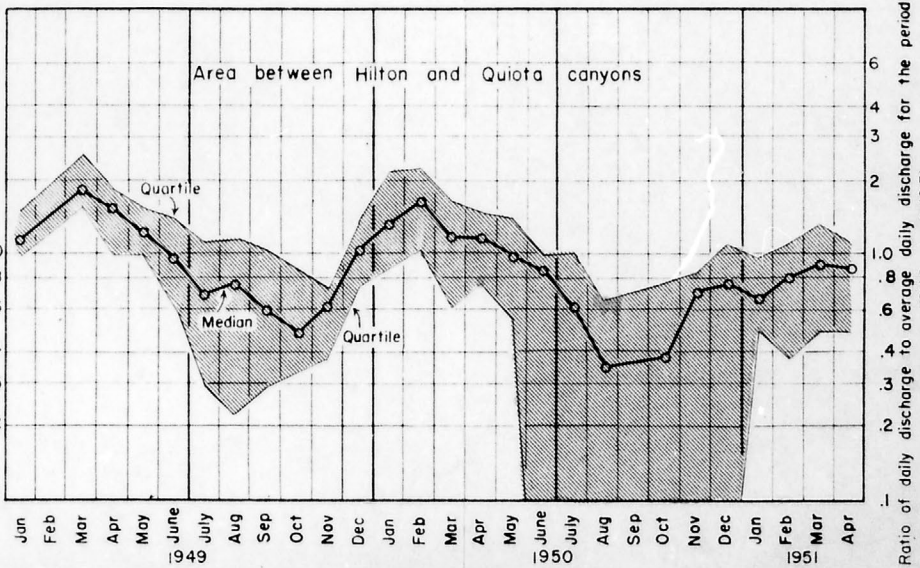


Figure 3





Regional hydrographs of flow in springs on the north side of the Santa Ynez Mountains in the Tecolote Tunnel Area for the period of January 1949 to April 1951



Summer observations have very much less significance, unless it is possible to adjust these quantities for water losses attributable to the moisture originating in the individual springs. In that adjustments of this nature are not feasible at this time, little significance is attached to the regional summer discharges.

The above discharge values for the winter period of December through April and for the summer period July through October are summarized in the following table 4, for the Painted Cave Region as well as the other six

Table 4 - Ratio median daily discharge to average daily discharge for the period January 1949 to April 1951.

Region	Winter period (Dec. through Apr.)			Summer period (July through Oct.)	
	1949	1950	1951	1949	1950
Basic	1.25	1.14	0.88	0.90	0.77
Southside Santa Ynez Mountains					
Painted Cave	a	1.55	.66	a	a
San Pedro and Eagle Canyons	a	1.32	.76	.61	.42
Dos Pueblos and Capitan Canyons	1.53	1.32	1.05	.40	.46
Corral and Refugio Canyons	a	1.21	.91	.61	.89
Northside Santa Ynez Mountains					
Los Laureles and Hot Springs Canyons	a	1.34	.79	a	.50
Bear and Tequepis Canyons	a	1.49	.62	.64	.41
Hilton and Quiota Canyons	a	1.29	.82	.63	.45

/a Insufficient data

regional areas. Similar data obtained at the 22 basic springs are also given in this table for comparative purposes. It is quite evident from this summary that the 1950 and 1951 winter flow in the Painted Cave Region has a greater decline than/in that any of the other areas.

Area between San Pedro and Eagle Canyons - This region includes all the mountain area between, as well as the drainage areas of San Pedro Canyon on the east to Eagle Canyon on the west. It also includes the south portal of Tecolote Tunnel and all the mountain area extending from about 4 miles east and about 2 miles west of the tunnel. The springs within this region used in this inventory include stations 28, 28a, 30, 31, 33, 35, 36, 40a, 42, 46, 47 and 49. The altitude of these springs at the points of measurement ranges from 225 to 1,250 feet above sea level, with an average of 550 feet. Only three of the springs have an altitude higher than that of the south portal of Tecolote Tunnel. The average altitude of the 12 springs forming this regional group is about 1,750 feet below that of the Painted Canyon Region. The geology is probably of less significance in this region in that the springs occur in the Sespe formation, Rincon shale, and Coldwater and Vaqueros sandstones as shown in the First Progress Report.

In the second year of this investigation, the regional flow for the 5-winter months of December 1949 through April 1950 was 1.32 times the average flow, as shown in table 4. In the next year this regional flow during the same 5-month winter period declined to 0.76 times the average daily discharge. This regional decline in flow between these two winter periods of 56 percent of the average discharge was about twice that of the basic group.

The observed median summer flow for the 4-month period July through October 1949 was 0.61 times the average daily discharge. In the following summer of 1950 this median flow decreased to 0.42 times the regional average discharge. Although both of these median values are smaller than that for the basic group, the decline in summer flow is almost identical.

Area between Dos Pueblos and Capitan Canyons - This region includes all the mountain area between, as well as the drainage areas of, Dos Pueblos Canyon on the east and Canada del Capitan on the west. This area ranges about 2 to 7 miles west of Tecolote Tunnel. The observation data obtained at stations 50, 51, 57, 59 and 61-65 were used to show the regional behavior of the ground-water seepage. The average altitude of these springs is about 440 feet with a range in altitude of 40 to 1,100 feet above sea level. The average altitude of these points of observation is about 110 feet below that for the preceding region. The geology of the area in which these springs are located has not been determined.

There were sufficient observation data to determine the regional winter flow during the first winter period of January to April 1949, which was 1.53 times the average daily discharge. In the following winter of December 1949 through April 1950 the regional flow was 1.32 times the average daily discharge. By the winter of December 1950 through April 1951 the regional flow had declined to 1.05 times the average daily discharge. This decline in winter flow of 21 percent of the average discharge between the first and second winters and 27 percent between the second and third winters is in fairly good agreement with that for the basic group of springs.

In the 4-month summer period July through October 1949 the regional flow was 0.40 times the average daily value. In the following summer of 1950 the regional flow increased to 0.46 times the average value. This is a distinct reversal of the trend as shown by the basic group.

Area between Corral and Refugio Canyons - This region includes all the mountain area between Canada del Corral and Canada del Refugio as well as the drainage area of these two canyons. These areas are from 7 to 11 miles west of the south portal of Tecolote Tunnel. The regional behavior of the

ground-water seepage is based on the observational data obtained at stations 66-68, 70, 78, 81, 82 and 84-90. The altitude of these springs ranges from 70 to 2,000 feet with an average of about 630 feet. These springs are located in the Coldwater and Vaqueros sandstones, the Monterey shale and the Sespe formation.

During the 5-month winter period December 1949 to April 1950 the regional flow was 1.21 t[illegible] the average daily flow. In the following year the winter regional flow decreased to 0.91 times the average flow. This decline of 30 percent of the average discharge is only slightly greater than that for the basic group.

During the 4-month summer period July through September 1949 the regional discharge was 0.61 times the average daily flow. In the succeeding summer of 1950 the regional value increased to 0.89 times the average daily flow.

Area between Los Laureles and Hot Springs Canyons - This region on the north side of the Santa Ynez Mountains extends from about 2 to 7 miles east of the north portal of Tecolote Tunnel. The area includes all the Hot Springs and Los Laureles Canyons drainage areas as well as the intervening area. The springs used in this analysis include the records from stations 15, 16, 92-106B and 110. The average altitude of these springs is about 1,620 feet, although seven are located at altitudes of 2,000 feet or more. About half of the springs are located in the Coldwater sandstone; the rock formation for the remainder of the springs is not identified.

The winter records during 1949 are not sufficiently complete to obtain a satisfactory regional value. The regional flow during the 5-month winter period December 1949 through April 1950 was 1.34 times the average daily flow. During the 5-month winter period December 1950 to April 1951 this regional discharge decreased to 0.79 times the average discharge. This decline of 55

percent of the average daily flow is twice the decline in the basic group.

The regional summer flow during the 4-month period of July through October 1950 was 0.50 times the average daily flow. The records for the preceding summer were insufficient to obtain a regional value.

Area between Bear and Tequepis Canyons - This region extends from about 2 miles east to about 2 miles west of the north portal of Tecolote Tunnel. It includes the drainage areas of Bear and Tequepis Canyons and the intervening area. The records obtained at stations 120-130 were used to establish the flow distribution in this region. The average altitude of these springs is about 1,300 feet.

The regional flow during the winter period December 1949 through April 1950 was 1.49 times the average daily flow. During the subsequent winter of December 1950 to April 1951, the regional flow declined to 0.62 times the average daily flow. These winter median flows indicate a decline of 87 percent of the average daily flow or somewhat more than three times that for the basic group.

During the summer months July through October 1949 the regional flow was 0.64 times the average daily flow. In the following summer of 1950 the flow declined to 0.41 times the average daily flow.

Area between Hilton and Quiota Canyons - This north-facing mountain area extends westward 2 to 9 miles from the north portal of Tecolote Tunnel. The region includes all the drainage areas of Hilton and Quiota Canyons and the intervening areas. The flow distribution is based on the record obtained at springs 134-138, 140, 143, 144, 147-154 and 156. These springs have an average altitude of 1,310 feet.

The regional flow during the winter period December 1949 through March 1950 was 1.29 times the average daily flow. In the following winter period, this regional flow decreased to 0.82 times the average daily flow. Between

these last two winters the flow declined 47 percent of the average daily flow, or almost twice that for the basic group.

In the 4-month summer period July through October 1949, the regional flow was 0.63 times the average daily flow. During the following summer of 1950 this decreased to 0.45 times the average daily flow.

Outflow from Tecolote Tunnel

On February 17, 1950, construction was started at the north portal of the 6.4-mile Tecolote Tunnel. The location is shown on Plate 1. On May 3, 1950, construction was started at the south portal. The tunnel is to be of a standard horse-shoe cross section with a concrete lining. The tunnel is 7 feet high and is 5.7 feet wide at the invert. It has a cross-sectional area of 35.6 square-feet and is designed to carry about 100 second-feet. On April 30, 1951 the headings of the tunnel excavation were 9,200 feet from the north portal and 9,400 feet from the south portal. A distance of about 15,000 feet remained to be excavated.

North Portal

The daily discharge or outflow, in second-feet, from the north portal is given in table 5 for the period April 1, 1950 to April 30, 1951. This record is also given in the form of a hydrograph on figure 4. The progress of the tunnel excavation is shown in distance between the heading and north portal immediately above the hydrograph.

The first 1950 feet of excavation was in the Monterey formation composed largely of soft, fractured, punky, and diatomaceous shale. During the earlier part of the excavation there were no facilities for measuring the flow. However, beginning in the first part of April periodic observations of flow were made at fairly frequent intervals. As shown on the hydrograph the flow was very small.

Outflow from North Portal of Tecolote Tunnel for the period of April 1, 19[illegible] to April 30, 1951

Day	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APRIL
1	0.01	0.03	0.18	0.12	0.06	0.05	0.15	0.08	0.10	0.19	0.24	0.11	0.40
2	.01	.04	.18	.12	.06	.07	.15	.09	.10	.19	.18	.14	.20
3	.01	.04	.22	.11	.06	.04	.15	.12	.10	.20	.18	.15	.21
4	.01	.04	.20	.11	.06	.05	.14	.09	.09	.22	.18	.15	.25
5	.01	.04	.18	.10	.06	.08	.14	.11	.09	.20	.18	.14	.30
6	.01	.04	.15	.10	.06	.08	.15	.10	.09	.19	.18	.14	.28
7	.01	.04	.15	.10	.06	.09	.15	.11	.09	.19	.18	.14	.23
8	.01	.04	.11	.10	.05	.08	.15	.10	.10	.18	.18	.12	.23
9	.01	.03	.15	.10	.05	.07	.14	.12	.10	.18	.19	.12	.22
10	.01	.03	.20	.10	.05	.06	.14	.14	.10	.18	.20	.12	.18
11	.01	.03	.18	.08	.05	.06	.14	.15	.09	.18	.15	.10	.16
12	.01	.03	.16	.07	.05	.06	.12	.16	.09	.19	.20	.11	.18
13	.01	.03	.13	.10	.05	.06	.10	.18	.09	.46	.17	.11	.16
14	.01	.04	.12	.10	.05	.06	.11	.18	.09	.5	.18	.11	.23
15	0	.04	.12	.10	.05	.06	.11	.18	.10	.31	.18	.09	.29
16	0	.06	.17	.10	.05	.07	.10	.18	.11	.30	.18	.11	.20
17	0	.05	.15	.10	.05	.09	.10	.16	.11	.29	.20	.12	.21
18	0	.05	.14	.10	.06	.11	.09	.16	.12	.28	.18	.10	.19
19	0	.05	.11	.09	.07	.09	.09	.16	.14	.33	.18	.09	.19
20	0	.06	.14	.10	.07	.10	.10	.14	.14	.35	.21	.10	.22
21	.01	.06	.15	.09	.07	.11	.09	.11	.16	.18	.25	.12	.25
22	.01	.06	.15	.08	.07	.11	.09	.12	.13	.16	.26	.12	.32
23	.01	.07	.13	.08	.07	.12	.08	.11	.14	.15	.26	.11	.25
24	.02	.07	.14	.08	.07	.14	.06	.11	.14	.15	.25	.10	.24
25	.02	.07	.13	.08	.07	.14	.06	.11	.12	.15	.23	.10	.23
26	.02	.07	.12	.08	.07	.14	.07	.11	.12	.15	.18	.12	.23
27	.02	.08	.13	.08	.07	.12	.08	.10	.12	.16	.10	.16	.23
28	.02	.11	.16	.08	.06	.14	.08	.10	.12	.16	.11	.16	.23
29	.03	.11	.11	.07	.05	.15	.08	.10	.12	.15		.18	.22
30	.03	.12	.12	.07	.05	.15	.09	.11	.21	.16		.26	.20
31		.14		.07	.05		.09		.19	.16		.30	
	0.33	1.77*	4.48*	2.86*	1.82*	2.75*	3.39*	3.79*	3.61*	6.84*	5.36*	4.10*	6.93*
Mean	.011	.057	.15	.092	.059	.091	.11	.13	.12	.22	.19	.13	.23
Acre-Feet	.7	3.5	8.9	5.7	3.6	5.4	6.7	7.5	7.2	14	11	8.1	14

Mean for period .38

Acre-Feet 95

The excavation of the next 1,640 feet was in a fault zone. There was a noticeable increase in flow during this period with a maximum daily flow of about 0.22 second-foot on June 3rd. On May 26th a V-notch weir was installed to increase the accuracy of the flow record. The head on the weir was read three or four times daily by engineers of the Bureau of Reclamation.

The Rincon formation was encountered in the excavation for about 3,720 feet, between 3,590 and 7,310 feet from the portal. At about 7,100 feet from the portal a loose sand was encountered within the Rincon formation that produced a flow of about 0.2 second-foot when uncovered but decreased to about 0.01 second-foot within 24 hours. The daily flow during this excavation period ranged from about 0.05 to 0.15 second-foot. To obtain a continuous record of the flow a 6-inch Parshall flume with a continuous recorder was installed on July 25, 1950.

Between 7,310 to 8,090 feet from the north portal the excavation was in the Vaqueros formation of soft sandstone. In first encounter, this formation yielded about 0.10 second-foot, but the flow soon diminished to about 0.01 second-foot. In general this formation appears to have added little to the flow, which ranged from about 0.09 to 0.18 second-foot.

The excavation was in the Sespe formation of interbedded sandstones between 8,090 and 9,200 feet from the portal. Much of the seepage in this section of the tunnel was of a brackish or salty nature. At about 8,740 feet, gas was encountered and an explosion resulted. It was necessary to discontinue work on the tunnel for more than two months until the gas was dissipated. During this period the flow increased to a maximum daily discharge of 0.50 second-foot on January 14th.

During the period of excavation from February 17, 1950, to April 30, 1951, the flow from the north portal amounted to 95 acre-feet of which about 37 percent occurred in the last 3 months as indicated in table 5.

South Portal

The daily outflow, in second-feet, from the south portal is given in table 6 for the year ending April 30, 1951. This record is shown in hydrographic form on figure 5. As in the case of the previous hydrograph, this diagram also gives the distance between the heading and south portal.

The first 410 feet of tunnel excavation from the south portal was in the Sespe formation, a nonmarine red, brown, and yellow conglomerate and sandstone with interbedded shale (Kew, 1924, U. S. G. S. Bull 753). This formation produced no flow.

The next 3,150 feet of excavation, located between 410 and 3,560 feet from the south portal, was in the Coldwater sandstone formation. The first observation of tunnel seepage was made on May 20, 1950, as indicated in table 6. A 1-foot Parshall flume with a continuous water-stage recorder was installed on July 26, 1950, to obtain a continuous record of the flow. While the heading was in the Coldwater formation, the flow increased from 0.01 to 0.25 second-foot.

The next 5,840 feet of excavation, located between 3,560 and 9,400 feet from the portal, was in the Cozy Dell shale, a rhythmically-bedded fossiliferous marine green micaceous shale and sandstone. (Kerr P. F. and H. G. Schenck, 1928, Geol. Soc. America Bull., Vol 39, p 1090). The flow increased rather steadily to a daily discharge of about 1.7 second -feet on April 28. However, the maximum daily discharge actually occurred on February 4th when the excavation reached an unusually productive section that increased the daily flow to 2.0 second-feet. The greater yield from the Cozy Dell shale made it necessary to grout off sections of the tunnel in order to reduce the flow. On February 6, 1951, it was necessary to move the gaging station about 1,500 feet downstream on the southerly edge of the Hove Ranch.

During the period of May 1, 1950, to April 30, 1951, the flow from the south portal amounted to 248 acre-feet of which 78 percent occurred in the last 3 months as indicated in table 6.

Outflow from South Portal of Pecolote Tunnel for the year ending April 30, 1951

Day	MAY	JUNE	JULY	AUGUST	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.
1	0	0.01	0.05	0.08	0.20	0.18	0.04	0.06	0.07	0.03	1.0	1.2
2	0	.01	.05	.07	.20	.18	.04	.06	.07	.24	1.1	1.3
3	0	.01	.05	.12	.20	.18	.04	.03	.14	.5	1.1	1.1
4	0	.01	.06	.12	.22	.20	.04	.07	.16	2	1.2	1.2
5	0	.01	.06	.06	.25	.22	.04	.06	.16	1.8	1.3	1.2
6	0	.01	.06	.06	.22	.25	.06	.06	.16	.7	1.3	1.2
7	0	.01	.06	.07	.22	.25	.06	.07	.12	.23	1.2	1.2
8	0	.01	.06	.08	.23	.25	.06	.07	.16	.30	1.1	1.1
9	0	.02	.07	.07	.21	.27	.07	.08	.20	.34	1.0	1.1
10	0	.02	.07	.02	.21	.25	.08	.06	.22	.27	1.1	1.2
11	0	.02	.07	.04	.21	.22	.08	.07	.27	.27	1.1	1.2
12	0	.02	.07	0	.20	.20	.10	.08	.27	.32	1.3	1.2
13	0	.02	.07	.08	.20	.20	.12	.08	.26	.5	1.4	1.2
14	0	.02	.07	.08	.20	.27	.12	.10	.25	.5	1.4	1.3
15	0	.02	.07	.14	.20	.27	.10	.10	.24	.6	1.3	1.3
16	0	.02	.07	.10	.16	.32	.08	.12	.24	.6	1.3	1.3
17	0	.02	.08	.08	.16	.35	.08	.08	.23	.7	1.3	1.3
18	0	.02	.08	.10	.18	.35	.10	.08	.22	.7	1.3	1.3
19	0	.02	.08	.10	.16	.35	.07	.13	.21	.7	1.3	1.4
20	.01	.02	.08	.12	.12	.32	.08	.10	.20	.7	1.4	1.4
21	.01	.03	.09	.12	.10	.27	.07	.10	.19	.7	1.4	1.4
22	.01	.03	.09	.10	.14	.20	.06	.10	.16	.7	1.4	1.4
23	.01	.03	.09	.08	.16	.12	.03	.07	.16	.7	1.3	1.5
24	.01	.03	.10	.07	.18	.12	.04	.06	.16	.7	1.4	1.4
25	.01	.03	.10	.03	.18	.10	.06	.07	.14	.7	1.4	1.6
26	.01	.04	.10	.02	.20	.12	.03	.07	.16	.8	1.3	1.6
27	.01	.04	.08	.18	.20	.10	.06	.08	.16	.8	1.1	1.6
28	.01	.04	.07	.18	.20	.08	.03	.08	.16	.9	1.3	1.7
29	.01	.04	.07	.18	.20	.06	.03	.07	.16		1.4	1.6
30	.01	.05	.07	.18	.18	.06	.04	.07	.16		1.3	1.4
31	.01		.08	.18		.06		.07	.16		1.3	
	0.12*		2.27*		5.68*		1.91*		5.62*		39.1 *	
		0.68*		2.91*		6.37*		2.40*		18.00*		39.9 *
MEAN	.005	.023	.073	.094	.19	.20	.064	.077	.18	.64	1.26	1.33
ACRE-FEET	.2	1.3	4.5	5.8	11	13	3.8	4.8	11	36	78	79

Table 6

U.S. GOVERNMENT PRINTING OFFICE 0—7160

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Table 3

Discharge measurements of developed springs and small streams in the Tecolote Tunnel Area of the Santa Ynez Mountains, Santa Barbara County, California, through April 1951.

SAN ANTONIO CREEK AT SAN MARCOS PASS ROAD

Location.- Lat. 34°28'00", long. 119°46'10". At bridge on State Highway 150, about 2 miles north of Highway 101.

Altitude.- About 500 feet, from topographic map.

Description.- Measuring site in natural creek channel, at highway crossing.

Diversion.- Two diversions above station-1, on Cat Canyon, 25 foot concrete dam with reservoir capacity of 500,000 gal., and 2, 1.5 M.G. reservoir on Loma Abaja.

Previous measurements.- 1945.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min	°F
Nov. 15, 1948 (8:05 a.m.)	No flow	No flow	
Dec. 13 (8:45 a.m.)	No flow	No flow	
Jan. 3, 1949 (8:30 a.m.)	No flow	No flow	
Mar. 16 (3:00 p.m.)	0.78	350	
Apr. 11 (12:45 p.m.)	.092	41	
May 11 (11:20 a.m.)	.020	9.1	
June 13 (9:10 a.m.)	.053	23.8	
July 19 (1:00 p.m.)	No flow	No flow	
Aug. 12 (10:10 a.m.)	No flow	No flow	
Sept. 13 (12:45 p.m.)	No flow	No flow	
Nov. 1 (8:45 a.m.)	No flow	No flow	
16 (11:40 a.m.)	No flow	No flow	
Dec. 14 (9:15 a.m.)	No flow	No flow	
Jan. 9, 1950 (2:35 p.m.)	No flow	No flow	
Feb. 13 (9:20 a.m.)	.52	230	47
Mar. 8 (10:40 a.m.)	.092	41	55
Apr. 19 (10:30 a.m.)	.050	22	64
May 18 (10:20 a.m.)	.022	9.9	57
June 19 (8:20 a.m.)	.005	2.2	62
July 17 (1:00 p.m.)	No flow	No flow	
Aug. 10 (10:40 a.m.	do	No flow	
Oct. 23 (7:30 a.m.)	do	do	
Nov. 20 (10:30 a.m.)	do	do	
Dec. 13 (12:30 p.m.)	do	do	
Jan. 18, 1951 (10:00 a.m.)	do	do	
Feb. 13 (12:30 p.m.)	do	do	
Mar. 13 (12:30 p.m.)	do	do	
Apr. 16 (12:05 p.m.)	do	do	

SPRING - ETIENNE LEJEUNE

Location.- Lat. 34°30'50", long. 119°47'10", about 0.6 mile north of Painted Cave.

Altitude.- About 2,700 feet, from topographic map.

Description.- Uncurbed pool at foot of boulders at falls in creek bed. Discharge measured at outlet of pool.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals.per min.	°F
Feb. 8, 1949		0.0051	2.3	
Apr. 11	(9:30 a.m.)	.021	9.4	
May 23	(10:30 a.m.)	.0071	3.2	
June 23	(8:05 a.m.)	.0069	3.10	60
Aug. 12	(9:00 a.m.)	.011	5.1	57
Sept.29	(8:25 a.m.)	.012	5.2	
Nov. 1	(9:15 a.m.)	.0059	2.6	55
Dec. 20	(8:35 a.m.)	.0077	3.4	42
Jan. 17, 1950	(9:10 a.m.)	.019	8.2	46
Feb. 13	(1:30 p.m.)	.023	10	47
Mar. 8	(11:25 a.m.)	.018	7.9	50
Apr. 19	(11:10 a.m.)	.0096	4.3	57
May. 18	(11:30 a.m.)	.012	5.6	52
June 22	(10:55 a.m.)	.0043	1.9	56
Aug. 10	(11:10 a.m.)	.0022	1.0	60
Oct. 24	(8:10 a.m.)	.0025	1.1	57
Nov. 16	(8:40 a.m.)	.0062	2.8	
Dec. 20	(10:30 a.m.)	.0071	3.2	54
Jan. 18, 1951	(8:10 a.m.)	.0095	4.3	45
Feb. 21	(8:00 a.m.)	.0098	4.4	41
Mar. 20	(9:25 a.m.)	.010	4.7	
Apr. 23	(7:15 a.m.)	.0027	1.2	

SPRING - ETIENNE LEJEUNE

Location.- Lat. 34°30'50", long. 119°47'20", about 0.7 mile north of Painted Cave.

Altitude.- About 2,650 feet, from topographic map.

Description.- Seeps in stream channel impounded by small concrete dam. Discharge measured above upper diversion dam.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Feb. 8, 1949		0.0014	0.65	
Apr. 11	(9:50 a.m.)	.0019	.86	
May 23	(10:50 a.m.)	.0088	3.9	
June 23	(8:25 a.m.)	No flow	No flow	
Aug. 12	(9:10 a.m.)	No flow	No flow	
Sept. 29	(8:35 a.m.)	No flow	No flow	
Nov. 1	(9:30 a.m.)	No flow	No flow	
Dec. 20	(8:55 a.m.)	.0066	2.9	42
Jan. 17,1950	(9:30 a.m.)	.092	41	44
Feb. 13	(1:50 p.m.)	.011	4.8	
Mar. 8	(11:45 a.m.)	No flow	No flow	
Apr. 19	(11:30 a.m.)	No flow	No flow	
May 18	(11:25 a.m.)	No flow	No flow	
June 22	(10:40 a.m)	do	do	
Aug. 10	(11:20 a.m.)	do	do	
Oct. 24	(8:20 a.m.)	do	do	
Nov. 16	(8:30 a.m.)	do	do	
Dec. 20	(10:20 a.m.)	do	do	
Jan. 18, 1951	(8:00 a.m.)	do	do	
Feb. 21	(7:45 a.m.)	do	do	
Mar. 20	(9:15 a.m.)	do	do	
Apr. 23	(7:00 a.m.)	do	do	

SPRING - PAINTED CAVE - MUTUAL WATER COMPANY

Location.- Lat. 34°30'30", long. 119°47'20", about 0.3 mile north of Painted Cave.

Altitude.- 2,590 feet, from topographic map.

Description.- Cemented pool on sandstone ledge in creek bed.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
June 19, 1948	(estimate)	0.009 to .011	4 to 5	
Oct. 26		.0052	2.33	
Feb. 9, 1949		.0096	4.3	
Apr. 11	(9:05 a.m.)	.0045	2.0	
May 23	(10:10 a.m.)	.0066	3.0	
June 23	(7:55 a.m.)	.00046	.21	
Aug. 12	(8:50 a.m.)	No flow	No flow	
Sept.29	(8:00 a.m.)	No flow	No flow	
Nov. 1	(9:05 a.m.)	No flow	No flow	
Dec. 20	(8:20 a.m.)	.016	7.1	43
Jan. 17, 1950	(8:45 a.m.)	.099	44	47
Feb. 13	(1:10 p.m.)	.042	19	52
Mar. 7	(11:15 a.m.)	.002	.90	50
Apr. 19	(11:00 a.m.)	No flow	No flow	
May 18	(11:00 a.m.)	.002	.90	50
June 22	(10:35 a.m.)	No flow	No flow	
Aug. 10	(11:00 a.m.)	No flow	No flow	
Oct. 24	(7:45 a.m.)	No flow	No flow	
Nov. 16	(8:15 a.m.)	No flow	No flow	
Dec. 20	(10:15 a.m.)	No flow	No flow	
Jan. 18, 1951	(7:45 a.m.)	do	do	
Feb. 21	(7:35 a.m.)	do	do	
Mar. 20	(9:00 a.m.)	do	do	
Apr. 23	(6:55 a.m.)	do	do	

SPRING - E. T. OGRAM

Location.- Lat. 34°30'20", long. 119°47'10" at Painted Cave.

Altitude.- About 2,560 feet, from topographic map.

Description.- Uncontrolled seepage from fractures in sandstone ledge on valley side. Discharge measured at end of 3-inch pipe.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
June 19, 1948 (estimated)	0.001	0.5	
Feb. 9, 1949	.0089	4.0	
Apr. 11 (10:50 a.m.)	.033	15	
May 23 (9:55 a.m.)	.033	15	
June 23 (8:40 a.m.)	.013	5.9	58
Aug. 12 (9:25 a.m.)	.0011	.48	58
Sept 29 (8:45 a.m.)	.00041	.18	
Nov. 1 (10:00 a.m.)	.0014	.64	
Dec. 20 (9:15 a.m.)	.013	6.0	56
Jan. 17, 1950 (9:45 a.m.)	.020	9.1	57
Feb. 13 (2:10 p.m.)	.030	14	
Mar. 7 (12:10 p.m.)	.019	8.3	59
Apr. 19 (11:40 a.m.)	.012	5.2	58
May 18 (11 :40 a.m.)	.0039	1.8	57
June 22 (11:10 a.m.)	.0024	1.1	58
Aug. 10 (11:30 a.m.)	.00084	.4	60
Oct. 24 (8:30 a.m.)	* No flow	No flow	Pump removed
Nov. 16 (8:50 a.m.	.00096	.4	55
Dec. 20 (10:35 a.m.)	.0013	.6	58
Jan. 18, 1951 (8:25 a.m.)	.0022	.97	56
Feb. 21 (8:15 a.m.)	.0015	.7	
Mar. 20 (9:30 a.m.)	.0024	1.1	
Apr. 23 (7:25 a.m.)	.0016	.7	

* Spring Dry. Pump installed on pool 50' below spring; pumping water to station #4.

SPRING - SAM NUCKOLS

Location.- Lat. 34°30'20", long. 119°47'10", at Painted Cave

Altitude.- About 2,360 feet, from topographic map.

Description.- Seeps in landslide on valley side. Discharge measured at end of tile pipe to concrete settling box.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Oct. 26, 1948		0.0056	2.5	
Feb. 9, 1949		.017	7.8	
Apr. 11,	(11:10 a.m.)	.021	9.2	
May 23	(9:30 a.m.)	.029	13	
June 23	(9:10 a.m.)	.019	8.6	
Aug. 12	(9:45 a.m.)	.0099	4.44	57
Sept 29	(9:05 a.m.)	.0058	2.6	
Nov. 1	(10:25 a.m.)	.0050	2.2	61
Dec. 20	(9:40 a.m.)	.019	8.7	55
Jan. 17, 1950	(10:10 a.m.)	.025	11	54
Feb. 9	(9:45 a.m.)	.022	10	54
Mar. 8	(1:10 p.m.)	.019	8.6	55
Apr. 19	(noon)	.012	5.6	55
May 18	(12:10 p.m.)	.010	4.6	
June 22	(11:30 a.m.)	.0080	3.6	57
Aug. 10	(11:45 a.m.)	.0038	1.7	58
Oct. 24	(8:55 a.m.)	.0024	1.1	61
Nov. 15	(9:05 a.m.)	.0039	1.7	58
Dec. 20	(10:50 a.m.)	.0056	2.6	58
Jan. 18, 1951	(8:45 a.m.)	.0070	3.1	57
Feb. 21	(8:35 a.m.)	.0061	2.7	56
Mar. 20	(9:45 a.m.)	.0088	4.0	
Apr. 23	(7:40 a.m.)	.0058	2.6	

STATION 10

SPRING - SAM NUCKOLS

Location.- Lat. 34°30'10", long. 119°47'10", at Painted Cave.

Altitude.- About 2,300 feet, from topographic map.

Description.- Two concrete curbed seeps on hillside 8 feet apart. Measurement of both springs at end of overflow pipes. Not used at present time. Beginning May 23, 1949 inflow to cistern measured.

DATE	DISCHARGE				TEMP. °F
	Second-feet		Gals. per min.		
	North Spr.	South Spr.	North Spr.	South Spr.	
Oct.25, 1948	0.00060	0.00071	0.27	0.32	
Feb. 9, 1949	.00091	.0018	.41	.81	
Apr.11 (11:25 a.m.)	.0010	.0028	.45	1.3	
May 23 (9:40 a.m.)	.012	-	5.3	-	
June 23 (8:55 a.m.)	.0049	-	2.19	-	
Aug. 12 (9:38 a.m.)	.0028	-	1.26	-	
Sept.29 (9:00 a.m.)	.0056	-	2.51	-	
Nov. 1 (10:20 a.m.)	.0047	-	2.1	-	67
Dec. 20 (9:55 a.m.)	a .0027	-	a 1.2	-	
Jan. 17, 1950 (10:20 a.m.)	a .0031	-	a 1.4	-	57
Feb. 14 (9:30 a.m.)	.018	-	8.2	-	56
Mar. 8 (1:00 p.m.)	.020	-	8.8	-	59
Apr. 19 (11:55 a.m.)	.0098	-	4.4	-	60
May 18 (12 M)	.011	-	4.8	-	55
June 22 (11:25 a.m.)	.0051	-	2.3	-	56
Aug. 10 (11:40 a.m.)	.0034	-	1.6	-	69
Oct. 23 (8:50 a.m.)	.0025	-	1.1	-	60
Nov. 16 (9:00 a.m.)	.0035	-	1.6	-	57
Dec. 20 (10:45 a.m.)	.0046	-	2.1	-	63
Jan. 18, 1951 (8:40 a.m.)	.0060	-	2.7	-	53
Feb. 21 (8:30 a.m.)	.0041	-	1.8	-	56
Mar. 20 (9:40 a.m.)	.0081	-	3.7	-	
Apr. 23 (7:35 a.m.)	.0063	-	2.8	-	

a possible unknown wastage.

SPRING - SAM NUCKOLS

Location.- Lat. 34°30'10", long. 119°47'10", at Painted Cave.

