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DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

**FLOW OF SPRINGS AND SMALL STREAMS
— IN THE TECOLOTE TUNNEL AREA
OF SANTA BARBARA COUNTY,
CALIFORNIA**

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IN COOPERATION WITH THE
SANTA BARBARA COUNTY WATER AGENCY

OPEN-FILE REPORT

MENLO PARK, CALIFORNIA
OCTOBER, 1960



U. S. GEOLOGICAL SURVEY
Water Resources Division
Menlo Park, Calif.

Flow of Springs and Small streams in the Tecolote Tunnel Area
of Santa Barbara County, California

by

S. E. Rantz

In cooperation with the
Santa Barbara County Water Agency

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FLOW OF SPRINGS AND SMALL STREAMS IN THE TECOLOTE TUNNEL AREA
OF SANTA BARBARA COUNTY, CALIFORNIA

By S. E. Rantz

ABSTRACT

This report presents the results of an investigation to determine the effect of the construction of Tecolote Tunnel in southern Santa Barbara County, California, on the flow of springs and spring-fed streams in the tunnel area. A program of monthly measurement of discharge for this purpose began in late 1948 at 125 springs and streams; tunnel construction started in March 1950 and was completed in January 1956. By late 1951 appreciable seepage was entering the tunnel.

Incidental to the primary objective of this study, but a necessary part of the investigation, were a study of the discharge pattern of the springs and streams of the region, and an evaluation of the effect on flow of both the Arvin-Tehachapi earthquake of July 21, 1952 and the Refugio brush fire of early September 1955. The most striking characteristic of the regimen of flow in the area is the rapid response of discharge to precipitation. An interesting effect was observed in July 1952 when the Arvin-Tehachapi earthquake abruptly increased the flow at 18 measuring sites. At 15 of these sites this effect was felt for only several months, but at three of the sites the effect remained for several years. As for the Refugio fire, there is some reason to believe that the summer flow of many springs and streams may have increased in the years that followed as a result of decreased evapotranspiration losses, but the evidence is inconclusive.

The many complex and interrelated factors that influence the discharge of springs and spring-fed streams make it exceedingly difficult to isolate

the effect of Tecolote Tunnel on the flow. Another major difficulty in evaluating the effect of the tunnel stems from the fact that the calibration period for this study was only three years long, lasting from late 1948 to late 1951, and was uniformly deficient in precipitation. Furthermore, these inadequacies of the calibration period in regard to short length of record and limited range in precipitation, cannot be overcome by the collection of additional discharge information in the years to come. From the data available, however, the following conclusions were reached concerning the effect of Tecolote Tunnel:

1. The failure of one spring (site 110 b) can be attributed to construction of the tunnel.
2. There is no evidence that construction of the tunnel affected the flow of any other spring or stream.

INTRODUCTION

Purpose and Scope

The study of the flow of springs and small streams in southern Santa Barbara County was conceived in March 1948, when the Bureau of Reclamation received authorization for immediate construction of the Cachuma Project. The principal features of the Cachuma Project are the Cachuma Dam and storage reservoir on Santa Ynez River, and Tecolote Tunnel to divert water from Cachuma Reservoir, through the Santa Ynez Mountains, to the water-deficient coastal region south of the mountains. (See figure 1.) The users of the mountain springs and streams in the vicinity of the tunnel site were concerned over the possibility that tunnel construction might reduce their water supply, since it appeared likely that the completed tunnel would intercept and develop appreciable flows of water. Because of this concern, the Santa Barbara County Water Agency requested the Geological Survey to establish an observational program, providing for the systematic

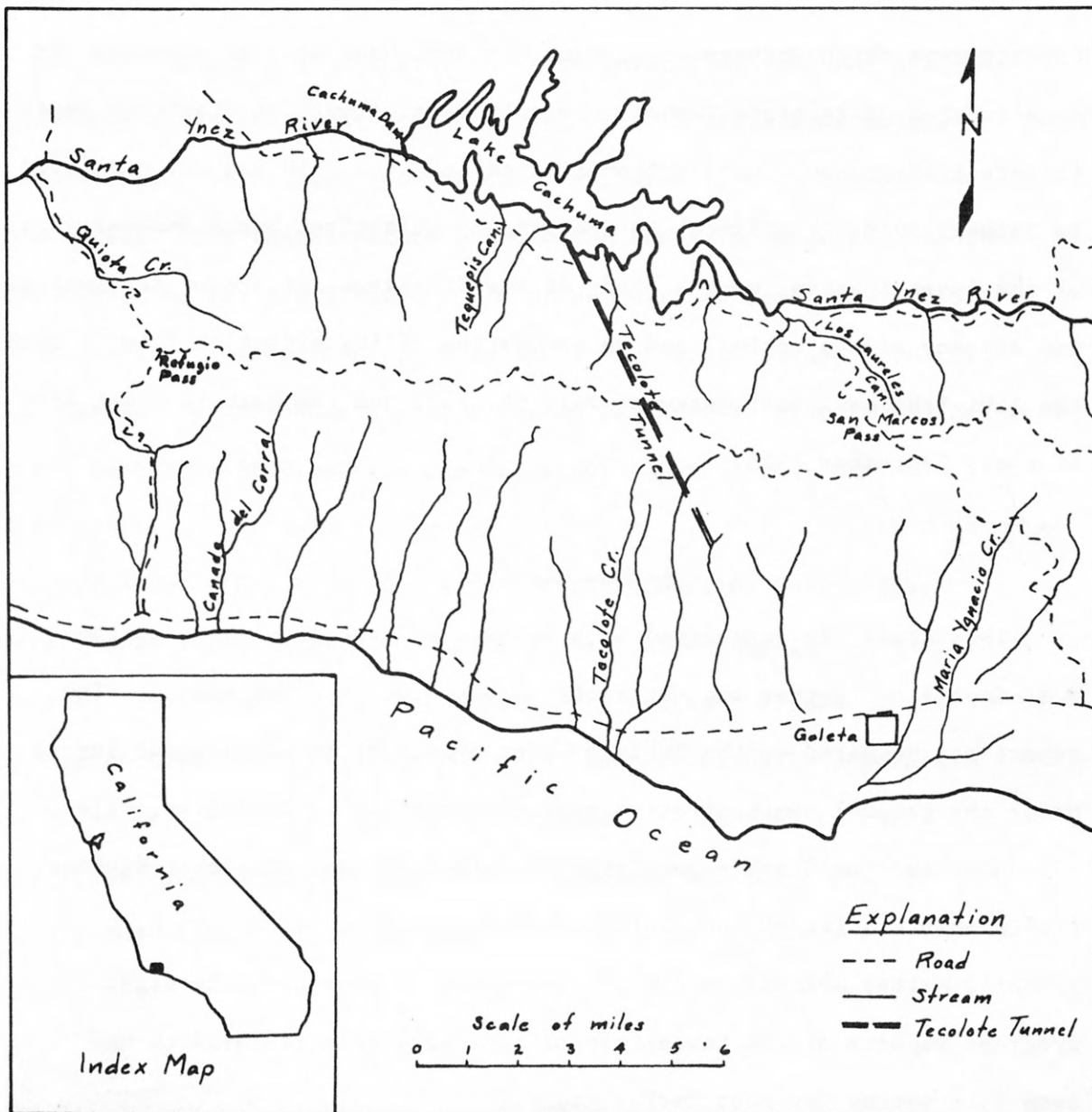


Figure 1.--Map of Tecolote Tunnel area.

measurement of the flow of developed springs and headwater streams in the Tecolote Tunnel area. The program was started in late 1948 and was still in operation in March 1960, when this report was being prepared.

The primary purpose of this report is to evaluate the data collected to determine which springs or streams, if any, have been affected by the construction of Tecolote Tunnel. Monthly measurements of discharge began in late 1948; tunnel construction started in March 1950 and was completed in January 1956. Incidental to the primary objective, but a necessary part of the investigation, were a study of the discharge pattern of the springs and streams of the region, and an evaluation of the effect on flow of both the Arvi-Tehachapi earthquake of July 21, 1952 and the Refugio brush fire of early September 1955.

Acknowledgments

This study was authorized by a cooperative agreement between the U.S. Geological Survey and the Santa Barbara County Water Agency. The report was prepared by the Surface Water Branch of the Geological Survey under the general administrative supervision of E. L. Hendricks, Chief, and under the immediate supervision of Walter Hofmann, District Engineer. Preliminary studies by the Geological Survey were performed by H. C. Troxell, Walter Hofmann, and W. C. Peterson, in preparing the eight progress reports of the investigation that have been released to the open file during the past twelve years.

Valuable assistance was also rendered by the California Department of Water Resources, Sacramento, California, and by the Bureau of Reclamation, Sacramento, California.

DESCRIPTION OF THE AREA

For the purpose of this study, the Tecolote Tunnel area is defined as the north and south slopes of the Santa Ynez Mountains that are bounded approximately on the west by Refugio Road, and on the east by San Marcos Pass Road. (See plate 1.) The area is rectangular in shape, being about 16 miles long in the east-west direction and about 7 miles wide in the north-south direction. About two-thirds of the area lies to the west of Tecolote Tunnel. The tunnel passes through the mountain range in a southeasterly direction for a distance of 6.4 miles, with a slope of 0.00025. The inlet portal, at elevation 660 feet above sea level, is approximately 3 miles upstream from Cachuma Dam, and the outlet portal is at the upper end of the west fork of Glen Anne Canyon, about 10 miles west of the city of Santa Barbara.

The principal ridge line of the Santa Ynez Mountains has an east-west trend, with average elevation of 3,000 feet above sea level in the tunnel area. The brush-covered north and south mountain flanks have a slope of approximately 800 feet to the mile, and are sparsely populated. Numerous canyons, drained by spring-fed streams, are incised in the mountain sides, and in the bottoms of these canyons are found most of the ranches and residences of the area.

Geology

The Santa Ynez Mountains were formed by great compressional forces which lifted Cretaceous and Tertiary sedimentary beds from below sea level by folding and faulting. The mountain range, generally, is well stratified shale and sandstone; the individual beds range in thickness from a few feet to several hundred feet. The section traversed by Tecolote Tunnel is transverse to the axis of an anticline which has been subjected to thrust

faulting on the northern slope of the mountains. The principal thrust fault, the Santa Ynez fault, crosses the tunnel line 2.2 miles from the inlet portal. There are also several zones of strong shearing and crushing that are not considered a part of the Santa Ynez fault, although they were caused by the same forces. The strike of the bedding across the tunnel course, although quite variable, is generally within 20 degrees of west. Minor normal faulting and shearing along the bedding contacts created the zones which are the principal water-bearing areas in the tunnel.

Hydrology

The long-term average annual precipitation over the Tecolote Tunnel area ranges from about 18 inches at the lower elevations to about 30 inches at the crest of the mountains. The precipitation is distinctly seasonal and very little rain falls from June through September. More than 90 percent of the precipitation normally occurs in the six-month period, November through April. Precipitation also exhibits a definite cyclic trend, and since the start of the current dry period in 1944, there have been only 2 years, 1952 and 1958, when precipitation was appreciably above average.