Altitude.- About 2,300 feet, from topographic map.

Description.- Seep in alluvium on valley side. Discharge measurements at overflow from bottling plant.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
June 19, 1948		0.0048	2.14	
Oct. 26,		.0018	.8	
Feb. 16, 1949		.012	5.4	
Apr. 11,	(11:00 a.m.)	.0084	3.8	
May 23	(9:15 a.m.)	.0073	3.3	
June 23	(8:45 a.m.)	.0095	4.26	59
Aug. 12	(9:35 a.m.)	* .0038	* 1.69	57
Sept 29	(8:55 a.m.)	No flow	No flow	
Nov. 1	(10:15 a.m.)	No flow	No flow	
Dec. 20	(9:30 a.m.)	No flow	No flow	
Jan. 17,1950	(10:00 a.m.)	No flow	No flow	
Feb. 14	(9:15 a.m.)	No flow	No flow	
Mar. 8	(12:55 p.m.)	No flow	No flow	
Apr. 19	(11:50 a.m.)	.014	6.4	58
May 18	(11:50 a.m.)	.014	6.2	55
June 22	(11:20 a.m.)	.0089	4.0	58
Aug. 10	(11:35 a.m.)	No flow	No flow	
Oct. 24	(8:45 a.m.)	No flow	No flow	
Nov. 16	(8:55 a.m.)	.00038	.2	52
Dec. 20	(10:40 a.m.)	.0063	2.8	59
Jan. 18, 1951	(8:35 a.m.)	.0032	1.4	55
Feb. 21	(8:25 a.m.)	.0042	1.9	51
Mar. 20	(9:35 a.m.)	.0081	3.7	
Apr. 23	(7:30 a.m.)	.0095	4.3	

* Combined flow of springs 10 & 11

MARIA YGNACIO CREEK AT OLD SAN MARCOS PASS ROAD

Location.- Lat. 34°27'40", 119°47'40". At bridge on old San Marcos Pass Road about 0.6 mile above Goleta Foothill Road.

Altitude.- 140 feet, from topographic map.

Description.- Measurements made in natural creek channel at bridge.

Diversion.- One diversion about 1.3 miles above station.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Oct. 27, 1948 (3:00 p.m.)	0.12	54	
Nov. 15 (10:00 a.m.)	No flow	No flow	
Dec. 13 (8:55 a.m.)	No flow	No flow	
Jan. 3, 1949 (8:55 a.m.)	.11	49	
Mar. 17, (11:15 a.m.)	.37	166	
Apr. 11 (12:15 p.m.)	.16	72	
May 11 (11:55 a.m.)	.14	62	
June 13 (8:55 a.m.)	.018	8.1	
July 19 (12:40 p.m.)	.022	9.9	66
Aug. 12 (10:30 a.m.)	.0022	1.09	
~~Sept. 15 (2:00 p.m.)~~	~~Less than .005~~		
Nov. 1 (8:30 a.m.)	.0030	1.35	55
Nov. 16 (11:55 a.m.)	.0024	1.08	56
Dec. 14 (10:00 a.m.)	.12	53	46
Jan. 10, 1950 (8:40 a.m.)	.18	79	42
Feb. 13 (8:45 a.m.)	.28	120	46
Mar. 8 (8:55 a.m.)	.042	19	
Apr. 19 (8:25 a.m.)	.006	2.7	58
May 18 (9:40 a.m.)	.006	2.7	55
June 19 (12 M.)	.006	2.7	60
July 17 (8:20 a.m.)	.068	31	63
Aug 10 (9:15 a.m.)	.010	4.5	57
Oct. 24 (10:10 a.m.)	.0008	.4	64
Nov. 22 (7:50 a.m.	.16	74	60
Dec. 14 (8:45 a.m.	.14	65	58
Jan. 18, 1951 (9:45 a.m.)	.19	87	53
Feb. 15 (12:10 p.m.	.20	88	52
Mar. 14 (11:00 a.m.	.16	73	59
Apr. 23 (8:15 a.m.	.014	6.3	

UNNAMED CREEK NEAR HOBO ROCK

Location.- Lat. 34°30'20", long. 119°48'10", at falls about 200 yards upstream from highway 150 near Hobo Rock.

Altitude.- About 1,700 feet, from topographic map.

Description.- Measuring site in stream channel.

Diversions.- No known diversions above station.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
July 20, 1948		0.021	9.4	
Feb. 8, 1949		.011	5.1	
Apr. 11,	(8:30 a.m.)	.042	19	
May 23	(11:30 a.m.)	.061	27	
June 23	(10:05 a.m.)	.033	14.8	
Aug. 11	(11:45 a.m.)	.026	11.7	60
Sept. 30	(11:05 a.m.)	.015	6.9	
Nov. 1	(11:00 a.m.)	.013	5.9	
Dec. 20	(10:30 a.m.)	.041	18	44
Jan. 17, 1950	(10:45 a.m.)	.054	24	49
Feb. 14	(10:15 a.m.)	.054	24	50
Mar. 8	(1:55 p.m.)	.040	18	55
Apr. 18	(11:40 a.m.)	.036	16	59
May 15	(11:15 a.m.)	.036	16	53
June 22	(11:55 a.m.)	.015	7.0	59
Aug. 9	(8:35 a.m.)	.018	8.1	59
Oct. 25	(11:15 a.m.)	.015	6.8	59
Nov. 16	(9:30 a.m.)	.024	10.7	51
Dec. 20	(11:15 a.m.)	.022	9.8	54
Jan. 30, 1951	(9:15 a.m.)	.035	16	45
Feb. 13	(12:50 p.m.)	.023	10.3	
Mar. 20	(10:10 a.m.)	.025	11.1	
Apr. 16	(12:25 p.m.)	.029	13	

SPRING - FOOTER GLEN PARK, COUNTY OF SANTA BARBARA

Location.- Lat. 34°30'20", long. 119°48'20", about 0.2 mile north of Highway 150.

Altitude.- About 1,720 feet, from topographic map.

Description.- Bricked pool on sandstone ledge in creek bottom. Discharge measurements at inflow to storage tank. Some flow over earth collecting dam, but measured and included in the discharge.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
July 19, 1948		0.0016	0.7	
Feb. 10, 1949		.0029	1.3	
Apr. 13	(12-noon)	.0041	1.8	
May 23	(1:20 p.m.)	.0056	2.5	
June 23	(10:45 a.m.)	.0014	.63	
Aug. 11	(11:30 a.m.)	.0013	.58	
Sept 30	(11:20 a.m.)	No flow	No flow	
Nov. 1	(11:45 a.m.)	.000056	.025	
Dec. 20	(11:00 a.m.)	.0027	1.2	
Jan. 17, 1950	(11:15 a.m.)	.0017	.74	47
Feb. 14	(10:40 a.m.)	.0019	.85	51
Mar. 8	(2:30 p.m.)	.0026	1.1	55
Apr. 18	(11:20 a.m.)	.00049	.22	68
May 15	(11:40 a.m.	.00031	.14	55
June 22	(12:10 a.m.)	.00024	.11	60
Aug. 9	(8:55 a.m.)	.00052	.23	67
Oct. 25	(10:55 a.m.)	.00043	.02	61
Nov. 16	(10:00 a.m.)	.0011	.50	53
Dec. 20	(11:35 a.m.)	.0012	.52	58
Jan. 30, 1951	(10:55 a.m.)	.0020	.90	50
Feb. 13	(1:30 p.m.)	.0018	.82	
Mar. 20	(10:30 a.m.)	.0017	.77	
Apr. 16	(1:00 p.m.)	.0018	.79	

SPRING - KINEVAN FILING - FOREST SERVICE

Location.- Lat. 34°30'20", long. 119° 49'50", about 0.5 mile southwest of Highway 150.

Altitude.- About 2,300 feet, from topographic Map.

Description.- Stone-curbed pool in alluvium on hillside. Discharge measured at inflow to storage tank.

DATE	DISCHARGE		TEMP.	
	Second-feet	Gals. per min.	°F	
June 15, 1948	0.0022	1.0		
Feb. 16, 1949	.0025	1.1		
Apr. 13 (10:40 a.m.)	.0032	1.4		
May 24 (10:40 a.m.)	.0032	1.4		
June 24 (8:15 a.m.)	.0024	1.08		
Aug. 11 (8:15 a.m.)	.0018	.80	59	
Sept 30 (8:20 a.m.)	.0013	.58		
Nov. 28 (8:20 a.m.)	.0016	.73	58	
Dec. 28 (2:25 p.m.	.0017	.77	59	
Jan. 26, 1950 (12:15 p.m.)	.0021	.94	59	
Feb. 17 (11:30 a.m.)	.0046	2.1		
Mar. 9 (9:45 a.m.)	.0025	1.1	59	
Apr. 18 (9:00 a.m.)	.0019	.86	60	
May 15 (9:00 a.m.)	.0020	.89	57	
June 22 (8:00 a.m.)	.0017	.78	60	
Aug. 1 (9:30 a.m.)	.0013	.60	60	*Union frozen
Aug. 22 (10:20 a.m.)	* No meas.	No meas.		
Dec. 1 (10:45 a.m.)	.0053	2.4	53	
Dec. 21 (9:15 a.m.)	.0019	.87	58	
Jan. 30, 1951 (11:55 a.m.)	.0052	2.3	44	
Feb. 23 (7:55 a.m.)	.0025	1.1	52	
Mar. 22 (9:30 a.m.)	.0016	.72		
Apr. 19 (9:15 a.m.)	.0014	.63		

SPRING - TOM KINEVAN

Location.- Lat. 34°30'30", long. 119° 49'40", about 0.3 mile southwest of Highway 150.

Altitude.- About 2,230 feet, from topographic map.

Description.- Dug pit in alluvial wash below sandstone ledge. Discharge measured in pipe line to storage tank.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
June 15, 1948	0.0074	3.3	
Feb. 16, 1949	.0076	3.4	
Apr. 13 (10:20 a.m.)	.0092	4.1	
May 24 (10:30 a.m.)	.0090	4.0	
June 24 (8:00 a.m.)	.0077	3.44	58
Aug. 11 (8:30 a.m.)	.0075	3.35	59
Sept 30 (8:05 a.m.)	.0051	2.27	
Nov. 28 (8:05 a.m.)	.0051	2.3	59
Dec. 28 (2:05 p.m.)	.0052	2.4	59
Jan. 26, 1950 (noon)	.0049	2.2	58
Feb. 17 (11:20 a.m.)	.0027	1.2	
Mar. 9 (9:35 a.m.)	.0059	2.6	59
Apr. 18 (8:30 a.m.)	.0041	1.8	57
May 15 (8:45 a.m.)	.0045	2.0	56
June 22 (8:25 a.m.)	.0044	2.0	59
Aug. 1 (7:45 a.m.)	.0053	2.4	60
Aug. 22 (9:55 a.m.)	.0040	1.8	61
Oct. 25 (8:20 a.m.)	.0051	2.3	61
Dec. 1 (10:30 a.m.)	.0044	2.0	57
Dec. 21 (9:00 a.m.)	.0045	2.0	60
Jan. 30, 1951 (11:35 a.m.)	.0049	2.2	59
Feb. 23 (7:40 a.m.)	.0045	2.0	57
Mar. 22 (9:15 a.m.)	.0044	2.0	
Apr. 19 (9:30 a.m.)	.0042	1.9	

SPRING - C. R. Holmes, Jr., et al

Location.- Lat. 34°30'20", long. 119°48'40", at Highway 150 near San Marcos Pass.

Altitude.- About 1,900 feet, from topographic map.

Description.- Seeps in alluvium along creek bed; one enclosed in concrete box. Discharge measured at takeoff from pipe line below concrete box.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
July 30, 1948		0.011	4.8	
Feb. 16, 1949		.011	5.0	
Apr. 13	(11:30 a.m.)	.013	5.6	
May 23	(1:52 p.m.)	.012	5.5	
June 23	(11:30 a.m.)	.014	6.3	62
Aug. 11	(11:10 a.m.)	.012	5.3	60
Sept.30	(11:45 a.m.)	.011	4.9	
Nov. 1	(11:30 a.m.)	.010	4.7	62
Dec. 20	(11:25 a.m.)	.012	5.3	56
Jan. 17, 1950	(11:40 a.m.)	.012	5.4	54
Feb. 14	(11:06 a.m.)	.013	5.8	51
Mar. 9	(12:45 p.m.)	.013	5.8	60
Apr. 18	(11:15 a.m.)	.014	6.2	62
May 15	(12:10 p.m.)	.0069	3.1	58
June 22	(12:35 p.m.)	.012	5.4	
Aug. 9	(9:25 a.m.)	.011	4.9	61
Oct. 25	(11:45 a.m.)	.011	4.8	60
Nov. 16	(10:10 a.m.)	.012	5.5	57
Dec. 20	(11:55 a.m.)	.011	4.7	59
Jan. 30, 1951	(11:15 a.m.)	.011	5.1	52
Feb. 15	(1:00 p.m.)	.012	5.2	56
Mar. 20	(10:50 a.m.	.012	5.3	
Apr. 19	(10:05 a.m.)	.0089	4.0	

SAN JOSE CREEK AT HOLMES' PLACE, SAN MARCOS PASS

Location.- Lat. 34°30'10", long. 119°48'40", at Holmes' Place (Old Spaulding place) about 300 feet south of Highway 150 and about 1.0 mile northwest of the San Marcos Trout Club.

Altitude.- 1,890 feet, from topographic map.

Description.- Measurements made at next to the lowest dam below Spring #18.

Diversion.- Several diversions above and particularly Spring #18 which occurs in creek channel.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
July 30, 1948	(estimated)	0.016-.018	7-8	
Feb. 16, 1949		.017	7.5	
Apr. 13	(11:25 a.m.)	.027	12	
May 23	(1:45 a.m.)	.18	83	
June 23	(11:20 a.m.)	.028	12.4	
Aug. 11	(11:00 a.m.)	.026	11.9	56
Sept.30	(11:30 a.m.)	.023	10.2	
Nov. 1	(11:15 a.m.)	.023	10.3	55
Dec. 20	(11:20 a.m.)	.17	77	44
Jan. 17, 1950	(11:30 a.m.)	.44	200	48
Feb. 14	(10:55 a.m.)	.32	140	48
Mar. 9	(12:30 p.m.)	.030	13	52
Apr. 18	(11:05 a.m.)	.018	8.1	59
May 15	(12 M.)	.037	17	
June 22	(12:25 p.m.)	.015	6.7	56
Aug. 9	(9:10 a.m.)	.012	5.7	59
Oct. 25	(11:30 a.m.)	.020	8.8	57
Nov. 16	(10:05 a.m.)	.028	12.8	50
Dec. 20	(11:45 a.m.)	.025	11.2	52
Jan. 30, 1951	(11:05 a.m.)	.034	15	46
Feb. 15	(12:30 p.m.)	.026	11.9	49
Mar. 20	(10:40 a.m.)	.035	16	
Apr. 19	(9:55 a.m.)	.034	15	

SPRING - SAN MARCOS TROUT CLUB

Location.- Lat. 34°29'40", long. 119°48'30", about 0.5 mile west of Highway 150.

Altitude.- About 1,700 feet, from topographic map.

Description.- Wood-curbed seep in alluvium of creek bottom. Discharge measured at inflow from 3/4 -inch pipe line to settling box above orifices 1, 2 and 3 of Spring #21. After Feb. 10, 1949 discharge measured at storage tank and represents the combined flow of Springs 20 and 21.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
July 30, 1948		0.0033	1.5	
Feb. 10, 1949		.0033	1.5	
Apr. 11,	(11:45 a.m.)	.016	7.3	
May 24	(1:15 p.m.)	.033	.15	
June 23	(9:45 a.m.)	.013	5.9	74
Aug. 11	(12:10 p.m.)	.010	4.69	72
Sept. 29	(9:30 a.m.)	.0082	3.7	
Nov. 1	(8:10 a.m.)	.0084	3.8	69
Nov. 28	(11:10 a.m.)	.0103	4.6	66
Dec. 14	(9:40 a.m.)	.020	9.0	55
Jan. 10, 1950	(8:15 a.m.)	.013	5.7	42
Feb. 13	(8:15 a.m.)	.041	18	55
Mar. 8	(8:25 a.m.)	.020	8.8	55
Apr. 19	(8:05 a.m.)	.014	6.4	59
May 18	(12:30 p.m.)	.011	5.1	58
June 19	(12:20 P.M.)	.011	4.9	78
July 17	(7:55 a.m.)	.0088	3.9	60
Aug. 10	(7:55 a.m.)	.0095	4.3	64
Oct. 24	(9:50 a.m.)	.0083	3.7	68
Nov. 22	(7:25 a.m.)	.010	4.6	67
Dec. 13	(8:30 a.m.)	.010	4.5	57
Jan. 18, 1951	(9:15 a.m.)	.012	5.4	52
Feb. 15	(12:30 p.m.)	.0097	4.3	56
Mar. 14	(11:15 a.m.)	.0097	4.3	82
Apr. 23	(8:00 a.m.)	.010	4.6	

STATION 21

SPRING - SAN MARCOS TROUT CLUB

Location.- Lat. 34°29'40", long. 119°48'20", about 0.3 mile west of Highway 150.

Altitude.- About 1,450 feet, from topographic map.

Description.- Four wood-curbed seeps in alluvial wash on hillside. Discharge measured at inflow to storage tank less discharge of Spring #20. (See records for Spring 20).

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
July 30, 1948	0.0071	3.2	
Feb. 10, 1949	.0094	4.2	

SPRING - RISHI SINGH GREYWALL

Location.- Lat. 34°29'40", long. 119°49'00".

Altitude.- About 1,700 feet, from topographic map.

Description.- Concreted pool on sandstone in creek bed; water from fractures. Discharge measured at overflow from storage tank.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
June 17, 1948		0.0065	2.9	
Feb. 10, 1949		.0076	3.4	
Apr. 13	(9:45 a.m.)	Pumping	Pumping	
May 24	(12:45 p.m.)	.012	5.2	
June 24	(10:50 a.m.)	.0068	3.03	59
Aug. 11	(10:30 a.m.)	.0057	2.57	59
Sept. 30	(10:30 a.m.)	Pumping	Pumping	
Nov. 28	(10:30 a.m.)	.0062	2.8	57
Dec. 28	(1:05 p.m.)	.0069	3.1	
Jan. 26, 1950	(11:30 a.m.)	Pumping	Pumping	
Feb. 17	(10:50 a.m.)	.013	6.0	
Mar. 9	(12:15 p.m.)	Pumping	Pumping	
Apr. 18	(11:00 a.m.)	do	do	
May 15	(10:45 a.m.)	do	do	
June 22	(8:50 a.m.)	.0051	2.3	59
Aug. 1	(10:10 a.m.)	Pumping	Pumping	
Aug. 22	(9:30 a.m.)	Pumping	Pumping	
Oct. 25	(10:35 a.m.)	.0050	2.2	60
Dec. 1	(9:45 a.m.)	.0056	2.5	58
Dec. 20	(9:45 a.m.)	.0056	2.5	60
Jan. 30, 1951	(8:45 a.m.)	.0060	2.7	
Feb. 23	(10:45 a.m.)	.0067	2.6	53
Mar. 21	(9:00 a.m.)	Pumping	Pumping	
Apr. 19	(8:45 a.m.)	.0054	2.4	

SAN JOSE CREEK 1.0 MILE ABOVE PATTERSON AVE. BRIDGE

Location.- Lat. 34°28'30", long. 119°48'20", directly below fork in creek and about 1 mile north of Patterson Ave.

Altitude.- About 250 feet, from topographic map.

Description.- Measuring site is just below forks in natural creek bed; and is reached by private dirt road along left bank of creek.

Diversions.- Several minor diversions above in Trout Club area.

Previous measurements.- 1943-1945

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Oct. 27, 1948 (4:00 p.m.)	0.07	31	
Nov. 15 (10:25 a.m.)	.12	54	
Nov. 29 (8:55 a.m.)	.062	28	
Dec. 13 (9:10 a.m.)	.16	74	
Jan. 3, 1949 (9:20 a.m.)	.32	144	
Mar. 17 (10:40 a.m.)	1.03	462	
Apr. 25 (11:05 a.m.)	.25	112	
May 11 (12:15 p.m.)	.085	38	
June 13 (8:15 a.m.)	.26	119	
July 19 (12:20 p.m.)	.044	19.7	
Aug. 12 (10:45 p.m.)	.084	37.7	66
Sept. 15 (1:40 p.m.)	.029	13.0	
Oct. 17 (1:25 p.m.)	.102	46	64
Nov. 16 (9:05 a.m.)	.19	87	56
Dec. 14 (10:30 a.m.)	.28	124	49
Jan. 10, 1950 (9:15 a.m.)	.83	374	44
Feb. 13 (10:05 a.m.)	1.5	680	50
Mar. 8 (9:20 a.m.)	.38	170	53
Apr. 13 (1:50 p.m.)	.23	100	64
May 18 (9:15 a.m.)	.24	110	55
June 19 (10:00 a.m.)	.079	36	59
July 17 (9:00 a.m.)	.14	65	63
Aug. 10 (8:30 a.m.)	.013	5.8	
Oct. 30 (8:30 a.m.)	.21	95	63
Dec. 14 (9:15 a.m.)	.19	85	60
Jan. 18, 1951 (10:30 a.m.)	.42	187	53
Feb. 15 (11:45 a.m.)	.21	96	53
Mar. 14 (10:30 a.m.)	.29	129	59
Apr. 26 (12:30 p.m.)	.22	97	

WEST FORK SAN JOSE CREEK ABOVE RESERVOIR

Location.- Lat. 34°28'40", long. 119°49'20". On Golden West Farms property, about 0.1 mile above reservoir and 1.7 miles above junction with San Jose Creek.

Altitude.- About 400 feet, from topographic map.

Description.- Measurements made by current meter in stream channel or by volumetric measurement at culvert. Reached by ranch road off of Patterson Ave.

Diversion.- No known diversions above station.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Nov. 29, 1948 (10:00 a.m.)	0.24	108	
Dec. 2 (10:05 a.m.)	.25	112	
Dec. 13 (9:40 a.m.)	.26	117	
Jan. 3, 1949 (3:30 p.m.)	.33	150	
Feb. 23 (3:00 p.m.)	.27	120	
Mar. 17 (10:00 a.m.)	.34	153	
Apr. 25 (11:30 a.m.)	No flow	No flow	
May 11 (1:10 p.m.)	No flow	No flow	
June 13 (7:50 a.m.)	No flow	No flow	
July 19 (11:50 a.m.)	.020	9.0	
Aug. 12 (11:10 a.m.)	.022	9.9	61
Sept. 15 (1:15 p.m.)	.34	155	
Oct. 17 (1:45 p.m.)	.29	130	65
Nov. 16 (7:55 a.m.)	.22	97	60
Dec. 14 (11:00 a.m.)	No flow	No flow	
Jan. 10, 1950 (10:15 a.m.)	No flow	No flow	
Feb. 13 (12:15 p.m.)	.0050	2.2	51
Mar. 8 (9:55 a.m.)	.030	13	53
Apr. 13 (1:25 p.m.)	.014	6.3	59
May 18 (8:30 a.m.)	.37	166	62
June 19 (9:10 a.m.)	.26	117	64
July 17 (9:30 a.m.)	.22	100	66
Aug. 10 (9:00 a.m.)	.17	76	63
Oct. 30 (9:05 a.m.)	.0015	.7	62
Nov. 20 (11:15 a.m.	.00080	.4	63
Dec. 14 (9:50 a.m.)	.26	117	65
Jan. 22, 1951 (2:15 p.m.)	.34	155	67
Feb. 15 (11:15 a.m.)	.19	86	60
Mar. 14 (10:00 a.m.)	.16	74	62
Apr. 26 (12 M.)	.15	68	

SPRING - A. ARMANDO

Location.- Lat. 34°28'10", long. 119°49'40".

Altitude.- About 470 feet, from topographic map.

Description.- Cave in sandstone beds.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Oct. 18, 1948		No flow	No flow	
Feb. 23, 1949		Almost dry		
Mar. 31	(11:55 a.m.)	No flow	No flow	
May 26	(12:30 p.m.)	No flow	No flow	
June 20	(7:20 a.m.)	No flow	No flow	
July 19	(9:50 a.m.)	No flow	No flow	
Aug. 16	(10:30 a.m.)	No flow	No flow	
Sept.15	(11:55 a.m.)	No flow	No flow	
Oct. 12	(3:15 p.m.)	No flow	No flow	
Nov. 29	(12:50 p.m.)	No flow	No flow	
Dec. 13	(1:10 p.m.)	No flow	No flow	
Jan. 23, 1950	(11:45 a.m.)	No flow	No flow	
Mar. 17	(8:05 a.m.)	No flow	No flow	
Apr. 20	(8:00 a.m.)	No flow	No flow	
June 15	(10:20 a.m.)	No flow	No flow	
Aug. 8	(9:30 a.m.)	No flow	No flow	
Oct. 30	(10:00 a.m.)	No flow	No flow	
Nov. 22	(8:45 a.m.)	No flow	No flow	
Dec. 14	(10:20 a.m.)	No flow	No flow	
Jan. 24, 1951	(8:20 a.m.)	No flow	No flow	
Mar. 14	(9:35 a.m.)	No flow	No flow	
Apr. 26	(11:25 a.m.)	No flow	No flow	

SPRING - A. ARMANDO

Location.- Lat. 34°28'10", long. 119°49'40".

Altitude.- About 400 feet, from topographic map.

Description.- Tunnel in hillside in nearly vertical sandstone beds. Discharge measured at mouth of tunnel.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Oct. 18, 1948		less than 0.002	less than 1	
Feb. 23, 1949		.00022	0.1	
Mar. 31	(12:15 p.m.)	No flow	No flow	
May 26	(12:15 p.m.)	No flow	No flow	
June 20	(7:25 a.m.)	No flow	No flow	
July 19	(9:55 a.m.)	No flow	No flow	
Aug. 16	(10:45 a.m.)	No flow	No flow	
Sept. 15	(12:00 noon)	No flow	No flow	
Oct. 12	(3:00 p.m.)	No flow	No flow	
Nov. 29	(12:55 p.m.)	No flow	No flow	
Dec. 13	( )	No flow	No flow	
Jan. 23, 1950,	(12:00 noon)	No flow	No flow	
Mar. 17	(7:45 a.m.)	No flow	No flow	
Apr. 20	(8:15 a.m.)	No flow	No flow	
June 15	(10:30 a.m.)	No flow	No flow	
Aug. 8	(9:40 a.m.)	No flow	No flow	
Oct. 30	(10:20 a.m.)	No flow	No flow	
Nov. 22	(9:00 a.m.)	No flow	No flow	
Dec. 14	(10:35 a.m.)	.00015	.07	
Jan. 24, 1951	(8:40 a.m.)	.00014	.06	
Mar. 14	(9:40 a.m.)	No observation (boxers in yard)		

SPRING - SAWYER ESTATE

Location.- Lat. 34°29'10", long. 119°49'50".

Altitude.- About 1,250 feet, from topographic map.

Description.- Spring diverted at rock rubble dam across creek bed. Prior to June 20, 1949 at open pit in alluvial wash about 3/8 mile downstream.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Oct. 19, 1948		No flow	No flow	
Feb. 23, 1949		No flow	No flow	
Mar. 31,	(10:30 a.m.)	No flow	No flow	
May 26,	(12:00 noon)	No flow	No flow	
June 20	(9:50 a.m.)	0.019	8.6	65
July 19	(10:35 a.m.)	.019	8.5	
Aug. 16	(11:20 a.m.)	.008	3.6	59
Sept. 15	(12:30 p.m.)	.008	3.6	
Nov. 29	(1:15 p.m.)	.012	5.4	56
Dec. 13	(2:10 p.m.)	.022	9.9	60
Jan. 23, 1950	(12:40 p.m.)	.035	15.7	
Mar. 17	(9:30 a.m.)	.019	8.5	52
Apr. 20	(8:50 a.m.)	.019	8.5	55
June 15	(11:10 a.m.)	.024	10.8	55
Aug. 8	(10:15 a.m.)	.005	2.2	60
Oct. 30	(11:45 a.m.)	.016	7.2	59
Nov. 22	(9:50 a.m.)	.023	10.3	61
Dec. 14	(11:20 a.m.)	.018	8.1	57
Jan. 24, 1951	(9:30 a.m.)	.023	10.3	55
Mar. 14	(8:00 a.m.)	.041	18.4	54

STATION 28a

SPRING - SAWYER ESTATE

Location.- Lat. 34°29'40", long. 119°49'45", about 1.0 mile above point of diversion.

Altitude.- About 2,050 feet, from topographic map.

Description.- Seepage in stream channel at rock outcrop just above sight of Strawberry flats, as known to the Sawyer estate.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Oct. 12, 1949 (5:20 a.m.)	0.029	13	
Jan. 23, 1950 (1:15 p.m.)	.033	15	60
Apr. 20 (9:35 a.m.)	.026	12	57
Aug. 8 (10:45 a.m.)	.037	17	62
Mar. 14, 1951 (8:30 a.m.)	.028	13	59

STATION 29

SAN PEDRO CANYON CREEK AT FORKS

Location.- Lat. 34°28'40", long. 119°49'50", at Fork in creek about 0.3 mile upstream from Stow Company diversion and about 3.2 miles north of Highway 101.

Altitude.- About 600 feet, from topographic map.

Description.- Measuring site is at fork in creek where rock barrier presumably brings subsurface flow to surface and is reached by path from house at top of hill when Spring #28 is visited.

Diversion.- No known diversion above station.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Oct. 19, 1948	0.06	27	
Feb. 23, 1949	.10	47	
Mar. 31 (10:55 a.m.)	.072	32	
May 26 (11:30 a.m.)	.093	41.7	
June 20 (10:20 a.m.)	.10	46.2	58
July 19 (11:10 a.m.)	.063	28.3	
Aug. 16 (11:50 a.m.)	.069	31.0	61
Nov. 29 (1:30 p.m.)	.080	36	56
Dec. 13 (2:30 p.m.)	.11	49	49

SAN PEDRO CANYON CREEK AT FORKS

Location.- Lat. 34°28'40", long. 119°49'50", at Fork in creek about 0.3 mile upstream from Stow Company diversion and about 3.2 miles north of Highway 101.

Altitude .- About 600 feet, from topographic map.

Description.- Measuring site is at fork in creek where rock barrier presumably brings subsurface flow to surface and is reached by path from house at top of hill when Spring #28 is visited.

Diversion.- No known diversion above station.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Oct. 19, 1948	0.06	27	
Feb. 23, 1949	.10	47	
Mar. 31 (10:55 a.m.)	.072	32	
May 26 (11:30 a.m.)	.093	41.7	
June 20 (10:20 a.m.)	.10	46.2	58
July 19 (11:10 a.m.)	.063	28.3	
Aug. 16 (11:50 a.m.)	.069	31.0	61
Nov. 29 (1:30 p.m.)	.080	36	56
Dec. 13 (2:30 p.m.)	.11	49	49

STATION 30

SAN PEDRO CANYON CREEK ABOVE DIVERSION

Location.- Lat. 34°28'40", long. 119°50'10", in creek bed slightly upstream from side Canyon to Spring #31, and at end of La Patera lane about 3.2 miles north of Highway 101.

Altitude.- About 400 feet, from topographic map.

Description.- Diversion works is concrete dike across creek channel with 6-inch outlet line.

Diversion.- No known diversions above station.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
July 23, 1948 (estimated)	0.07	30	
Nov. 1 (2:10 p.m.)	.065	29	
Nov. 15 (11:10 a.m.)	.091	41	
Nov. 29 (10:50 a.m.)	.10	45	
Dec. 13 (10:25 a.m.)	.11	50	
Dec. 13 (11:45 a.m.)	.11	50	
Feb. 23, 1949 (9:29 a.m.)	.10	45	
Mar. 17 (9:10 a.m.)	.18	81	
Apr. 25 (1:20 p.m.)	.11	51	
May 26 (10:35 a.m.)	.11	49.4	
June 20 (8:50 a.m.)	.12	52	
July 19 (9:25 a.m.)	.084	37.7	
Aug. 16 (9:25 a.m.)	.079	35.5	61
Sept. 15 (11:35 a.m.)	.066	29.6	
Oct. 17 (10:45 a.m.)	.087	39	60
Nov. 29 (12:25 p.m.)	.12	54	55
Dec. 14 (12:25 p.m.)	.12	56	47
Jan. 10, 1950 (11:25 a.m.)	.14	63	49
Feb. 24 (11:55 a.m.)	.13	58	53
Mar. 15 (1:00 p.m.)	.15	66	
Apr. 13 (12:30 p.m.)	.11	51	59
May 11 (1:00 p.m.)	.082	37	60
June 15 (9:50 a.m.)	.11	48	56
July 27 (12:10 p.m.)	.078	35	65
Aug. 15 (10:00 a.m.)	.089	40	60
Oct. 23 (1:45 p.m.)	.064	29	
Nov. 22 (11:30 a.m.)	.056	25	62
Dec. 13 (12 M.)	.099	44	56
Jan. 19, 1951 (12:30 p.m.)	.15	66	50
Feb. 13 (11:40 a.m.)	.10	47	
Mar. 13 (11:35 a.m.)	.085	38	53
Apr. 16 (11:30 a.m.)	.097	44	

SPRING - MRS. K. C. CANATSEY & MRS. B. O'BANNON

Location.- Lat. 34°28'40", long. 119°50'10"

Altitude.- About 425 feet, from topographic map.

Description.- Several seeps in landslide on valley walls. Discharge measured at 2-inch valve in pipe line.

DATE	DISCHARGE		TEMP. °F
	Second-feet	Gals. per min.	
July 23, 1948 (estimated)	0.06 - .08	25 - 35	
Oct. 19 (estimated)	.04	18 - 20	
Nov. 1 (2:50 p.m.)	.064	29	
Feb. 23, 1949 (9:00 a.m.)	.075	34	
Apr. 25 (1:05 p.m.)	.066	30	
May 26 (10:15 a.m.)	.064	28.6	
Aug. 16 (9:10 a.m.)	.062	27.8	66
Sept. 15 (11:25 a.m.)	.062	28.0	
Oct. 17 (10:30 a.m.)	.066	29	65
Nov. 29 (12:10 p.m.)	.065	29	65
Dec. 14 (12:15 p.m.)	.064	29	
Jan. 10 (11:05 a.m.)	.065	29	60
Feb. 24 (11:30 a.m.)	.066	29	59
Mar. 15 (1:25 p.m.)	.065	29	
Apr. 13 (12:15 p.m.)	.062	28	66
May 11 (12:10 p.m.)	.056	25	67
June 15 (9:30 a.m.)	Irrigating		
July 27 (11:50 a.m.)	.060	27	68
Aug. 15 (9:35 a.m.)	.060	27	66
Oct. 23 (1:20 p.m.)	.066	30	69
Nov. 22 (11:10 p.m.	.066	30	69
Dec. 13 (11:40 a.m.)	.067	30	66
Jan. 19, 1951 (12:35 p.m.)	.073	33	63
Feb. 13 (11:45 a.m.)	.061	27	
Mar. 13 (11:45 a.m.)	.058	26	68
Apr. 16 (11:38 a.m.)	.059	27	

BARTLETT CANYON CREEK ABOVE DIVERSION

Location.- Lat. 34°28'40", long. 119°51'20", at end of Cameros Valley road 0.7 mile above junction with Dry Creek and about 3.7 miles north of Highway 101.