Precipitation is only one of the many complex and interrelated factors that influence the discharge of springs and spring-fed streams in the area. The recharge to the ground-water bodies that supply the flow, depends not only on the volume and time distribution of precipitation, but also on the infiltration rate, the soil-moisture deficiency, and the evapotranspiration rate. Also important in affecting the discharge rate of springs are the hydraulic characteristics of the aquifer, the proximity of the recharge area to the discharge site, pumping from the aquifer, and the methods used in developing and maintaining the individual springs.

DATA AVAILABLE

Observations of the discharge of a few springs and streams began in late 1948, but it was not until January 1949 that monthly observations began at all measuring sites in the network. These discharge measurements have been made each year at about 125 sites, but occasional revision of the network has resulted in measurements having been made, at one time or another, at 164 sites. As of March 1960, there were 120 sites for which monthly discharges were reported, 40 sites having been discontinued, while four others were paired with nearby sites for reporting purposes. The location of each measuring site, along with its identifying number, is shown on plate 1. A description of each site and a tabulation of discharge measurements made there, are found in the appendix to this report. Also listed are water temperatures observed at the time of each measurement.

In addition, measurements of seepage into Tecolote Tunnel were made as tunnel drilling operations progressed. Drilling began at the north, or inlet, portal in March 1950 and at the south, or outlet, portal in May of the same year. Seepage first appeared at the north portal (site 128a) in April 1950, and at the south portal (site 36a) a month later. The tunnel was "holed through" in January 1955, and thereafter all seepage was measured at the south or outlet portal.

In January 1955 the California Department of Water Resources prepared an unpublished report titled, "Tecolote Tunnel Water Quality". That report presented the results of an analysis of water samples obtained by engineers of the U.S. Geological Survey and Bureau of Reclamation during the period October 1953 to May 1954. The waters of 23 springs were sampled as were the inflows from 18 sites within the tunnel. The results of the chemical analyses are summarized later in this report.

FLOW REGIMEN OF SPRINGS AND STREAMS

Because of the many complex and interrelated factors that influence the flow, differences in magnitude, timing, and variability of discharge exist among the measured springs and spring-fed streams. Some springs respond almost immediately to precipitation while others lag, indicating possible differences in distance to the areas of recharge, or differences in water-table gradients or in the permeability of the aquifers. The flow of some springs is well sustained, but many others flow intermittently and go dry during the summer. Examination of all discharge records is necessary, of course, for an appraisal of the effect of the construction of Tecolote Tunnel on the flow of individual springs and streams, but there is much to be learned concerning the general discharge pattern by studying groups of selected springs and streams that are representative of the area. For example, the selection of only those sites that experience perennial flow simplifies the problem of determining the trend of summer discharge, because springs that go dry early in the season are eliminated from consideration. Furthermore, by using the median monthly discharge for a group of measuring sites, it is possible to avoid the many inconsistent discharges that appear in the records for individual sites. These inconsistencies are manifested in the jagged appearance of many of the individual discharge hydrographs during the dry months of the year when flows are receding. The quantities of water involved during these dry periods are extremely small, and measured discharge may fail to be indicative of the average natural flow for the day, much less the month, for the following reasons:

1. Pumping from the aquifer at the time of measurement.
2. Variable evapotranspiration draft, depending on the time of day when the measurement is made.
3. Changes made to the outflow works by the owner of the spring.

Accordingly, the 18 springs and 10 spring-fed streams listed in table 1, were selected for the purpose of investigating the areal pattern of discharge. As mentioned in the previous paragraph, one of the criteria used in the selection of measuring sites was that the flow be perennial, or at least that there be few periods when the spring or stream was dry. The particular sites were also selected for the purpose of obtaining wide areal distribution. Inspection of plate 1, where the 28 sites are indicated by a special symbol, indicates that this objective of obtaining wide coverage was achieved. Other criteria used in the selection of representative sites were that these sites sample: (1) a wide range of elevation, (2) a wide range in the magnitude of average discharge at the individual sites, and (3) a wide range in the variability of flow at the individual sites.

In the Tecolote Tunnel area land surface elevations range from sea level to 3,000 feet above sea level. Column 3 of table 1 indicates that virtually this entire range of elevation is sampled by the selected group of measuring sites. Column 4 shows the wide range of average discharge, 0.15 to 425 gallons per minute, that is experienced at the measuring sites chosen. It will be noted that column 4 lists the median discharge observed. The median is considered to be a more representative average than the arithmetic mean, because the median is unaffected by the magnitude of either the extremely high or extremely low flows observed. It has already been mentioned that individual low-flow measurements may not be representative of the average discharge for a particular month. This is also true of the high-flow measurements made at monthly intervals during the winter, because winter discharges change rapidly with respect to time, and only by happenstance can a measured flow be indicative of the discharge for a particular month.

Table 1.--~~Discharge~~ characteristics of selected springs and spring-fed streams

Measurement site number	Classi- fication	Elevation of measurement site (feet)	Median measured discharge (gpm)	P. ₁₀ (gpm)	P. ₉₀ (gpm)	Ratio $\frac{P_{10}}{P_{90}}$
1	2	3	4	5	6	7
2	Spring	2,700	5.4	17	1.2	14
18	do	1,900	7.2	10	3.2	3
*20 & 21	do	1,700	7.2	13	3.7	3.5
28	do	1,250	12	37	3.3	11
31	do	425	39	94	28	3.5
33	Stream	500	33	64	15	4
35	Spring	800	54	158	25	6
36	do	600	3.2	15	1.3	12
49	Stream	425	4.9	28	.51	55
50	do	520	425	1,410	149	9.5
59	do	1,100	58	331	1.0	331
61	do	190	31	90	7.6	12
65	do	800	162	830	21	40
70	Spring	100	94	630	2.7	233
85	Stream	400	111	260	42	6
93	Spring	2,320	6.7	15	3.1	5
94	do	2,350	1.4	2.7	.6	4.5
100	do	2,025	3.8	34	.32	106
106a	do	1,100	.75	2.5	.29	8.5
110a	Stream	950	28	176	4.5	39
122	do	1,600	6.7	45	1.1	41
132	Spring	1,250	2.6	10	.43	23
136	do	970	1.5	6.4	.36	18
140	do	1,150	47	262	6.2	42
142	do	980	.15	.41	.001	410
143	Stream	2,200	45	130	17	7.5
147	Spring	1,750	.85	1.25	.40	3
153	do	1,150	.56	2.0	.044	45

* Combined

Note.-P.₁₀ refers to measured discharge that is equalled or exceeded 10 percent of the time.

P.₉₀ refers to measured discharge that is equalled or exceeded 90 percent of the time.

Column 7 of table 1 indicates the range in variability of flow at the individual sites. The index of variability used for this purpose is defined as the ratio of the observed discharge that is equalled or exceeded 10 percent of the time ($P_{.10}$) to the observed discharge that is equalled or exceeded 90 percent of the time ($P_{.90}$). This index, as tabulated in column 7, ranges from 3 to 410. It might be inferred that the selection of 10 streams in the sample of 28 measuring sites would result in too heterogeneous a sample, since streams are normally more variable in discharge than are springs. Figure 2, depicting the statistical distribution of the indexes of variability for springs and streams, indicates that there is homogeneity in the composite sample of springs and spring-fed streams insofar as flow variability is concerned.

Having selected a satisfactory sample of the measuring sites in the region, the first step in the analysis of the general flow pattern was to express all discharges in dimensionless units in order to facilitate discharge comparisons. This was accomplished by dividing the measured discharges at each site by the median discharge for that site. All discharges, now expressed as dimensionless ratios, were tabulated and the median values for each month of each year were selected. These median values were plotted on figure 3, and the resulting graph represents the average pattern of flow for all springs and spring-fed streams in the Tecolote Tunnel area during the period 1949-60. The uncertainty still exists concerning the reliability of the extreme high and low flows in each year, but plotting the medians of the 28 measured flows in each month tends to minimize the errors. The use of a logarithmic discharge scale in figure 3 not only provides a scale sufficiently expanded at the lower discharges to show fluctuations in low flow, but it also tends to make the graph of discharge recession linear during the drier months.



Figure 2.--Histogram showing statistical distribution of variability index for springs and streams.

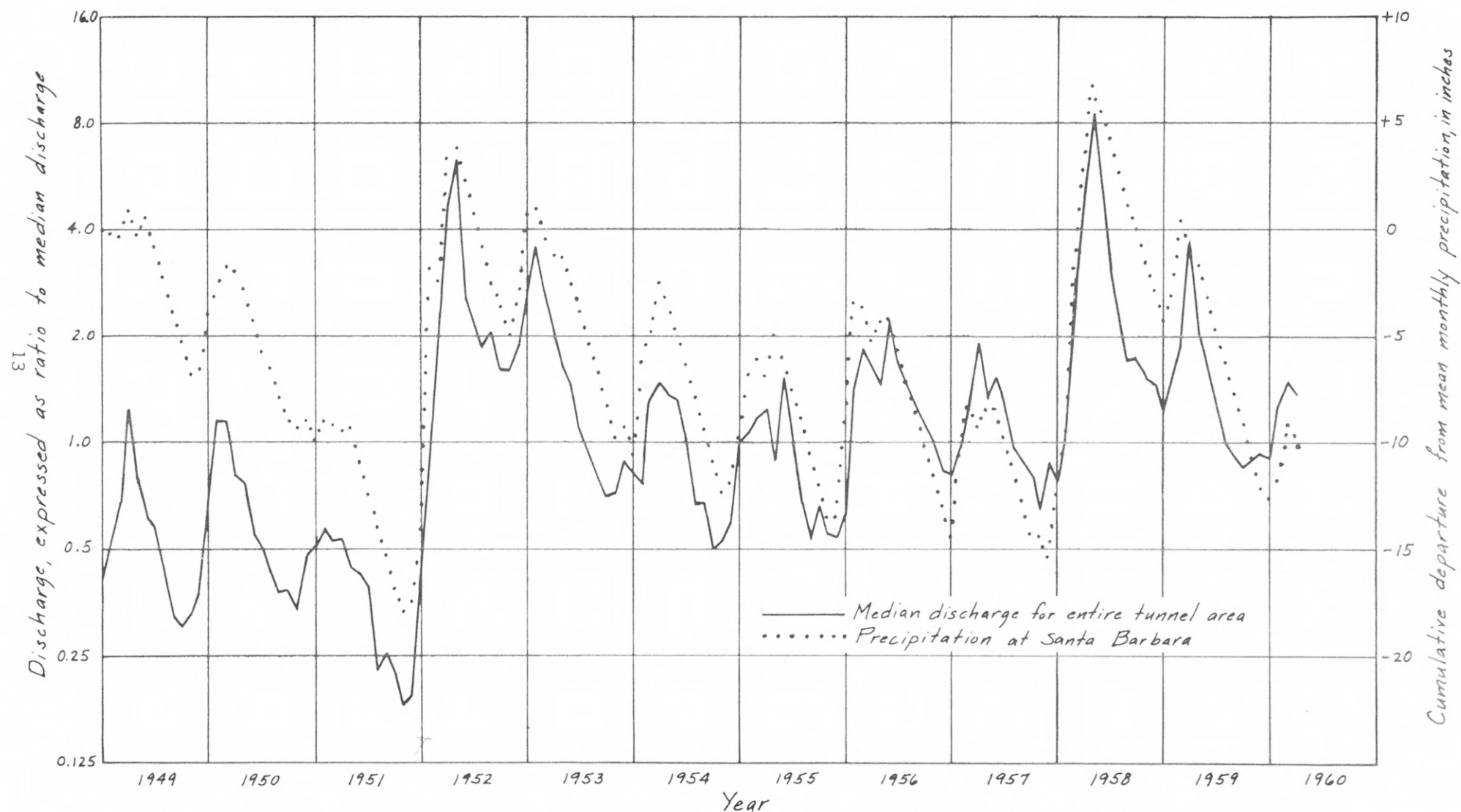


Figure 3.-- Relationship between precipitation pattern and average pattern of discharge.