Altitude.- About 500 feet, from topographic map.

Description.- Measuring site is above diversion at solid rock barrier in creek channel which presumably brings most of the sub-surface flow to surface.

Diversion.- There are no known diversions above station.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
July 22, 1948 (estimated)	0.05	24	
Oct. 29 (3:44 p.m.)	.032	14	
Nov. 15 (12:55 p.m.)	.039	18	
Nov. 29 (12:25 p.m.)	.038	17	
Dec. 13 (12:45 p.m.)	.045	20	
Feb. 18, 1949 (1:00 p.m.)	.047	21	
Mar. 17 (8:25 a.m.)	.092	41	
Apr. 26 (1:10 p.m.)	.054	24	
May 26 (9:20 a.m.)	.050	22.4	
June 13 (12:15 p.m.)	.045	20.2	
July 18 (12:45 p.m.)	.033	14.8	66
Aug. 16 (8:15 a.m.)	.034	15.3	61
Sept. 15 (10:25 a.m.)	.031	13.9	
Oct. 17 (8:30 a.m.)	.038	17.1	60
Nov. 14 (10:55 a.m.)	.057	26	58
Dec. 13 (10:25 a.m.)	.055	25	50
Jan. 25, 1950 (2:50 p.m.)	.059	26	53
Feb. 24 (10:40 a.m.)	.055	25	54
Mar. 15 (11:55 a.m.)	.049	22	53
Apr. 13 (11:25 a.m.)	.038	17	59
May 9 (12:10 p.m.)	.025	11	59
June 14 (12:45 p.m.)	.036	16	56
July 27 (11:00 a.m.)	.033	15	65
Aug. 14 (8:30 a.m.)	.040	18	63
Oct. 23 (12:15 p.m.)	.024	11	63
Nov. 27 (9:45 a.m.)	.044	20	59
Dec. 13 (10:45 a.m.)	.074	33	57
Jan. 22, 1951 (12:15 p.m.)	.049	22	53
Feb. 13 (11:45 a.m.)	.038	17	
Mar. 13 (10:45 a.m.)	.047	21	55
Apr. 16 (10:20 a.m.	.038	17	

SPRING - T. B. BISHOP COMPANY

Location.- Lat. 34°29'30", long. 119°52'10"

Altitude.- About 800 feet, from topographic map.

Description.- Seeps in alluvium on creek bottom. Discharge measured above diversion dam.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
July 29, 1948		0.053	24	
Feb. 18, 1949		.067	30	
Mar. 31	(9:05 a.m.)	.17	75	
Apr. 26	(2:25 p.m.)	.11	48	
May 26	(8:15 a.m.)	.10	44.8	
June 13	(11:30 a.m.)	.084	37.5	
July 18	(12:00 noon)	.051	23.1	63
Aug. 15	(11:10 a.m.)	.062	27.8	59
Sept. 15	(9:35 a.m.)	.057	25.4	
Oct. 17	(9:30 a.m.)	.062	28	60
Nov. 14	(10:00 a.m.)	.066	29	57
Dec. 13	(9:30 a.m.)	.10	45	50
Jan. 25, 1950	(1:45 p.m.)	.13	60	50
Feb. 24	(9:30 a.m.)	.14	61	
Mar. 15	(11:00 a.m.)	.14	64	54
Apr. 13	(10:30 a.m.)	.14	62	57
May 9	(11:05 a.m.)	.069	31	57
June 14	(11:50 a.m.)	.065	29	57
July 27	(9:15 a.m.)	.062	28	60
Aug. 14	(9:20 a.m.)	.068	30	59
Oct. 23	(10:30 a.m.)	.033	15	63
Nov. 27	(10:50 a.m.)	.070	31	57
Dec. 13	(9:40 a.m.)	.063	28	58
Jan. 22, 1951	(11:00 a.m.)	.055	25	55
Feb. 13	(9:30 a.m.)	.062	28	
Mar. 13	(9:45 a.m.)	.059	26	54
Apr. 16	(9:10 a.m.)	.050	23	

STATION 35a

Mc COY CANYON CREEK

Location.- Lat. 34°28'40", long. 119°52'15", on Bishop Company Ranch.

Altitude.- About 700 feet, from topographic map.

Description.- Flow that occurs in creek below Spring #35. Above in McCoy Canyon at Station #35 normally all flow is diverted. Flow at #35a is now being wasted below in creek channel.

Measuring site is at rock outcrop about 50 feet above horizontal well.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Jan. 25, 1950	(11:50 a.m.)	0.024	10.7	49
Apr. 13	(9:50 a.m.)	.017	7.6	57
May 9	(10:20 a.m.)	No flow	No flow	
June 14	(11:20 a.m.)	No flow	No flow	
July 27	(9:45 a.m.)	do	do	
Aug. 14	(9:55 a.m.)	do	do	
Oct. 23	(10:50 a.m.)	do	do	
Nov. 27	(11:10 a.m.)	do	do	
Dec. 13	(10:00 a.m.)	do	do	
Jan. 22, 1951	(11:30 a.m.)	do	do	
Feb. 13	(9:55 a.m.)	do	do	
Mar. 13	(10:05 a.m.)	do	do	
Apr. 16	(9:20 a.m.)	do	do	

HORIZONTAL WELL, McCOY CANYON, BISHOP RANCH CO.

Location.- Lat. 34°28'40", long. 119°52'15".

Altitude.- About 700 feet, from topographic map.

Description.- 1,200-foot horizontal well paralleling creek channel in a northerly direction in Sespe Sandstone.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Jan. 25, 1950	(11:30 a.m.)	0.38	168	67
Apr. 13	(9:45 a.m.)	.34	150	68
May 9	(10:15 a.m.)	.11	48	68
June 1	(11:00 a.m.)	.079	35	68
June 14	(11:15 a.m.)	.079	36	68
July 27	(9:50 a.m.)	.070	31	68
Aug. 14	(9:50 a.m.)	.066	30	59
Oct. 23	(10:55 a.m.)	Well cut-off		
Nov. 27	(11:10 a.m.)	do		
Dec. 13	(10:00 a.m.)	do		
Jan. 22, 1951	(11:25 a.m.)	do		
Feb. 13	(9:50 a.m.)	do		
Mar. 13	(10:00 a.m.)	do		
Apr. 16	(9:20 a.m.)	.066	30	

SPRING - OLAF HOVE

Location.- Lat. 34°28'50", long. 119°52'50"

Altitude.- About 600 feet, from topographic map.

Description.- Seeps in alluvium along creek bed - flow concentrated by dam across creek. Discharge measured at inflow to reservoir from settling box.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
July 22, 1948		0.0038	1.7	
Oct. 15		.0038	1.7	
Feb. 17, 1949	(4:00 p.m.)	.0069	3.1	
Mar. 31	(8:00 a.m.)	.011	4.8	
Apr. 25	(2:30 p.m.)	.015	6.9	
June 13	(10:30 a.m.)	.013	5.7	
July 18	(11:45 a.m.)	.0071	3.19	62
Aug. 15	(12:00 noon)	.0060	2.68	59
Sept. 15	(8:50 a.m.)	.0051	2.29	
Oct. 12	(12:30 p.m.)	.0023	1.04	63
Nov. 14	(8:35 a.m.)	.0063	2.8	55
Dec. 13	(8:30 a.m.)	.0092	4.1	44
Jan. 10,1950	(12:30 p.m.)	.010	4.5	53
Feb. 24	(8:25 a.m.)	.019	8.3	55
Mar. 15	(9:40 a.m.)	.017	7.8	52
Apr. 13	(8:30 a.m.)	.012	5.6	55
May 9	(8:25 a.m.)	.012	5.4	56
June 14	(10:15 a.m.)	.0092	4.1	58
July 14	(8:30 a.m.)	.0073	3.3	61
July 27	(8:20 a.m.)	.0066	3.0	60
Aug. 8	(8:45 a.m.)	.0050	2.24	57
Oct. 23	(9:30 a.m.)	.0027	1.21	64
Nov. 20	(1:00 p.m.)	.0074	3.3	64
Dec. 13	(8:40 a.m.)	.0046	2.08	56
Feb. 13	(8:35 a.m.)	.0041	1.83	
Jan. 22, 1951	(9:45 a.m.)	.0047	2.11	54
Mar. 13	(8:50 a.m.)	.0036	1.60	52
Apr. 16	(8:15 a.m.)	.0029	1.32	

SEEPAGE, SOUTH PORTAL, TECOLOTE TUNNEL

Location.- Lat. 34°29;00", long. 119°53'00", in Glen Anne Canyon.

Altitude.- 651.59 feet. Furnished by Bureau of Reclamation.

Description.- Seepage water from outlet portal to 6.4 mile Tecolote Tunnel. The South Portal is station 336+07.

DATE		DISCHARGE		TEMP.	BUREAU OF RECLAMATION	DISTANCE FROM PORTAL IN FEET
		Second-feet	Gals. per min.	°F	STATION	
May 3, 1950		Tunnel operations begun			336+07	0.0
9	(8:40 a.m.)	No flow			335+72	35
June 1	(10:15 a.m.)	.00040	.18	62	331+16	491
1	(10:20 a.m.)	.042	19			
14	(10:35 a.m.)	.016	7.3	66	328+25	782
a/July 13	(10:50 a.m.)	.077	35			
14	(8:15 a.m.)	.073	33	66		
b/ 26	(1:10 p.m.)	.11	50		317+96	1,811
27	(7:25 a.m.)	.093	42			
c/Aug. 8	(7:05 a.m.)	.14	63		314+30	2,177
14	(9:20 a.m.)	.10	45		312+68	2,339
23	(11:00 a.m.)	.08	36	68	309+80	2,627
Sept 12	(10:00 a.m.)	.25	112	68	305+35	3,072
28	(8:15 a.m.)	.25	112	67	301+14	3,493
Oct. 13	(8:30 a.m.)	.18	81	69	297+34	3,873
23	(8:35 a.m.)	.12	54	70		
Nov. 10	(9:00 a.m.)	.085	38		288+47	4,760
c/Jan. 22, 1951	(10:00 a.m.)	.10	45		265+75	7,132
Feb. 5	(12 M)	Flow bi-passing gage			262+35	7,372
d/Feb. 6	(11:00 a.m.)	.84	378			
6	(2:30 p.m.)	.30	135	70		
e/ 7	(12:20 p.m.)	.22	100	71	262+35	7,372
13	(8:05 a.m.)	.56	250		261+84	7,423
19	(8:45 a.m.)	.57	256		260+80	7,527
23	(12:20 p.m.)	.80	360			
Mar. 2	(1:30 p.m.)	1.12	503	70	259+19	7,688
6	(8:30 a.m.)	1.42	637			
9	(2;30 p.m.)	1.01	453	74	257+31	7,876
13	(8:15 a.m.)	1.46	653		256+48	7,959
20	(7:35 a.m.)	1.43	640			
30	(8:50 a.m.)	1.33	596	69		
Apr 11	(2:35 p.m.)	1.25	559	76		
16	(7:50 a.m.)	1.60	718			
23	(10:35 a.m.)	1.50	674		244+13	9,194
26	(12:55 p.m.)	1.66	745		243+08	9,289

a/ Installed 1 foot Parshall flume.
b/ Started continuous recorder.
c/ Forebay to flume covered by bridge. Rating curve of flume used for purpose of measuring discharge.
d/ Flume being bi-passed by flow from tunnel. Moved gage 1500 ft. downstream to southerly edge of Hove ranch.
e/ Recorder operating at new site.

GLEN ANNE CREEK AT DAMSITE

Location.- Lat. 34°28'20", long. 119°52'40", at narrows in Glen Anne Canyon and at damsite of proposed reservoir at end of Tecolote Tunnel. About 2.9 miles north of Highway 101.

Altitude.- About 350 feet, from topographic map.

Description.-Measurement site at mouth of canyon in narrows of box canyon reached by Glen Anne Canyon road.

Diversions.- Olaf Hove diverts from Spring #36 in Creek bed about 0.5 mile above station.

DATE	DISCHARGE: Second-feet	DISCHARGE: Gals. per min.	TEMP † °F
Nov. 2, 1948 (10:30 a.m.)	No flow	No flow	
Dec. 13 (1:50 p.m.)	No flow	No flow	
Feb. 17, 1949 (3:45 p.m.)	No flow	No flow	
Mar. 16 (1:45 p.m.)	No flow	No flow	
Aug. 15 (12:20 p.m.)	No flow	No flow	
Nov. 14 (8:45 a.m.)	No flow	No flow	
Jan. 10, 1950 (12:10 p.m.)	No flow	No flow	
*July 27 (8:05 a.m.)	.098	44	65
Aug. 8 (8:55 a.m.)	.12	53	63
Oct. 23 (8:20 a.m.)	.17	75	69
Nov. 20 (12:35 p.m.)	.19	83	70
Dec. 13 (8:30 a.m.)	.15	67	65
Jan. 22, 1951 (9:25 a.m.)	.33	150	65
Feb. 7 (12:15 p.m.)	.22	100	71

Feb. 7 - Recorder started on southerly edge of Hove ranch this date; see daily gage-height sheet for further flow at this station.

* Seepage water from Tecolote tunnel began to show up on this date.

BISHOP COMPANY WELLS 11 AND 12

Location.- Lat. 34°28'20", long. 119° 52'40", in Glen Anne Canyon about 100 feet below proposed damsite.

Altitude.- About 350 feet, (from topographic map).

Description.- Two wells about 50 feet west of stream channel.

DATE	DISCHARGE Sec.-ft.	DISCHARGE G p.m.	WATER METER	W.H. METER 35J1	W.H. METER 35J2	DEPTH TO WA J1	DEPTH TO WA J2
June 13, 1949 (10:00 a.m.)	.048	21	0255159	2080	1998		
July 18 (10:55 a.m.)	.050	22	0365557	3297	2120		
Aug. 15 (12 M)	.045	20	0482999	3555	2264		
Sept. 15 (8:30 a.m.)	Pumps off		0498442	3593	2285	35.37	26.58
Oct. 12 (12:05 p.m.)	do		0498443	3593	2285	31.25	24.09
Nov. 14 (8:10 a.m.)	do		0498443	3593	2285	28.17	22.72
Dec. 13 (8:00 a.m.)	do		0498443	3593	2285	26.29	21.94
Jan. 10, 1950 (12 M)	do		0498443	-	-	24.44	20.94
Feb. 24 (8:00 a.m.)	do		0498443	-	-	21.28	19.47
Mar. 15 (9:15 a.m.)	do		0498443	-	-	20.44	19.02
Apr. 13 (8:00 a.m.)	do		*0498443	3596	2285	19.40	18.61
May 9 (8:00 a.m.)	.086	39	*0509348	3652	2305		
June 14 (10:00 a.m.)	.056	25	0651530	3971	2484		
July 13 (8:45 a.m.)	.050	23	0782790	4238	2634		
July 27 (7:50 a.m.)	Pump J2 off.		0822735	4359	2650		30.65
Aug. 8 (9:05 a.m.)	.061	27	0871285	4475	2686		
Oct. 23 (8:00 a.m.)	.050	22	1172447	5114	3010		
Nov. 20 (12:15 p.m.)	Pumps off		1284446	5407	2147		
Dec. 13 (8:00 a.m.)	do		1284446	5407	2147	33.90	27.34
Jan. 22, 1951 (9:15 a.m.)	.061	27	*1284552	5551	2214		
Feb. 13 (7:35 a.m.)	.059	27	*1285448	5887	3324		
Mar. 13 (7:45 a.m.)	.061	27	1296887	5977	3413		Pump J
Apr. 16 (6:50 a.m.)	.018	8.2	1316713	6288	3596	40.49	motor pulled

* Water Meter removed for repairs or pipe bi-passing meter.

DIVERSION - ELLWOOD DAIRIES

Location.- Lat. 34°28'10", long. 119°53'30".

Altitude.- About 320 feet, from topographic map.

Description.- Wood-curbed seep in alluvium of creek bottom. Discharge measured at inflow to settling box.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Aug. 16, 1948	0.0027	1.2	
Feb. 17, 1949	.0076	3.4	
Mar. 16 (12:55 p.m.)	.0047	2.1	
Mar. 30 (3:45 p.m.)	.036	16	
Apr. 26 (10:55 a.m.)	.13	60	
Sept.13 (10:00 a.m.)	.005	less than 1(Est)	

ELLWOOD CANYON CREEK ABOVE DIVERSIONS

Location.- Lat. 34°28'10", long. 119°53'30", Narrows near end of Armus' Canyon Road, about 2.8 miles north of Highway 101.

Altitude.- About 304 feet, from Bureau of Reclamation Bench Mark.

Description.- Measuring site in narrows at mouth of Canyon which is above all diversions. Measurements of extremely low flow made volumetric at diversion box 300 feet below.

Remarks.- There is abandoned 2-inch line to Spring #29 in creek bed about 0.5 mile above station.
(Note - 6-inch line to Dairies not operating Mar. 16, 1949; but it will be used later.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Oct. 28, 1948	(5:30 p.m.)	No flow	No flow	
Nov. 15	(2:25 p.m.)	No flow	No flow	
Nov. 29	(1:25 p.m.)	No flow	No flow	
Feb. 17, 1949	(1:00 p.m.)	0.075	34	
Mar. 16	(1:05 p.m.)	.98	440	
Mar. 30	(2:00 p.m.)	.33	148	
Apr. 26	(10:55 a.m.)	.13	60	
June 20	( )	.031	13.8	62
July 19	(8:40 a.m.)	.017	7.6	59
Aug. 15	(1:25 p.m.)	.0026	1.17	62
Nov. 14	(12:30 p.m.)	.0010	.45	63
Dec. 19	(11:15 a.m.)	.25	114	
Jan. 23, 1950	(11:05 a.m.)	.33	149	55
Feb. 21	(12:45 p.m.)	.38	170	
Mar. 15	(8:45 a.m.)	.12	54	51
Apr. 12	(12:10 p.m.)	.12	52	53
May 11	(11:10 a.m.)	.041	18	60
June 15	(8:50 a.m.)	.029	13	56
July 28	(11:45 a.m.)	.010	4.5	73
Aug. 14	(11:30 a.m.)	.010	4.5	
Oct. 30	(1:15 p.m.)	.0017	.8	
Nov. 22	(12:50 p.m.)	.0034	1.5	66
Dec. 15	(1:30 p.m.)	.004	1.8	61
Jan. 19, 1951	(11:00 a.m.)	.14	62	50
Feb. 23	(1:15 p.m.	.046	21	50
Mar. 15	(11:15 a.m.)	.061	27	59
Apr. 26	(10:50 a.m.)	.029	13	

ELLWOOD CANYON CREEK AT DOTY DIVERSION

Location.- Lat. 34°27'40", long. 119°53'30", at Doty diversion dam in Elwood Canyon, about 2.1 miles north of Highway 101.

Altitude.- About 225 feet, from topographic map.

Description.- Measuring site in Creek channel at old abandoned concrete diversion dam.

Diversions.- Several diversions above station.

DATE		DISCHARGE	
		Second-feet	Gals. per min.
Aug. 17, 1948		No flow	No flow
Feb. 17, 1949		No flow	No flow
Mar. 30	(1:15 p.m.)	No flow	No flow
Apr. 26	(10:15 a.m.)	No flow	No flow
June 20		No flow	No flow
July 19	(8:25 a.m.)	No flow	No flow
Aug. 15	(1:15 p.m.)	No flow	No flow
Sept. 13	(9:45 a.m.)	No flow	No flow
Nov. 14	(12:05 p.m.)	No flow	No flow
Dec. 19	(10:40 a.m.)	No flow	No flow

SPRING - ELLWOOD DAIRIES

Location.- Lat. 34°27'10", long. 119°53'30"

Altitude.- About 225 feet, from topographic map.

Description.- Timbered drift in sandstone bed on hillside. Discharge measured at outlet faucet by watering trough.

DATE		DISCHARGE		TEMP
		Second-feet	Gals. per min.	°F
Aug. 17, 1942		0.0018	0.8	
Mar. 30, 1949	(12:45 p.m.)	No flow	No flow	
Apr. 26	(9:15 a.m.)	.0012	.53	
June 20	( )	.00077	.35	
July 19	(8:05 a.m.)	No flow	No flow	
Aug. 15	(1:00 p.m.)	No flow	No flow	
Sept. 13	(9:25 a.m.)	No flow	No flow	
Nov. 14	(11:55 a.m.)	.000088	.040	
Dec. 19	(10:05 a.m.)	.0012	.56	
Jan. 23, 1950	(10:15 a.m.)	.0029	1.30	
Feb. 21	(12:25 p.m.)	No flow	No flow	
Mar. 15	(8:30 a.m.)	No flow	No flow	
Apr. 12	(11:30 a.m.)	.000075	.034	
May 11	(10:45 a.m.)	.00017	.08	67
June 15	(8:25 a.m.)	.00015	.07	59
July 28	(11:25 a.m.)	.00016	.07	71
Aug. 14	(10:50 a.m.)	.000060	.03	68
Oct. 30	(12:45 p.m.)	.0030	1.4	68
Nov. 22	(12:20 p.m.)	.0080	4.0	63
Dec. 15	(1:45 p.m.)	No flow	No flow	
Jan. 19, 1951	(11:35 a.m.)	.000051	.02	
Feb. 23	(1:25 p.m.)	No flow	No flow	
Mar. 15	(11:30 a.m.)	90 drops in 60 seconds		
Apr. 26	(11:00 a.m.)	.0081	3.7	

SPRING - ELLWOOD DAIRIES

Location.- Lat. 34°27'00", Long. 119°53'40".

Altitude.- About 160 feet, from topographic map.

Description.- Former seep in alluvium of valley floor.

DATE	DISCHARGE: Second-feet	DISCHARGE: Gals. per min	Water level in feet below reference point
Aug. 18, 1948	No flow	No flow	
Feb. 17, 1949	No flow	No flow	
Mar. 30, (1:00 p.m.)	No flow	No flow	18.97
Apr. 26 (9:25 a.m.)	No flow	No flow	17.38
June 20 (11:20 a.m.)	No flow	No flow	15.25
July 19 (8:15 a.m.)	No flow	No flow	15.40
Aug. 15 (1:10 p.m.)	No flow	No flow	15.34
Sept.13 (9:30 a.m.)	No flow	No flow	15.84
Nov. 14 (12:00 noon)	No flow	No flow	16.03
Dec. 19 (10:30 a.m.)	No flow	No flow	14.12
Jan. 23, 1950 (10:30 a.m.)	No flow	No flow	13.28
Feb. 21 (12:30 p.m.)	No flow	No flow	12.77
Mar. 15 (8:35 a.m.)	No flow	No flow	12.78
Apr. 12 (11:50 a.m.)	No flow	No flow	12.67
May 11 (10:55 a.m.)	No flow	No flow	12.40
June 15 (8:40 a.m.)	No flow	No flow	12.90
July 28 (11:30 a.m.)	No flow	No flow	12.51
Aug. 14 (12:15 p.m.)	No flow	No flow	12.80
Oct. 30 (12:55 p.m.)	No flow	No flow	12.92
Nov. 22 (12:30 p.m.)	No flow	No flow	12.22
Dec. 15 (1:10 p.m.)	No flow	No flow	12.24
Jan. 19, 1951 (11:25 a.m.)	No flow	No flow	12.44
Feb. 23 (12:50 p.m.)	No flow	No flow	14.01
Mar. 15 (11:10 a.m.)	No flow	No flow	12.65

SPRING - ELLWOOD DAIRIES

Location.- Lat. 34°26'40", long. 119°53'40".

Altitude.- About 150 feet, from topographic map.

Description.- Open excavated pool in landslide on valley side.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Aug. 13, 1948		No flow	No flow	
Feb. 17, 1949		Practically no flow	Practically no flow	
Mar. 30	(12:30 p.m.)	No flow	No flow	
Apr. 26	(9:00 a.m.)	No flow	No flow	
June 20	(12:00 noon)	No flow	No flow	
July 19	(7:55 a.m.)	No flow	No flow	
Aug. 15	(12:50 p.m.)	No flow	No flow	
Sept. 13	(9:20 a.m.)	No flow	No flow	
Nov. 14	(11:45 a.m.)	No flow	No flow	
Dec. 19	(9:50 a.m.)	No flow	No flow	

WINCHESTER CANYON CREEK

Location.- Lat. 34°28'50", 119°54'20", at end of Winchester Canyon Road and about 3.4 miles north of Highway 101.

Altitude.- About 550 feet, from topographic map.

Description.- Measuring site at abandoned spring in creek bed.

Diversions.- No known diversions above station

Remarks.- On Nov. 15, 1948, Mr. Hollister, property owner below, stated he may redevelop spring here which has been abandoned and was dry on this date.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Nov. 2, 1948	(9:30 a.m.)	No flow	No flow	
Nov. 15	(2:50 p.m.)	No flow	No flow	
Nov. 29	(1:55 p.m.)	No flow	No flow	
Mar. 16, 1949	(12:35 p.m.)	No flow	No flow	
Apr. 26	(8:25 a.m.)	No flow	No flow	
Aug. 15	(10:40 a.m.)	No flow	No flow	
Nov. 14	(1:30 p.m.)	No flow	No flow	
Dec. 14	(1:15 p.m.)	No flow	No flow	
Jan. 23, 1950	(9:40 a.m.)	No flow	No flow	
Mar. 15	(7:55 a.m.)	No flow	No flow	
Apr. 12	(11:15 a.m.)	No flow	No flow	
May 11	(10:30 a.m.)	No flow	No flow	
June 15	(7:50 a.m.)	No flow	No flow	
July 28	(1:00 p.m.)	No flow	No flow	
Nov. 22	(1:30 p.m.)	No flow	No flow	
Dec. 15	(12:50 p.m.)	No flow	No flow	
Jan. 19, 1951	(11:50 a.m.)	No flow	No flow	
Mar. 15	(10:45 a.m.)	No flow	No flow	

TECOLOTE CANYON CREEK ABOVE DIVERSION NEAR ELLWOOD

Location.- Lat. 34°29'20", long. 119°54'30", about 0.4 mile north of end of road through Tecolote Ranch, and about 4.0 miles north of Highway 101.

Altitude.- About 720 feet, from topographic map.

Description.- During extreme low flow the measuring site is about 1,500 feet above Tecolote Ranch diversion at outcrop, at all other times the flow is measured at another rock outcrop about 100 feet above diversion.

Diversion.- No known diversions above this station.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Feb. 15, 1946 (1:10 p.m.)	0.42	190	
Apr. 18 (10:05 a.m.)	.97	440	
Apr. 7, 1947 (2:30 p.m.)	1.42	640	
May 15 (9:00 a.m.)	.06	27	
June 18	.02	9.0	
July 17 (10:40 a.m.)	a .005	2.2	
Dec. 5 (10:45 a.m.)	.045	20	
Jan. 9, 1948 (10:00 a.m.)	.13	60	
Feb. 18 (10:00 a.m.)	.13	60	
Mar. 18 (11:00 a.m.)	.21	92	
Apr. 15 (9:45 a.m.)	.27	120	
May 14 (9:00 a.m.)	.061	27	
June 11 (10:30 a.m.)	.061	27	
July 21 (8:15 a.m.)	.011	4.9	
Aug. 19 (10:20 a.m.)	No flow	No flow	
Sept. 15 (9:05 a.m.)	No flow	No flow	
Oct. 15	No flow	No flow	
Oct. 19 (10:00 a.m.)	No flow	No flow	
Nov. 15 (3:45 p.m.)	No flow	No flow	
Dec. 13 (2:45 p.m.)	No flow	No flow	
Jan. 17, 1949 (10:05 a.m.)	.18	81	
Mar. 16 (11:45 a.m.)	1.14	510	
Apr. 25 (10:10 a.m.)	.10	45	
May 13 (12:20 p.m.)	.061	27	
June 20 (12:40 p.m.)	.065	29.2	
July 18 (10:10 a.m.)	No flow	No flow	
Aug. 15 (10:15 a.m.)	No flow	No flow	
Sept. 13 (9:00 a.m.)	No flow	No flow	
Oct. 12 (11:30 a.m.)	No flow	No flow	
Nov. 15 (11:50 a.m.)	No flow	No flow	
Dec. 19 (1:00 p.m.)	.23	102	52
Jan. 19, 1950 (10:50 a.m.)	.71	320	52
Feb. 23 (8:45 a.m.)	.55	250	
Mar. 14 (12:45 p.m.)	.21	93	53
Apr. 12 (9:45 a.m.)	.18	83	54

TECOLOTE CANYON CREEK ABOVE DIVERSION NEAR ELLWOOD (Cont'd)

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	F°
May 11, 1950	(9:35 a.m.)	.060	27	57
June. 14	(9:10 a.m.)	.019	8.5	55
July 28	(10:40 a.m.)	No flow	No flow	
Aug. 14	(12:40 p.m.)	No flow	No flow	
Nov. 1	(12:40 p.m.)	No flow	No flow	
Nov. 27	(12:10 p.m.)	No flow	No flow	
Dec. 15	(12:15 p.m.)	.024	11	59
Feb. 19	(10:15 a.m.)	.058	26	
Jan. 19, 1951	(10:00 a.m.)	.065	29	51
Mar. 15	(9:50 a.m.)	.064	29	53
Apr. 26	(9:50 a.m.)	.099	44	

SPAULDING RANCH DIVERSION FROM TECOLOTE CANYON CREEK NEAR ELWOOD

Location.- Lat. 34°28'45", long. 119°43'40", about 3 miles north of Highway 101.

Altitude.- About 400 feet, from topographic map.

Description.- Volumetric measuring device 1,500 feet below point of diversion at valve on 6-inch conduit to reservoir.

DATE		DISCHARGE		TEMP.
		Second feet	Gals. per min.	°F
Nov. 15, 1949	(12:10 p.m.)	0.029	13	60
Feb. 23, 1950	(9:15 a.m.)	No meast.	No meast.	
Mar. 15		.23	100	
Mar. 20		.18	80	
Apr. 12	(11:45 a.m.)	.25	110	
July 28	(10:15 a.m.)	.020	9	
Aug. 14	(1:10 p.m.)	.0070	3.2	
Nov. 27	(12:25 p.m.)	.052	23	

SPRING - L. G. DREYFUS ESTATE

Location.- Lat. 34°28'30", long. 119°55'40".

Altitude.- About 350 feet, from topographic map.

Description.- Two concrete-curbed seeps at foot of hill. Discharge measured at settling box.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Jan. 17, 1949 (10:15 a.m.)	0.00027	0.12	
Mar. 30 (3:00 p.m.)	.00015	.067	
May 13 (10:50 a.m.)	.00023	.10	
June 20 (2:30 p.m.)	.00015	.069	
July 18 (9:25 a.m.)	.00016	.071	
Aug. 15 (9:40 a.m.)	Pract. dry		
Sept 13 (8:20 a.m.)	Pract. dry		
Oct. 12 (10:40 a.m.)	.000061	.028	
Nov. 15 (10:55 a.m.)	.000051	.023	
Dec. 21 (8:10 a.m.)	.00010	.047	52
Jan. 19, 1950 (9:15 a.m.)	.00034	.15	53
Feb. 21 (11:00 a.m.)	.000099	.044	
Mar. 14 (11:35 a.m.)	.000085	.038	57
Apr. 12 (8:50 a.m.)	.000093	.042	63
May 11 (8:40 a.m.)	132 drops in 1 minute		
June 14 (8:25 a.m.)	106 drops in 1 minute		
July 28 (9:35 a.m.)	172 drops in 1 minute		
Aug. 15 (8:55 a.m.)	96 drops in 1 minute		
Nov. 1 (11:45 a.m.)	182 drops in 1 minute		
Nov. 27 (1:45 p.m.)	131 drops in 1 minute		
Dec. 15 (11:30 a.m.)	146 drops in 1 minute		
Jan. 22, 1951 (8:45 a.m.)	.000057	.02	
Feb. 19 (11:10 a.m.)	.00017	.07	
Mar. 15 (9:10 a.m.)	.00024	.11	54
Apr. 26 (8:00 a.m.)	.00016	.04	

MIDDLE FORK, EAGLE CANYON CREEK

Location.- Lat. 34°29'00", long. 119°55'40", in Eagle Canyon at upper-most diversion about 3.0 miles north of Highway 101.

Altitude.- About 500 feet, from topographic map.

Description.- Measuring site at diversion box 2,600 feet above Eagle Canyon Road. The 2-inch line from this diversion box broken and the diversion abandoned.

Diversion.- No known diversions above this station.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Oct. 18, 1948		No flow	No flow	
Jan. 17, 1949	(12:45 p.m.)	0.0078	3.5	
Mar. 30	(9:15 a.m.)	.014	6.3	
May 13	(10:15 a.m.)	No flow	No flow	
June 20	(1:45 p.m.)	No flow	No flow	
July 18	(8:50 a.m.)	No flow	No flow	
Aug. 15	(9:00 a.m.)	No flow	No flow	
Sept. 13	(7:50 a.m.)	No flow	No flow	
Oct. 12	(10:05 p.m.)	No flow	No flow	
Nov. 15	(10:15 a.m.)	No flow	No flow	
Dec. 21	(8:35 a.m.)	No flow	No flow	
Jan. 19,1950	(9:40 a.m.)	No flow	No flow	
Feb. 21	(10:35 a.m.)	No flow	No flow	
Mar. 14	(11:00 a.m.)	No flow	No flow	
Apr. 12	(8:00 a.m.)	No flow	No flow	
May 11	(8:10 a.m.)	No flow	No flow	
June 14	(7:50 a.m.)	No flow	No flow	
July 26	(9:10 a.m.)	No flow	No flow	
Aug. 15	(8:30 a.m.)	No flow	No flow	
Nov. 1	(11:10 a.m.)	No flow	No flow	
Nov. 27	(1:10 p.m.)	No flow	No flow	
Dec. 15	(11:00 a.m.)	No flow	No flow	
Jan. 22, 1951	(8:00 a.m.)	No flow	No flow	
Feb. 19	(11:20 a.m.)	No flow	No flow	
Mar. 15	(8:50 a.m.)	No flow	No flow	
Apr. 26	(7:25 a.m.)	No flow	No flow	

EAGLE CANYON CREEK NEAR ELLWOOD

Location.- Lat. 34°28'50", long. 119°56'00", at uppermost diversion about 0.2 mile above middle fork of Eagle Canyon Creek and about 2.9 miles north of Highway 101.