The next step was to compare this average pattern of discharge with the rainfall pattern. The precipitation record for Santa Barbara, 10 miles east of Tecolote Tunnel, was selected for use as an index of rainfall over the tunnel area. Table 2 lists monthly precipitation at Santa Barbara for the period, July 1948 to March 1960. Because the great bulk of the precipitation occurs during general storms, there is probably a fairly constant ratio between precipitation at Santa Barbara and that which occurs over the entire Tecolote Tunnel area. Obviously, a simple relationship cannot be obtained between monthly precipitation and concurrent monthly flow, because effluent ground water continues to be discharged during the five months of each year when rainfall amounts are negligible or even zero. A graphic comparison can be obtained, however, by the use of cumulative departures of monthly precipitation from the mean. The mean annual precipitation at Santa Barbara is 18.0 inches, and therefore the mean monthly precipitation is 1.5 inches. This latter figure is a fictitious one in the sense that a rainfall of 1.5 inches is never attained during the five dry months of each year, but when this figure of monthly precipitation is used to obtain a graph of cumulative departures, one of the results is a linear recession curve during the dry season that is similar to the runoff recession hydrograph. The precipitation graph of cumulative departures has been plotted on figure 3. It should be noted that an arithmetic ordinate scale has been used for the precipitation graph, whereas a logarithmic ordinate scale has been used for the graph of monthly discharge.

It can be seen from figure 3 that the patterns of discharge and precipitation are similar. There is little time lag between precipitation and discharge, indicating in all probability, that there is generally close proximity between the area of recharge and the point of discharge, or

Sheet _____ of _____ Sheets

Table 2.—Monthly and annual precipitation, in inches, at Santa Barbara, Calif.

[illegible]

possibly that there exist steep water-table gradients or highly permeable aquifers. The difference in vertical displacement of the two curves before and after December 1951 reflects the effects of the long dry period from 1944 to 1951 and the more humid period that followed. Thus, despite the rapid response of discharge to precipitation, there is a certain amount of deep percolation of rainfall that influences the discharge for some time after the occurrence of precipitation. By way of illustration, it can be seen from either table 2 or the graph of figure 3, that total precipitation for the period January 1952 to June 1958 was greater than average, with rainfall during the last 12 months being especially excessive. Precipitation during the climatic year that followed (July 1958 to June 1959) was the lightest experienced since 1944. Nevertheless, discharge during 1959 never approached the low values of the period 1949-51, thereby demonstrating the "carryover" effect of precipitation from one or more previous years. It is not possible to make a quantitative study of the rainfall-discharge relationship for individual sites, primarily because the bulk of the discharge occurs during the high winter flows, and monthly discharge measurements at a site provide insufficient data for a determination of the volume of this winter flow.

The discharge hydrograph of figure 3 represents the average flow pattern of all springs and streams in the Tecolote Tunnel area. There still remained the likelihood of there being differences in the flow regimen of groups of springs and streams located in widely separated sectors of this area. To investigate this probability the area was divided into four sectors, with the tunnel being the divide between east and west zones, and the principal ridge of the Santa Ynez Mountain being the divide between north and south zones. The 28 sites under consideration were apportioned between the four sectors as follows:

<u>Northeast</u> <u>Sector</u>	<u>Northwest</u> <u>Sector</u>	<u>Southwest</u> <u>Sector</u>	<u>Southeast</u> <u>Sector</u>
Site 2	Site 122	Site 49	Site 18
93	132	50	*20 & 21
94	136	59	28
100	140	61	31
106a	142	65	33
110	143	70	35
	147	85	36
	153		*combined

Monthly median discharges were obtained for each of the four groups for the purpose of hydrographic comparison. Graphs of median discharge for the northeast and northwest sectors were plotted on figure 4 along with the hydrograph of median discharge for all 28 sites. Figure 5 is a similar graph for the southeast and southwest sectors.

Comparison of the average discharge patterns shown on figures 4 and 5 for the four sectors and for the entire area as a whole, indicates little difference in the timing of discharge. There is a difference in the variability of discharge, however. The flow of springs and streams in the southwest sector exhibits a much greater range in discharge than do the flows from the other sectors, while the discharge from springs in the southeast sector shows the least variability. It has already been mentioned that flows were sustained at higher levels after December 1951 than they had been prior to that date. It can be seen from the graphs that this difference in discharge before and after December 1951 is most marked in the northwest sector.

Effect of the Arvin-Tehachapi Earthquake of July 12, 1952

Analysis of the flow regimen of springs and spring-fed streams in the Tecolote Tunnel area reveals that the Arvin-Techachapi earthquake affected the flow at 18 of the 125 sites measured in 1952. The epicenter of this damaging quake, which occurred on July 21, 1952, was located near Wheeler Ridge, about 65 miles northeast of Tecolote Tunnel. The 18 sites

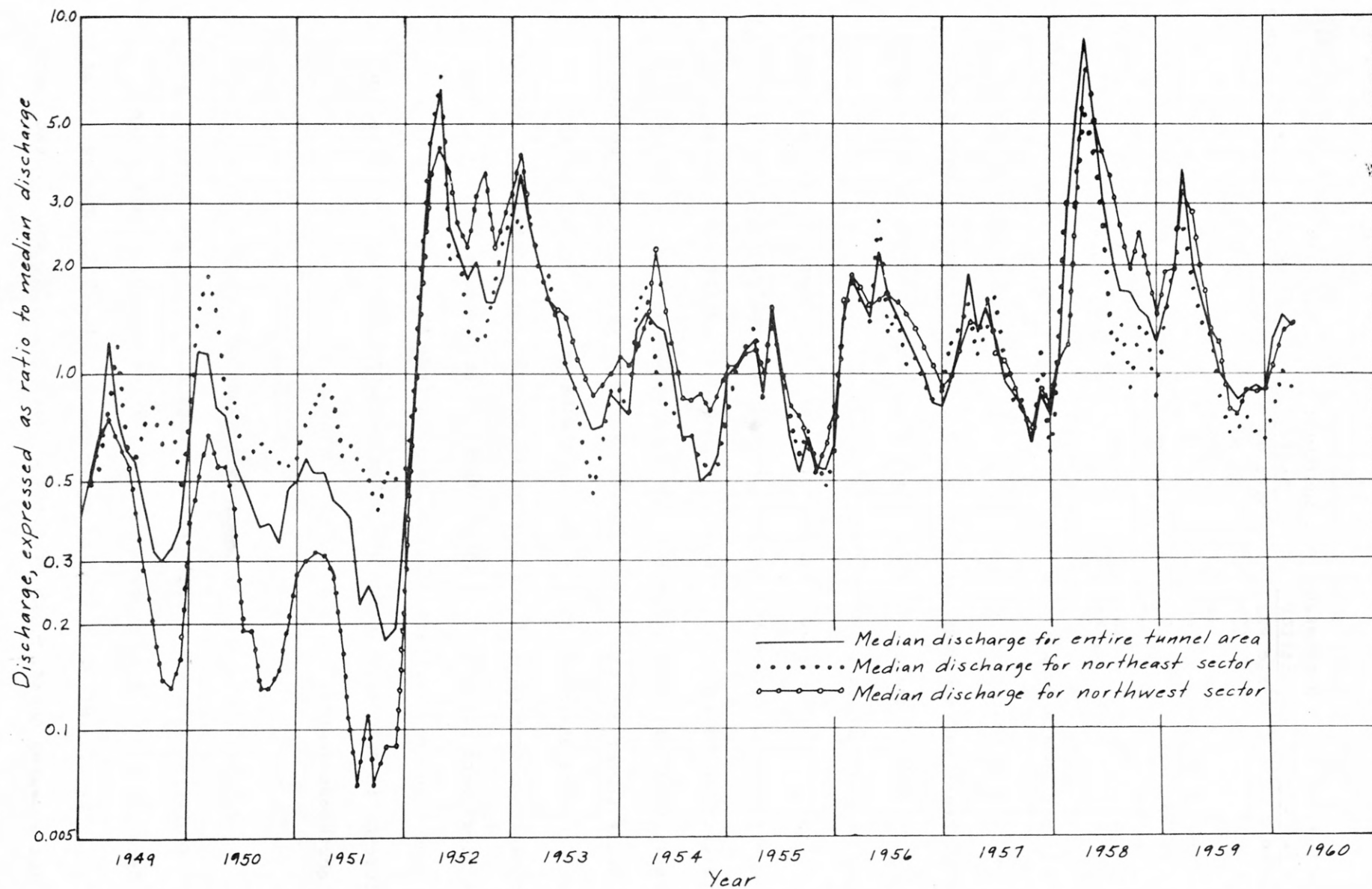


Figure 4.-- Comparison of discharge hydrographs for the northeast and northwest sectors and for the entire tunnel area.

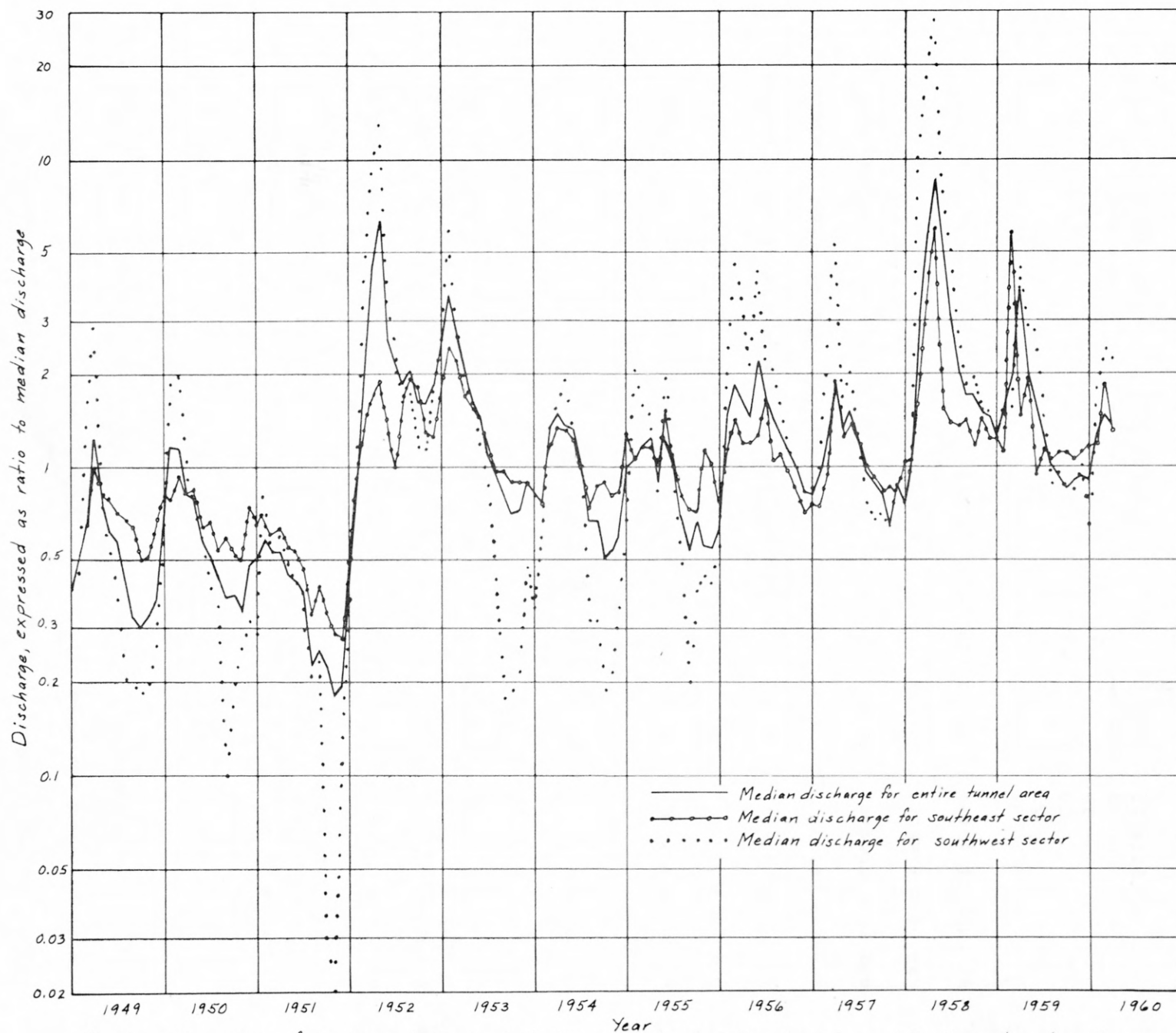


Figure 5.-- Comparison of discharge hydrographs for the southeast and southwest sectors and for the entire tunnel area.

affected were:

Site 13	Site 33	Site 142
18	85	143
19	98	147
20 and 21 (combined)	110a	151
23	135	153
31	136	156

At each of these 18 sites the flow increased, but at 15 of them the increase was of a temporary nature, lasting only several months. At sites 31, 136, and 142, however, the effect of the earthquake on discharge remained for several years. This is evident from the graphs of figures 6 and 7, where the discharge hydrographs for these three sites are plotted along with the previously derived average discharge hydrograph for the entire tunnel area. All discharges on these graphs are expressed as ratios to the median flow. It can be seen that a marked increase in discharge occurred at the three sites in July, during the usual summer drought, and that the effect persisted for several years.

It is extremely doubtful that the Arvin-Tehachapi earthquake had any permanent effect on recharge areas or on the permeability of any of the aquifers. The increases in discharge were most likely due to disturbance of the unconsolidated material in the discharge areas, resulting in the clearing of existing ground-water outlets and the opening of new ones.

Effect of the Refugio Brush Fire of September 1955

A complicating factor in the study of the flow regimen of the Tecolote Tunnel area was the severe fire of early September 1955. From the map on plate 1 it can be seen that the burn extended over about 80 percent of the tunnel area. The heavy natural brush cover was completely denuded by the fire except for small isolated areas in the bottoms of canyons. Later in the year the area was reseeded by the U.S. Forest Service and the ensuing winter rains established a satisfactory grass cover. In the years that

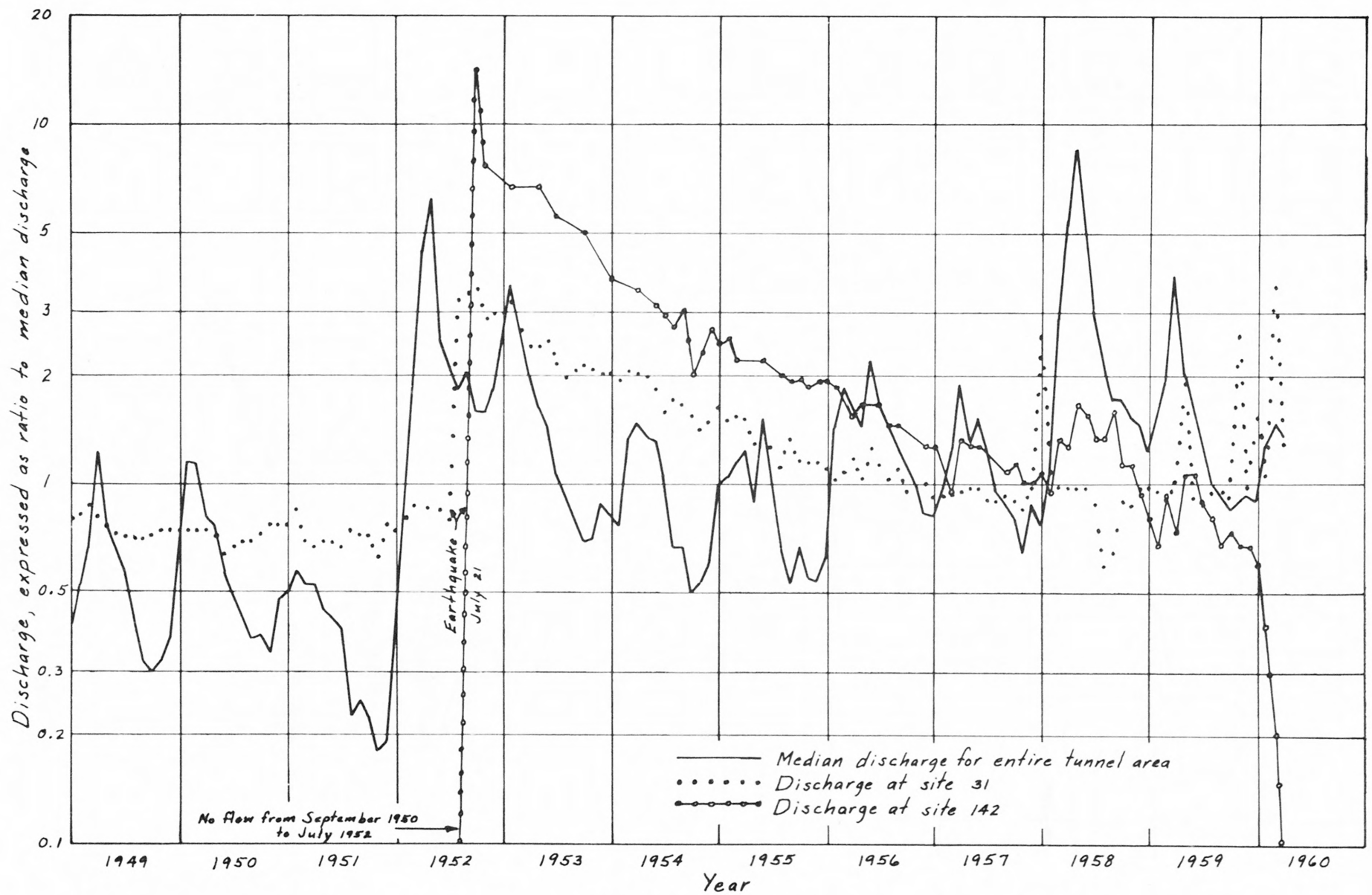


Figure 6.--Discharge hydrographs showing effect of the Arvin-Tehachapi earthquake at sites 31 and 142.

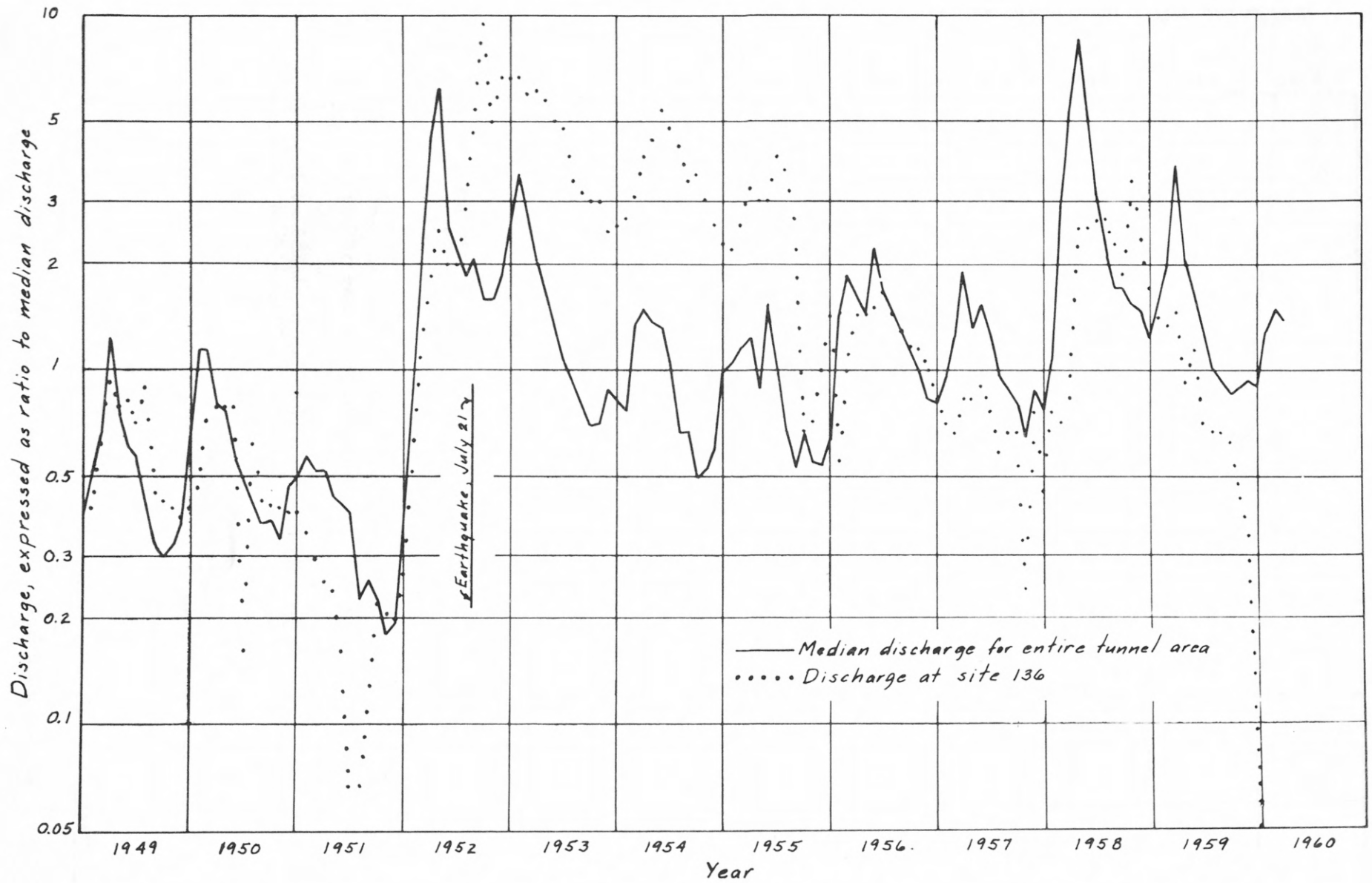


Figure 7.--Discharge hydrographs showing effect of the Arvin-Tehachapi earthquake at site 136.

followed the grass cover deteriorated to the extent that it is now quite sparse, but a large amount of brush has reappeared. Forest Service estimates now indicate a full recovery of brush in the canyon bottoms and a 50 percent recovery on the slopes and summits.