Altitude.- About 425 feet, from topographic map.

Description.- Measuring site above junction box (stamped Smith Bros. 1924).

Diversion.- None above measuring point.

Remarks.- This diversion used by the Dreyfus estate does not look as though it were being used at the present time.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Feb. 15, 1946		less than 0.02	less than 9	
Mar. 15	(3:30 p.m.)	less than .01	less than 5	
Apr. 7, 1947	(3:50 p.m.)	.01	4.5	
May 5	(3:20 p.m.)	.01	4.5	
Dec. 5	(10:10 a.m.)	No flow	No flow	
Jan. 9, 1948	(9:30 a.m.)	No flow	No flow	
Feb. 18	(9:05 a.m.)	No flow	No flow	
Mar. 18	(9:30 a.m.)	No flow	No flow	
Apr. 15	(9:00 a.m.)	No flow	No flow	
May 14	(8:15 a.m.)	No flow	No flow	
June 11	(9:30 a.m.)	No flow	No flow	
July 21	(7:30 a.m.)	No flow	No flow	
Aug. 19	(9:15 a.m.)	No flow	No flow	
Sept. 15	(8:30 a.m.)	No flow	No flow	
Oct. 19	(10:30 a.m.)	No flow	No flow	
Nov. 17	(10:45 a.m.)	No flow	No flow	
Dec. 13		No flow	No flow	
Jan. 17, 1949	(2:20 p.m.)	.0020	.91	
Mar. 16	(10:10 a.m.)	.073	33	
Apr. 25	(9:15 a.m.)	.015	6.7	
May 13	(9:35 a.m.)	.007	3.1	
June 20	(2:10 p.m.)	.010	4.49	
July 18	(9:a.m.	.0023	1.03	
Aug. 15	(9:15 a.m.)	.0022	.99	
Sept. 13	(8:05 a.m.)	.003	1.4	
Oct. 12	(10:15 a.m.)	.0034	1.53	
Nov. 15	(10:30 a.m.)	.0032	1.44	55
Dec. 21	(8:50 a.m.)	.010	4.6	
Jan. 19, 1950	(9:45 a.m.)	.048	22	51
Feb. 21	(10:45 a.m.)	.058	26	
Mar. 14	(11:15 a.m.)	.032	14	54
Apr. 12	(8:20 a.m.)	.028	13	

EAGLE CANYON CREEK NEAR ELLWOOD (Cont'd)

DATE		DISCHARGE		TEMP
		Second-feet	Gals. per min.	°F
May 11, 1950	(8:20 a.m.)	.021	9.4	53
June 14	(8:15 a.m.)	.016	7.2	53
July 28	(9:20 a.m.)	.005	2.2	58
Aug. 15	(8:45 a.m.)	.006	2.7	55
Nov. 1	(11:30 a.m.)	.0028	1.3	61
Nov. 27	(1:20 p.m.)	.0029	1.3	56
Dec. 15	(1:15 p.m.)	.0030	1.4	58
Jan. 22, 1951	(8:20 a.m.)	.009	4.0	49
Feb. 19	(11:30 a.m.)	.026	12	
Mar. 15	(9:00 a.m.)	.035	16	51
Apr. 26	(7:40 a.m.)	.013	5.8	

DOS PUEBLOS CREEK NEAR NAPLES.

Location.- Lat. 34°29'10", long. 119°57'10", at diversion of Dos Pueblos Ranch about 2.6 miles north of Highway 101 and about 2.9 miles north of Naples.

Established.- Recorder started at 3:00 p.m., Feb. 21, 1949.

Gage.- Recorder Stevens type F # 12805-49 (8 day)

Altitude.- About 520 feet, from topographic map.

Description.- Control is a combination 90° V-notch weir and overflow weir. Measuring site about 150 feet upstream.

Diversion.- No known diversions above station.

DATE		DISCHARGE	
		Second-feet	Gals. per min.
Feb. 15, 1946	(10:50 a.m.)	0.91	410
Mar. 15	(2:40 p.m.)	.75	340
Apr. 18	(8:35 a.m.)	1.20	540
May 5, 1947	(2:30 p.m.)	.52	230
June 18	(9:00 a.m.)	.40	180
July 17	(8:40 a.m.)	.40	180
Aug. 7	(2:15 p.m.)	.17	76
Sept. 10	(8:35 a.m.)	.40	180
Oct. 2	(8:45 a.m.)	.29	130
Dec. 5	(9:10 a.m.)	.49	220
Jan. 5, 1948	(8:50 a.m.)	.58	260
Feb. 18	(8:20 a.m.)	.67	300
Mar. 18	(8:45 a.m.)	.47	210
Apr. 16	(8:35 a.m.)	.64	290
May 14	(7:40 a.m.)	.47	210
June 11	(8:45 a.m.)	.39	180
July 21	(9:10 a.m.)	.33	150
Aug. 19	(8:50 a.m.)	.19	85
Sept. 15	(7:20 a.m.)	.052	23
Oct. 19	(11:10 a.m.)	.27	120
Oct. 22	(2:50 p.m.)	.28	130
Oct. 22	(3:05 p.m.)	.21	94
Oct. 22	(3:20 p.m.)	.21	94
Nov. 2		.23	100
Nov. 17	(12-noon)	.26	120
Dec. 14	(12:55 p.m.)	.36	160
Jan. 17, 1949	(3:45 p.m.)	.47	210
Feb. 2	(12:35 p.m.)	.50	220
Feb. 7	(11:05 a.m.)	.88	400
Mar. 4	(10:15 a.m.)	7.2	3200
Mar. 11	(12:25 p.m.)	6.9	3100
Mar. 16	(8:40 a.m.)	2.09	940
Mar. 29	(3:05 p.m.)	.89	400
Apr. 25	(8:10 a.m.)	.54	240

DOS PUEBLOS CREEK NEAR NAPLES - Contd.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
May 13, 1949	(8:30 a.m.)	0.48	215	
June 21	(8:00 a.m.)	.43	195	
July 18	(8:10 a.m.)	.49	220	
Aug. 15	(8:15 a.m.)	.33	148	
Sept. 9	(10:25 a.m.)	.29	131	
Oct. 12	(9:20 a.m.)	.24	110	
Nov. 15	(9:50 a.m.)	.68	310	55
Nov. 29	(10:50 a.m.)	.78	350	55
Dec. 15	(1:10 p.m.)	.97	440	50
Jan. 9, 1950	(11:10 a.m.)	.56	250	
Jan. 11	(9:00 a.m.)	3.2	1400	
Feb. 21	(9:05 a.m.)	1.3	590	
Mar. 14	(9:45 a.m.)	.86	390	50
Apr. 11	(12:20 p.m.)	.68	300	
May 5	(9:00 a.m.)	.94	422	
May 10	(8:30 a.m.)	1.04	467	
June 13	(2:05 p.m.)	.97	436	
July 31	(8:10 a.m.)	.94	420	
Aug. 15	(7:40 a.m.)	.07	33	
Oct. 31	(1:50 p.m.)	.37	166	
Nov. 28	(8:15 a.m.)	.43	193	
Dec. 15	(10:20 a.m.)	.52	236	
Jan. 19, 1951	(8:55 a.m.)	.84	375	
Feb. 19	(12 M)	.39	175	
Mar. 15	(8:00 a.m.)	.48	214	
Apr. 17	(8:35 a.m.)	1.04	470	

STATION 50a

DOS PUEBLOS RANCH WELL ABOVE
DIVERSION IN DOS PUEBLOS CANYON

Location.- Lat. 34°29'15", long. 119°57'10" about 1/4 mile above diversion.

Altitude.- About 550 feet, from topographic map.

Description.- Vertical well on west bank 50 feet from creek bed, drilled in 1949.

DATE	DISCHARGE		Water level in feet
	Second-feet	Gals. per min.	below reference point
June 21, 1949 (8:00 a.m.)	No flow	No flow	12.53
July 18 (8:25 a.m.)	No flow	No flow	13.01
Feb. 21, 1950 (9:40 a.m.)	No flow	No flow	14.90
Mar. 14 (10:20 a.m.)	No flow	No flow	14.52
May 10 (8:45 a.m.)	No flow	No flow	15.34
July 31 (8:30 a.m.)	No flow	No flow	15.15
Aug. 15 (8:00 a.m.)	No flow	No flow	15.40
Oct. 31 (2:00 p.m.)	No flow	No flow	14.96
Nov. 28 (8:35 a.m.)	No flow	No flow	14.71
Dec. 15 (10:30 a.m.)	No flow	No flow	14.82
Jan. 19, 1951 (8:50 a.m.)	No flow	No flow	12.22
Feb. 19 (12:15 p.m.)	No flow	No flow	13.05
Mar. 15 (8:15 a.m.)	No flow	No flow	14.76
Apr. 17 (8:40 a.m.)	No flow	No flow	19.61

WELL - UPPER HORIZONTAL WELL ON THE DOS PUEBLOS RANCH

Location.- Lat. 34°31'05", long. 119°56'50", about 2.5 miles upstream from Dos Pueblos Ranch company's point of diversion and on the easterly side of the West Fork of Dos Pueblos Canyon Creek near Naples.

Altitude.- 1,985 feet. (Furnished by Ranch Co.).

Description.- 3-inch cased horizontal well extending 1,300 feet in northerly direction. This well is referred to as No. 129 by Dos Pueblos Ranch Company.

		Second-feet	Gals. per min.	°F
Dec. 15, 1949	(11:25 a.m.)	0.60	27	60
Feb. 21, 1950	(8:30 a.m.)	well closed		
May 10	(10:45 a.m.)	.36	161	63
June 13	(11:30 a.m.)	.31	140	62
July 31	(9:45 a.m.)	.24	108	63
Aug. 15	(8:15 a.m.)	well closed Aug. 4		
Oct. 30	(9:10 a.m.)	well closed		
Nov. 28	(8:50 a.m.)	do		
Dec. 15	(10:00 a.m.)	do		
Jan. 19, 1951	(8:20 a.m.)	do		
Feb. 19	(1:00 p.m.)	do		
Mar. 15	(8:00 a.m.)	do		
Mar. 25		well opened		
Apr. 17	(10:15 a.m.)	.31	141	62

WELL - HORIZONTAL WELL, DOS PUEBLOS RANCH

Location.- Lat. 34°31'00", long. 119°56'55", about 100 feet downstream from Station 50 and on the westerly side of the West Fork of Dos Pueblos Canyon Creek near Naples.

Altitude.- About 1950 feet, from figure furnished by Dos Pueblos Ranch Company.

Description.- Two 3-inch cased holes: (131a) is 1415 feet and (131b) 350 feet in a northerly direction. The two holes have a common discharge pipe.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Dec. 15, 1949	(11:35 a.m.)	0.63	280	60
Feb. 21, 1950	(8:30 a.m.)	cut off	cut off	
May 10	(11:30 a.m.)	.74	334	61
June 13	(12 M)	.40	180	60
July 31	(9:55 a.m.)	.43	195	61
Aug. 4	(8:15 a.m.)	Well cut off		
Mar. 15, 1951	(8:00 a.m.)	do		
Apr. 17	(10:30 a.m.)	.55	246	61

WELL, HORIZONTAL WELL, DOS PUEBLOS RANCH

Location.- Lat. 34°30'55", long. 119°56'15", on westerly side of the East Fork of Dos Pueblos Canyon Creek near Naples.

Altitude.- About 1,800 feet, from topographic map.

Description.- 6-inch cased horizontal well extending 785 feet in westerly direction; which later caved in at 470 feet. Drillers re-casing with 4-inch pipe.

DATE	DISCHARGE		TEMP	
	Second-feet	Gals. per min	°F	
July 31, 1950 (11:35 a.m.)	.088	39	64	a
Oct. 31 (12 M)	.11	51	64	b
Nov. 28 (8:50 a.m.)		75		c
Apr. 17, 1951 (12:25 p.m.)	.072	33		d

a Well caved in at 470 feet.
b Drillers just pulled tools.
c Measurement furnished by Ranch Co. (Well at 476 feet.)
d Tools in hole during measurement.

SPRING - W. H. WOODS

Location.- Lat. 34°29'30", long. 119°57'50"

Altitude.- About 750 feet, from topographic map.

Description.- Seepage intercepted by 345 foot tunnel in mountainside. Discharge measured at end of pipe line to reservoir.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals per min.	°F
Nov. 1, 1948	(11:00 a.m.)	0.004	1.8	
Nov. 18		.0036	1.6	
Jan. 18, 1949	(10:25 a.m.)	.0055	2.4	
Mar. 15	(3:00 p.m.)	.026	12	
Apr. 27	(10:50 a.m.)	.0075	3.4	
May 13	(1:30 p.m.)	.0061	2.7	
June 21	(9:15 a.m.)	.0055	2.46	
July 21	(12:45 p.m.)	.0040	1.78	
Aug. 16	(1:15 p.m.)	.0037	1.65	79
Sept. 9	(8:50 a.m.)	.0035	1.55	61
Oct. 14	(8:50 a.m.)	.0035	1.58	62
Nov. 15	(9:05 a.m.)	.0044	1.95	65
Dec. 21	(10:30 a.m.)	*	*	
Jan. 19,1950	(9:00 a.m.)	*	*	
Feb. 21	(1:45 p.m.)	*	*	
Mar. 14	(9:10 a.m.)	.010	4.5	55
Apr. 11	(11:30 a.m.)	.0083	3.7	65
May 19	(9:10 a.m.)	.0055	2.5	55
June 13	(8:10 a.m.)	.0045	2.0	56
July 28	(8:15 a.m.)	.0039	1.8	58
Aug. 11	(8:25 a.m.)	.0034	1.5	58
Oct. 31	(8:40 a.m.)	.0038	1.7	55
Nov. 28	(9:20 a.m.)	.0047	2.2	53
Dec. 15	(9:40 a.m.)	*	*	
Jan. 19, 1951	(7:55 a.m.)	*	*	
Feb. 13	(10:25 a.m.)	*	*	
Mar. 15	(7:40 a.m.)	*	*	
Apr. 17	(7:55 a.m.)	.0050	2.2	56

* Reservoir full - inlet pipes submerged.

LAS VARAS CANYON CREEK ABOVE DIVERSIONS.

Location.- Lat. 34°29'20", long. 119°57'50", at end of roadway, above Lemon Grove in Las Varas Canyon about 2.3 miles north of Highway 101.

Altitude.- About 550 feet, from topographic map.

Description.- Measuring site in stream channel above uppermost diversion.

DATE		DISCHARGE	
		Second-feet	Gals. per min.
Nov. 29, 1948		No flow	No flow
Dec. 14	(1:25 p.m.)	No flow	No flow
Jan. 18, 1949	(10:00 a.m.)	No flow	No flow
May 13	(1:20 p.m.)	No flow	No flow
June 21	(9:15 a.m.)	No flow	No flow
Jan. 19, 1950	(7:55 a.m.)	No flow	No flow

LAS VARAS CANYON CREEK AT UPPER DOTY DIVERSION

Location.- Lat. 34°28'50", long. 119°57'50", at diversion dam in Las Varas Canyon on Russell E. Doty property, about 18 miles north of Highway 101.

Altitude.- About 400', from topographic map.

Description.- Measuring site in natural channel above diversion. Diversion made through a 3-inch line to wooden tank about 2,000 feet downstream.

Diversion.- There are several diversions above this point of measurement.

DATE	DISCHARGE	
	Second-feet	Gals. per min.
Dec. 13, 1948	No flow	No flow
Jan. 18, 1949 (10:05 a.m.)	No flow	No flow
Mar. 29 (12:45 p.m.)	No flow	No flow
Apr. 27 (10:40 a.m.)	No flow	No flow
May 13 (1:10 p.m.)	No flow	No flow
June 21 (9:05 a.m.)	No flow	No flow
July 21 (11:55 a.m.)	No flow	No flow
Aug. 16 (1:00 p.m.)	No flow	No flow
Sept. 9 (9:00 a.m.)	No flow	No flow
Oct. 14 (8:30 a.m.)	No flow	No flow
Nov. 15 (8:55 a.m.)	No flow	No flow
Dec. 21 (9:45 a.m.)	No flow	No flow

LAS VARAS CANYON CREEK AT LOWER DOTY DIVERSION

Location.- Lat. 34°28'00", long. 119°58'00", at diversion dam in Las Varas Canyon on Russell L. Doty property, about 0.7 mile north of Highway 101.

Altitude.- About 240', from topographic map.

Description.- Discharge obtained by measuring the diversion and waste bypassing the diversion.

Diversions.- Several above.

Remarks.- This is lowest diversion in canyon with several diversions and deep wells above.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals per min.	°F
Dec. 13, 1948	0.013	5.95	
Jan. 18, 1949 (9:00 a.m.)	.014	6.4	
Mar. 29 (12:20 p.m.)	.018	8.1	
Apr. 27 (10:20 a.m.)	.017	7.6	
May 13 (1:00 p.m.)	No meast.	No meast.	
June 21 (8:50 a.m.)	No meast.	No meast.	
July 21 (11:45 a.m.)	.0049	2.19	
Aug. 16 (12:50 p.m.)	.0029	1.28	63
Sept. 9 (9:15 a.m.)	Unable to measure		
Oct. 14 (8:25 a.m.)	.0072	3.2	60
Nov. 15 (8:30 a.m.)	.010	4.5	50
Dec. 21 (9:30 a.m.)	.018	8.1	40
Jan. 19, 1950 (8:35 a.m.)	.016	7.4	
Feb. 21 (1:20 p.m.)	.016	7.3	
Mar. 14 (8:50 a.m.)	.018	7.9	46
Apr. 11 (11:10 a.m.)	.016	7.1	57
May 19 (8:05 a.m.)	.023	10	50
June 13 (7:50 a.m.)	.0098	4.4	54
July 28 (7:55 a.m.)	.019	8.5	57
Aug. 11 (8:00 a.m.)	.005	2.2	55
Oct. 31 (8:15 a.m.)	.0093	4.2	55
Nov. 28 (9:00 a.m.)	.012	5.4	50
Dec. 15 (9:15 a.m.)	.016	7.1	55
Jan. 19, 1951 (8:15 a.m.)	.025	11	49
Feb. 15 (10:10 a.m.)	.015	6.8	49
Mar. 15 (7:15 a.m.)	.012	5.4	49
Apr. 17 (7:25 a.m.)	.013	5.8	55

GATO CANYON CREEK ABOVE DIVERSIONS

Location.- Lat. 34°29'50", 119°58'10", at end of roadway up Cato Canyon, about 2.8 miles north of Highway 101.

Altitude.- About 1,100 feet, from topographic map.

Description.- Measuring site in stream channel about 50 feet above diversion. During low flow periods, volumetric measurements made in junction box about 200 feet below point of diversion, owned by Edwards estate.

Diversion.- No known diversions above station.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	
Nov. 1, 1948 (9:30 a.m.)	No flow	No flow	
Nov. 17 (12:45 p.m.)	No flow	No flow	
Nov. 22	No flow	No flow	
Nov. 30 (11:30 a.m.)	No flow	No flow	
Dec. 14 (12:15 p.m.)	No flow	No flow	
Jan. 18, 1949 (12-noon)	0.050	22	
Mar. 24 (9:40 a.m.)	.56	250	
Apr. 27 (12:30 p.m.)	.063	28	
May 12 (1:20 p.m.)	.076	34	
June 21 (10:00 a.m.)	.050	22.3	
July 21 (11:25 a.m.)	.0036	1.63	
Aug. 17 (7:30 a.m.)	No flow	No flow	
Oct. 14 (7:45 a.m.)	No flow	No flow	
Nov. 15 (8:00 a.m.)	No flow	No flow	
Dec. 27 (8:30 a.m.)	.20	90	
Jan. 23, 1950 (8:15 a.m.)	.31	137	54
Feb. 20 (2:30 p.m.)	.32	140	
Mar. 14 (8:00 a.m.)	.096	43	49
Apr. 11 (9:45 a.m.)	.078	35	57
May 9 (10:05 a.m.)	.061	27	58
June 9 (7:50 a.m.)	.049	22	58
July 24 (1:00 p.m.)	.0015	.7	102
Aug. 11 (9:15 a.m.)	.00080	.4	72
Oct. 31 (7:55 a.m.)	No flow		
Nov. 28 (10:25 a.m.)	.030	14	58
Dec. 15 (8:15 a.m.)	.016	7	56
Jan. 23, 1951 (9:10 a.m.)	.057	26	52
Feb. 15 (9:45 a.m.)	.055	24	53
Mar. 16 (7:10 a.m.)	.050	23	53
Apr. 18 (11:25 a.m.)	.035	16	

LAS YEGUAS CANYON CREEK

Location.- Lat. 34°28'20", long. 119°59'30", in Las Yeguas Canyon at road-crossing about 0.9 mile north of Highway 101.

Altitude.- About 190 feet, from topographic map.

Description.- Measurements made volumetrically or with current meter in the channel near the road-crossing.

Diversions.- No known diversions above station.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Nov. 1, 1948 (8:45 a.m.)	0.004	1.8	
Nov. 17 (1:15 p.m.)	.017	7.8	
Nov. 23	.017	7.8	
Nov. 30	.019	8.6	
Dec. 14 (11:45 a.m.)	.024	11	
Jan. 18, 1949 (1:30 p.m.)	.032	14	
Mar. 15, 1949 (12:45 p.m.)	.096	43	
Apr. 27 (9:40 a.m.)	.054	24	
May 12 (12:15 p.m.)	.033	15	
June 21 (11:00 a.m.)	.029	13	
July 21 (10:35 a.m.)	.019	8.6	
Aug. 17 (8:30 a.m.)	.015	6.7	58
Sept. 9 (7:30 a.m.)	.013	5.8	59
Oct. 13 (	.014	6.2	58
Nov. 16 (12:50 p.m.)	.019	8.3	54
Dec. 21 (12:30 p.m.)	.042	19	45
Jan. 18, 1950 (12:25 p.m.)	.089	40	
Feb. 20 (11:55 a.m.)	.11	50	
Mar. 13 (12:30 p.m.)	.079	35	52
Apr. 11 (8:05 a.m.)	.066	29	49
May 19 (11:15 a.m.)	.042	19	55
June 9 (9:05 a.m.)	.037	17	53
July 24 (11:15 a.m.)	.024	11	63
Aug. 11 (10:10 a.m.)	.019	8.6	58
Nov. 1 (10:05 a.m.)	.022	10	55
Nov. 28 (11:20 a.m.)	.064	29	54
Dec. 18 (11:30 a.m.)	.039	18	56
Jan. 23, 1951 (7:50 a.m.)	.11	49	49
Feb. 15 (8:40 a.m.)	.15	67	48
Mar. 16 (8:10 a.m.)	.070	32	50
Apr. 18 (10:40 a.m.)	.066	30	

SPRING - EDWARDS ESTATE

Location.- Lat. 34°28'00", long. 119°59'30"

Altitude.- About 130 feet from topographic map.

Description.- Wood-curbed spring box, 8 feet by 12 feet, east side of Las Yeguas Creek, at foot sandstone bluff. Discharge measured at 1-3/4 inch overflow pipe from spring box.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals.per min.	°F
Nov. 23, 1948	0.020	9.2	
Mar. 29, 1949 (10:35 a.m.)	.027	12	
Apr. 27 (9:25 a.m.)	.026	12	
May 12 (12:25 p.m.)	No meas.	No meas.	
June 21 (11:05 a.m.)	.017	7.5	
July 21 (10:30 a.m.)	.029	13.2	
Aug. 17 (8:15 a.m.)	No meas.	No meas.	
Sept. 9 (7:45 a.m.)	No meas.	No meas.	
Sept. 9 (12:30 p.m.)	.019	8.6	
Oct. 13 (12;30 p.m.)	.020	8.8	65
Nov. 16 (1:27 p.m.)	.022	9.8	65
Dec. 21 (11:59 a.m.)	.023	10	65
Jan. 18, 1950 (12:10 p.m.)	.030	13	
Feb. 20 (11:45 a.m.)	.029	13	
Mar. 13 (12:25 p.m.)	.031	14	64
Apr. 11 (7:55 a.m.)	.030	14	65
May 19 (11:00 a.m.)	.038	17	65
June 9 (8:50 a.m.)	.022	10	65
July 24 (10:55 a.m.)	.017	7.7	
Aug. 11 (10:30 a.m.)	Pump on		
Nov. 1 (10:15 a.m.)	Pump on		
Nov. 28 (11:10 a.m.)	.027	12	65
Dec. 18 (11:15 a.m.)	.023	10	65
Jan. 23, 1951 (7:35 a.m.)	.027	12	65
Feb. 15 (8:25 a.m.)	.028	13	65
Mar. 16 (8:00 a.m.)	.026	12	66
Apr. 18 (10:30 a.m.)	-	-	Crew working on spr.

LAS YEGUAS CANYON CREEK AT HIGHWAY 101.

Location.- Lat. 34°27'40", long. 120°00'00", at Highway 101 road crossing, about 0.2 mile north of the Pacific Ocean.

Altitude.- About 40', from topographic map.

Description.- Measuring site in the natural stream channel just below the bridge culvert.

Diversion.- Edwards Estate diverts from Spring #62 above.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Nov. 23, 1948	0.11	50	
Jan. 18, 1949 (2:05 p.m.)	.16	72	
Mar. 15 (1:05 p.m.)	.25	110	
Apr. 27 (9:50 a.m.)	.16	71	
May 12 (12:40 p.m.)	.11	48	
June 21 (11:35 a.m.)	.11	50	
July 21 (10:50 a.m.)	.097	43.6	
Aug. 17 (8:00 a.m.)	.10	45	59
Sept. 9 (7:55 a.m.)	.089	40	
Oct. 13 (1:00 p.m.)	.074	33	62
Nov. 16 (12:30 p.m.)	.15	67	57
Dec. 21 (11:00 a.m.)	.13	57	
Jan. 18, 1950 (11:33 a.m.)	.20	91	53
Feb. 20 (12:10 p.m.)	.25	110	
Mar. 13 (12:50 p.m.)	.25	110	58
Apr. 11 (9:05 a.m.)	.23	105	55
May 9 (10:45 a.m.)	.17	77	57
June 9 (8:30 a.m.)	.18	79	55
July 24 (11:35 a.m.)	.12	54	65
Aug. 11 (9:45 a.m.)	.085	38	58
Nov. 1 (10:45 a.m.)	.10	47	59
Nov. 28 (10:50 a.m.)	.18	79	54
Dec. 18 (11:00 a.m.)	.17	78	55
Jan. 23, 1951 (8:30 a.m.)	.23	103	54
Feb. 15 (9:10 a.m.)	.24	106	51
Mar. 16 (7:45 a.m.)	.18	82	52
Apr. 18 (10:55 a.m.)	.18	83	

SPRING - GILA LAND COMPANY

Location.- Lat. 34°28'10", long. 120°00'30" .

Altitude.- About 230 feet, from topographic map.

Description.- Seep in creek bed.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Nov. 24, 1948		Almost dry	Almost dry	
Jan. 18, 1949		0.0020	0.88	
Mar. 29	(11:30 a.m.)	.0044	2.0	
May 12	(1:50 p.m.)	No flow	No flow	
Sept. 12	(10:50 a.m.)	No flow	No flow	
Oct. 13	(11:15 a.m.)	.00069	.31	59
Nov. 17	(9:30 a.m.)	No flow	No flow	
Dec. 27	(9:15 a.m.)	No flow	No flow	
Jan. 18, 1950	(1:20 p.m.)	No flow	No flow	
Feb. 20	(11:25 a.m.)	.0062	2.8	
Mar. 13	(12:05 p.m.)	.005	2.2	
Apr. 11	(8:45 a.m.)	.002	.90	54
May 19	(11:40 a.m.)	.0022	1.0	58
June 9	(9:25 a.m.)	.006	2.7	
July 24	(10:30 a.m.)	.0023	1.0	65
Aug. 11	(10:50 a.m.)	No flow	No flow	
Nov. 1	(10:35 a.m.)	.00048	.2	60
Nov. 28	(10:20 a.m.)	.0014	.6	55
Dec. 18	(11:55 a.m.)	.0017	.8	56
Jan. 23, 1951	(8:15 a.m.)	.0015	.7	49
Feb. 15	(8:55 a.m.)	.0027	1.2	49
Mar. 16	(8:20 a.m.)	.0027	1.2	50
Apr. 18	(10:10 a.m.)	.0022	1.0	

CAPITAN CREEK ABOVE GILA LAND COMPANY DIVERSION

Location.- Lat. 34°29'40", long. 120°00'20", above diversion at end of roadway, about 2.4 miles north of highway 101.

Altitude.- About 800 feet, from topographic map.

Description.- Measuring site in natural channel about 200 feet upstream of the concrete diversion dam of Gila Land Company.

Diversion.- No known diversions above station.

DATE	DISCHARGE		TEMP.	
	Second-feet	Gals. per min.	°F	
Oct. 28, 1948 (11:10 a.m.)	0.094	42		
Nov. 17 (2:10 p.m.)	.037	17		
Nov. 24	.036	16		
Nov. 30 (10:00 a.m.)	.072	32		
Dec. 14 (10:50 a.m.)	.17	76		
Jan. 13, 1949 (3:10 p.m.)	.20	90		
Mar. 15 (11:35 a.m.)	1.08	485		
Apr. 27 (8:35 a.m.)	.30	135		
May 12 (11:15 a.m.)	.24	109		
June 21 (12 noon)	.13	58	59	
July 21 (9:40 a.m.)	.012	5.4		
Aug. 17 (9:20 a.m.)	.033	15	59	
Sept. 12 (10:15 a.m.)	No flow	No flow		
Oct. 13 (10:15 a.m.)	.0041	1.83	54	
Nov. 17 (8:25 a.m.)	.047	21	55	
Dec. 27 (11:55 a.m.)	.18	80	48	
Jan. 18 (10:40 a.m.)	.42	190	49	
Feb. 20 (10:40 a.m.)	.72	320		
Mar. 13 (11:30 a.m.)	.34	150	54	
Apr. 10 (11:40 a.m.)	.24	106	54	
June 9 (10:05 a.m.)	.092	43	56	
July 24 (9:45 a.m.)	.028	13	60	house
Aug. 11 (11:00 a.m.)	No meas - Gage locked. No caretaker at			
Nov. 1 (9:20 a.m.)	.049	22	59	
Nov. 28 (1:00 p.m.)	.11	51	56	
Dec. 18 (9:45 a.m.)	.088	39	56	
Jan. 23, 1951 (10:00 a.m.)	.16	70	52	
Feb. 15 (7:45 a.m.)	.14	65	53	
Mar. 16 (9;55 a.m.)	.14	62	55	
Apr. 18 (9:30 a.m.)	.11	48		

SPRING - GEORGE M. WILLIAMS ESTATE

Location.- Lat. 34°29'10", long. 120°02'10"

Altitude.- About 300 feet from topographic map.

Description.- Seepage at foot of sandstone cliff.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Nov. 16, 1948 (estimated)	0.001	0.67	
Jan. 19, 1949 (9:15 a.m.)	.0031	1.4	
Mar. 29 (9:15 a.m.)	.0031	1.4	
May 12 (9:15 a.m.)	.0029	1.3	
June 21 (1:10 p.m.)	.0024	1.1	
July 21 (8:45 a.m.)	.0030	1.4	62
Aug. 17 (10:30 a.m.)	.0027	1.2	66
Sept. 12 (9:10 a.m.)	.0025	1.1	63
Oct. 13 (9:45 a.m.)	.0029	1.3	62
Nov. 17 (10:10 a.m.)	.0027	1.2	62
Dec. 27 (12:50 p.m.)	.0029	1.3	62
Jan. 18, 1950 (9:05 a.m.)	.0030	1.4	59
Feb. 26 (9:15 a.m.)	.0027	1.2	
Mar. 13 (10:00 a.m.)	.0025	1.1	60
Apr. 10 (9:10 a.m.)	.0024	1.1	59
June 9 (11:15 a.m.)	.0021	.9	64
July 24 (8:05 a.m.)	.0027	1.2	66
Aug. 11 (11:25 a.m.)	.0028	1.2	64
Nov. 1 (8:00 a.m.)	.0024	1.1	61
Nov. 30 (8:45 a.m.)	.0013	.6	60
Dec. 18 (8:20 a.m.)	.0014	.6	56
Jan. 23, 1951 (11:10 a.m.)	.0027	1.2	64
Feb. 26 (8:25 a.m.)	.0025	1.1	54
Mar. 16 (9:55 a.m.)	.0027	1.2	60
Apr. 18 (8:10 a.m.)	.0024	1.1	

CORRAL CREEK

Location.- Lat. 34°29'00", long. 120°02'20", in Canada del Corral about 1.4 miles north of Highway 101.

Altitude.- About 250 feet, from topographic map.

Description.- Measuring site in natural channel at or near cattle pen.

Diversion.- From one spring above station.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Oct. 28, 1948 (10:15 a.m.)	0.031	14	
Nov. 19 (9:15 a.m.)	.037	17	
Nov. 30 (9:05 a.m.)	.022	9.9	
Dec. 14 (10:00 a.m.)	.029	13	
Jan. 19, 1949 (9:30 a.m.)	.11	50	
Mar. 15 (10:20 a.m.)	1.02	460	
May 12 (9:25 a.m.)	.14	65	
June 21 (1:15 p.m.	.058	26	
July 21 (8:35 a.m.)	.051	23	59
Aug. 17 (10:25 a.m.)	.031	14	59
Sept.12 (9:00 a.m.)	.028	12	59
Oct. 13 (8:35 a.m.)	.028	12.6	54
Nov. 17 (10:05 a.m.)	.025	11.4	50
Dec. 27 (1:00 p.m.)	.13	59	
Jan. 18, 1950 (9:10 a.m.)	.56	250	50
Feb. 20 (9:20 a.m.)	.47	210	
Mar. 13 (10:40 a.m.)	.26	120	50
Apr. 10 (9:20 a.m.)	.19	85	51
June 9 (11:25 a.m.)	.076	34	60
July 24 (8:20 a.m.)	.038	17	55
Aug. 11 (11:30 a.m.)	.020	9.4	60
Nov. 1 (7:55 a.m.)	.040	18	55
Nov. 30 (8:40 a.m.)	.050	22	54
Dec. 15 (8:15 a.m.)	.051	23	50
Jan. 23, 1951 (11:15 a.m.)	.089	40	53
Feb. 26 (8:20 a.m.)	.14	62	49
Mar. 16 (9:50 a.m.)	.13	60	55
Apr. 10 (8:05 a.m.)	.095	43	

SPRING - GEORGE M. WILLIAMS ESTATE

Location.- Lat. 34°29'20", long. 120°02'30"

Altitude.- About 350 feet, from topographic map.