It would not be unreasonable to expect an increased summer flow of springs in the burned-over area during the years that followed the fire. The substitution of shallow-rooted grasses for much of the deeper-rooted brush that had been destroyed by fire, could have reduced total evapotranspiration losses. Because the springs discharge extremely low flows in summer, even a minor decrease in the transpiration rate could cause a large percentage increase in discharge.

A quantitative hydrologic study is necessary if the effect of the Refugio burn on summer flow is to be isolated. Because the discharge data collected consists entirely of monthly discharge measurements, there is inadequate information available for a study of the type needed. However, the discharge measurements at the individual measuring sites may be used in a double mass curve analysis for a cursory investigation of the trend of summer flow. In performing this analysis, cumulative precipitation at Santa Barbara was plotted against the accumulated sum of measured discharges for August and September at individual sites. The purpose of using the sum of August and September discharges, rather than just a single monthly discharge, was to minimize the error in the event that a nonrepresentative discharge measurement had been obtained for either month. It was realized that the results obtained might be biased because of the facts that (1) the variation in summer flow from year to year will be influenced, to a degree, by the date of the last significant storm of the preceding rainy season, and (2) annual precipitation at Santa Barbara may not be a satisfactory index of the precipitation on the recharge area of a specific spring.

Despite these uncertainties, a double mass curve analysis was performed for 20 springs and streams of the representative group of 28 listed in table 1. The eight sites that were not considered are listed below, along with the reasons for their elimination from consideration.

Sites 2, 143, 147, 153 -- outside the burned area

Sites 31, 136, 142 -- affected by earthquake

Site 110 a -- affected by construction of Tecolote Tunnel
(tunnel effect is discussed in a following
section of this report)

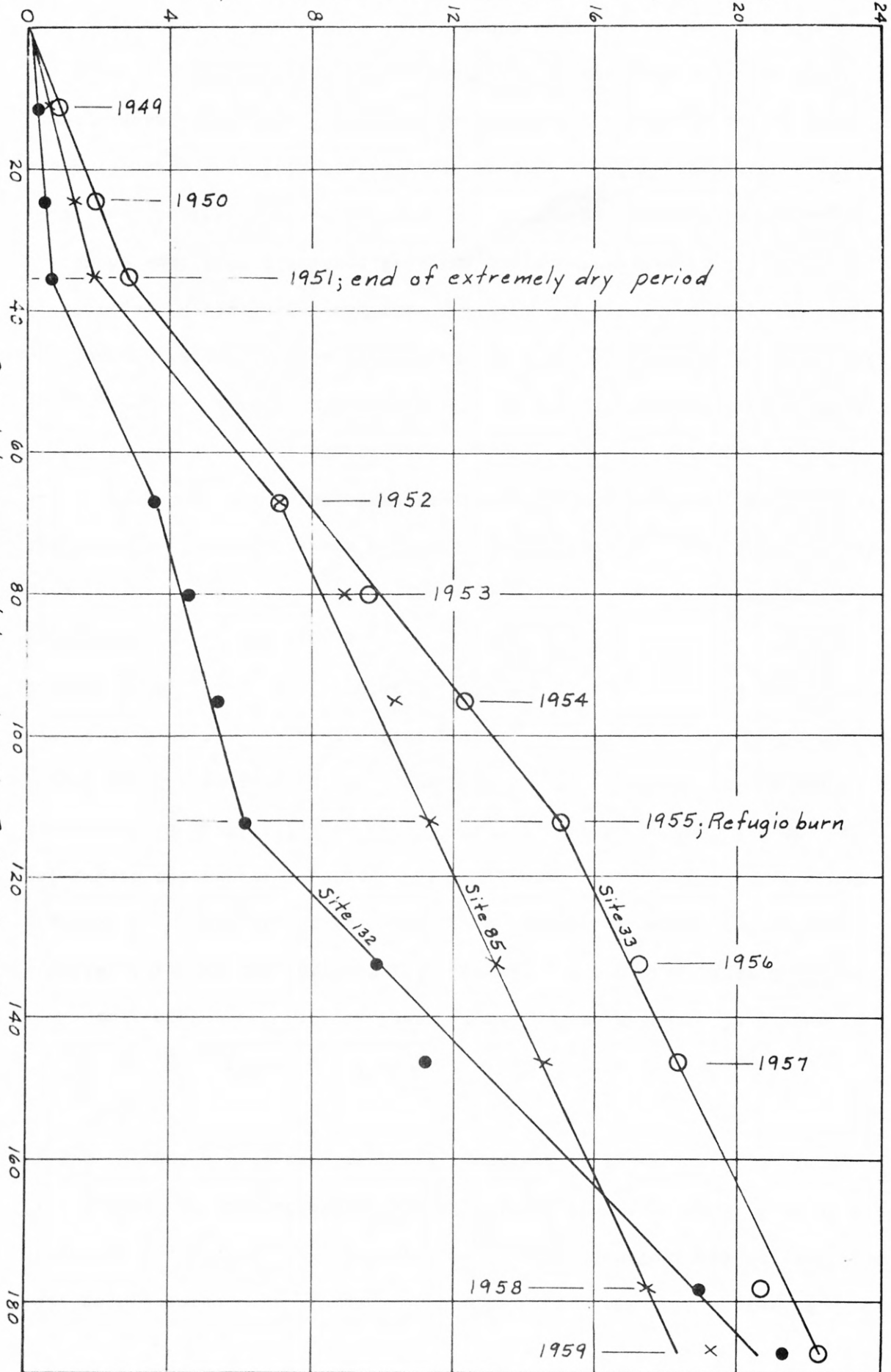
Of the 20 sites investigated, six showed no apparent change in the trend of summer discharge. These six are sites 18, 20 and 21 (combined), 36, 49, 85, and 106a. One stream, site 33, indicated decreased summer flow and the remaining 13 sites indicated an increase in summer discharge following the Refugio burn.

Figure 8 illustrates the double mass curve analysis for three selected sites. For purposes of comparison the plotted discharge for each site is expressed as a ratio to its 12-year median. A change in the slope of a graph indicates a change in the relationship of precipitation to summer discharge. If the slope becomes steeper, an increase in summer discharge is indicated. Conversely, if the slope flattens, a decrease in summer flow is indicated. An increased slope is expected after 1951 as a result of the change from an extremely dry period to a more humid one. Any change in slope after 1955 is attributed to the effect of the Refugio burn. From the graphs of figure 8 it would appear that the effect of the burn was to increase summer discharge at site 132, decrease discharge at site 33, and produce no change at site 85.

It should be recognized that this double mass curve analysis is somewhat inconclusive because of the inadequacy of the basic data. It is of interest, for example, that a similar analysis performed for sites 2 and

Cumulative discharge for August and September
(expressed as ratio to median monthly discharge)

Figure 8.-- Double mass curves of summer precipitation at Santa Barbara, in inches



143, both located outside the burned area, also indicated increased summer discharge after 1955. Probably the only conclusion that may be safely drawn from this study is that there is a likelihood that the summer flow of many of the springs and streams may have increased as a result of the Refugio burn.