Description.- Flow from narrow canyon in sandstone. Discharge measured at outlet of natural pool.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Nov. 16, 1948	0.0089	4.0	
Jan. 19, 1949 (10:30 a.m.)	.0076	3.4	
Mar. 29 (9:45 a.m.)	.011	4.9	
May 12 (10:10 a.m.)	.0036	1.6	
Oct. 13 (9:00 a.m.)	.00063	.28	58
Nov. 17 (10:40 a.m.)	.0032	1.4	57
Dec. 27 (1:20 p.m.)	.006	2.7	
Jan. 18, 1950 (9:45 a.m.)	.0044	2.0	50
Feb. 20 (9:45 a.m.)	.0094	4.2	
Mar. 13 (10:25 a.m.)	.008	3.6	
Apr. 10 (10:00 a.m.)	.004	1.8	57
June 9 (11:45 a.m.)	.004	1.8	65
July 24 (8:45 a.m.)	.007	3.1	62
Aug. 11 (12 M)	.004	1.8	68
Nov. 1 (8:20 a.m.)	.0037	1.7	
Nov. 30 (9:20 a.m.)	.0020	.9	54
Dec. 18 (8:50 a.m.)	.0010	.5	56
Jan. 23, 1951 (11:40 a.m.)	.0048	2.1	55
Feb. 26 (8:45 a.m.)	.0080	3.6	56
Mar. 16 (10:15 a.m.)	.0052	2.3	54
Apr. 18 (8:35 a.m.)	.0031	1.4	

SPRING - COVARRUBIAS ESTATE

Location.- Lat. 34°28'20", long. 120°02'30".

Altitude.- About 100 feet, from topographic map.

Description.- Seepage into creek above diversion dam. Discharge measured at sandbox about 120 feet downstream from diversion dam.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Nov. 16, 1948	0.0045	2.0	
Mar. 29, 1949 (8:40 a.m.)	.40	180	
May 12 (10:30 a.m.)	.069	31	
June 21 (1:30 p.m.)	.028	12.6	
July 21 (8:20 a.m.)	.00090	.40	
Aug. 17 (10:15 a.m.)	.0027	1.2	
Sept. 12 (8:40 a.m.)	.011	4.9	
Oct. 13 (8:15 a.m.)	.004	1.8	
Nov. 17 (9:50 a.m.)	.002	.90	58
Dec. 27 (12:25 p.m.)	.10	45	53
Jan. 18, 1950 (8:35 a.m.)	.56	250	51
Feb. 20 (8:40 a.m.)	.52	240	
Mar. 13 (9:30 a.m.)	.30	140	
Apr. 10 (8:45 a.m.)	.27	120	51
June 9 (10:50 a.m.)	.072	32	60
July 24 (7:50 a.m.)	.009	4.0	61
Aug. 11 (11:15 a.m.)	.009	4.0	62
Nov. 1 (7:35 a.m.)	.002	.9	59
Nov. 30 (8:20 a.m.)	.0042	1.9	58
Dec. 18 (8:00 a.m.)	.0047	2.1	55
Jan. 23, 1951 (10:50 a.m.)	.007	3.1	60
Feb. 26 (7:55 a.m.)	.11	51	52
Mar. 16 (9:35 a.m.)	.13	57.	58
Apr. 18 7:40 a.m.)	.043	19.	

SPRING - ERRO ESTATE

Location.- Lat. 34°29'40", long. 120°03'20".

Altitude.- About 430 feet, from topographic map.

Description.- Pool in creek bottom on sandstone beds.

DATE	DISCHARGE	
	Second-feet	Gals. per min.
Nov. 17, 1948	No flow	No flow
Jan. 21, 1949 (9:40 a.m.)	0.0014	0.62
May 12 (8:40 a.m.)	No flow	No flow
July 21 (8:00 a.m.)	No flow	No flow
Aug. 17 (11:05 a.m.)	No flow	No flow
Sept. 12 (8:10 a.m.)	No flow	No flow
Oct. 13 (7:30 a.m.)	No flow	No flow
Nov. 17 (11:35 a.m.)	No flow	No flow
Dec. 27 (2:10 p.m.)	No flow	No flow
Jan. 18,1950 (8:05 a.m.)	No flow	No flow
Feb. 20 (8:00 a.m.)	No flow	No flow
Mar. 13 (9:10 a.m.)	No flow	No flow
Apr. 10 (8:10 a.m.)	No flow	No flow
June 9 (1:00 p.m.)	No flow	No flow
July 24 (7:15 a.m.)	No flow	No flow
Aug. 11 (12:45 p.m.)	No flow	No flow
Nov. 1 (7:00 a.m.)	No flow	No flow
Nov. 30 (8:00 a.m.)	No flow	No flow
Dec. 18 (7:30 a.m.)	No flow	No flow
Jan. 23, 1951 (1:00 p.m.)	No flow	No flow
Feb. 26 (9:45 a.m.)	No flow	No flow
Apr. 18 (7:00 a.m.)	No flow	No flow

CANADA DEL VENADITO CREEK

Location.- Lat. 34°29'40", long. 120°03'20", in Canada del Venadito, about 2.3 miles north of Highway 101.

Altitude.- About 430 feet, from topographic map.

Description.-Measuring site in stream channel at end of road.

Diversion.- None.

DATE	DISCHARGE	
	Second-feet	Gals. per min.
Oct. 28, 1948 (9:30 a.m.)	No flow	No flow
Nov. 30 (8:45 a.m.)	No flow	No flow
Dec. 14 (9:30 a.m.)	No flow	No flow
Mar. 15, 1949 (9:45 a.m.)	No flow	No flow

SPRING - GEORGE M. WILLIAMS ESTATE

Location.- Lat. 34°28'40", long. 120°03'20"

Altitude.- About 200 feet, from topographic map.

Description.- Seepage into uncurbed pool in narrow valley on hillside.

DATE	DISCHARGE	
	Second-feet	Gals. per min.
Nov. 17, 1948	No flow	No flow
Jan. 21, 1949 (9:15 a.m.)	0.00028	0.13
Mar. 29 (8:10 a.m.)	No flow	No flow
May 12 (8:05 a.m.)	No flow	No flow
June 22 (12:30 p.m.)	No flow	No flow
July 21 (7:45 a.m.)	No flow	No flow
Aug. 17 (11:00 a.m.)	No flow	No flow
Sept. 12 (7:50 a.m.)	No flow	No flow
Oct. 13 (7:15 a.m.)	No flow	No flow
Nov. 17 (11:20 a.m.)	No flow	No flow
Dec. 27 (1:45 p.m.)	No flow	No flow
Jan. 18, 1950 (7:40 a.m.)	No flow	No flow
Feb. 20 (7:45 a.m.)	No flow	No flow
Mar. 13 (8:00 a.m.)	No flow	No flow
Apr. 10 (7:40 a.m.)	No flow	No flow
June 9 (1:15 p.m.)	No flow	No flow
July 24 (7:30 a.m.)	No flow	No flow
Aug. 11 (1:00 p.m.)	No flow	No flow
Nov. 1 (7:15 a.m.)	No flow	No flow
Dec. 18 (7:20 a.m.)	No flow	No flow
Nov. 30 (7:45 a.m.)	No flow	No flow
Jan. 23, 1951 (1:15 p.m.)	No flow	No flow
Feb. 26 (9:30 a.m.)	No flow	No flow
Mar. 16 (12 M)	No flow	No flow
Apr. 18 7:15 a.m.)	No flow	No flow

SPRING - D. A. SATTLER

Location.- Lat. 34°31'50", long. 120° 03'00".

Altitude.- About 2,230 feet, from topographic map.

Description.- Stone-curbed seep, wood-curbed seep and minor uncurbed seeps in alluvium of steep canyon bottom. Discharge measured as overflow from settling box.

DATE	DISCHARGE	
	Second-feet	Gals. per min.
Aug. 27, 1948	0.010	4.6
Dec. 2	.010	4.6
May 28, 1949 (9:35 a.m.)	.012	5.6

SPRING - D. A. SATTLER

Location.- Lat. 34°32'00", long. 120°03'20",

Altitude.- About 2,270 feet from topographic map.

Description.- Wood-curbed seep in alluvium on hillside. Discharge measured at end of 1-inch pipe leading to tank.

DATE	DISCHARGE	
	Second-feet	Gals. per min.
Aug. 27, 1948	0.00040	0.18
Dec. 17	.00042	.19
Jan. 27, 1949 (3:00 p.m.)	No meas.	No meas.
May 28 (10:25 a.m.)	.00054	.24

SPRING - MRS. FLORENCE BROWN

Location.- Lat. 34°31'30", long. 120°03'20".

Altitude.- About 1,800 feet, from topographic map.

Description.- Stone-curbed pool west side of creek. Discharge measured at valve 50 feet below spring. Prior to April 21, 1950 discharge measured at end of 3/4-inch pipeline about 2000 feet below spring.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Nov. 8, 1948		0.00085	0.38	
Jan. 28, 1949	(11:20 a.m.)	.0011	.51	
May 25	(12:30 a.m.)	.00089	.40	
Sept. 14	(11:05 a.m.)	No meast.	No meast.	
Dec. 29	(11:15 a.m.)	No meast.	No meast.	
Mar. 10, 1950	:30 a.m.)	.0010	.45	85
Apr. 21	:10 p.m.)	.0069	3.1	60
June 8	(10:05 a.m.)	.0048	2.2	58
July 20	(10:00 a.m.)	.0064	2.9	59
Aug. 24	(10:40 a.m.)	.0034	1.5	60
Nov. 2	(9:45 a.m.)	.00058	.3	60
Nov. 29	(9:40 a.m.)	.00022	.1	59
Dec. 19	(10:55 a.m.)	.00021	.1	
Jan. 29, 1951	(1:30 p.m.)	.0054	2.4	58 *
Feb. 26	(1:00 p.m.)	.0067	3.0	55
Mar. 21	(11:15 a.m.)	.0064	2.9	
Apr. 24	(10:30 a.m.)	.0061	2.7	

* Cleaned 2" line which was plugged.

SPRING - SARALEGUI ESTATE

Location.- Lat. 34°31'10", long. 120°04'00".

Altitude.- About 1,300 feet, from topogrphic map.

Description.- Spring rises through weathered shale on hillside.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Nov. 8, 1948	0.018-.022	8-10	
Jan. 28, 1949 (2:00 p.m.)	.019	8.6	
May 25 (1:05 p.m.)	.011	4.80	
Nov. 30 (1:30 p.m.)	.020	9.1	68
Dec. 29 (10:25 a.m.)	.023	10	63

SPRING - MRS. FLORENCE BROWN

Location.- Lat. 34°31'00", long. 120°03'30".

Altitude.- About 1,250 feet from topographic map.

Description.- Two small short tunnels dug into sandstone cliff about 45 feet above stream bed. Beginning Jan. 16, 1950 discharge measured at valve on canyon crossing about 200 feet below spring.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Nov. 15, 1948	0.0041	1.85	
Jan. 21, 1949 (3:25 p.m.)	.0069	3.1	
May 10 (10:10 a.m.)	.00082	.37**	
July 20 (12:00 noon)	.0036	1.64	
Sept. 12 (12:55 p.m.)	.0051	2.3	
Nov. 17 (1:45 p.m.)	.0033	1.5	
Dec. 29 (9:30 a.m.)	.0057	2.6 **	
Jan. 16, 1950 (11:30 a.m.)	.0044	2.0	61
Feb. 16, (9:45 a.m.)	*	*	
Mar. 10 (10:30 a.m.)	.0048	2.1	
Apr. 21 (1:05 p.m.)	.0041	1.8	60
June 8 (9:15 a.m.)	.0042	1.9	64
July 20 (9:10 a.m.)	.0042	1.9	63
Aug. 23 (8:35 a.m.)	.0050	2.2	62
Nov. 2 (8:45 a.m.)	.0035	1.6	66
Nov. 29 (9:10 a.m.)	.0039	1.8	60
Dec. 19 (11:50 a.m.)	.0046	2.1	65
Jan. 29, 1951 (12:20 p.m.)	.0044	2.0	61
Feb. 26 (11:35 a.m.)	.0043	1.9	61
Mar. 21 (12:40 p.m.)	.0048	2.1	
Apr. 24 (12:55 p.m.)	.0032	1.4	

** Measurement doubtful
* No measurement - Spring needs cleaning

SPRING - MRS. FLORENCE BROWN

Location.- Lat. 34°30'50", long. 120°03'40"

Altitude.- About 1,200 feet, from topographic map.

Description.- Drilled hole into sandstone cliff, 25 feet above creek. Discharge measured at end of ½-inch pipe.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Nov. 3, 1948		0.0026	1.17	
Jan. 21, 1949		.0046	2.1	
May 10	(10:00 a.m.)	.0042	1.9	
July 20	(12:20 p.m.)	.0050	2.2	76
Sept. 12	(12:30 p.m.)	.0053	2.4	
Nov. 17	(1:25 p.m.)	.0039	1.7	74
Dec. 29	(9:10 a.m.)	.0052	2.3	44
Jan. 16, 1950	(11:10 a.m.)	.0038	1.7	62
Feb. 16	(9:30 a.m.)	.0039	1.7	63
Mar. 10	(10:20 a.m.)	.0039	1.8	65
Apr. 21	(1:10 p.m.)	.0032	1.5	62
June 8	(9:00 a.m.)	.0033	1.5	63
July 20	(9:20 a.m.)	.0042	1.9	64
Aug. 23	(8:25 a.m.)	.0030	1.4	62
Nov. 2	(8:35 a.m.)	.0032	1.5	67
Nov. 29	(8:00 a.m.)	.0029	1.3	60
Dec. 19	(11:40 a.m.)	.0030	1.3	66
Jan. 29, 1951	(12:25 p.m.)	.0020	.9	60
Feb. 26	(11:25 a.m.)	.0027	1.2	62
Mar. 21	(12:45 p.m.)	--	--	*
Apr. 24	(1:15 p.m.)	.0038	1.7	

* New Wood Crib being installed.

SPRING - WILLIAM FELIZ

Location.- Lat. 34°31'30", Long. 120°04'30"

Altitude.- About 2,000 feet, from topographic map.

Description.- Seepage from hole dug into hillside.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Dec. 2, 1948		No flow	No flow	
Jan. 28, 1949	(10:15 a.m.)	No flow	No flow	
Mar. 28	(10:05 a.m.)	0.0010	0.45	
May 25	(2:00 p.m.)	.00085	.38	
July 20	(11:25 a.m.)	.00076	.34	
Sept. 14	(11:35 a.m.)	.00018	.079	
Nov. 30	(12:35 p.m.)	No flow	No flow	
Dec. 29	(10:55 a.m.)	No flow	No flow	
Jan. 16, 1950	(12:40 p.m.)	.00025	.11	62
Feb. 16	(10:20 a.m.)	.00074	.33	
Mar. 10	(11:20 a.m.)	.00075	.34	63
Apr. 21	(12:35 p.m.)	.0015	.67	57
June 8	(9:40 a.m.)	.0010	.47	54
July 20	(9:40 a.m.)	.0011	.50	62
Aug. 24	(11:00 a.m.)	.0019	.83	65
Nov. 2	(9:15 a.m.)	.00083	.37	66
Nov. 29	(8:35 a.m.)	.00083	.37	61
Dec. 19	(11:20 a.m.)	.00065	.29	65
Jan. 29, 1951	(12:50 p.m.)	.0012	.55	58
Feb. 26	(12:45 p.m.)	.0014	.62	55
Mar. 21	(12 M)	.0014	.63	63
Apr. 24	(11:00 a.m.)	No flow (Stock have recently watered		

CANADA DEL REFUGIO CREEK

Location.- Lat. 34°30'30", long. 120°03'50", at forks of Canada del Refugio Creek near Refugio Guard Station about 3.0 miles north of Highway 101.

Altitude.- About 400 feet, from topographic map.

Description.- Measuring site at fork just below Circle-Bar-B Ranch and above diversion for 2½-inch line in creek bed, or during extremely low flows observations can be made by volumetric means at culvert about 100 yards upstream.

Diversion.- Only minor diversions above station.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Oct. 28, 1948	(8:39 a.m.)	0.12	54	
Nov. 19	(8:30 a.m.)	.11	49	
Nov. 30	(8:15 a.m.)	.095	43	
Dec. 3		.085	38	
Dec. 7		.11	49	
Dec. 14	(8:40 a.m.)	.14	63	
Jan. 21, 1949	(1:30 p.m.)	.19	85	
Mar. 15	(8:20 a.m.)	.70	314	
May 10	(9:35 a.m.)	.13	60	
June 22	(11:30 a.m.)	.076	34.3	
July 20	(12:30 p.m.)	.055	24.5	65
Aug. 17	(1:00 p.m.)	.070	32	65
Sept. 12	(11:50 a.m.)	.064	29	63
Oct. 14	(10:20 a.m.)	.084	38	63
Nov. 17	(1:00 p.m.)	.086	39	58
Dec. 29	(8:50 a.m.)	.13	57	47
Jan. 16, 1950	(10:40 a.m.)	.42	190	48
Feb. 16	(9:05 a.m.)	.39	180	53
Mar. 10	(9:35 a.m.)	.19	83	54
Apr. 21	(1:25 p.m.)	.15	67	59
June 8	(8:45 a.m.)	.10	46	56
July 20	(9:00 a.m.)	.10	47	61
Aug. 23	(8:10 a.m.)	.11	50	60
Nov. 2	(8:25 a.m.)	.086	38	61
Nov. 29	(7:45 a.m.)	.16	70	55
Dec. 19	(12:30 p.m.)	.12	55	66
Jan. 29, 1951	(10:35 a.m.)	.23	104	54
Feb. 26	(10:05 a.m.)	.13	59	51
Mar. 16	(11:40 a.m.)	.093	42	56
Apr. 23	(11:40 a.m.)	.12	55	

STATION 86

SPRING - C. DAL POZZO & ALEGRIA ESTATE

Location.- Lat. 34°30'10", long. 120°04'00".

Altitude.- About 420 feet, from topographic map.

Description.- Seepage at foot of sandstone cliff. Discharge measured at east side of culvert under road.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Nov. 3, 1948	0.0018	0.82	
Dec. 2	.0017	.77	
Jan. 21, 1949 (1:20 p.m.)	.0032	1.4	
Mar. 28 (9:45 a.m.)	.0036	1.6	
May 10 (9:30 a.m.)	.0027	1.2	
June 22 (11:35 a.m.)	.0018	.80	
July 20 (12:40 p.m.)	.0015	.69	
Aug. 17 (12:40 p.m.)	.0013	.59	
Sept. 12 (11:45 a.m.)	.0011	.51	68
Oct. 14 (10:20 a.m.)	.0016	.74	65
Nov. 17 (12:50 p.m.)	.0019	.86	62
Dec. 29 (8:30 a.m.)	.0029	1.3	51
Jan. 16, 1950 (10:30 a.m.)	.0038	1.7	51
Feb. 16 (8:55 a.m.)	.0032	1.4	55
Mar. 10 (9:25 a.m.)	.0032	1.4	56
Apr. 21 (1:25 p.m.)	.0028	1.3	
June 8 (8:30 a.m.)	.0023	1.0	58
July 20 (8:50 a.m.)	.0024	1.1	62
Aug. 23 (8:00 a.m.)	.00048	.22	60
Nov. 2 (8:15 a.m.)	.0020	.90	63
Nov. 30 (11:30 a.m.)	.0024	1.1	58
Dec. 19 (12:40 p.m.)	.0022	1.0	60
Jan. 29, 1951 (11:25 a.m.)	.0033	1.5	57
Feb. 26 (10:55 a.m.)	.0027	1.2	55
Mar. 16 (11:45 a.m.)	.0026	1.2	60
Apr. 23 (11:45 a.m.)	.0026	1.1	

SPRING - JOHN ALEGRIA

Location.- Lat. 34°30'10", long. 120°03'40".

Altitude.- About 450 feet from topographic map.

Description.- Drilled hole in sandstone cliff. Discharge measured by disconnecting union in pipe line near spring.

DATE	DISCHARGE		TEMP.	
	Second-feet	Gals. per min.	°F	
Jan. 28, 1949 (9:25 a.m.)	0.0024	1.09		
Mar. 28 (9:30 a.m.)	.0042	1.9		
May 10 (8:40 a.m.)	.0028	1.2		
Aug. 17 (12:25 p.m.)	.0058	2.6		
Oct. 14 (10:10 a.m.)	.0024	1.08	68	
Nov. 17 (12:35 p.m.)	.0025	1.14	71	
Dec. 29 (8:15 a.m.)	.0035	1.6	64	
Jan. 16, 1950 (10:15 a.m.)	.0032	1.5	64	
Feb. 16 (8:35 a.m.)	.0031	1.4	62	
Mar. 10 (9:00 a.m.)	.0028	1.2	65	
Apr. 21 (1:55 p.m.)	.0027	1.2	65	
June 8 (7:40 a.m.)	.0024	1.1	65	
July 20 (8:30 a.m.)	.0021	1.0	65	*Flow
Aug. 23 (9:00 a.m.)	.0018	.83	68	slight
Nov. 2 (8:00 a.m.)	.012	5.6	67	*ly tur
Nov. 30 (11:00 a.m.)	.0024	1.1	66	bid
Dec. 19 (1:15 p.m.)	.012	5.4	69	
Jan. 29, 1951 (11:10 a.m.)	.0034	1.5	65	
Feb. 26 (10:45 a.m.)	.0025	1.1	63	
Mar. 16 (11:15 a.m.)	.0017	.76	64	
Apr. 23 (12:15 p.m.)	.0021	.95		

SPRING - M. F. ENRO

Location.- Lat. 34°28'20", long. 120°04'10".

Altitude.- About 100 feet, from topographic map.

Description.- Uncurbed seep at foot of bluff, west side Refugio Creek. Discharge at end of 2-inch pipe to stock trough.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Dec. 2, 1948		0.0019	0.87	
Jan. 21, 1949	(11:40 a.m.)	.0020	.90	
Mar. 28	(8:45 a.m.)	.0017	.77	
May 10	(8:05 a.m.)	.0016	.71	
June 22	(11:45 a.m.)	.0016	.73	
July 20	(12:55 p.m.)	.0015	.69	
Aug. 17	(11:30 a.m.)	.00019	.084	
Sept. 12	(11:25 a.m.)	.00029	.13	70
Oct. 14	(9:35 a.m.)	One drop per 1.2 seconds.		
Nov. 17	(12:05 p.m.)	.0019	.87	67
Dec. 21	(1:15 p.m.)	.0021	.96	62
Jan. 16	(9:45 a.m.)	.0021	.96	61
Feb. 16	(8:17 a.m.)	.0019	.87	61
Mar. 10	(8:00 a.m.)	.0019	.85	60
Apr. 10	(12:30 p.m.)	.0017	.78	68
June 9	(12:20 p.m.)	No measurement. Line plugged.		
July 20	(8:05 a.m.)	.0016	.71	65
Aug. 23	(9:20 a.m.)	.0013	.60	64
Nov. 2	(7:30 a.m.)	.00021	.09	62
Nov. 30	(10:25 a.m.)	.0011	.51	62
Dec. 18	(12:20 p.m.)	.0015	.66	65
Jan. 29, 1951	(9:30 a.m.)	.0014	.65	62
Feb. 26	(10:15 a.m.)	.0015	.66	60
Mar. 16	(10:50 a.m.)	.0014	.64	64
Apr. 18	(11:45 a.m.)	.00041	.20	

SPRING - M. F. ERRO

Location.- Lat. 34°28'20", long. 120°04'10" .

Altitude.- About 100 feet, from topographic map .

Description.- Seepage collected in shallow ditch at foot of bluff, west side Refugio Creek. Discharge measured at end of 2-inch pipe to stock trough.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Dec. 2, 1948		0.00067	0.30	
Jan. 21, 1949	(11:45 a.m.)	.00017	.075	
Mar. 28,	(8:30 a.m.)	.000033	.015	
May 10	(8:10 a.m.)	.00075	.34	
June 22	(11:50 a.m.)	.00050	.22	
July 20	(1:00 p.m.)	.00055	.25	76
Aug. 17	(11:25 a.m.)	.00035	.16	
Sept. 12	(11:30 a.m.)	.00020	.088	70
Oct. 14	(9:30 a.m.)	.00019	.087	65
Nov. 17	(12:10 p.m.)	.00048	.21	64
Dec. 21	(1:20 p.m.)	.00064	.29	55
Jan. 16, 1950	(9:50 a.m.)	.00064	.29	51
Feb. 16	(8:15 a.m.)	.00064	.29	
Mar. 10	(8:05 a.m.)	.00069	.31	55
Apr. 10	(12:30 p.m.)	.00053	.24	71
June 9	(12:25 p.m.)	.00044	.20	70
July 20	(8:10 a.m.)	.00055	.25	63
Aug. 23	(9:25 a.m.)	.00074	.33	63
Nov. 2	(7:35 a.m.)	.00010	.05	62
Nov. 30	(10:30 a.m.)	.00061	.27	61
Dec. 18	(12:25 p.m.)	.00062	.28	63
Jan. 29, 1951	(9:35 a.m.)	.00076	.34	60
Feb. 26	(10:20 a.m.)	.00067	.30	56
Mar. 16	(10:55 a.m.)	.00063	.28	64
Apr. 18	(11:50 a.m.)	.00056	.25	

SPRING - M. F. ERRO

Location.- Lat. 34°28'00", long. 120°04'10".

Altitude.- About 70 feet, from topographic map.

Description.- Wood-curbed spring at foot of bluff. Measured discharge represents total flow into two stock troughs.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Dec. 7, 1948		0.010	4.5	
Jan. 21, 1949	(11:25 a.m.)	.0095	4.3	
Mar. 28	(8:15 a.m.)	.0090	4.0	
May 10	(7:55 a.m.)	.0089	4.0	
June 22	(12:00 noon)	.0089	4.0	
July 20	(1:15 p.m.)	.0091	4.1	
Aug. 17	(11:20 a.m.)	.010	4.7	
Sept. 12	(11:15 a.m.)	.0086	3.9	67
Oct. 14	(9:20 a.m.)	.0088	3.9	
Nov. 17	(12:00 noon)	.0078	3.5	63
Dec. 21	(1:30 p.m.)	.0092	4.1	65
Jan. 16, 1950	(9:35 a.m.)	.0084	3.8	64
Feb. 16	(8:05 a.m.)	.0088	4.0	64
Mar. 10	(7:50 a.mm.)	.0093	4.2	66
Apr. 10	(1:00 p.m.)	.010	4.5	70
June 9	(12:35 p.m.)	.0087	3.9	69
July 20	(7:50 a.m.)	.0077	3.5	66
Aug. 23	(9:45 a.m.)	.0092	4.1	65
Nov. 2	(7:20 a.m.)	.0060	2.7	69
Nov. 30	(9:55a.m.)	.0029	1.3	65
Dec. 18	(12:10 p.m.)	.0048	2.2	69
Jan. 29, 1951	(10:25 a.m.)	.0048	2.2	67
Feb. 26	(9:05 a.m.)	.0040	1.8	63
Mar. 16	(10:45 a.m.)	.0033	1.5	69
Apr. 18	(12 M)	.0059	2.6	

SPRING - TOM KINEVAN

Location.- Lat. 34°30'30", long. 119°50'00".

Altitude.- About 2,380 feet from topographic maps.

Description.- Open pool in alluvial veneer on sandstone.

DATE	DISCHARGE: Second-feet	DISCHARGE: Gals. per min.	Water level in feet below reference point
June 15, 1948	No flow	No flow	
Apr. 13, 1949 (1:10 p.m.)	No flow	No flow	1.63
May 24 (9:15 a.m.)	No flow	No flow	1.44
June 24 (11:30 a.m.)	No flow	No flow	4.39
Aug. 12 (8:05 a.m.)	No flow	No flow	2.34
Sept.30 (7:40 a.m.)	No flow	No flow	1.93
Nov. 1 (12:15 p.m.)	No flow	No flow	1.98
Dec. 20 (12:05 p.m.)	No flow	No flow	1.60
Jan. 17, 1950 (12:15 p.m.)	No flow	No flow	1.15
Feb. 13 (11:30 a.m.)	No flow	No flow	1.01
Mar. 9 (9:00 a.m.)	No flow	No flow	1.47
Apr. 18 (12:50 p.m.)	No flow	No flow	1.92
May 15 (12:35 p.m.)	No flow	No flow	1.37
June 23 (8:15 a.m.)	No flow	No flow	1.30
July 17 (1:30 p.m.)	No flow	No flow	2.19
Aug. 22 (11:00 a.m.)	No flow	No flow	4.98 *
Oct. 25 (12:25 p.m.)	No flow	No flow	2.22
Nov. 16 (10:35 a.m.)	No flow	No flow	2.13
Dec. 14 (12:40 p.m.)	No flow	No flow	2.32
Jan. 30, 1951 (12:20 p.m.)	No flow	No flow	2.22
Feb. 21 (9:05 a.m.)	No flow	No flow	2.48
Mar. 14 (11:50 a.m.)	No flow	No flow	2.23
Apr. 19 (10:25 a.m.)	No flow	No flow	2.58

* Portable pump has recently been pumping.

SPRING - MRS. NELL K. REAM

Location.- Lat. 34°30'40", long. 119°50'00".

Altitude.- About 2,340 feet from topographic map.

Description.- Seep in alluvial veneer on sandstone.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
June 15, 1948		Practially dry		
Feb. 15, 1949		Practially dry		
Apr. 13	(1:00 p.m.)	0.00060	0.27	
May 24	(8:10 a.m.)	.00072	.32	
June 24	(12:00 noon)	.00032	.14	
Aug. 12	(8:10 a.m.)	.00017	.078	58
Sept. 30	(7:45 a.m.)	.00010	.046	
Nov. 1	(12:25 p.m.)	.00018	.082	60
Dec. 20	(12:10 p.m.)	.00085	.39	45
Jan. 17, 1950	(12:30 p.m.)	*	*	
Feb. 14	(11:55 a.m.)	*	*	
Mar. 9	(9:05 a.m.)	*	*	
Apr. 18	(12:55 p.m.)	1.2 drops per second		
May 15	(12:45 p.m.)	.00035	.16	
June 23	(8:25 a.m.)	.00026	.12	56
July 17	(1:35 p.m.)	.00024	.11	63
Aug. 22	(11:05 a.m.)	124 drops per minute		
Oct. 25	(12:30 p.m.)	.000082	.037, .04	57
Nov. 16	(10:45 a.m.)	.00019	.086	54
Dec. 14	(12:45 p.m.)	.00040	.18	54
Jan. 30, 1951	(12:25 p.m.)	.00088	.40	46
Feb. 21	(9:10 a.m.)	.00059	.26	45
Mar. 14	(11:55 a.m.)	.00075	.34	54
Apr. 19	(10:30 a.m.)	.00058	.26	

* Open spring basin filled with mud and leaves-no visible flow.

SPRING - MRS. NELL K. REAM

Location.- Lat. 34°30'40", long. 119°50'00" .

Altitude.- About 2,320 feet, from topographic map.

Description.- Covered pool in alluvium on sandstone in creek bed. Discharge measured at inflow to settling box.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
June 15, 1948		0.0085	3.8	
Feb. 15, 1949		.0089	4.0	
Apr. 13,	(12:55 p.m.)	.010	4.5	
May 24	(8:25 a.m.)	.0094	4.2	
June 24	(12:00 noon)	.0088	3.93	
Aug. 12	(8:15 A.m.)	.0084	3.77	59
Sept. 30	(7:50 a.m.)	.0076	3.41	
Nov. 1	(12:30 p.m.)	.0073	3.29	58
Dec. 20	(12:25 p.m.)	.012	5.5	55
Jan. 17, 1950	(12:30 p.m.)	.032	14	65
Feb. 14	(12:05 p.m.)	.028	13	55
Mar. 9	(9:10 a.m.)	.025	11	56
Apr. 18	(1:00 p.m.)	.018	8.1	57
May 15	(12:50 p.m.)	.0081	3.6	58
June 23	(8:30 a.m.)	.019	8.6	60
July 17	(1:40 p.m.)	.0070	3.1	57
Aug. 22	(11:10 a.m.)	.0080	3.6	59
Oct. 25	(12:35 p.m.)	.0071	3.2	59
Nov. 16	(10:50 a.m.)	.0073	3.3	58
Dec. 14	(12:45 p.m.)	.0065	2.9	57
Jan. 30, 1951	(12:25 p.m.)	.0044	2.0	56 plugged
Feb. 21	(9:30 a.m.)	no measurement - Discharge line		
Mar. 14	(12 M)	.0041	1.83	57
Apr. 19	(10:40 a.m.)	.0070	3.1	

SPRING - MRS. NELL K. REAM

Location.- Lat. 34°30'40", long. 119°50'00".

Altitude.- About 2,320 feet from topographic map.

Description.- Sandstone ledge on left bank of creek about 50 feet downstream from station 93. Discharge measured at 1 inch pipe.

DATE		DISCHARGE		TEMP
		Second-feet	Gals. per min	°F
May 15, 1950	(12:50 p.m.)	.00050	.22	54
June 23	(8:35 a.m.)	.00048	.22	
July 17	(1:45 p.m.)	.00033	.15	61
Aug. 22	(11:15 a.m.)	.00025	.11	62
Oct. 25	(12:45 p.m.)	.00027	.12	
Nov. 16	(10:55 a.m.)	.00035	.16	55
Dec. 14	(12:50 p.m.)	.00040	.18	55
Jan. 30, 1951	(12:30 p.m.)	.00048	.22	49
Feb. 21	(9:25 a.m.)	.00044	.20	49
Mar. 14	(12:05 p.m.)	.00043	.19	54
Apr. 19	(10:35 a.m.)	.00054	.24	

SPRING - TOM KINEVAN

Location.- Lat. 34°30'40", long. 119°50'00".

Altitude.- About 2,350 feet, from topographic map.

Description.- Covered seep in alluvial veneer on sandstone. Discharge measured as inflow to storage tank.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
June 15, 1948		0.0047	2.1	
Feb. 15, 1949		.0051	2.3	
Apr. 13	(12:50 p.m.)	.0067	3.0	
May 24	(8:05 p.m.)	.0073	3.3	
June 24	(11:40 a.m.	.0033	1.50	
Aug. 12	(8:00 a.m.)	.0038	1.68	62
Sept. 30	(7:30 a.m.)	.0028	1.27	
Nov. 1	(12:05 p.m.)	.0027	1.22	62
Dec. 20	(12:00 Noon)	No meas.	No meas.	
Jan. 17, 1950	(12:10 p.m.)	.0019	a .85	60
Feb. 14	(11:45 a.m.)	.010	4.5	59
Mar. 9	(8:50 a.m.)	.007	3.2	60
Apr. 18	(12:40 p.m.)	.0058	2.6	62
May 15	(12:30 p.m.)	.0053	2.4	60
June 23	(8:10 a.m.)	.0046	2.1	60
July 17	(1:25 p.m.)	.0036	1.60	63
Aug. 22	(10:55 a.m.)	.0026	1.17	65
Oct. 25	(12:15 p.m.)	.0025	1.14	62
Nov. 16	(10:30 a.m.)	.0035	1.56	61
Dec. 14	(12:35 p.m.)	.0031	1.39	60
Jan. 30, 1951	(12:15 p.m.)	.0036	1.60	59
Feb. 21	(9:00 a.m.)	.0039	1.74	59
Mar. 14	(11:45 a.m.)	.0049	2.20	63
Apr. 19	(10:20 a.m.)	.0038	1.72	

a Unmeasured portion of flow being wasted.

SPRING - P. C. BRYCE, U. S. FOREST SERVICE

Location.- Lat. 34°30'10", long. 119°51'40" .

Altitude.- About 2,900 feet, from topographic map.

Description.- Plank-curbed and covered pool in alluvium on sandstone in creek bottom.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
June 17, 1948		Practically dry	Practically dry	
Feb. 10, 1949		0.0047	2.1	
Apr. 13	(9:15 a.m.)	.0024	1.1	
May 24	(12:15 p.m.)	.010	4.7	
June 24	(10:20 a.m.)	No flow	No flow *	
Aug. 11	(10:15 a.m.)	No flow	No flow *	
Sept. 30	(10:05 a.m.)	No flow	No flow	
Nov. 28	(10:00 a.m.)	No flow	No flow	
Dec. 28	(12:35 p.m.)	.0020	.91	53
Jan. 26, 1950	(11:00 a.m.)	.0061	2.7	50
Feb. 17	(10:00 a.m.)	.018	8.2	
Mar. 9	(11:50 a.m.)	.0052	2.3	59
Apr. 18	(10:35 a.m.)	.0025	1.1	68
May 15	(10:20 a.m.)	.00030	.14	57
June 22	(10:10 a.m.)	*No flow		
Aug. 1	(11:30 a.m.)	No flow		
Aug. 22	(8:00 a.m.)	No flow		
Oct. 25	(10:15 a.m.)	No flow		
Dec. 1	(9:15 a.m.)	.00021	.09	51
Dec. 20	(9:10 a.m.)	No flow		
Jan. 30, 1951	(8:15 a.m.)	.010	4.7	43
Feb. 23	(10:15 a.m.)	.00067	.30	
Mar. 22	(8:45 a.m.)	.0029	1.3	
Apr. 19	(8:15 a.m.)	No flow		

* Water in box but no overflow.

* Water in spring pit; but no outflow.

SPRING - MRS. ADELAIDE OVINGTON

Location.- Lat. 34°31'10", long. 119°50'20".

Altitude.- About 1,850 feet, from topographic map.

Description.- Seeps in landslide on valley side. Discharge measured at settling box. These measurements do not include the discharge of the upper and lower undeveloped springs.

DATE	DISCHARGE AT SETTLING BOX		UPPER UNDEVELOPED SPRING		LOWER UNDEVELOPED SPRING		TEMP.
	Second-feet	Gals. per min.	Second-feet	Gals. per min.	Second-feet	Gals. per min.	°F
1948							
June 24	0.0024	1.1	-	-	-	-	
1949							
Feb. 15	.0018	.83	0.0069	3.1	0.0045	2.0	
Apr. 12 (8:30 a.m.)	.0026	1.2	-	-	-	-	
May 11 (9:30 a.m.)	.0019	.85					
June 23 (12:15 p.m.)	.0013	.59					59
Aug. 11 (1:00 p.m.)	.0035	1.56					60
Sept. 30 (12:30 p.m.)	.0016	.73					
Nov. 1 (1:00 p.m.)	.0012	.56					60
Dec. 20 (12:45 p.m.)	.0036	1.6					57
Jan. 17, 1950	.0015	.67					57
Feb. 14 (12:25 p.m.)	.0048	2.1					
Mar. 9 (1:30 p.m.)	.0027	1.2					
Apr. 18 (1:20 p.m.)	.0026	1.2					62
May 15 (1:10 p.m.)	.0023	1.0					58
a/June 23	.010	5.0					61
Aug. 9 (8:00 a.m.)	.016	7.1					60
Oct. 24 (12:45 p.m.)	.028	12.5					60
Nov. 16 (11:00 a.m.)	.017	7.6					60
Dec. 14 (1:30 p.m.)	.021	9.4					
Jan. 30,51 (1:00 p.m.)	.022	9.7					59
Feb. 21 (9:45 a.m.)	.018	8.2					59
Mar. 14 (12:30 p.m.)	.020	8.8					61
Apr. 19 (11:05 a.m.)	.015	6.5					

a/ Since last visit spring improved to catch previously uncontrolled seeps; new 1½ inch line installed.

COLD SPRING CANYON CREEK AT HIGHWAY 150

Location.- Lat. 34°31'20", Long. 119°50'20", below the principal forks at Highway 150.

Altitude.- About 1,600 feet, from topographic map.

Description.- Measuring site in natural channel at Highway culvert.

Diversion.- Diversion of about 2 miner's inches occurs above measuring site.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	
Oct. 29, 1948	(12:45 p.m.)	No flow	No flow	
Nov. 5	(11:20 a.m.)	No flow	No flow	
Dec. 15	(11:45 a.m.)	No flow	No flow	
Jan. 31, 1949	(11:15 a.m.)	0.018	8.0	
Apr. 18	(1:30 p.m.)	.033	15	
May 27	(1:10 p.m.)	.046	20.6	
June 22	(1:30 p.m.)	.030	13.5	57
July 18	(11:30 a.m.)	.0033	1.50	69
Aug. 16	(12:00 noon)	.023	10.4	55
Sept. 27	(1:30 p.m.)	.036	16.2	61
Oct. 25	(1:30 p.m.)	.022	9.9	53
Nov. 18	(11:30 a.m.)	.048	21.5	54
Dec. 21	(1:50 p.m.)	.071	32	47
Jan. 16, 1950	(8:05 a.m.)	.097	44	45
Feb. 23	(11:45 a.m.)	.062	28	50
Mar. 23	(12:35 p.m.)	.025	11	50
Apr. 21	(1:15 p.m.)	.024	11	55
May 18	(11:30 a.m.)	.023	10	51
June 28	(8:45 a.m.)	.006	2.7	56
July 27	(12:50 p.m.)	.010	4.5	60
Aug. 29	(11:30 a.m.)	.006	2.7	61
Oct. 18	(2:35 p.m.)	.013	5.8	56
Nov. 29	(12:10 p.m.)	.018	8.1	53
Dec. 14	(11:40 a.m.)	.016	7.2	54
Jan. 9, 1951	(12:05 p.m.)	.016	7.2	47
Feb. 9	(11:50 a.m.)	.014	6.3	
Mar. 6	(11:00 a.m.)	.047	21	50
Apr. 6	(11:45 a.m.)	.029	13	48

SPRING - U. S. FOREST SERVICE

Location.- Lat. 34°30'40", long. 119°52'40".

Altitude.- About 2,475 feet, from topographic map.

Description.- Seeps in alluvium on hillside.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Aug. 19, 1948	No flow	No flow	
Feb. 10, 1949	No flow	No flow	
Apr. 13 (8:30 a.m.)	No flow	No flow	
May 24 (11:15 a.m.)	No flow	No flow	
June 24 (9:35 a.m.)	No flow	No flow	
Aug. 11 (9:30 a.m.)	No flow	No flow	
Sept. 30 (9:20 a.m.)	No flow	No flow	
Nov. 28 (9:00 a.m.)	No flow	No flow	
Dec. 28 (11:45 a.m.)	No flow	No flow	
Jan. 26, 1950 (9:15 a.m.)	No flow	No flow	
Feb. 17 (8:45 a.m.)	No flow	No flow	
Mar. 9 (10:30 a.m.)	No flow	No flow	
Apr. 18 (9:40 a.m.)	No flow	No flow	
May 15 (9:30 a.m.)	No flow	No flow	
June 22 (9:20 a.m.)	No flow	No flow	
Aug. 1 (10:25 a.m.)	No flow	No flow	
Aug. 22 (8:30 a.m.)	No flow	No flow	
Oct. 25 (9:30 a.m.)	No flow	No flow	
Dec. 1 (8:20 a.m.)	No flow	No flow	
Jan. 30, 1951 (7:25 a.m.)	No flow	No flow	
Feb. 23 (9:10 a.m.)	No flow	No flow	
Mar. 22 (7:45 a.m.)	No flow	No flow	
Apr. 19 (7:20 a.m.)	No flow	No flow	

SPRING - P. C. BRYCE, U. S. FOREST SERVICE

Location.- Lat. 34°30'40", long. 119°52'20".

Altitude.- About 2,025 feet, from topographic map.

Description.- Seeps in alluvium on creek bed and valley well.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Aug. 19, 1948		Less than 0.002	Less than 1	
Feb. 10, 1949		Less than .002	Less than 1	
Apr. 13	(8:45 a.m.)	.0013	0.59	
May 24	(11:35 a.m.)	.00096	.43	
June 24	(9:55 a.m.)	.0013	.57	
Aug. 11	(9:45 a.m.)	.00070	.32	
Sept. 30	(9:40 a.m.)	.00044	.20	
Nov. 28	(9:20 a.m.)	.0013	.56	57
Dec. 28	(12:00 Noon)	.00092	.41	56
Jan. 26, 1950	(9:30 a.m.)	.0019	.86	56
Feb. 17	(9:05 a.m.)	.0036	1.6	
Mar. 9	(11:00 a.m.)	.0030	1.3	57
Apr. 18	(10:00 a.m.)	.0020	.91	66
May 15	(9:45 a.m.)	.0030	1.4	57
June 22	(9:40 a.m.)	.0017	.74	58
Aug. 1	(10:45 a.m.)	.00073	.33	60
Aug. 22	(8:50 a.m.)	.0010	.45	60
Oct. 25	(9:50 a.m.)	.0012	.56	59
Dec. 1	(8:40 a.m.)	.00051	.23	56
Dec. 20	(8:40 a.m.)	.00064	.29	56
Jan. 30, 1951	(7:45 a.m.)	.00082	.37	52
Feb. 23	(9:30 a.m.)	.0028	1.3	52
Mar. 22	(8:05 a.m.)	.0011	.51	
Apr. 19	(7:45 a.m.)	.00062	.28	

SPRING - IRVING WILLS

Location.- Lat. 34°31'40", long. 119°51'30".

Altitude.- About 1,280 feet, from topographic map.

Description.- Seep in alluvium on shale. Discharge measured at inflow to settling box from upper 2-inch line.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
June 25, 1948		0.0042	1.9	
Feb. 28, 1949		a .014	a 6.2	
May 11	(8:40 a.m.)	a .015	a 6.6	
June 24	(1:10 p.m.)	a .015	a 6.7	
Sept. 30	(1:15 p.m.)	a No flow	a No flow	
Nov. 1	(1:50 p.m.)	No meas.	No meas.	
Dec. 1	(8:30 a.m.)	No meas.	No meas.	
Dec. 20	(1:30 p.m.)	a .037	a 17	Up-50, L-56
Jan. 17, 1950	(1:30 p.m.)	a .041	a 18	53
Feb. 14	(1:20 p.m.)	a .097	a 44	55
Mar. 17	(11:40 a.m.)	a .041	a 18	
Apr. 20	(11:30 a.m.)	No meast.	No meast.	
May 31	(9:15 a.m.)	a .020	8.9	57
June 23	(10:00 a.m.)	.014	6.4	
Aug. 9	(10:00 a.m.)	No flow	No flow	
Oct. 24	(1:15 p.m.)	No flow	No flow	
Dec. 1	(12 M)	.030	13	58
Dec. 21	(10:30 a.m.)	.032	14	51
Feb. 21, 1951	(10:45 a.m.)	.030	13	55
Mar. 22	(10:00 a.m.)	No meast.	No meast.	
Apr. 25	(1:45 p.m.)	.030	13	

a Combined discharge springs 101 & 102.

SPRING - IRVING WILLS

Location.- Lat. 34°31'50", long. 119°51'40"

Altitude.- About 1,100 feet from topographic map.

Description.- Seep in alluvium on creek bed. Discharge measured as inflow to settling box from lower pipe.

DATE	DISCHARGE	
	Second-feet	Gals. per min.
June 25, 1948 (estimated)	0.01	4.4

See Station 101.

SPRING - S. A. NASH-BOULDAN, U. S. FOREST SERVICE

Location.- Lat. 34°31'50", long. 119° 51'50" .

Altitude.- About 1,100 feet, from topographic map.

Description.- Seeps in alluvium on valley side. Discharge measured from rate of recovery of water level after it had been bailed below certain level.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
June 25, 1948	Not measured	Not measured	
Feb. 16, 1949 (1:15 p.m.)	0.0013	0.58	
May 11 (8:30 a.m.)	.0051	2.3	
June 24 (1:25 p.m.)	.0047	2.11	
Sept. 30 (1:30 p.m.)	.0018	.83	
Nov. 1 (2:05 p.m.)	.0021	.93	60
Dec. 20 (1:45 p.m.)	.0023	1.0	55
Jan. 17, 1950 (1:45 p.m.)	.0047	2.1	
Feb. 14 (1:30 p.m.)	.0049	2.2	59
Mar. 17 (11:20 a.m.)	.0058	2.6	
May 31 (9:30 a.m.)	.0024	1.1	
June 23 (9:45 a.m.)	.0026	1.2	
Aug. 9 (10:30 a.m.)	.0019	.87	62
Oct. 24 (1:25 p.m.)	.0020	.88	61
Dec. 1 (11:40 a.m.)	.0025	1.1	
Dec. 21 (10:00 a.m.)	.0034	1.5	60
Feb. 21, 1951 (10:30 a.m.)	.0040	1.8	
Apr. 25 (1:35 p.m.)	.0022	1.0	

UNNAMED CREEK TRIBUTARY TO LOS LAURELES CANYON CREEK

Location.- Lat. 34°32'10", long. 119°51'30", above Highway 150.

Altitude.- About 850 feet, from topographic map.

Description.- Measuring site in natural stream channel.

Diversions.- Diversions above from springs 101, 102 and 103, by Irving Wills and Nash-Souldan.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Oct. 29, 1948 (12:05 p.m.)	No flow	No flow	
Nov. 5 (10:50 a.m.)	No flow	No flow	
Dec. 15 (11:35 a.m.)	No flow	No flow	
Jan. 31, 1949 (10:55 a.m.)	0.13	58	
Mar. 16 (12:40 p.m.)	.80	359	
Apr. 18 (2:00 p.m.)	.18	82	
May 27 (1:30 p.m.)	.029	13	
June 22 (1:00 p.m.)	No flow	No flow	
July 18 (11:50 a.m.)	No flow	No flow	
Aug. 16 (12:30 p.m.)	No flow	No flow	
Sept. 27 (2:00 p.m.)	No flow	No flow	
Oct. 25 (12:30 p.m.)	No flow	No flow	
Nov. 18 (12:05 p.m.)	.017	7.6	57
Dec. 21 (1:20 p.m.)	.11	49	
Jan. 16, 1950 (8:40 a.m.)	.30	14[illegible]	43
Feb. 23 (12:30 p.m.)	.25	114	52
Mar. 23 (11:30 a.m.)	.17	75	50
Apr. 21 (12:30 p.m.)	.098	44	58
May 18 (10:45 a.m.)	.085	38	55
June 27 (2:00 p.m.)	No flow		
July 27 (12:15 p.m.)	No flow		
Aug. 29 (12:05 p.m.)	No flow		
Oct. 18 (1:40 p.m.)	No flow		
Nov. 29 (11:25 a.m.)	.028	13	53
Dec. 14 (11:05 a.m.)	.061	27	55
Jan. 9, 1951 ((11:15 a.m.)	.053	24	45
Feb. 9 (11:15 a.m.)	.12	52	
Mar. 6 (11:50 a.m.)	.23	102	52
Apr. 6 (11:10 a.m.)	.072	32	52

SPRING - A. DOWLING

Location.- Lat. 34°32'20", long. 119°51'50".

Altitude.- About 920 feet, from topographic map.

Description.- Small spring in debris filled draw and stone-curbed spring in adjacent draw connected together and piped to storage tank. Discharge measured at end of 1-inch pipe line to storage tank.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Mar. 2, 1949	(10:00 a.m.)	0.0011	0.50	
Apr. 20	(11:30 a.m.)	.0024	1.07	
May 27	(11:50 a.m.)	.00068	.31	
June 22	(11:00 a.m.)	.00027	.12	
July 18	(1:15 p.m.)	.00021	.096	88
Aug. 16	(1:00 p.m.)	.00019	.083	
Sept.27	(2:20 p.m.)	.00078	.35	
Oct. 25	(2:00 p.m.)	.00020	.088	
Nov. 18	(12:30 p.m.)	.00076	.34	
Dec. 21	(2:30 p.m.)	.00086	.38	
Jan. 16, 1950	(9:00 a.m.)	.00035	.16	
Feb. 23	(1:50 p.m.)	.00054	.24	57
Mar. 23	(9:45 a.m.)	.00098	.44	51
Apr. 21	(10:45 a.m.)	.00078	.35	67
May 18	(9:15 a.m.)	.000056	.02	55
June 28	(9:15 a.m.)	No flow		
July 25	(10:45 a.m.)	No flow		
Aug. 29	(12:30 p.m.)	No flow		
Oct. 18	(12:30 p.m.)	No flow		
Nov. 29	(10:00 a.m.)	No flow		
Dec. 14	(9:30 a.m.)	No flow		
Jan. 9, 1951	(10:00 a.m.)	No flow		
Feb. 9	(9:45 a.m.)	No flow		
Mar. 6	(12:30 p.m.)	18 drops in 10 seconds		
Apr. 6	(9:45 a.m.)	No flow		

SPRING - A. DOWLING

Location.- Lat. 34°32'20", long. 119°52'00".

Altitude.- About 1,000 feet, from topographic map.

Description.- Wood-curbed spring box in draw, 4-inch horizontal well (187 feet long) and two small seeps connected together and piped to house or storage tank. Discharge measured at sunken concrete storage tank below swimming pool.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Mar. 2, 1949	(10:20 a.m.)	0.0031	1.4	
Apr. 20	(12:00 noon)	pumping	pumping	
May 27	(12:35 p.m.)	.00029	.13	
June 22	(12:00 noon)	.00061	.27	
July 18	(12:15 p.m.)	.00090	.41	87
Aug. 16	(2:00 p.m.)	.0014	.62	
Sept. 27	(3:20 p.m.)	.0013	.60	
Oct. 25	(3:15 p.m.)	.0012	.56	
Nov. 18	(1:00 p.m.)	.0014	.62	
Dec. 21	(3:15 p.m.)	.0011	.48	
Jan. 16, 1950	(10:00 a.m.)	.0011	.48	
Feb. 23	(1:00 p.m.)	.0017	.75	57
Mar. 23	(10:55 a.m.)	.0015	.68	54
Apr. 21	(11:45 a.m.)	.00035	.16	68
May 18	(10:15 a.m.)	.00037	.17	58
June 28	(10:15 a.m.)	.0011	.50	66
July 27	(11:45 a.m.)	.00062	.28	72
Aug. 29	(1:30 p.m.)	.00068	.31	73
Oct. 18	(1:20 p.m.)	.00024	.11	72
Nov. 29	(10:50 a.m.)	.0011	.50	55
Dec. 14	(10:30 a.m.)	.0010	.47	55
Jan. 9, 1951	(10:45 a.m.)	.0010	.45	46
Feb. 9	(10:45 a.m.)	.00074	.33	
Mar. 6	(1:35 p.m.)	.00064	.29	50
Apr. 6	(10:45 a.m.)	.00044	.20	52

STATION 106-A

SPRING - A. DOWLING

Location.- Lat. 34°32'20", long. 119°52'00".

Altitude.- About 1,100 feet, from topographic map.

Description.- Measured at union 50 feet below a 187-foot horizontal well.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
May 27, 1949	(12:35 p.m.)	0.0021	0.94	
June 22,	(11:20 a.m.)	.0016	.71	
July 18	(12:30 p.m.)	.0019	.83	61
Aug. 16	(1:20 p.m.)	.0014	.62	60
Sept. 27	(2:40 p.m.)	.0010	.47	60
Oct. 25	(2:20 p.m.)	.0012	.54	60
Nov. 18	(1:15 p.m.)	.00062	.28	70
Dec. 21	(2:45 p.m.)	.0015	.65	58
Jan. 16, 1950	(9:30 a.m.)	.0020	.88	
Feb. 23	(1:15 p.m.)	.0019	.83	59
Mar. 23	(10:05 a.m.)	.0020	.88	60
Apr. 21	(11:00 a.m.)	.0013	.58	60
May 18	(9:30 a.m.)	.0014	.62	60
June 28	(9:30 a.m.)	.00095	.43	65
July 27	(11:10 a.m.)	.0012	.56	63
Aug. 29	(12:50 p.m.)	.0012	.56	65
Oct. 18	(12:45 p.m.)	No Meas.		
Nov. 29	(10:15 a.m.)	.00017	.08	57
Dec. 14	(9:45 a.m.)	.00095	.43	59
Jan. 9, 1951	(10:15 a.m.)	.0011	.50	56
Feb. 9	(10:00 a.m.)	.0013	.60	
Mar. 6	(12:50 p.m.)	.0017	.75	59
Apr. 6	(10:05 a.m.)	.0024	1.07	60

STATION 106-B

SPRING - A. DOWLING

Location.- Lat. 34°32'20", long. 119°52'05".

Altitude.- About 1,200 feet, from topographic map.

Description.- Measured 50 feet below wood-curbed box in canyon.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
May 27, 1949 (12:20 p.m.)	0.0046	2.1	
June 22	.0069	3.08	57
July 18 (12:50 p.m.)	.0048	2.14	59
Aug. 16 (1:40 p.m.)	.0050	2.26	60
Sept.27 (3:00 p.m.)	.00038	.17	58
Oct. 25 (2:45 p.m.)	.00048	.21	55
Nov. 18 (12:45 p.m.)	.00019	.083	72
Dec. 21 (3:00 p.m.)	.000029	.013	47
Jan. 16, 1950 (9:35 a.m.)	.00066	.29	37
Feb. 23 (1:30 p.m.)	.00028	.13	55
Mar. 23 (10:30 a.m.)	.00030	.13	50
Apr. 21 (11:15 a.m.)	.00022	.10	72
May 18 (9:45 a.m.)	.00022	.10	53
June 28 (9:45 a.m.)	.00061	.27	
July 27 (11:25 a.m.)	.00048	.21	59
Aug. 29 (1:10 p.m.)	.00030	.13	65
Oct. 18 (1:00 p.m.)	.00043	.19	57
Nov. 29 (10:30 a.m.)	.00029	.13	55
Dec. 14 (10:00 a.m.)	.00019	.083	56
Jan. 9, 1951 (10:30 a.m.)	.00048	.21	47
Feb. 9 (10:15 a.m.)	.00017	.078	
Mar. 6 (1:10 p.m.)	.00074	.33	52
Apr. 6 (10:25 a.m.)	.00017	.076	52

HOT SPRINGS CREEK AT MOUTH NEAR SANTA BARBARA.

Location.- Lat. 34°32'40", 119°52'50", at Highway 150 crossing about 0.5 mile above junction with Santa Ynez River.

Altitude.- About 825 feet, from topographic map.

Description.- Measuring site in natural channel just upstream of the Highway.

Diversion.- One diversion of 1½ miner's inch above, reported by manager of Murphy Ranch.

Previous measurements.- 1935 to 1946.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Oct. 29, 1948		0.40	180	
Nov. 18	(1:25 p.m.)	.31	140	
Nov. 30	(2:50 p.m.)	.33	150	
Dec. 15	(11:15 a.m.)	.44	200	
Jan. 31, 1949	(10:30 a.m.)	.47	210	
Mar. 18	(12:30 p.m.)	.72	320	
Apr. 18	(2:20 p.m.)	.44	198	
May 27	(11:00 a.m.)	.10	45.3	
June 21	(2:00 p.m.)	.26	114	64
July 18	(1:45 p.m.)	No flow	No flow	71
Aug. 16	(2:15 p.m.)	.078	35	66
Sept. 27	(12:50 p.m.)	.096	43	61
Oct. 25	(12:15 p.m.)	.16	70	56
Nov. 18	(1:45 p.m.)	.29	130	58
Dec. 21	(12:50 p.m.)	.42	190	46
Jan. 16, 1950	(10:30 a.m.)	.62	278	47
Feb. 23	(2:15 p.m.)	.51	230	57
Mar. 23	(9:05 a.m.)	.40	180	52
Apr. 21	(10:05 a.m.)	.39	180	58
May 18	(8:50 a.m.)	.22	101	55
June 27	(1:20 p.m.)	.13	60	63
July 27	(8:30 a.m.)	.28	128	62
Aug. 29	(1:55 p.m.)	.070	31	60
Oct. 18	(11:50 a.m.)	.17	75	59
Nov. 29	(8:10 a.m.)	.38	170	52
Dec. 14	(9:00 a.m.)	.45	201	57
Jan. 9, 1951	(9:20 a.m.)	.38	171	45
Feb. 9	(9:10 a.m.)	.46	206	
Mar. 16	(8:25 a.m.)	.37	166	53
Apr. 6	(9:10 a.m.)	.25	113	56

STATION 110a

HOT SPRINGS CREEK ABOVE DIVERSION

Location.- Lat. 34°32'30", long. 119°52'50". About 1.0 mile above junction with Santa Ynez River.

Altitude.- About 950 feet from topographic map.

Description.- Measurments made in creek bed above point of diversion

Date		Discharge		°F
		Second-feet	Gals. per min	
July 27, 1950	(9:35 a.m.)	.30	137	65
Aug. 29	(2:35 p.m.)	.23	103	75
Oct. 18	(11:05 a.m.)	.33	148	63
Nov. 29	(9:05 a.m.)	.40	177	58
Dec. 14	(8:25 a.m.)	.40	177	64
Jan. 9, 1951	(8:35 a.m.)	.39	176	52
Feb. 9	(8:20 a.m.)	.41	183	
Mar. 16	(7:50 a.m.)	.40	179	58
Apr. 6	(8:20 a.m.)	.39	176	60

UNNAMED CREEK TRIBUTARY TO SANTA YNEZ RIVER

Location.- Lat. 34°33'10", long. 119°54'40", at a site along Highway 150 and about 1.0 mile above junction with the Santa Ynez River.

Altitude.- About 800 feet, from topographic map.

Description.- Measuring site in natural stream channel.

Diversion.- None reported above station.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Nov. 5, 1948	(10:15 a.m.)	No flow	No flow	
Dec. 15	(11:00 a.m.)	No flow	No flow	
Mar. 18, 1949	(1:00 p.m.)	0.28	130	
Apr. 18		.061	27	
May 27	(10:45 a.m.)	No flow	No flow	
June 21	(1:30 p.m.)	No flow	No flow	
July 18	(2:00 p.m.)	No flow	No flow	
Aug. 16	(3:00 p.m.)	No flow	No flow	
Sept. 27	(12:30 p.m.)	No flow	No flow	
Oct. 25	(11:45 a.m.)	No flow	No flow	
Nov. 18	(2:00 p.m.)	No flow	No flow	
Dec. 21	(12:30 p.m.)	No flow	No flow	
Jan. 16, 1950	(11:00 a.m.)	.059	26	43
Feb. 23	(2:45 p.m.)	.13	59	51
Mar. 23	(8:30 a.m.)	.046	21	50
Apr. 21	(9:25 a.m.)	.023	10	54
May 18	(8:15 a.m.)	No flow	No flow	
June 27	(12:40 p.m.)	No flow	No flow	
July 27	(8:10 a.m.)	No flow	No flow	
Aug. 29	(3:00 p.m.)	No flow	No flow	
Oct. 18	(10:30 a.m.)	No flow	No flow	
Nov. 29	(7:45 a.m.)	No flow	No flow	
Dec. 14	(8:00 a.m.)	No flow	No flow	
Jan. 9, 1951	(8:00 a.m.)	No flow	No flow	
Feb. 9	(7:45 a.m.)	No flow	No flow	
Mar. 16	(9:30 a.m.)	No flow	No flow	
Apr. 6	(7:45 a.m.)	No flow	No flow	

SPRING - T. M. STORKE

Location.- Lat. 34°32'50", long. 119°56'10"

Altitude.- About 1,190 feet from topographic map.

Description.- Wood-curbed seep in alluvium in creek bed. Discharge obtained by bailing water from spring and measuring the rate of recovery.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
July 20, 1948		No meas.	No measurement	
Dec. 16		No meas.	No measurement	
Feb. 3, 1949	(3:30 p.m.)	0.0024	1.1	
Mar. 22	(12:35 p.m.)	.064	29	
Apr. 21	(11:30 a.m.)	.014	6.4	
May 31	(12:55 p.m.)	.0062	2.8	
June 23	( )	.0016	.72	61
July 21	(10:45 a.m.)	No flow	No flow	
Aug. 18	(10:15 a.m.)	No flow	No flow	
Sept. 29	(12:20 p.m.)	No flow	No flow	
Oct. 27	(11:30 a.m.)	No flow	No flow	
Nov. 21	(1:15 p.m.)	No flow	No flow	
Dec. 22	(11:00 a.m.)	.0040	1.8	47
Jan. 19, 1950	(11:45 a.m.)	.057	26	
Feb. 24	(11:15 a.m.)	.038	17	55
Mar. 21	(10:30 a.m.)	.013	5.8	50
Apr. 20	(11:00 a.m.)	.014	6.3	55
May 17	(10:10 a.m.)	.0045	2.0	54
June 29	(11:00 a.m.)	No flow	No flow	
July 28	(10:35 a.m.)	No flow	No flow	
Aug. 31	(10:30 a.m.)	No flow	No flow	
Oct. 19	(11:00 a.m.)	No flow	No flow	
Nov. 30	(11:15 a.m.)	No flow	No flow	
Dec. 13	(1:00 p.m.)	No flow	No flow	
Jan. 10, 1951	(12:45 p.m.	No flow	No flow	
Feb. 20	(11:00 a.m.)	No flow	No flow	
Mar. 16	1:10 p.m.)	.0058	2.6	
Apr. 18	(11:10 a.m.)	.0026	12.	53

SPRING - T. M. STORKE

Location.- Lat. 34°33'00", long. 119°56'10".

Altitude.- About 1,185 feet, from topographic map.

Description.- Two wood-curbed seeps on valley side. Discharge measured at aerator. Water has a "sulphur" odor and taste.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
July 20, 1948	(estimated)	0.0014	0.65	
Dec. 16		.0010	.46	
Feb. 3, 1949	(3:15 p.m.)	.0013	.58	
Mar. 22	(12:10 p.m.)	.0022	.98	
Apr. 21	(11:00 a.m)	.0021	.94	
May 31	(12:45 p.m.)	.0019	.83	
June 23	(10:40 a.m.)	.0015	.68	89
July 21	(10:30 a.m.)	.0012	.53	82
Aug. 18	(10:00 a.m.)	.00076	.34	80
Sept. 29	(12:00 noon)	.00058	.26	73
Oct. 27	(11:15 a.m.)	.00063	.28	63
Nov. 24	(1:00 p.m.)	.00074	.33	62
Dec. 22	(10:45 a.m.)	.00084	.38	
Jan. 19, 1950	(11:30 a.m.)	.0012	.56	60
Feb. 24	(11:00 a.m.)	.0022	1.0	65
Mar. 21	(10:15 a.m.)	.0022	.97	69
Apr. 20	(10:45 a.m.)	.00098	.44	71
May 17	(9:50 a.m.)	.00095	.43	57
June 29	(10:45 a.m.)	.00084	.38	82
July 28	(10:[illegible] a.m.)	.00076	.34	67
Aug. 31	(10:15 a.m.)	.00061	.28	70
Oct. 19	(10:45 a.m.)	.00045	.20	78
Nov. 30	(11:00 a.m.)	.00080	.36	60
Dec. 13	(12:50 p.m.)	.00080	.36	62
Jan. 10, 1951	(12:30 p.m.)	.00079	.35	47
Feb. 20	(10:45 a.m.)	.00078	.35	61
Mar. 16	(12:50 p.m.)	.00084	.38	71
Apr. 18	(10:45 a.m.)	.00080	.36	68

BEAR CANYON CREEK ABOVE STORKE DIVERSION

Location.- Lat. 34°32'30", 119°56'30", at diversion dam 1.2 miles southwest of Storke residence.

Altitude.- About 1,600 feet, from topographic map.

Description.- Measuring site just above Storke diversion dam.