EFFECT OF TECOLOTE TUNNEL ON DISCHARGE

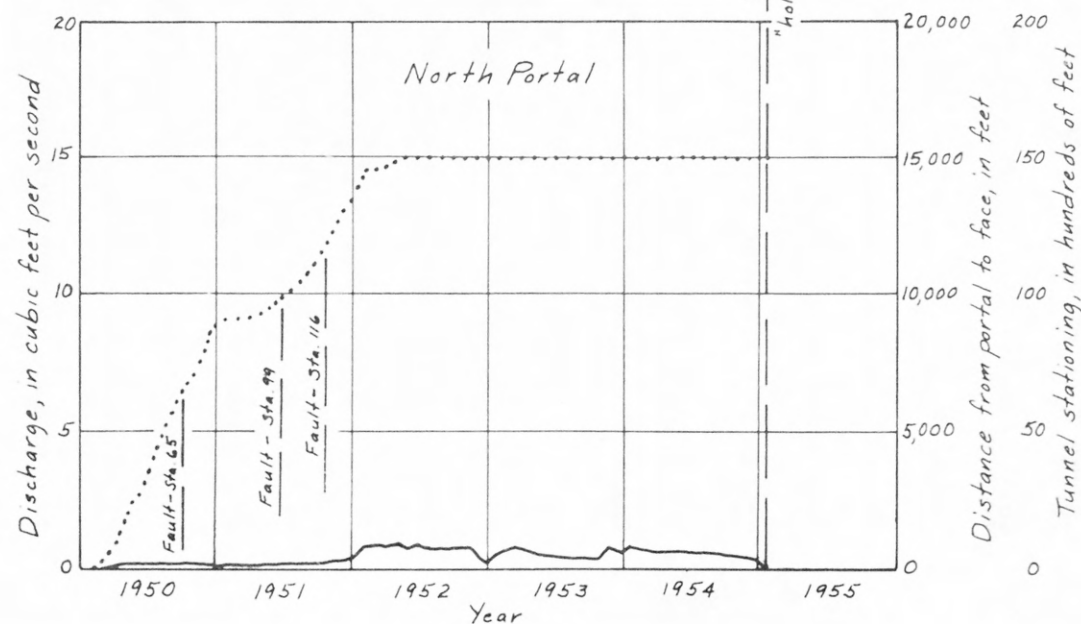
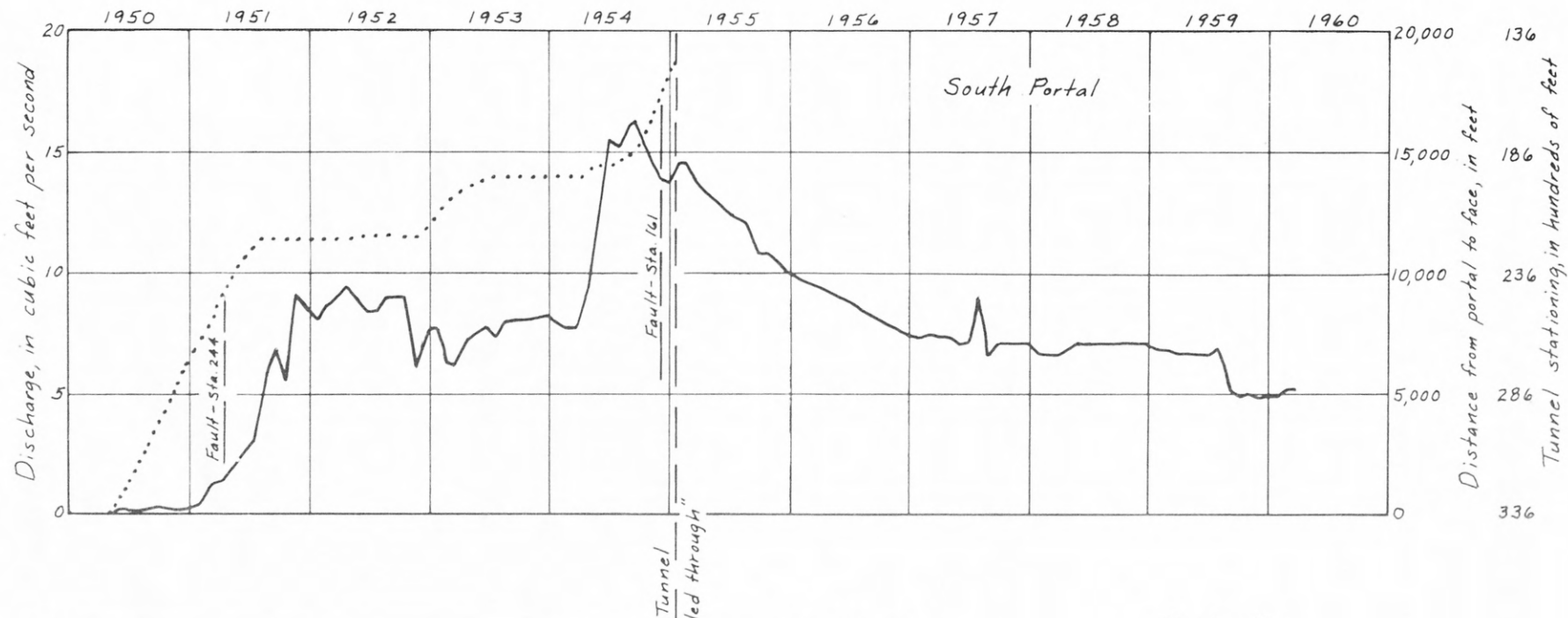
Construction of Tecolote Tunnel commenced on March 1, 1950 when drilling began at the north or inlet portal. Two months later drilling began at the south or outlet portal, and excavation advanced from each end toward the center. Seepage first appeared in the tunnel at the north excavation in April 1950 and at the south excavation a month later. The tunnel was "holed through" in January 1955, and thereafter all seepage was removed at the south or outlet portal and measured there. The concrete lining of the tunnel was completed in late January 1956, with weep holes provided to drain the seepage.

Tables 3 and 4 present a summary of monthly seepage discharge from the tunnel. The hydrographs of tunnel outflow are found on figure 9, along with a graph depicting the progress of tunnel construction. With the advance of the tunnel headings, additional seepage flows were encountered in the tunnel, but these flows were controlled to a degree by grouting. The effect of grouting is seen in the hydrographs as a sharp reduction in flow following an increase in discharge, and this explains the irregular shape of the graphs. It can be seen that discharge from the north portal has at all times been relatively insignificant, but there has been significantly large seepage discharge from the south portal ever since late 1951. The bulk of the seepage apparently enters the tunnel between the faults at tunnel stations 161 and 244. (Tunnel stationing, expressed in hundreds of feet, starts at the north portal with station 0; the south portal is at station 336.) The

Monthly ^{seepage} ~~and tunnel~~ discharge, in cfs, of Tecolote Tunnel ~~River~~ at near south portal
Table 4 [Drainage area, _____ square miles]

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[illegible]



Explanation
 Tunnel progress
 — Discharge

Figure 9.- Heading progress and outflow hydrographs of Tecolote Tunnel.

seepage discharge from the south portal reached a peak of 16.7 cfs in September 1954, and has shown a more or less steady decline ever since. The high temperature of the bulk of this seepage, observed as high as 113°F, may be a result of heating caused by active faults in the area, or it may be an indication that the flows originate at considerable depth. The great volume of water discharged would seem to indicate that an underground water reservoir of considerable magnitude had been tapped. The chemical quality of the water and the decline of inflow into the tunnel strongly suggest that the ground water is meteoric in origin.

It is exceedingly difficult to evaluate the effect of Tecolote Tunnel on the flow of springs and spring-fed streams in the area. The evaluation must be based on a comparison of measured discharge before and after the tunnel began draining off appreciable quantities of water. It has been pointed out that the measuring program began in the fall of 1948, and that three years later the tunnel began draining off significantly large quantities of water. These first three years of record represent, then, the calibration period for an evaluation study; that is, the period when the flow of springs is known to have been unaffected by tunnel construction. It also happens that these three years represent a period of extremely deficient precipitation. In seven of the eight years that followed, 1952 through 1959, precipitation was greater than it had been during any year of the calibration period, and the effect of the one dry year, 1959, was offset, to a degree, by the fact that it followed one of the two extremely wet years in the 8-year period. Because the measured springs respond rather rapidly to changes in precipitation, it is not surprising that the flow of almost all springs and streams has been greater each year since 1951 than it had been in the preceding three years. Furthermore, because the three years of the calibration period were uniformly very dry, no conclusions can be drawn as to whether or not the tunnel has affected the degree of response of the flow to large quantities of precipitation.

The deficiencies of the calibration period as regards length of record and variability of flow cannot be overcome by the collection of additional discharge information in the years to come. There are data available, however, concerning water quality and temperature that are helpful in an evaluation of the effect of tunnel construction. In November 1953, samples of the discharge from 23 springs were chemically analyzed. The results of the chemical analysis are found in table 5. In May 1954, the Bureau of Reclamation obtained samples of inflow from 18 sites within the south half of the tunnel. These tunnel inflows were found to be under a static head of about 500 feet. The results of the chemical analysis of the tunnel samples are found in tables 6 and 7. All three tables of water quality have been abstracted from an unpublished report by the California Department of Water Resources, dated January 1955, and titled, "Tecolote Tunnel Water Quality".

For Tecolote Tunnel to affect the flow of a spring adversely, it is necessary that the tunnel inflow and the spring discharge be supplied from the same aquifer. To decide positively on the existence of a common aquifer for both flows is a most difficult matter, but from the available data, it would appear that the spring at site 110b, now dry, was affected by construction of the tunnel. Spring 110b, located about 1.8 miles east of the tunnel, had water similar in many respects to the majority of the tunnel inflows, but quite dissimilar to the water discharged from the other springs in the area. The tunnel flows are predominantly sodium waters, whereas the springs other than spring 110b, discharge calcium waters. Because the bulk of the tunnel inflow occurs between tunnel stations 161 and 244, it is not unreasonable to assume that the major portion of the inflow has the characteristics found in the first three tunnel samples listed in table 6. It is seen that the discharge from spring 110b and the tunnel inflow had a low

TABLE 5

TECOLOTE TUNNEL WATER QUALITY
SANTA BARBARA COUNTY

ANALYSES OF SPRINGS

(Reproduced by courtesy of California Department of Water Resources)

Spring number	Date collected	Flow gpm	Temp- era- ture °F	Elev. feet above M.S.L.	Quor ^a	ECx10 ⁶ at 25° C	pH	Mineral constituents in parts per million								F ppm	B ppm	Total dissolved solids ppm	Total hardness as CaCO ₃ ppm
								Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl				
16	11-18-53	0.35	55	2,230	--	365	7.5	34.0	17.4	20.5	0.8	0	151	39.3	23.4	0.1	0.0	220	157
30	11-23-53	52.0	49	400	--	534	8.25	1.70	1.44	0.89	0.02	0	2.47	0.82	0.66	0.1	0.05	302	213
								61.0	14.6	30.2	1.0	1.5	234	54.3	22.4				
31	11-23-53	79.0	63	425	Cs	664	7.8	3.05	1.21	1.32	0.03	0.05	3.84	1.13	0.63	0.3	0.15	425	233
								70.0	14.0	56.1	1.0	0	274	99.0	21.3				
33	11-23-53	29.0	52	500	--	631	8.1	3.50	1.16	2.44	0.03	0	4.49	2.06	0.60	0.1	0.0	327	267
								78.0	17.4	32.2	1.0	0	254	97.5	23.4				
35	11-23-53	19.0	53	800	--	593	8.1	3.90	1.44	1.40	0.03	0	4.17	2.03	0.66	0.1	0.05	333	264
								70.8	21.2	24.8	0.8	0	258	79.0	19.2				
35B	11-23-53	b	61	700	Cs	769	7.5	3.54	1.75	1.08	0.02	0	4.24	1.68	0.54	0.0	0.10	493	307
								74.4	29.4	49.7	1.4	0	301	131	27.7				
36	11-23-53	2.83	61	600	--	1,070	8.0	3.72	2.42	2.16	0.04	0	4.94	2.72	0.78	0.1	0.0	728	504
								141	36.9	44.2	2.0	0	358	246	43.8				
50B	11-20-53	110.0	59	1,985	--	462	7.5	7.04	3.05	1.92	0.05	0	5.88	5.13	1.23	0.1	0.05	312	224
								67.2	13.6	14.0	0.8	0	174	88.6	9.6				
50C	11-20-53	203.0	58	1,950	--	438	7.6	3.36	1.12	0.61	0.02	0	2.75	1.96	0.27	0.1	0.0	287	206
								62.8	12.0	12.4	0.8	0	151	88.2	12.8				
50D	11-20-53	96.0	62	1,800	Cs	444	7.6	3.14	0.99	0.54	0.02	0	2.47	1.95	0.36	0.1	0.05	312	211
								62.8	13.1	24.6	0.8	0	207	63.8	14.9				
62	11-19-53	7.8	63	130	--	755	7.45	3.14	1.08	1.07	0.02	0	3.40	1.41	0.42	0.4	0.10	518	388
								125	18.5	24.8	1.0	0	272	182	25.6				
66	11-19-53	0.83	52	300	--	474	8.2	6.23	1.53	1.08	0.03	0	4.47	3.79	0.72	0.1	0.10	257	220
								86.2	1.1	12.4	0.8	0	210	41.8	19.1				
95	11-18-53	c	54	2,900	M	57	5.7	4.31	0.09	0.54	0.02	0	3.45	0.87	0.54	0.2	0.10	82	25
								8.2	1.1	4.4	1.2	0	7.3	16.3	9.6				
100	11-18-53	2.07	52	2,025	--	835	7.4	0.41	0.09	0.19	0.04	0	0.12	0.34	0.27	0.0	0.0	578	414
								122	26.6	21.2	2.0	0	294	199	13.8				
101 and 102 ^d	11-18-53	0.13	56	e	--	1,590	7.8	6.09	2.20	0.92	0.05	0	4.82	4.15	0.39	0.3	0.15	1,225	852
								230	67.3	47.8	2.1	0	330	629	28.7				
103	11-18-53	1.2	56	1,100	--	817	7.6	11.48	5.56	2.08	0.05	0	5.42	13.1	0.81	0.2	0.10	527	385
								106	29.3	25.8	0.8	0	300	159	19.2				
110B	11-17-53	80.0	110 ^f	1,050	Cs	762	8.2	5.28	2.42	1.12	0.02	0	4.91	3.32	0.54	2.8	2.95	452	11
								4.4	0	163	1.2	Tr.	226	36.0	101				
120	11-19-53	g	44	1,190	Cs	2,730	7.3	0.22	0	7.10	0.04	0	3.72	0.75	2.85	1.3	7.20	1,771	761
								238	40.2	310	7.0	0	410	620	345				
121	11-19-53	0.44	60	1,185	Cs	1,105	7.1	11.90	3.32	13.50	0.18	0	6.71	12.90	9.72	0.5	0.80	760	470
								173	9.2	50.5	3.6	0	360	223	39.6				
124 and 125 ^h	11-19-53	1.67	52	850	-	710	7.9	8.65	0.76	2.20	0.09	0	5.92	4.65	1.11	0.2	0.25	366	302
								89.6	19.0	33.1	1.0	0	302	78.7	34.0				
129	11-18-53	12.1	49	1,900	--	523	7.8	4.48	1.57	1.44	0.03	0	4.95	1.64	0.96	0.1	0.10	267	248
								79.8	11.9	14.1	0.9	0	242	64.9	10.6				
131	11-18-53	3.75	54	1,550	--	423	7.3	3.99	0.98	0.61	0.03	0	3.98	1.35	0.30	0.3	0.05	165	162
								44.0	12.5	26.7	0.8	0	221	13.5	19.2				
172	11-19-53	2.31	44	---	--	668	7.95	2.20	1.03	1.16	0.02	0	3.63	0.28	0.54	0.1	0.0	308	319
								95.0	19.7	21.6	1.0	0	286	106	12.8				
								4.75	1.63	0.94	0.03	0	4.70	2.20	0.36				