Diversion.- None reported above station.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
July 3, 1948	(estimated)	0.002	1	
Dec. 16		.0027	1.2	
Feb. 3, 1949	(4:30 p.m.)	.0095	4.3	45
Mar. 22	(11:10 a.m.)	.031	14	
Apr. 21	(10:30 a.m.)	.0089	4.0	
May 31	(12:05 a.m.)	.0063	2.82	
June 23	(10:00 a.m.)	.0037	1.67	58
July 21	(9:40 a.m.)	.0030	1.36	56
Aug. 18	(9:30 a.m.)	.0028	1.24	55
Sept. 29	(11:15 a.m.)	.0020	.88	56
Oct. 27	(10:30 a.m.)	.0021	.94	50
Nov. 21	(12:15 p.m.)	.0024	1.09	52
Dec. 22	(10:15 a.m.)	.010	4.5	
Jan. 19	(10:30 a.m.)	.027	12	52
Feb. 24	(10:15 a.m.	.017	7.8	50
Mar. 21	(9:35 a.m.)	.0098	4.4	51
Apr. 20	(10:00 a.m.)	.0087	3.9	55
May 17	(9:20 a.m.)	.0065	2.9	52
June 29	(10:00 a.m.)	.0028	1.25	58
July 28	(9:15 a.m.)	.0030	1.37	56
Aug. 31	(9:15 a.m.)	.0021	.95	60
Oct. 19	(9:45 a.m.)	.0017	.75	55
Nov. 30	(10:00 a.m.)	.0021	.94	52
Dec. 13	(12:20 p.m.)	.0025	1.10	52
Jan. 10, 1951	(11:50 a.m.)	.0042	1.90	48
Feb. 20	(10:00 a.m.)	.0042	1.88	45
Mar. 6	(12:25 p.m.)	.0080	3.6	51
Apr. 18	(9:45 a.m.)	.0042	1.89	53

SPRING - DAVID GRAY, JR.

Location.- Lat. 34°32'40", long. 119°56'40".

Altitude.- About 1,600 feet, from topographic map.

Description.- Wood-curbed spring in hillside. Discharge measured at spring.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Dec. 16, 1948		0.00094	0.42	
Feb. 3, 1949	(5:45 p.m.)	.0011	.50	53
Mar. 22	(10:30 a.m.)	.0016	.70	
Apr. 21	(10:00 a.m.)	.0012	.56	
May 31	(11:20 a.m.)	.0010	.47	
June 23	(8:45 a.m.)	.00078	.35	86
July 21	(9:00 a.m.)	.00068	.31	82
Aug. 18	(8:45 a.m.)	.00067	.30	78
Sept. 29	(10:15 a.m.)	.00054	.24	84
Oct. 27	(9:30 a.m.)	.00051	.23	63
Nov. 21	(11:30 a.m.)	.00068	.31	58
Dec. 22	(9:45 a.m.)	.00084	.38	42
Jan. 19, 1950	(9:45 a.m.)	.0012	.54	53
Feb. 24	(9:40 a.m.)	.0012	.54	53
Mar. 21	(9:00 a.m.)	.0010	.47	60
Apr. 20	(9:15 a.m.)	.00090	.41	76
May 17	(8:45 a.m.)	.00081	.37	52
June 29	(9:15 a.m.)	.00043	.19	104
July 28	(8:15 a.m.)	.00039	.18	65
Aug. 31	(8:15 a.m.)	.00033	.15	69
Oct. 19	(8:45 a.m.)	.00032	.14	76
Nov. 30	(9:00 a.m.)	.00049	.22	57
Dec. 13	(11:30 a.m.)	.00049	.22	57
Jan. 10, 1951	(11:15 a.m.)	.00046	.20	46
Feb. 20	(9:15 a.m.)	.00045	.20	42
Mar. 16	(11:20 a.m.)	.00048	.21	64
Apr. 18	(8:45 a.m.)	.00042	.19	64

SPRING - T. K. STORKE

Location.- Lat. 34°33'20", long. 119°55'40".

Altitude.- About 850 feet, from topographic map.

Description.- Three wood-curbed seeps in alluvium capping terrace. Discharge measured as inflow to galvanized corrugated storage tank.

DATE		DISCHARGE		&TEMP.
		Second-feet	Gals. per min.	°F
July 20, 1948	(estimated)	0.0003	0.14	
Dec. 16		.00040	.18	
Feb. 3, 1949	(2:00 p.m.)	.00020	.088	
Mar. 22	(1:40 p.m.)	.000045	.020	
Apr. 21	(12-noon)	.00019	.086	
May 31	(1:30 p.m.)	.000067	.030	
June 23	(11:45 a.m.)	.000054	.024	81
July 21	(11:30 a.m.)	.000043	.019	69
Aug. 18	(10:45 a.m.)	.000047	.021	73
Sept. 29	(1:30 p.m.)	.00020	.091	81
Oct. 27	(12:15 p.m.)	.00032	.14	61
Nov. 21	(1:30 p.m.)	.00040	.18	61
Dec. 22	(11:30 a.m.)	.00036	.16	46
Jan. 19, 1950	(12:30 p.m.)	.00038	.17	57
Feb. 24	(12:05 p.m.)	.00042	.19	55
Mar. 21	(11:00 a.m.)	.00042	.19	63
Apr. 20	(11:30 a.m.)	.00031	.14	68
May 17	(10:45 a.m.)	.00013	.059	55
June 29	(11:45 a.m.)	.000081	.036	87
July 28	(11:25 a.m.)	.00013	.060	63
Aug. 31	(11:00 a.m.)	.00015	.068	70
Oct. 19	(11:45 a.m.)	.00011	.049	75
Nov. 30	(11:45 a.m.)	.000030	.013	56
Dec. 13	(1:45 p.m.)	No meas.-Intake line plugged		
Jan. 10, 1951	(1:45 p.m.)	10 drops in 9.0 seconds		
Feb. 20	(11:30 a.m.)	27 drops in 20.0 seconds		
Mar. 16	(2:00 p.m.)	20 drops in 10.0 seconds		
Apr. 18	(11:45 a.m.)	.000056	.025	65

SPRING - T. M. STORKE

Location.- Lat. 34°33'20", long. 119°55'40".

Altitude.- About 850 feet, from topographic map.

Description.- Wood-curbed seep in alluvium capping terrace. Discharge measured as inflow to stock tank.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F.
July 20, 1948		0.000078	0.035	
Dec. 16		.000080	.036	
Feb. 3, 1949	(1:20 p. m.)	.000089	.040	
Mar. 22	(2:10 p.m.)	.00022	.099	
Apr. 21	(12:20 p.m.)	.00024	.11	
May 31	(1:45 p.m.)	.00018	.082	
June 23	(12:00 noon)	.00010	.047	
July 21	(11:45 a.m.)	One drop every 3 seconds		
Aug. 18	(11:00 a.m.)	.000049	.021	80
Sept. 29	(1:50 p.m.)	One drop per second		77
Oct. 27	(12:30 p.m.)	One drop per 8 seconds.		62
Nov. 21	(1:45 p.m.)	.000067	.020	56
Dec. 22	(11:45 a.m.)	.00010	.045	40
Jan. 19, 1950	(12:45 p.m.)	.00020	.091	54
Feb. 24	(12:20 p.m.)	.00039	.17	54
Mar. 21	(11:15 a.m.)	.00048	.21	59
Apr. 20	(11:45 a.m.)	.00057	.25	68
May 17	(11:00 a.m.)	.00038	.17	55
June 29	(12 M)	.000089	.040	75
July 28	(11:45 a.m.)	.000058	.026	69
Aug. 31	(11:15 a.m.)	No flow	No flow	
Oct. 19	(12 M)	No flow	No flow	
Nov. 30	(12:50 p.m.)	.00028	.12	49
Dec. 13	(	.00011	.050	60
Jan. 10, 1951	(2:00 p.m.)	.000067	.030	46
Feb. 20	(11:45 a.m.)	.000042	.019	49
Mar. 16	(1:45 p.m.)	.00010	.046	60
Apr. 18	(12:05 p.m.)	.000056	.025	68

UNNAMED TRIBUTARY TO SANTA YNEZ RIVER ABOVE GRAY DIVERSION

Location.- Lat. 34°32'40", long. 119°56'50", above Gray diversion about 1.7 miles south of Highway 150.

Altitude.- About 1,600 feet, from topographic map.

Description.- Just below wooden catchment box in creek bed, operated by David Gray Jr.

Diversion.- None reported above station.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Dec. 16, 1948		No flow	No flow	
Feb. 3, 1949	(5:20 p.m.)	No flow	No flow	
Mar. 22	(10:00 a.m.)	0.0013	0.58	
Apr. 21	(9:15 a.m.)	.0076	3.4	
May 31	(10:50 a.m.)	.00076	.34	
June 23	(8:15 a.m.)	.00074	.33	55
July 21	(8:20 a.m.)	.00062	.28	71
Aug. 18	(8:10 a.m.)	.00061	.27	69
Sept. 29	(9:30 a.m.)	.00058	.26	67
Oct. 27	(8:45 a.m.)	.00033	.15	56
Nov. 21	(11:30 a.m.)	.00035	.16	56
Dec. 22	(9:00 a.m.)	.00033	.15	53
Jan. 19, 1950	(9:15 a.m.)	.00045	.20	53
Feb. 24	(9:00 a.m.)	.00073	.33	54
Mar. 21	(8:40 a.m.)	.00074	.33	54
Apr. 20	(8:45 a.m.)	.00098	.44	58
May 17	(8:15 a.m.)	.00015	.069	49
June 29	(8:45 a.m.)	No flow	No flow	
July 28	(7:45 a.m.)	No flow	No flow	
Aug. 31	(7:45 a.m.)	No flow	No flow	
Oct. 19	(8:15 a.m.)	No flow	No flow	
Nov. 30	(8:30 a.m.)	No flow	No flow	
Dec. 13	(11:00 a.m.)	No flow	No flow	
Jan. 10, 1951	(10:45 a.m.)	No flow	No flow	
Feb. 20	(8:45 a.m.)	No flow	No flow	
Mar. 16	(11:00 a.m.)	No flow	No flow	
Apr. 18	(8:15 a.m.)	No flow	No flow	

SPRING - DAVID GRAY, JR.

Location.- Lat. 34°32'50", long. 119°56'50",

Altitude.- About 1,580 feet, from topographic map.

Description.- Drilled hole into sandstone exposure. Discharge measured at end of hose into earth reservoir.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Dec. 16, 1948		0.00025	0.11	
Feb. 3, 1949	(5:10 p.m.)	No flow	No flow	
Mar. 22	(9:30 a.m.)	.00081	.36	
Apr. 21	(9:00 a.m.)	.00084	.38	
May 31	(11:05 a.m.)	.0013	.60	
June 23	(9:10 a.m.)	No flow	No flow	
July 21	(8:00 a.m.)	.00059	.26	51
Aug. 18	(8:30 a.m.)	.00061	.27	56
Sept. 29	(9:50 a.m.)	.00040	.18	58
Oct. 27	(9:00 a.m.)	No flow	No flow	
Nov. 21	(11:15 a.m.)	No flow	No flow	
Dec. 22	(9:20 a.m.)	No flow	No flow	
Jan. 19, 1950	(9:00 a.m.)	No flow	No flow	
Feb. 24	(9:20 a.m.)	.0016	.70	47
Mar. 21	(8:50 a.m.)	.0035	1.6	54
Apr. 20	(8:30 a.m.)	.00073	.33	57
May 17	(8:00 a.m.)	.00056	.25	55
June 29	(8:20 a.m.)	.00051	.23	65
July 28	(7:30 a.m.)	.00038	.17	57
Aug. 31	(7:30 a.m.)	.00028	.13	60
Oct. 19	(8:00 a.m.)	.00019	.083	58
Nov. 30	(8:15 a.m.)	.00043	.19	55
Dec. 13	(10:40 a.m.)	.00048	.21	55
Jan. 10, 1951	(10:30 a.m.)	.00031	.14	52
Feb. 20	(8:30 a.m.)	.00040	.18	51
Mar. 16	(10:45 a.m.)	.00048	.22	53
Apr. 18	(8:00 a.m.)	.00043	.19	54

UNNAMED TRIBUTARY OF N. SANTA YNEZ RIVER - R. G. WELCH RANCH

Location.-Lat. 34°34'00", long. 119°56'00", at Highway 150 crossing about 0.4 mile above junction with the Santa Ynez River.

Altitude.- About 700 feet, from topographic map.

Description.- Measuring site in natural stream channel above highway.

Diversion.- Several diversions above.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Oct. 21, 1948	(Estimated)	0.02	11	
Nov. 5	(8:15 a.m.)	.023	10	
Nov. 18	(1:03 p.m.)	.019	8.5	
Nov. 30	(estimated)	.031	14	
Dec. 15	(10:30 a.m.)	.029	13	
Jan. 31, 1949	(10:00 a.m.)	.034	15	
Feb. 3	(12:45 p.m.)	.030	14	
Mar. 18	(11:30 a.m.)	.026	12	
Apr. 19	(1:30 p.m.)	.017	7.6	
May 26	(2:50 p.m.)	.011	4.94	
June 20	(1:30 p.m.)	.013	5.7	61
July 19	(1:00 p.m.)	.0074	3.33	66
Aug. 15	(2:10 p.m.)	.0097	4.36	62
Sept. 26	(2:35 p.m.)	.013	5.7	59
Oct. 24	(2:50 p.m.)	.011	5.0	53
Nov. 18	(2:30 p.m.)	.013	5.7	55
Dec. 19	(1:50 p.m.)	.026	12	52
Jan. 16, 1950	(11:30 a.m.)	.030	13	43
Feb. 20	(2:30 p.m.)	.027	12	54
Mar. 21	(11:40 a.m.)	.033	15	55
Apr. 21	(8:45 a.m.)	.025	11	59
May 18	(7:35 a.m.)	.029	13	56
June 26	(8:05 a.m.)	.025	11	56
July 21	(1:35 p.m.)	.010	4.50	65
Aug. 31	(	.0065	2.90	65
Oct. 16	(1:00 p.m.)	.014	6.2	57
Nov. 13	(2:15 p.m.)	.019	8.6	
Dec. 11	(1:00 p.m.)	.011	5.1	55
Jan. 8, 1951	(2:00 p.m.)	.013	5.7	49
Feb. 5	(2:15 p.m.)	.013	6.0	52
Mar. 5	(2:30 p.m.)	.016	7.2	52
Apr. 4	(1:30 p.m.)	.017	7.8	55

STATION 128a

SEEPAGE FROM NORTH PORTAL OF TECOLOTE TUNNEL

Location.- Lat. 34°34'00", long. 119°55'50", at North Portal.

Altitude.- About 670 feet from topograph map.

Description.- Water pumped out of excavation, measured at end of 6-inch pipe at point of wastage.

DATE	DISCHARGE		TEMP.	BUREAU OF RECLAMATION STATIONING
	Second-feet	Gals. per min.	°F	
April 4, 1950 (11:15 a.m.)	0.011	4.9	59	Station 8 + 35
April 12 (1:20 p.m.)	.0092	4.1	59	8 + 75
April 18 (1:45 p.m.)	.0019	.84	68	10 + 45
May 4 (noon)	.035	16	59	17 + 37
11 (1:30 p.m.)	.030	14		20 + 20
12 (11:20 a.m.)	.051	23	62	
12 (12:40 p.m.)	.018	7.9		
15 (7:45 a.m.)	.046	21		
15 (1:30 p.m.)	.028	13	65	
16 (2:15 p.m.)	.056	25		21 + 00
18 (1:05 p.m.)	.053	24		21 + 68
26 (8:30 a.m.)	.072	32	65	
a/26 (12 M)	.074	33	65	
31 (8:00 a.m.)	.11	50	66	
31 (10:30 a.m.)	.21	94		24 + 85
June 1 (7:45 a.m.)	.19	86		
10 (8:30 a.m.)	.14	61		
16 (7:05 a.m.)	.14	61	67	
16 (7:40 a.m.)	.11	51		
19 (12:50 p.m.)	.11	50	67	29 + 79
July 10 (11:15 a.m.)	.12	54	69	35 + 60
b/10 (11:18 a.m.)	.13	58		
c/25 (1:20 p.m.)	.079	35		41 + 50
Aug. 3 (10:40 a.m.)	.067	30		
24 (10:30 a.m.)	.062	28		52 + 35
31 (10:20 a.m.)	.057	26	70	54 + 70
Sept.12 (11:20 a.m.)	.062	28	68	57 + 45
28 (11:30 a.m.)	.12	52	73	61 + 34
Oct. 13 (12:25 p.m.)	.11	51	72	65 + 87
19 (12:45 p.m.)	.095	43		67 + 47
27 (9:40 a.m.)	.080	36		70 + 19
Nov. 2 (8:00 a.m.)	.095	43		71 + 72
9 (10:45 a.m.)	.11	48		73 + 60
27 (11:05 a.m.)	.092	41	70	81 + 00
Dec. 7 (10:30 a.m.)	.089	40	71	82 + 60
13 (1:20 p.m.)	.089	40	71	82 + 60
21 (10:40 a.m.)	.15	68		85 + 00
Jan. 5, 1951 (11:05 a.m.)	.19	86	70	87 + 84
18 (10:00 a.m.)	.19	86		90+ 00

STATION 128 a

SEEPAGE FROM NORTH PORTAL OF TECOLOTE TUNNEL (CONT'D)

DATE		DISCHARGE		TEMP.	BUREAU OF RECLAMATION STATIONING
		Second-ft.	Gals. per min.	°F	
Jan. 25	(10:30 a.m.)	.17	75	70	90 + 00
Feb. 1	(10:30 a.m.)	.15	67	69	90 + 00
1	(11:30 a.m.)	.33	150		
9	(3:30 p.m.)	.21	92		90 + 00
12	(2:30 p.m.)	.14	63		
15	(10:30 a.m.)	.18	80		90 + 00
23	(1:20 p.m.)	.24	109		
Mar. 2	(9:00 a.m.)	.13	57		90 + 00
15	(9:30 a.m.)	.067	30	70	90 + 00
29	(9:10 a.m.)	.15	63		90 + 00
Apr. 3	(1:00 p.m.)	.38	171	70	90 + 00
11	(10:50 a.m.)	.30	175	70	90 + 21
11	(11:00 a.m.)	.22	100	70	
19	(12:50 p.m.)	.24	107	70	90 + 98
19	(1:05 p.m.)	.24	109	70	
26	(11:35 a.m.)	.22	100	70	
26	(11:45 a.m.)	.22	100	70	91 + 90

TEJUNGA CREEK ABOVE BOY SCOUT CAMP DIVERSION

Location.- Lat. 34°32'20", long. 119°57'30", at Mrs. Clark's diversion, about 2.4 miles south of Highway 150.

Altitude.- About 1,900 feet, from topographic map.

Description.- Measuring site above wood diversion box at rock outcrop about 2.9 miles by road and trail above Highway 150.

Diversion.- None reported above station.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
June 24, 1948	(estimated)	0.03 to .04	15 to 20	
Oct. 29	(9:05 a.m.)	0.039	18	
Nov. 18	(12:05 p.m.)	.041	18	
Dec. 15	(9:25 a.m.)	.037	17	
Jan. 31, 1949	(9:10 a.m.)	.056	25	
Mar. 18	(9:15 a.m.)	.14	63	
Apr. 20	(8:40 a.m.)	.083	37	
May 27	(8:30 a.m.)	.053	23.8	
June 22	(8:10 p.m.)	.041	18.4	55
July 20	(12:10 p.m.)	.012	5.4	60
Aug. 19	(8:30 p.m.)	.034	15	56
Sept. 28	(8:40 a.m.)	.018	8.1	55
Oct. 26	(9:20 a.m.)	.024	11	53
Nov. 22	(11:20 a.m.)	.040	18	54
Dec. 20	(1:30 p.m.)	.097	44	51
Jan. 18, 1950	(2:00 p.m.)	.15	68	50
Feb. 21	(1:30 p.m.)	.13	57	51
Mar. 22	(2:00 p.m.)	.063	28	53
Apr. 18	(1:00 p.m.)	.044	20	55
May 15	(12:30 p.m.)	.053	24	60
June 28	(1:15 p.m.)	.025	11	60
July 27	(7:25 a.m.)	.029	13	55
Aug. 28	(12:50 p.m.)	.016	7.2	60
Oct. 18	(8:20 a.m.)	.022	9.9	55
Nov. 15	(12:05 p.m.)	.047	21	55
Dec. 13	(7:55 a.m.)	.034	15	54
Jan. 11, 1951	(9:05 a.m.)	.039	18	52
Feb. 8	(10:05 a.m.)	.039	18	53
Mar. 22	(7:55 a.m.)	.040	18	50
Apr. 17	(7:50 a.m.)	.034	15	52

SPRING - F. F. LEADBETTER

Location.- Lat. 34°33'00", long. 119°57'40",

Altitude.- About 1,530 feet, from topographic map.

Description.- Plank-curbed pool in landslide on shale. Discharge measured as inflow to settling box.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
June 23, 1948		0.0047	2.1	
Feb. 3, 1949	(10:05 a.m.)	.0036	1.6	
Mar. 18	(10:20 a.m.)	.0057	2.6	
Apr. 20	(10:00 a.m.)	.0053	2.4	
May 27	(9:45 a.m.)	.0036	1.63	
June 22		.0028	1.28	61
July 20	(1:00 p.m.)	.0020	.88	62
Aug. 19	(9:45 a.m.)	.0019	.83	61
Sept. 28	(10:10 a.m.)	.0017	.75	58
Oct. 26	(10:30 a.m.)	.0014	.62	58
Nov. 22	(12:45 p.m.)	.0016	.71	56
Dec. 20	(2:30 p.m.)	.0019	.83	53
Jan. 18, 1950	(2:45 p.m.)	.0024	1.07	56
Feb. 21	(2:15 p.m.)	.0030	1.4	56
Mar. 20	(1:10 p.m.)	.0026	1.2	57
Apr. 18		.0021	.94	60
May 5	(1:20 p.m.)	.0019	.83	60
June 28	(11:00 a.m.)	.0011	.50	69
July 25	(12:30 p.m.)	.00068	.31	72
Aug. 28	(2:00 p.m.)	.00032	.14	82
Oct. 18	(9:30 a.m.)	.00033	.15	60
Nov. 15	(	.00059	.27	54
Dec. 13	(9:00, a.m.)	.00067	.30	55
Jan. 11, 1951	(10:00 a.m.)	.00070	.31	52
Feb. 8	(8:00 a.m.)	.00064	.29	55
Mar. 22	(9:15 a.m.)	.00064	.29	55
Apr. 17	(8:30 a.m.)	.00053	.24	58

SPRING - H. NOEL, U. S. FOREST SERVICE

Location.- Lat. 34°33'10", long. 119°57'40".

Altitude.- About 1,550 feet, from topographic map.

Description.- Concreted seep in alluvium. Discharge measured at end of pipe line to storage reservoir.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
June 23, 1948		0.0107	4.8	
Feb. 3, 1949	(10:40 a.m.)	.0082	3.7	
Mar. 18	(10:35 a.m.)	.0085	3.8	
Apr. 20	(10:10 a.m.)	.0084	3.8	
May 27	(10:00 a.m.)	.0088	3.93	
June22		.0085	3.81	65
July 20	(1:15 p.m.)	.0089	4.00	66
Aug. 19	(10:10 a.m.)	.0082	3.7	64
Sept. 28	(10:30 a.m.)	.0075	3.4	62
Oct. 26	(10:50 a.m.)	.0061	2.7	64
Nov. 22	(1:00 p.m.)	.0076	3.4	60
Dec. 20	(2:45 p.m.)	.0082	3.7	
Jan. 18, 1950	(3:00 p.m.)	.0082	3.7	57
Feb. 21	(2:30 p.m.)	.0079	3.6	58
Mar. 20	(1:00 p.m.)	.0098	4.4	61
Apr. 18		.0067	3.0	64
May 15	(1:35 p.m.)	.0098	4.4	63
June 28	(11:15 a.m.)	.0080	3.6	67
July 25	(12:45 p.m.)	.0080	3.6	68
Aug. 28	(2:20 p.m.)	.0076	3.4	69
Oct. 18	(9:45 a.m.)	.0073	3.3	62
Nov. 15	(	.0068	3.0	
Dec. 13	(9:20 a.m.)	.0070	3.2	57
Jan. 11, 1951	(10:15 a.m.)	.0072	3.2	54
Feb. 8	(8:15 a.m.)	.0068	3.0	57
Mar. 22	(9;30 a.m.)	.0085	3.8	58
Apr. 17	(8:45 a.m.)	.0091	4.1	60

SPRING - MRS. W. A. CLARK, U. S. FOREST SERVICE

Location.- Lat. 34°33'10", long. 119°57'30".

Altitude.- About 1,250 feet, from topographic map.

Description.- Seeps into ditch on hillside. Discharge measured at end of 6-inch tile pipe into settling box.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Feb. 3, 1949	(11:20 a.m.)	0.0014	0.63	56
Mar. 18	(10:45 a.m.)	.0033	1.5	
Apr. 20	(10:30 a.m.)	.0060	2.7	
May 27	(10:15 a.m.)	.0033	1.48	
June 22		.0020	.92	59
July 20	(1:30 p.m.)	.0011	.50	65
Aug. 19	(10:30 a.m.)	.00084	.38	63
Sept. 28	(10:50 a.m.)	.00074	.33	60
Oct. 26	(11:10 a.m.)	.00071	.32	57
Nov. 22	(1:30 p.m.)	.00073	.33	58
Dec. 20	(3:00 p.m.)	.00096	.43	53
Jan. 18, 1950	(3:15 p.m.)	.0019	.83	57
Feb. 21	(2:45 p.m.)	.0056	2.5	58
Mar. 20	(1:20 p.m.)	.0048	2.1	58
Apr. 18		.0036	1.6	60
May 15	(1:50 p.m.)	.0021	.94	61
June 28	(11:45 a.m.)	.0011	.50	67
July 25	(1:00 p.m.)	.00098	.44	67
Aug. 28	(2:40 p.m.)	.00065	.29	62
Oct. 18	(10:00 a.m.)	.0010	.47	58
Nov. 15	(	.0013	.58	
Dec. 13	(9:40 a.m.)	.0014	.62	56
Jan. 11, 1951	(10:30 a.m.)	.0019	.83	56
Feb. 8	(8:45 a.m.)	.0020	.88	56
Mar. 22	(9:45 a.m.)	.0016	.71	57
Apr. 17	(9:15 a.m.)	.0015	.65	58

TEQUEPIS CANYON CREEK AT HIGHWAY 150

Location.- Lat. 34°34'20", long. 119°57'00", at road crossing of Highway 150

Altitude.- About 750 feet, from topographic map.

Description.- Measuring site in stream channel above bridge.

Diversions.- Several above.

DATE		DISCHARGE	
		Second-feet	Gals. per min.
Mar. 18, 1949	(11:20 a.m.)	No flow	No flow
Apr. 19	(1:00 p.m.)	No flow	No flow
May 26	(2:30 p.m.)	No flow	No flow
June 20	(1:00 p.m.)	No flow	No flow
July 18	(2:20 p.m.)	No flow	No flow
Aug. 15	(1:40 p.m.)	No flow	No flow
Sept. 26	(2:10 p.m.)	No flow	No flow
Oct. 24	(2:20 p.m.)	No flow	No flow
Nov. 17	(12:30 p.m.)	No flow	No flow
Dec. 19	(2:00 p.m.)	No flow	No flow
Jan. 16, 1950	(12:15 p.m.)	No flow	No flow
Feb. 20	(2:00 p.m.)	No flow	No flow
Mar. 22	(3:30 p.m.)	No flow	No flow
Apr. 19	(12:30 p.m.)	No flow	No flow
May 18	(7:20 a.m.)	No flow	No flow
June 26	(8:30 a.m.)	No flow	No flow
July 21	(1:10 p.m.)	No flow	No flow
Aug. 31	(11:30 a.m.)	No flow	No flow
Oct. 16	(12:25 p.m.)	No flow	No flow
Nov. 13	(1:45 p.m.)	No flow	No flow
Dec. 11	(12:30 p.m.)	No flow	No flow
Jan. 8, 1951	(1:30 p.m.)	No flow	No flow
Feb. 5	(1:45 p.m.)	No flow	No flow
Mar. 5	(2:00 p.m.)	No flow	No flow
Apr. 4	(1:10 p.m.)	No flow	No flow

SPRING - J. V. CRAWFORD

Location.- Lat. 34°33'50", long. 119°58'20".

Altitude.- About 1,070 feet, from topographic map.

Description.- Pool in sandstone bed of side canyon.

DATE	DISCHARGE		TEMP.
	Second-feet	Gals. per min.	°F
Oct. 28, 1948 (estimated)	0.001	0.5	
Jan. 26, 1949 (11:45 a.m.)	.0010	.47	
Mar. 21 (2:00 p.m.)	.0017	.75	
Apr. 21 (1:35 p.m.)	.0012	.52	
June 1 (11:30 a.m.)	.00084	.38	
June 23 (1:40 p.m.)	.00074	.33	63
July 21 (1:15 p.m.)	.00071	.32	60
Aug. 18 (12:30 p.m.)	.00071	.32	61
Sept. 28 (12:35 p.m.)	.00074	.33	58
Oct. 26 (1:00 p.m.)	.00061	.27	55
Nov. 21 (2:45 p.m.)	.00078	.35	55
Dec. 22 (1:15 p.m.)	.0011	.50	48
Jan. 17 (1:45 p.m.)	.00051	.23	52
Feb. 24 (1:45 p.m.)	.00029	.13	55
Mar. 21 (1:30 p.m.)	.0011	.50	55
Apr. 20 (1:45 p.m.)	.0010	.45	58
May 17 (1:30 p.m.)	.00093	.42	55
June 29 (1:45 p.m.)	.00076	.34	63
July 28 (1:25 p.m.)	.0016	.71	60
Aug. 30 (12:10 p.m.)	.00056	.25	59
Oct. 17 (12:20 p.m.)	.00056	.25	57
Nov. 16 (9:30 a.m.)	.00071	.32	58
Dec. 12 (1:15 p.m.)	.00072	.33	55
Jan. 11, 1951 (12 M.)	.00090	.41	52
Feb. 19 (11:45 a.m.)	.00073	.33	52
Mar. 22 (11:00 a.m.)	.00095	.43	53
Apr. 17 (11:00 a.m.)	.00074	.33	56

SPRING, CROWN ELEVEN RANCH

Location.- Lat. 34°34'00", long. 119°58'10".

Altitude.- About 990 feet, from topographic map.

Description.- Two connected curbed seeps on alluvial slope. Discharge at outlet of one-inch pipe leading to watering trough.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Oct. 21, 1948		0.0023	1.0	
Jan. 26, 1949	(11:20 a.m.)	.0019	.86	
Mar. 21	(1:20 p.m.)	.0022	1.0	
Apr. 21	(1:00 p.m.)	.0020	.91	
June 1	(11:00 a.m.)	.0039	1.76	
June 23	(1:00 p.m.)	.0039	1.75	66
July 21	(12:45 p.m.)	.0017	.75	62
Aug. 18	(1:00 p.m.)	.0032	1:45	68
Sept. 28	(12:00 noon)	.0029	1:30	66
Oct. 26	(12:15 p.m.)	.0022	1.00	65
Nov. 21	(2:10 p.m.)	.00096	.43	60
Dec. 22	(12:30 p.m.)	.0021	.94	62
Jan. 17, 1950	(1:00 p.m.)	.0021	.94	65
Feb. 24	(1:00 p.m.)	.0042	1.9	65
Mar. 21	(1:00 p.m.)	.0036	1.6	65
Apr. 20	(1:00 p.m.)	.0038	1.7	67
May 17	(12:45 p.m.)	.0039	1.8	65
June 29	(1:00 p.m.)	.0032	1.4	66
July 28	(12:45 p.m.)	.0028	1.2	
Aug. 30	(11:30 a.m.)	.0012	.54	67
Oct. 17	(11:30 a.m.)	.0013	.60	65
Nov. 16	(9:45 a.m.)	.0022	1.00	62
Dec. 12	(12:30 p.m.)	.0037	1.66	64
Jan. 11, 1951	(11:15 a.m.)	.00090	.41	64
Feb. 19	(11:00 a.m.)	.00098	.44	64
Mar. 22	(11:20 a.m.)	No flow. Pump running		
Apr. 17	(10:20 a.m.)	.0013	.60	64

SPRING - CROWN ELEVEN RANCH

Location.- Lat. 34°33'50", long. 119°58'10".

Altitude.- About 970 feet, from topographic map.

Description.- Seepage from alluvial fill collected in ditch on east bank of creek. Discharge measured at end of old 4-inch pipe line.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Oct. 28, 1948		0.0016	0.73	
Jan. 26, 1949	(12:10 p.m.)	.0014	.62	
Mar. 21	(1:00 p.m.)	.0032	1.4	
Apr. 21	(1:15 p.m.)	.0026	1.2	
June 1	(11:10 a.m.)	.0028	1.25	
June 23	(1:15 p.m.)	.0024	1.07	65
July 21	(12:30 p.m.)	.0030	1.36	67
Aug. 18	(12:15 p.m.)	.0015	.68	67
Sept. 28	(12:15 p.m.)	.0014	.65	66
Oct. 26	(12:30 p.m.)	.0014	.62	65
Nov. 21	(2:20 p.m.)	.0013	.58	68
Dec. 22	(12:45 p.m.)	.0014	.62	62
Jan. 17, 1950	(1:15 p.m.)	.0016	.71	65
Feb. 24	(1:15 p.m.)	.0024	1.1	65
Mar. 21	(1:15 p.m.)	.0028	1.2	67
Apr. 20	(1:15 p.m.)	.0026	1.2	67
May 17	(1:00 p.m.)	.0028	1.2	68
June 29	(1:15 p.m.)	.00053	.24	65
July 28	(1:00 p.m.)	.0021	.94	67
Aug. 30	(11:45 p.m.)	.0015	.65	67
Oct. 31	(11:50 a.m.)	.0014	.62	65
Nov. 16	(9:10 a.m.)	.0013	.60	63
Dec. 12	(12:45 p.m.)	.0013	.60	64
Jan. 11, 1951	(11:30 a.m.)	.0012	.52	64
Feb. 19	(11:15 a.m.)	.00098	.44	62
Mar. 22	(10:30 a.m.)	.00086	.38	62
Apr. 17	(10:35 a.m.)	.00081	.36	64

UNNAMED CREEK, TRIBUARY TO SANTA YNEZ RIVER AT HARVEY RANCH

Location.- Lat. 34°34'00", long. 119°58'10", at 6-foot road culvert about 1.0 mile south of Highway 150.

Altitude.- About 950 feet, from topographic map.

Description.- Measuring site in natural channel.