a. Cs - Chemical, sulfuretted.
M - Musty.

b. Flow was cut off at time of sampling. One month previously the flow was 60 gpm.

c. No flow, sample dipped from spring box.

d. Sample taken from junction box of two springs.

e. Spring 101 at 1,280 feet and spring 102 at 1,100 feet.

f. Subsequently temperature measured 114°F.

g. No flow, sample taken from pool.

h. Sample taken from common collection tank.

TABLE 7

TECOLOTE TUNNEL WATER QUALITY
SANTA BARBARA COUNTY
TRACE METAL AND SILICA ANALYSES OF TUNNEL INFLOWS

(Reproduced by courtesy of California Department of Water Resources)

Stationing from north portal in feet	Date Collected	Mineral constituents in parts per million														SiO ₂ ppm
		Sr	Ba	B	Fe	Al	Cr	Cu	Mn	Ni	Sn	Ti	V	Li	Zr	
199+00	5-12-54	0.005	0.01	0.5	0.01	0.1	0.0006	0.01	0	0	0	0.03	0	0	0.006	35
213+00	5-12-54	0.005	0.07	0.8	0.04	0.2	0.002	0.009	0	0.005	0	0.02	0	0	0.009	30
235+80	5-12-54	0.5	0.03	1.	0.02	0.3	0	0.01	0	0.01	0	0	0	0	0.02	25
259+43	5-12-54	0.005	0.2	1.	0.02	0.2	0.0006	0.004	0	0	0	0.01	0	0	0.009	25
272+22	5-12-54	0.005	0.4	1.	0.07	0.4	0.007	0.02	0	0	0	0.02	0	0	0.02	15
305+50	5-12-54	2.	0.04	0.05	0.04	0.04	0.0006	0.002	0.2	0	0.01	0	0.009	0	0	35
336+07 ^a	10-8-53	0.4	0.2	0.03	0.04	0.2	---	0.002	0.004	--	0.002	0.001	0.002	0.08	---	25

a. South portal stationing; sample is of total flow.

Note: --Trace metal concentration determined by spectrographic analysis.

degree of hardness, 11 ppm for the spring water and 0 ppm for the tunnel seepage. It is true that a difference existed in the total dissolved solids, being 452 ppm for the spring flow and 290 ppm for the tunnel inflow, but many other characteristics of the two waters were closely similar. Fluoride concentrations, for example, were 2.8 ppm for spring 110b and 3.0 ppm for the tunnel. Both flows had sulfides present, the tunnel flow having a content of 10.3 ppm. The water of spring 110b was not analyzed for sulfides, but had a definite hydrogen sulfide odor at the time of sampling. Hypothetically, the principal dissolved mineral constituent of both of these waters was NaHCO_3 .

Spring 110b was the only spring in the measuring network of 164 sites that had high-temperature flows. Observed temperatures there varied from 105°F to 112°F, whereas at the other measuring sites the temperature range was from about 45°F to 75°F. Water temperatures observed at the three tunnel sampling sites in the region of heavy inflow ranged from 104°F to 113.5°F. Although the elevation of spring 110b is 400 feet above the tunnel, it will be remembered that the tunnel inflows were under a static head of about 500 feet.

The flow of spring 110b was first measured in July 1954, when a flow of 29 ^{gpm} ~~gmp~~ was observed. By March 1955 the spring was dry and failed to be recharged by the storms of the following years. It would appear that the failure of the spring was a result of drainage into Tecolote Tunnel between tunnel stations 161 and 244, where the bulk of the seepage enters. In the preceding paragraphs various premises have been presented to support this conclusion. No one of these premises is decisive by itself, but the combined weight of the evidence leaves little doubt that spring 110b was adversely affected by the construction of the tunnel.

It has been mentioned previously that the flow of almost all springs and streams has been greater each year since December 1951, when the extremely dry period ended, than it had been in the preceding three years. The only exceptions to this trend were found at springs 110b and 136, and at Hot Springs Creek (sites 110 and 110a). The failure of spring 110b has already been discussed. The decline of Hot Springs Creek is attributed to the decline and final cessation of flow of spring 110b, which is a principal contributor to the flow of the creek. Spring 136, an earthquake-affected spring whose flow was well sustained in the years following 1951, inexplicably experienced a rapid decline in flow after the summer of 1959 and became dry in December of that year. A comparison of the hydrograph of this spring (figure 7) with the hydrograph of tunnel inflow (figure 9) reveals no connection between the decline of spring 136 and the existence of the tunnel.

All the above considerations lead to the following conclusions concerning the effect of Tecolote Tunnel on the flow of springs and spring-fed streams:

1. From all indications, the failure of spring 110b can be attributed to the effect of the tunnel.
2. There is no evidence that construction of the tunnel affected the flow of any other spring or stream.

SUMMARY AND CONCLUSIONS

1. The most striking characteristic of the flow of springs and spring-fed streams in the Tecolote Tunnel area is the rapid response of discharge to precipitation.
2. The Arvin-Tehachapi earthquake of July 1952 increased the flow at 18 measuring sites. At 15 of these sites this effect was felt for only several months, but at sites 31, 136, and 142, the effect remained for several years.
3. The summer flow of many springs and streams may have increased as a result of decreased transpiration losses following the Refugio brush fire of September 1955, but the evidence is inconclusive.
4. The many complex and interrelated factors that influence the discharge of springs and spring-fed streams make it exceedingly difficult to isolate the effect of Tecolote Tunnel on the flow. Another major difficulty in evaluating the effect of the tunnel stems from the fact that the calibration period is inadequate for the purpose. The calibration period is that period of observed discharge prior to the time when the tunnel began to develop appreciable inflow. The calibration period for this study was only three years long, lasting from late 1948 to late 1951, and was uniformly deficient in precipitation. Furthermore, these inadequacies of the calibration period in regard to short length of record and limited range in precipitation, cannot be overcome by the collection of additional discharge information in the years to come.
5. A study of all available data resulted in the following conclusions concerning the effect of Tecolote Tunnel:
 - a. The failure of spring 110b can be attributed to construction of the tunnel.
 - b. There is no evidence that construction of the tunnel affected the flow of any other spring or stream.

APPENDIX

Measured discharges and temperatures of springs and small streams in the Tecolote Tunnel area.

Site 1--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Nov. 15	No flow		Sept. 12	No flow		May 11	150	58
Dec. 13	do		Oct. 11	do		June 6	84	57
1949			Nov. 5	do		July 22	16	60
Jan. 3	do		Dec. 4	do		Aug. 22	No flow	
Mar. 16	350		1952			Sept. 23	do	
Apr. 11	41		Jan. 7	a 1,010	44	Oct. 14	No flow	
May 11	9.1		Feb. 21	280	52	Nov. 9	5.8	61
June 13	23.8		Apr. 8	1,040	58	Dec. 12	23	54
July 19	No flow		May 14	350	70	1956		
Aug. 12	No flow		June 5	212	64	Feb. 14	278	50
Sept. 13	No flow		July 30	34		Mar. 15	197	47
Nov. 1	No flow		Sept. 5	21	65	Apr. 23	91.6	48
Nov. 16	No flow		Oct. 22	7.2	65	May 21	228	51
Dec. 14	No flow		1953			June 12	103	66
1950			Jan. 6	345	50	July 19	20	62
Jan. 9	No flow		Apr. 2	80	56	Aug. 20	7.6	56
Feb. 13	230	47	June 2	20		Sept. 11	No flow	
Mar. 8	41	55	Sept. 16	No flow		Oct. 10	No flow	
Apr. 19	22	64	Dec. 11	No flow		Nov. 19	No flow	
May 18	9.9	57	1954			Dec. 19	No flow	
June 19	2.2	62	Mar. 12	72	57	1957		
July 17	No flow		June 3	112	61	Jan. 7	3.10	54
Aug. 10	do		June 21	9.0	70	Feb. 6	37	47
Oct. 23	do		July 14	9.4	69	Mar. 7	368	46
Nov. 20	do		Aug. 17	No flow		Apr. 4	69	49
Dec. 13	do		Sept. 22	do		May 7	90	45
1951			Oct. 8	do		June 4	61	61
Jan. 18	do		Nov. 19	do		July 2	23	64
Feb. 13	do		Dec. 17	do		Aug. 9	3.00	60
Mar. 13	do		1955			Sept. 7	No flow	
Apr. 16	do		Jan. 17	98	46	Oct. 7	b 3.14	
June 13	do		Feb. 10	69	44	Nov. 5	4.30	57
July 23	do		Mar. 10	120	55	Dec. 3	.18	46
			Apr. 26	42	49			

Site 1--San Antonio Creek at San Marcos Pass Road (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Jan. 9	47	51						
Feb. 14	575	48						
Mar. 13	620	42						
Apr. 21	1,310	55						
May 21	449	53						
June 9	100	56						
July 18	98	60						
Aug. 11	50	63						
Sept. 18	15	63						
Oct. 6	5.2	62						
Nov. 24	5.8	53						
Dec. 18	31	58						
1959								
Jan. 12	69	54						
Feb. 24	750	48						
Mar. 11	135	54						
Apr. 1	69	64						
May 1	53	56						
June 2	11	58						
July 6	3.14	55						
Aug. 12	3.14	65						
Sept. 10	No flow							
Oct. 8	do							
Nov. 5	do							
Dec. 14	do							
1960								
Jan. 13	9.4	51						
Feb. 1	9.4	51						
Mar. 3	94	49						

- a Concrete weir below bridge washed out.
b Channel dry below bridge.