Diversions.- Several diversions above from springs.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Oct. 22, 1948		0.0058	2.6	
Jan. 26, 1949	(12:40 p.m.)	.016	7.2	
Mar. 21	(3:00 p.m.)	.030	13	
Apr. 21	(2:00 p.m.)	.030	13	
June 1	(11:50 a.m.)	.024	10.9	
June 23	(2:10 p.m.)	.017	7.5	65
July 21	(1:45 p.m.)	.012	5.3	61
Aug. 18	(1:30 p.m.)	.0084	3.8	67
Sept. 28	(1:00 p.m.)	.0074	3.3	56
Oct. 26	(1:30 p.m.)	.0065	2.9	52
Nov. 21	(3:00 p.m.)	.0079	3.5	53
Dec. 22	(1:45 p.m.)	.015	6.9	40
Jan. 17, 1950	(2:15 p.m.)	.022	10	53
Feb. 24	(2:15 p.m.)	.027	12	55
Mar. 21	(2:00 p.m.)	.031	14	57
Apr. 20	(2:15 p.m.)	.021	14	62
May 17	(2:00 p.m.)	.033	15	57
June 29	(2:15 p.m.)	.013	6.0	63
July 28	(2:00 p.m.)	.011	5.1	60
Aug. 30	(12:45 p.m.)	.0052	2.3	60
Oct. 17	(1:00 p.m.)	.0048	2.2	56
Nov. 16	(10:15 a.m.)	.0089	4.0	50
Dec. 12	(1:45 p.m.)	.0098	4.4	53
Jan. 11, 1951	(12:30 P.m.)	.011	5.1	48
Feb. 19	(12:15 p.m.)	.010	4.5	46
Mar. 21	(11:50 a.m.)	.010	4.5	52
Apr. 17	(11:50 a.m.)	.0080	3.6	54

SPRING - UNNAMED TRIBUTARY TO SANTA YNEZ RIVER AT HIGHWAY 150.

Location.- Lat. 34°34'50", 119°58'20", at road crossing of Highway 150 and about 200 yards west of Ohio Oil Company Road.

Altitude.- About 680 feet, from topographic map.

Description.- Measuring site is in natural stream channel just above highway culvert on the San Lucas Ranch, Mr. Crawford, owner.

Diversions.- No known diversions above station.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Nov. 13, 1948	(9:10 a.m.)	No flow	No flow	
Jan. 31, 1949	(8:10 a.m.)	0.068	31	
Mar. 8	(1:10 p.m.)	.020	9.0	
Apr. 19	(12:15 p.m.)	.012	5.4	
May 26	(2:10 p.m.)	No flow	No flow	
June 20	(12:10 p.m.)	No flow	No flow	
July 18	(2:30 p.m.)	No flow	No flow	
Aug. 15	(1:20 p.m.)	No flow	No flow	
Sept. 26	(1:50 p.m.)	No flow	No flow	
Oct. 24	(2:00 p.m.)	No flow	No flow	
Nov. 17	(2:30 p.m.)	No flow	No flow	
Dec. 17	(2:15 p.m.)	.011	4.9	50
Jan. 16, 1950	(12:40 p.m.)	.010	4.5	40
Feb. 20	(1:45 p.m.)	.010	4.5	
Mar. 20	(12:10 p.m.)	.005	2.2	57
Apr. 21	(8:20 a.m.)	.0056	2.5	55
May 16	(12:15 p.m.)	.0033	1.5	56
June 26	(8:50 a.m.)	No flow	No flow	
July 21	(12:50 p.m.)	No flow	No flow	
Aug. 28	(11:10 a.m.)	No flow	No flow	
Oct. 16	(12:05 p.m.)	No flow	No flow	
Nov. 13	(2:45 p.m.)	.0033	1.5	53
Dec. 11	(12:05 a.m.)	.015	6.7	51
Jan. 8, 1951	(1:15 p.m.)	.016	7.2	45
Feb. 5	(1:30 p.m.)	.0092	4.1	51
Mar. 5	(1:30 p.m.)	.0027	1.2	50
Apr. 4	(12:45 p.m.)	.014	6.4	55

HILTON CANYON CREEK

Location.- Lat. 34°32'20", long. 119°58'40", about 3.2 miles south of Highway 150 near oil well.

Altitude.- About 2,300 feet, from topographic map.

Description.- Measuring site in natural stream channel on San Lucas Ranch.

Diversion.- No known diversions above station.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Nov. 18, 1948	(10:30 a.m.)	No flow	No flow	
Dec. 15	(8:15 a.m.)	No flow	No flow	
Mar. 21, 1949	(10:50 a.m.)	0.00011	0.048	
Apr. 20	(2:15 p.m.)	No flow	No flow	
May 31	(9:30 a.m.)	No flow	No flow	
June 21	(10:30 a.m.)	No flow	No flow	
July 20	(11:00 a.m.)	No flow	No flow	
Aug. 16	(10:30 a.m.)	No flow	No flow	
Sept. 27	(10:30 a.m.)	No flow	No flow	
Oct. 25	(10:50 a.m.)	No flow	No flow	
Nov. 22	(10:00 a.m.)	No flow	No flow	
Dec. 21	(11:30 a.m.)	No flow	No flow	

SPRING - J. V. CRAWFORD

Location.- Lat. 34°32'50", Long. 119°58'50".

Altitude.- About 1,930 feet, from topographic map.

Description.- Seeps in creek bed a short distance above diversion dam. Discharge at outlet of 2-inch pipe, 0.25 mile north at reservoir.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals per min.	°F
Oct. 25, 1948		0.010	4.6	
Jan. 26, 1949	(10:00 a.m.)	.085	38	
Mar. 21	(11:00 a.m.)	.11	50	
Apr. 20	(1:30 p.m.)	.068	31	
May 31	(10:00 a.m.)	.12	52	
June 1	(11:00 a.m.)	.098	44	58
July 20	(10:45 a.m.)	.083	37.3	66
Aug. 16	(11:00 a.m.)	.022	9.8	57
Sept. 27	(11:00 a.m.)	.016	7.3	57
Oct. 25	(10:30 a.m.)	.012	5.5	54
Nov. 22	(10:15 a.m.)	.016	7.2	52
Dec. 21	(11:00 a.m.)	.041	18.	47
Jan. 17, 1950	(11:45 a.m.)	.068	31	52
Feb. 21	(10:30 a.m.)	.068	30	50
Mar. 20	(11:15 a.m.)	.045	20	54
Apr. 19	(11:30 a.m.)	.034	15	58
May 16	(10:00 a.m.)	.037	17	52
June 27	(11:00 a.m.)	.014	6.2	58
July 24	(10:30 a.m.)	.0092	4.1	62
Aug. 30	(10:00 a.m.)	.0049	2.2	61
Oct. 17	(10:30 a.m.)	.0076	3.4	56
Nov. 16	(8:00 a.m.)	.017	7.5	52
Dec. 12	(11:30 a.m.)	.014	6.3	55
Jan. 11, 1951	(1:30 p.m.)	.021	9.4	50
Feb. 19	(10:00 a.m.)	.015	6.8	48
Mar. 9	(12:15 p.m.)	.021	9.4	51
Apr. 5	(12:30 p.m.)	.015	6.7	53

STATION 140 a

SPRING, J. V. CRAWFORD

Location.- Lat. 34°33'20" long. 119°59'00".

Altitude.- About 1150 feet from topographic map.

Description.- Undeveloped spring. Seep on side of heavily ferned hill. Tentative for development by J. V. Crawford ranch.

DATE		DISCHARGE		TEMP
		Second-feet	Gals. per min.	°F
Mar. 9, 1951	(11:45 a.m.)	.0012	.52	52
Apr. 5	(1:00 p.m.)	.00090	.41	54

HILTON CANYON CREEK AT HIGHWAY 150

Location.- Lat. 34°35'10", long. 119°59'10", at Highway 150.

Altitude.- About 650 feet, from topographic map.

Description.- Measuring site in natural stream channel above highway crossing.

Diversion.- Several diversions above station.

DATE		DISCHARGE	
		Second-feet	Gals. per min.
Mar. 8, 1949	(1:30 p.m.)	No flow	No flow
Mar. 21	(12-noon)	No flow	No flow
Apr. 19	(12-noon)	No flow	No flow
May 26	(2:00 p.m.)	No flow	No flow
June 20	(11:50 a.m.)	No flow	No flow
July 18	(2:50 p.m.)	No flow	No flow
Aug. 15	(1:00 p.m.)	No flow	No flow
Sept. 26	(1:30 p.m.)	No flow	No flow
Oct. 24	(1:45 p.m.)	No flow	No flow
Nov. 17	(2:45 p.m.)	No flow	No flow
Dec. 19	(1:30 p.m.)	No flow	No flow
Jan. 16, 1950	(1:10 p.m.)	No flow	No flow
Feb. 20	(1:30 p.m.)	No flow	No flow
Mar. 20		No flow	No flow
Apr. 19	(1:00 p.m.)	No flow	No flow
May 16	(12:45 p.m.)	No flow	No flow
June 26	(9:10 a.m.)	No flow	No flow
July 21	(12:30 p.m.)	No flow	No flow
Aug. 28	(10:50 a.m.)	No flow	No flow
Oct. 16	(11:40 a.m.)	No flow	No flow
Nov. 13	(1:15 p.m.)	No flow	No flow
Dec. 11	(11:45 a.m.)	No flow	No flow
Jan. 8, 1951	(12:45 p.m.)	No flow	No flow
Feb. 5	(1:00 p.m.)	No flow	No flow
Mar. 5	(1:00 p.m.)	No flow	No flow
Apr. 4	(12:15 p.m.)	No flow	No flow

STATION 142

SPRING - J. V. CRAWFORD

Location.- Lat. 34°34'40", long. 119°59'20".

Altitude.- About 980 feet, from topographic map.

Description.- Wood-curbed seep on hillside. Discharge measured at end of 2-inch line to stock trough.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Oct. 28, 1948		0.000067	0.03	
Jan. 26, 1949	(2:00 p.m.)	.00013	.058	
Mar. 8	(12:40 p.m.)	.00013	.057	
Apr. 19	(11:40 a.m.)	.00013	.057	
May 26	(1:40 p.m.)	.00012	.052	
June 21	(12:45 p.m.)	.000076	.034	106
July 19	(2:05 p.m.)	No flow	No flow	91
Aug. 15	(2:35 p.m.)	One drop in 8 seconds		
Sept. 26	(1:00 p.m.)	No flow	No flow	
Oct. 24	(1:20 p.m.)	No flow	No flow	
Nov. 17	(3:10 p.m.)	No flow	No flow	
Dec. 19	(1:00 p.m.)	1.9 drops per second		48
Jan. 16, 1950	(1:50 p.m.)	.000015	.0068	49
Feb. 20	(1:00 p.m.)	.000033	.015	55
Mar. 20	(10:20 a.m.)	2 drops per second		57
Apr. 20	(2:45 p.m.)	.15 drops per second		
May 16	(1:30 p.m.)	5 drops in 10 seconds		
June 26	(10:00 a.m.)	No flow	No flow	
July 21	(11:55 a.m.)	No flow	No flow	
Aug. 28	(9:40 a.m.)	10 drops in 7.0 seconds		
Oct. 16	(11:10 a.m.)	No flow	No flow	
Nov. 13	(12:30 p.m.)	No flow	No flow	
Dec. 11	(11:15 a.m.)	No flow	No flow	
Jan. 8, 1951	(11:30 a.m.)	No flow	No flow	
Feb. 5	(12:30 p.m.)	No flow	No flow	
Mar. 5	(12:30 p.m.)	No flow	No flow	
Apr. 4	(11:30 a.m.)	No flow	No flow	

NONE'S CREEK AT G. WALSKA FISH POND

Location.- Lat. 34°32'20", long. 120°00'30", at G. Walska Fish pond about 0.8 mile northeast of El Capitan Lodge.

Altitude.-About 2,200 feet, from topographic map.

Description.- The measuring site is at overflow pipe from fish pond in natural stream channel reached by about 2 miles of private mountain road from El Capitan Lodge.

Diversion.- No known diversions above.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Jan. 27, 1949	(11:50 a.m.)	0.057	26	39
Mar. 28	(12:45 p.m.)	.098	44	
May 25	(9:45 a.m.)	.055	24.6	
June 22	(9:25 a.m.)	.043	19.1	59
July 20	(9:10 a.m.)	.034	15.3	60
Sept. 14	(9:20 a.m.)	.030	13.3	
Nov. 30	(10:40 a.m.)	.039	17.6	50
Dec. 28	(9:35 a.m.)	.057	26	45
Jan. 24, 1950	(8:40 a.m.)	.081	36	48
Feb. 16	(noon)	.12	55	
Apr. 21	(10:40 a.m.)	.059	26	59
June 8	(11:35 a.m.)	.050	23	
July 20	(11:30 a.m.)	.035	15.8	62
Aug. 24	(9:10 a.m.)	.035	15.7	62
Nov. 2	(11:10 a.m.)	.040	17.9	53
Nov. 29	(11:40 a.m.)	.046	21	50
Dec. 19	(8:55 a.m.)	.045	20	51
Feb. 1, 1951	(10:30 a.m.)	.050	22	43
Feb. 28	(11:10 a.m.)	.069	31	
Mar. 21	(8:35 a.m.)	.053	24	
Apr. 24	(8:40 a.m.)	.043	19	

SPRING - MADAME GANNA WALSKA

Location.- Lat. 34°32'10", long. 120°00'50".

Altitude.- About 2,650 feet, from topographic map.

Description.- Seeps on side of canyon impounded by small dam across the creek.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Dec. 7, 1948		0.0062	2.8	
Jan. 27, 1949	(10:55 a.m.)	.0088	3.9	47
Mar. 28	(12:20 a.m.)	.024	10.8	
May 25	(9:20 a.m.)	.010	4.49	
June 22	(9:00 a.m.)	.0080	3.59	57
July 20	(8:50 a.m.)	.0026	1.17	58
Sept. 14	(8:55 a.m.)	.010	4.49	
Nov. 30	(9:55 a.m.)	.006	2.7	52
Dec. 28	(9:15 a.m.)	.009	4.0	46
Jan. 24, 1950	(9:00 a.m.)	.023	10.5	47
Feb. 16	(11:40 a.m.)	.024	11	
Apr. 21	(10:25 a.m.)	.012	5.4	56
June 8	(11:15 a.m.)	.008	3.59	52
July 20	(11:15 a.m.)	.0026	1.17	
Aug. 24	(8:50 a.m.)	.0034	1.54	58
Nov. 2	(10:55 a.m.)	.0035	1.56	55
Nov. 29	(11:25 a.m.)	.0036	1.60	
Dec. 19	(8:40 a.m.)	.0044	1.97	50
Feb. 1, 1951	(10:00 a.m.)	.0052	2.34	47
Mar. 28	(8:20 a.m.)	.0070	3.12	40
Mar. 21	(10:50 a.m.)	.0076	3.41	
Apr. 24	(8:25 a.m.)	.0045	2.02	

SPRING - J. V. CRAWFORD

Location.- Lat. 34°33'30", long. 120°01'10"

Altitude.- About 1,700 feet, from topographic map.

Description.- Seepage into uncurbed pool near bottom of small valley in hillside.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Oct. 25, 1948		No flow	No flow	
Jan. 26, 1949	(5:30 p.m.)	0.00018	0.082	
Mar. 8	(10:20 a.m.)	.00029	.128	
Apr. 19	(9:15 a.m.)	.00043	.19	
June 1	(9:35 a.m.)	.00024	.11	
June 21	(9:20 a.m.)	.00018	.080	57
July 20	(9:30 a.m.)	.00010	.045	59
Aug. 16	(9:25 a.m.)	.000043	.019	56
Sept. 27	(9:40 a.m.)	No flow	No flow	
Oct. 25	(9:45 a.m.)	No flow	No flow	
Nov. 22	(9:45 a.m.)	No flow	No flow	53
Dec. 21	(9:45 a.m.)	.00013	.060	40
Jan. 17, 1950	(10:15 a.m.)	.00020	.091	50
Feb. 21	(9:35 a.m.)	.00021	.096	46
Mar. 20		.00015	.065	50
Apr. 19	(10:00 a.m.)	.00022	.10	61
June 27	(9:45 a.m.)	.000040	.018	62
July 24	(8:45 a.m.)	No flow	No flow	
Aug. 30	(8:15 a.m.)	No flow	No flow	
Oct. 17	(9:15 a.m.)	No flow	No flow	
Nov. 16	(1:00 p.m.)	No flow	No flow	
Dec. 12	(9:55 a.m.)	No flow	No flow	
Jan. 23, 1951	(9:45 a.m.)	No flow	No flow	
Feb. 19	(8:45 a.m.)	No flow	No flow	
Mar. 9	(9:15 a.m.)	No flow	No flow	
Apr. 5	(9:05 a.m.)	No flow	No flow	

SPRING - J. V. CRAWFORD

Location.- Lat. 34°33'20", long. 120°01' 20" .

Altitude.- About 1,750 feet, from topographic map.

Description.- Seepage into uncurbed pool on hillside.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Oct. 25, 1948	(estimated)	0.0007	1/3	
Jan. 26, 1949	(5:20 p.m.)	.0011	0.48	
Mar. 8	(10:30 a.m.)	.0011	.48	
Apr. 19	(9:30 a.m.)	.0011	.50	
June 1	(9:15 a.m.)	.0010	.47	
June 21	(9:05 a.m.)	.00098	.44	58
July 20	(9:15 a.m.)	.00067	.30	60
Aug. 16	(9:10 a.m.)	.00076	.34	57
Sept. 27	(9:20 a.m.)	.00060	.27	56
Oct. 25	(9:30 a.m.)	.00036	.16	55
Nov. 22	(9:30 a.m.)	.00071	.32	53
Dec. 21	(9:30 a.m.)	.00076	.34	47
Jan. 17, 1950	(10:00 a.m.)	.00088	.39	54
Feb. 21	(9:20 a.m.)	.00066	.29	49
Mar. 20	(9:10 a.m.)	.00084	.38	52
Apr. 19	(9:45 a.m.)	.00098	.44	58
May 16	(8:30 a.m.)	.0013	.58	56
June 27	(9:30 a.m.)	.0011	.50	60
July 24	(8:25 a.m.)	.00095	.43	58
Aug. 30	(8:00 a.m.)	.00076	.34	60
Oct. 17	(9:00 a.m.)	.00076	.34	55
Nov. 16	(12:35 p.m.)	.00089	.40	57
Dec. 12	(9:35 a.m.)	.0010	.47	56
Jan. 23, 1951	(9:30 a.m.)	.0010	.45	55
Feb. 19	(8:30 a.m.)	.0011	.50	53
Mar. 9	(9:00 a.m.)	.0016	.71	56
Apr. 5	(8:50 a.m.)	.0015	.68	56

STATION 148

SPRING - J. V. CRAWFORD

Location.- Lat. 34°33'20", long. 120°01'30".

Altitude.- About 1,700 feet, from topographic map.

Description.- Seepage into uncurbed pool from alluvium on hillside.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Oct. 25, 1948	(Estimated)	0.0004	1/6	
Jan. 26, 1949	(5:10 p.m.)	.00060	0.27	
Mar. 8	(10:40 a.m.)	.00063	.28	
Apr. 19	(9:45 a.m.)	.00028	.12	
June 1	(9:00 a.m.)	.00051	.23	
June 21	(8:50 a.m.)	.00049	.22	58
July 20	(9:00 a.m.)	.00044	.20	60
Aug. 16	(8:50 a.m.)	.00045	.20	57
Sept.27	(9:00 a.m.)	.00046	.21	57
Oct. 25	(9:15 a.m.)	.00045	.20	56
Nov. 22	(9:15 a.m.)	.00048	.21	54
Dec. 21	(10:00 a.m.)	.00048	.22	44
Jan. 17, 1950	(9:45 a.m.)	.00050	.22	50
Feb. 21	(9:05 a.m.)	.00045	.20	49
Mar. 20	(9:00 a.m.)	.00029	.13	53
Apr. 19	(9:30 a.m.)	.00036	.16	63
May 16	(8:15 a.m.)	.00056	.25	52
June 27	(9:15 a.m.)	9 drops in 5.0 seconds		
July 24	(8:00 a.m.)	.00025	.11	60
Aug. 30	(7:45 a.m.)	.00022	.097	63
Oct. 17	(8:45 a.m.)	.00032	.14	55
Nov. 16	(12:20 p.m.)	.00038	.17	53
Dec. 12	(9:15 a.m.)	.00028	.13	53
Jan. 23, 1951	(9;15 a.m.)	.00020	.091	50
Feb. 19	(8:15 a.m.)	.00038	.17	42
Mar. 9	(8:45 a.m.)	.00037	.17	48
Apr. 5	(8:35 a.m.)	.00039	.18	51

SPRING - J. V. CRAWFORD

Location.- Lat. 34°33'40", long. 120°01'40".

Altitude.- About 1,150 feet, from topographic map.

Description.- Wood-curbed spring in side canyon near bottom of 8-foot natural falls. Discharge measured at end of 3/4-inch pipe leading to circular concrete stock trough.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Oct. 25, 1948		0.00027	0.12	
Jan. 26, 1949	(4:50 p.m.)	.00095	.43	
Mar. 6	(9:10 a.m.)	.0015	.68	
Apr. 19	(8:45 a.m.)	.0012	.56	
June 1	(8:30 a.m.)	.00084	.38	
June 21	(8:20 a.m.)	.00057	.25	50
July 20	(8:30 a.m.)	.00027	.12	56
Aug. 16	(8:25 a.m.)	.00031	.14	50
Sept. 27	(8:30 a.m.)	.00026	.11	56
Oct. 25	(8:45 a.m.)	.00033	.15	55
Nov. 22	(8:45 a.m.)	.00049	.22	48
Dec. 21	(9:00 a.m.)	.00093	.42	41
Jan. 17, 1950	(9:15 a.m.)	.0013	.60	49
Feb. 21	(8:25 a.m.)	.0012	.52	46
Mar. 20	(8:20 a.m.)	.0010	.47	50
Apr. 19	(9:00 a.m.)	.00095	.43	55
May 16	(7:30 a.m.)	.00074	.33	52
June 27	(8:45 a.m.)	.00039	.18	58
July 24	(7:30 a.m.)	.00031	.14	58
Aug. 30	(7:15 a.m.)	.000047	.021	63
Oct. 17	(8:15 a.m.)	.00027	.12	54
Nov. 16	(11:30 a.m.)	.00047	.21	51
Dec. 12	(8:30 a.m.)	.00067	.30	53
Jan. 23, 1951	(8:30 a.m.)	.00070	.31	48
Feb. 19	(7:45 a.m.)	.00074	.33	42
Mar. 9	(8:00 a.m.)	.00088	.39	47
Apr. 5	(7:45 a.m.)	.00080	.36	52

STATION 150

SAN LUCAS CREEK BELOW SPRING #149

Location.- Lat. 34°33'50", long. 120°01'40", at wood cribbed spring No. 149 about 1.7 miles south of Highway 150.

Altitude.- About 1,100 feet, from topographic map.

Description.- Measuring site in natural stream channel below spring #149.

Diversion.- Spring #149 diversion above for stock.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Apr. 19, 1949	(9:00 a.m.)	No flow	No flow	
June 1	(8:35 a.m.)	No flow	No flow	
June 21	(8:30 a.m.)	No flow	No flow	
July 20	(8:15 a.m.)	No flow	No flow	
Aug. 16	(8:15 a.m.)	No flow	No flow	
Sept. 27	(8:20 a.m.)	No flow	No flow	
Oct. 25	(8:30 a.m.)	No flow	No flow	
Nov. 22	(8:30 a.m.)	No flow	No flow	
Dec. 21	(8:50 a.m.)	No flow	No flow	
Jan. 17, 1950	(9:00 a.m.)	0.017	7.5	49
Feb. 21	(8:40 a.m.)	.021	9.4	50
Mar. 20	(8:35 a.m.)	.010	4.9	52
Apr. 19	(8:45 a.m.)	.0044	2.0	55
May 16	(7:45 a.m.)	No flow	No flow	
June 27	(8:30 a.m.)	No flow	No flow	
July 24	(7:00 a.m.)	No flow	No flow	
Aug. 30	(7:00 a.m.)	No flow	No flow	
Oct. 17	(8:00 a.m.)	No flow	No flow	
Nov. 16	(11:45 a.m.)	No flow	No flow	
Dec. 12	(8:45 a.m.)	No flow	No flow	
Jan. 23, 1951	(8:45 a.m.)	No flow	No flow	
Feb. 19	(9:15 a.m.)	No flow	No flow	
Mar. 9	(8:15 a.m.)	No flow	No flow	
Apr. 5	(8:10 a.m.)	No flow	No flow	

SPRING - RANCHO JUAN Y LOLITA

Location.- Lat. 34°34'10", long. 120°03'10"

Altitude.- About 1,150 feet, from topographic map.

Description.- Wood-curbed pool on hillside. Discharge measured at first pipe union below spring.

DATE		DISCHARGE		TEMP. °F
		Second-feet	Gals. per min.	
Dec. 3, 1948		Not meas.	Not meas.	
Feb. 1, 1949		0.0056	2.50	
Apr. 8	(8:30 a.m.)	.0059	2.7	
May 26	(8:30 a.m.)	.0053	2.40	
June 20	(8:05 a.m.)	.0050	2.24	68
July 19	(8:00 a.m.)	.0045	2.03	64
Aug. 15	(8:00 a.m.)	.0044	1.97	64
Sept. 26	(8:15 a.m.)	.0040	1.78	62
Oct. 24	(8:45 a.m.)	.0037	1.64	62
Nov. 21	(8:30 a.m.)	.0024	1.07	62
Dec. 20	(8:15 a.m.)	.0032	1.42	60
Jan. 18, 1950	(8:30 a.m.)	.0034	1.54	63
Feb. 20	(8:30 a.m.)	.0020	.89	62
Mar. 22	(8:25 a.m.)	.0027	1.2	63
Apr. 18	(8:20 a.m.)	.0028	1.3	62
May 15	(7:30 a.m.)	.0026	1.15	63
June 26	(11:45 a.m.)	.0039	1.73	62
July 21	(7:40 a.m.)	.0039	1.73	62
Aug. 29	(7:00 a.m.)	.0035	1.56	62
Oct. 16	(7:45 a.m.)	.0030	1.35	62
Nov. 13		.0031	1.38	62
Dec. 11	(7:45 a.m.)	.0032	1.42	62
Jan. 8, 1951	(8:00 a.m.)	.0029	1.32	62
Feb. 5	(8:30 a.m.)	.0034	1.52	62
Mar. 5	(8:00 a.m.)	.0073	3.27	62
Apr. 4	(8:00 a.m.)	.0036	1.64	65

STATION 152

EAST FORK, QUIOTA CREEK

Location.- Lat. 34°33'20", long. 120°03'20", about 1.3 miles east of Refugio Pass Road.

Altitude.- About 950 feet, from topographic map.

Description.- Measuring site at outcrop in natural stream channel, reached by private road on the Juan Y. Lolita Ranch.

Diversion.- No known diversions.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
May 26, 1949	(10:35 a.m.)	No flow	No flow	
June 20	(10:20 a.m.)	No flow	No flow	
July 19	(10:30 a.m.)	No flow	No flow	
Aug. 15	(10:20 a.m.)	No flow	No flow	
Sept.26	(10:10 a.m.)	No flow	No flow	
Oct. 24	(11:00 a.m.)	No flow	No flow	
Nov. 21	(9:45 a.m.)	No flow	No flow	
Dec. 20	(10:30 a.m.)	No flow	No flow	
Jan. 18, 1950	(11:30 a.m.)	No flow	No flow	

SPRING - RANCH JUAN Y LOLITA

Location.- Lat. 34°33'30", long. 120°03'30".

Altitude.- About 1,150 feet, from topographic map.

Description.- Seep in small side canyon. Stock drink from pools.

DATE		DISCHARGE		TEMP.
		Second-Feet	Gals. per min.	°F
Feb. 1, 1949		0.00080	0.36	
Apr. 8	(11:45 a.m.)	.00047	.21	
May 26	(10:50 a.m.)	.00048	.21	
June 20	(10:35 a.m.)	.00019	.086	71
July 19	(11:00 a.m.)	.00015	.068	69
Aug. 15	(10:40 a.m.)	.00022	.100	61
Sept.26	(10:20 a.m.)	.000091	.041	60
Oct. 24	(10:45 a.m.)	.00014	.061	54
Nov. 21	(10:00 a.m.)	.00019	.087	53
Dec. 20	(10:45 a.m.)	.00034	.15	45
Jan. 18, 1950	(11:45 a.m.)	.00070	.31	55
Feb. 20	(10:45 a.m.)	.00057	.25	52
Mar. 22	(10:45 a.m.)	.00056	.25	
Apr. 18	(10:30 a.m.)	.00046	.21	60
May 15	(9:30 a.m.)	.00015	.065	55
June 26	(2:10 p.m.)	.00031	.14	62
July 21	(9:30 a.m.)	.00032	.014	68
Aug. 29	(9:45 a.m.)	No flow	No flow	
Oct. 16	(9:50 a.m.)	No flow	No flow	
Nov. 13	(10:20 a.m.)	.00024	.11	55
Dec. 11	(10:00 a.m.)	.00040	.18	56
Jan. 8, 1951	(10:10 a.m.)	.00024	.11	46
Feb. 5	(10:30 a.m.)	.00048	.21	57
Mar. 5	(10:30 a.m.)	.00043	.19	53
Apr. 4	(10:10 a.m.)	.00045	.20	56

SPRING - RANCHO JUAN Y LOLITA

Location.- Lat. 34°33'40", long. 120°04'20".

Altitude.- About 1,100 feet, from topographic map.

Description.- Old wood-curbed seep in bottom of valley. Discharge measured in boggy area downstream.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Nov. 10, 1948	(estimated)	0.0007	1/3	
Feb. 1, 1949		.00060	0.27	
Apr. 8	(10:45 a.m.)	.00059	.27	
May 26	(10:00 a.m.)	.00038	.17	
June 20	(9:45 a.m.)	.00026	.12	72
July 19	(10:00 a.m.)	.00019	.085	77
Aug. 15	(9:45 a.m.)	.00025	.11	65
Sept. 26	(9:45 a.m.)	.00016	.071	60
Oct. 24	(10:05 a.m.)	.00017	.075	55
Nov. 21	(9:15 a.m.)	.00011	.050	52
Dec. 20	(10:00 a.m.)	.00026	.11	41
Jan. 18, 1950	(10:45 a.m.)	.00013	.059	56
Feb. 20	(10:00 a.m.)	.00023	.10	52
Mar. 22	(10:00 a.m.)	.000093	.042	65
Apr. 18	(10:00 a.m.)	.00015	.065	64
May 15	(9:00 a.m.)	.00015	.066	63
June 26	(1:20 p.m.)	.00027	.12	62
July 21	(9:00 a.m.)	.000053	.024	66
Aug. 29	(9:00 a.m.)	.000030	.013	68
Oct. 16	(9:20 a.m.)	.000034	.015	62
Nov. 13	(9:30 a.m.)	.00011	.151	55
Dec. 11	(9:20 a.m.)	.00011	.050	55
Jan. 8	(9:45 a.m.)	.00010	.045	52
Feb. 5	(11:45 a.m.)	.0010	.046	58
Mar. 5	(9:45 a.m)	.000049	.022	53
Apr. 4	(9:35 a.m.)	.00020	.090	58

SPRING - U. S. FOREST SERVICE

Location.- Lat. 34°32'10", long. 120°03'50".

Altitude.- About 2,040 feet, from topographic map.

Description.- Concrete-curbed spring, 7 feet deep. Discharge measured at road crossing, 170 feet downstream.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Jan. 27, 1949	(4:35 p.m.)	0.023	10.4	
Mar. 28	(2:30 p.m.)	.052	23	
May 25	(11:55 a.m.)	.005	2.24	
June 22	(11:00 a.m.)	No flow	No flow	
July 20	(10:45 a.m.)	No flow	No flow	
Sept.14	(10:50 a.m.)	No flow	No flow	
Nov. 30	(11:40 a.m.)	No flow	No flow	
Dec. 29	(11:35 a.m.)	.0015	.65	49
Jan. 16, 1950	(1:05 p.m.)	.19	85	46
Feb. 16	(1:40 p.m.)	.034	15	
Mar. 10	(12:15 p.m.)	.0012	.54	51
Apr. 21	(8:15 a.m.)	No flow	No flow	
June 8	(1:00 p.m.)	No flow	No flow	
July 20	(1:45 p.m.)	No flow	No flow	
Aug. 24	(7:35 a.m.)	No flow	No flow	
Nov. 2	(1:30 p.m.)	No flow	No flow	
Nov. 29	(1:30 p.m.)	No flow	No flow	
Dec. 19	(10:30 a.m.)	No flow	No flow	
Jan. 29, 1951	(2:00 p.m.)	.0015	.68	47
Feb. 26	(1:30 p.m.)	No flow	No flow	
Mar. 21	(7:00 a.m.)	No flow	No flow	
Apr. 24	(6:55 a.m.)	No flow	No flow	

WEST FORK QUIOTA CREEK

Location.- Lat. 34°33'10", long. 120°04'20", about 0.3 mile east of Refugio Pass Road.

Altitude.- About 800 feet, from topographic map.

Description.- Measuring site in natural creek channel at road crossing on Juan Y Lolita Ranch.

Diversion.- No known diversions above station. An upstream diversion for the former C.C.C. Camp has been abandoned.

DATE		DISCHARGE		TEMP.
		Second-feet	Gals. per min.	°F
Feb. 1, 1949	(3:15 p.m.)	0.076	34	
April 8	(11:15 a.m.)	.16	70	
May 26	(9:40 a.m.)	.013	5.8	
June 20	(9:35 a.m.)	No flow	No flow	
July 19	(9:30 a.m.)	No flow	No flow	
Aug. 15	(9:20 a.m.)	No flow	No flow	
Sept.16	(9:30 a.m.)	No flow	No flow	
Oct. 24	(9:45 a.m.)	No flow	No flow	
Nov. 21	(9:00 a.m.)	No flow	No flow	
Dec. 20	(9:30 a.m.)	.11	51	42
Jan. 18, 1950	(10:15 a.m.)	.20	89	48
Feb. 20	(9:30 a.m.)	.30	130	50
Mar. 22	(9:30 a.m.)	.014	6.3	53
Apr. 18	(9:23 a.m.)	.049	22	57
May 15	(8:30 a.m.)	.026	12	53
June 26	(1:00 p.m.)	No flow	No flow	
July 21	(8:30 a.m.)	No flow	No flow	
Aug. 29	(8:25 a.m.)	No flow	No flow	
Oct. 16	(9:00 a.m.)	No flow	No flow	
Nov. 13	(9:10 a.m.)	No flow	No flow	
Dec. 11	(9:00 a.m.)	No flow	No flow	
Jan. 8, 1951	(9:30 a.m.)	No flow	No flow	
Feb. 5	(9:30 a.m.)	No flow	No flow	
Mar. 5	(9:25 a.m.)	.057	26	48
Apr. 4	(9:15 a.m.)	.038	17	53