Site 2--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1952			1956		
Feb. 8	2.3		May 19	10	67	Jan. 19	9.1	48
Apr. 11	9.4		June 23	7.1		Feb. 14	10	44
May 23	3.2		Aug. 4	3.66	65	Mar. 15	15	41
June 23	3.10	60	Sept. 5	6.0	61	Apr. 24	6.2	41
Aug. 12	5.1	57	Oct. 28	8.8	80	May 22	19	43
Sept. 29	5.2		1953			June 15	7.5	51
Nov. 1	2.6	55	Jan. 6	12	50	July 19	7.5	54
Dec. 20	3.4	42	Apr. 2	5.4	49	Aug. 20	8.0	56
1950			June 4	6.0		Sept. 11	5.8	59
Jan. 17	8.2	46	Sept. 25	1.23	67	Oct. 8	6.7	54
Feb. 13	10	47	Dec. 17	1.10	48	Nov. 19	4.83	48
Mar. 8	7.9	50	1954			Dec. 19	5.5	48
Apr. 19	4.3	57	Mar. 25	6.0	42	1957		
May 18	5.6	52	Apr. 26	4.06	53	Jan. 7	8.3	50
June 22	1.9	56	May 20	3.26	57	Feb. 8	13	46
Aug. 10	1.0	60	June 18	1.88	57	Mar. 11	10	38
Oct. 24	1.1	57	July 26	.58	68	Apr. 4	8.6	42
Nov. 16	2.8		Aug. 12	.68	57	May 3	7.7	40
Dec. 20	3.2	54	Oct. 8	.99	52	June 6	14	63
1951			Nov. 19	2.31	51	July 2	6.4	59
Jan. 18	4.3	45	Dec. 8	3.57	45	Aug. 7	4.76	57
Feb. 21	4.4	41	1955			Sept. 5	4.61	56
Mar. 20	4.7		Jan. 14	2.50	39	Oct. 9	3.74	51
Apr. 23	1.2		Feb. 24	4.54	41	Nov. 5	6.0	46
June 13	.62	50	Mar. 10	4.55	49	Dec. 3	3.32	46
July 31	No flow		Apr. 21	4.00	46	1958		
Sept. 12	do		May 3	18	51	Jan. 11	9.1	48
Oct. 22	1.20	53	June 3	5.4	50	Feb. 17	20	45
Nov. 5	.81	60	July 12	5.3	59	Mar. 12	33	43
Dec. 6	1.38	43	Sept. 16	1.56	59	Apr. 21	167	
1952			Oct. 13	.94	58	May 21	29	48
Jan. 9	3.57	39	Nov. 10	1.54	55	June 12	17	48
Feb. 25	12.5	49	Dec. 8	2.85	48	July 21	12	54
Apr. 8	43	52				Aug. 12	5.6	58

Site 2--Spring - Etienne Lejeune (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Sept. 19	4.61	58						
Oct. 6	5.9	58						
Nov. 24	7.3	49						
Dec. 18	9.7	46						
1959								
Jan. 13	189	49						
Feb. 24	48	45						
Mar. 11	12	47						
Apr. 2	7.1	60						
May 4	6.2	42						
June 2	6.7	46						
July 6	.60	56						
Aug. 7	2.40	56						
Sept. 10	3.00	54						
Oct. 8	3.06	52						
Nov. 6	3.15	45						
Dec. 11	3.00	42						
1960								
Jan. 14	19	40						
Feb. 5	6.5	48						
Mar. 1	7.9	47						

Site 3--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1952			1956		
Feb. 8	.6		May 19	23	60	Jan. 19	3.8	48
Apr. 11	.9		June 23	3.6		Feb. 14	5.0	45
May 23	3.9		Aug. 4	1.5	63	Mar. 15	3.5	40
June 23	No flow		Sept. 5	.80	60	Apr. 24	3.0	42
Aug. 12	do		Oct. 28	.37	56	May 22	6.7	41
Sept. 29	do		1953			June 15	1.2	51
Nov. 1	do		Jan. 6	7.9	45	July 19	.65	56
Dec. 20	2.9	42	Apr. 2	2.8	50	Aug. 20	.60	55
1950			June 4	2.2	49	Sept. 11	.60	59
Jan. 17	41	44	Sept. 25	.24	60	Oct. 8	.75	55
Feb. 13	4.8		Dec. 17	.58	48	Nov. 19	.63	48
Mar. 8	No flow		1954			Dec. 19	.84	48
Apr. 19	do		Mar. 25	30	42	1957		
May 18	do		Apr. 26	3.0	53	Jan. 7	.92	50
June 22	do		May 20	1.7	55	Feb. 8	1.3	45
Aug. 10	do		June 18	.62	57	Mar. 11	11	39
Oct. 24	do		July 26	.44	64	Apr. 4	1.5	41
Nov. 16	do		Aug. 12	.29	56	May 3	2.8	44
Dec. 20	do		Oct. 8	.30	51	June 6	.94	61
1951			Nov. 19	.38	51	July 2	.75	59
Jan. 18	do		Dec. 8	1.5	44	Aug. 7	.60	55
Feb. 21	do		1955			Sept. 5	.20	54
Mar. 20	do		Jan. 14	5.0	38	Oct. 9	.50	50
Apr. 23	do		Feb. 24	1.8	40	Nov. 5	1.4	51
June 13	do		Mar. 10	1.9	47	Dec. 3	2.0	48
July 31	do		Apr. 21	1.2	47	1958		
Sept. 12	do		May 3	41	51	Jan. 11	.93	47
Oct. 22	do		June 3	1.5	49	Feb. 17	12	45
Nov. 5	do		July 12	.62	60	Mar. 12	12	44
Dec. 6	5.4	44	Sept. 16	.24	58	Apr. 21	68	55
1952			Oct. 13	.21	58	May 21	27	49
Jan. 9	12.6	38	Nov. 10	.20	52	June 12	19	48
Feb. 25	8.5	45	Dec. 8	.56	48	July 21	9.4	51
Apr. 8	67	52				Aug. 12	2.1	58

Site 3--Spring - Etienne Lejeune (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Sept. 19	3.7	57						
Oct. 6	3.7	59						
Nov. 24	3.3	49						
Dec. 18	2.5	46						
1959								
Jan. 13	5.0	47						
Feb. 24	18	44						
Mar. 11	7.4	48						
Apr. 2	3.0	59						
May 4	3.9	41						
June 2	1.8	47						
July 6	2.5	56						
Aug. 7	.68	55						
Sept. 10	.68	53						
Oct. 8	.68	51						
Nov. 6	.88	44						
Dec. 11	.88	43						
1960								
Jan. 14	14	39						
Feb. 5	8.6	49						
Mar. 1	30	48						

Site 4--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
June 19	4 to 5		Jan. 9	62	39	Nov. 10	No flow	
Oct. 26	2.3		Feb. 25	18	47	Dec. 8	do	
1949			Apr. 8	88	54	1956		
Feb. 9	4.3		May 19	15	60	Jan. 19	1.6	51
Apr. 11	2.0		June 23	10		Feb. 14	5.3	48
May 23	3.0		Aug. 4	.75	65	Mar. 15	1.9	43
June 23	.21		Sept. 5	No flow		Apr. 24	1.8	44
Aug. 12	No flow		Oct. 28	do		May 22	4.1	45
Sept. 29	do		1953			June 15	1.0	51
Nov. 1	do		Jan. 6	29		July 19	No flow	
Dec. 20	7.1	43	Apr. 2	.63	50	Aug. 20	do	
1950			June 4	No flow		Sept. 11	do	
Jan. 17	44	47	Sept. 25	do		Oct. 8	do	
Feb. 13	19	52	Dec. 17	do		Nov. 19	do	
Mar. 7	.9	50	1954			Dec. 19	do	
Apr. 19	No flow		Mar. 25	30	43	1957		
May 18	.9	50	Apr. 26	3.1	50	Jan. 7	do	
June 22	No flow		May 20	No flow		Feb. 8	do	
Aug. 10	do		June 18	do		Mar. 11	14	39
Oct. 24	do		July 26	do		Apr. 4	No flow	
Nov. 16	do		Aug. 12	do		May 3	1.9	47
Dec. 20	do		Oct. 8	do		June 6	No flow	
1951			Nov. 19	do		July 2	do	
Jan. 18	do		Dec. 8	.54	42	Aug. 7	do	
Feb. 21	do		1955			Sept. 5	do	
Mar. 20	do		Jan. 14	5.8	38	Oct. 9	do	
Apr. 23	do		Feb. 24	3.6	41	Nov. 5	do	
June 13	do		Mar. 10	3.8	47	Dec. 3	do	
July 31	do		Apr. 21	No flow		1958		
Sept. 12	do		May 3	42	48	Jan. 11	do	
Oct. 22	do		June 3	.36	51	Feb. 17	15	44
Nov. 5	do		July 12	No flow		Mar. 12	37	48
Dec. 6	21	44	Sept. 16	do		Apr. 21	179	58
			Oct. 13	do		May 21	31	50

Site 4--Spring - Painted Cave - Mutual Water Company (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
June 12	7.3							
July 21	2.8	55						
Aug. 12	No flow							
Sept. 19	do							
Oct. 6	do							
Nov. 24	do							
Dec. 18	do							
1959								
Jan. 13	do							
Feb. 24	34	48						
Mar. 11	3.3	48						
Apr. 2	No flow							
May 4	do							
June 2	do							
July 6	do							
Aug. 7	do							
Sept. 10	do							
Oct. 8	do							
Nov. 6	do							
Dec. 11	do							
1960								
Jan. 14	9.4	40						
Feb. 5	4.0	51						
Mar. 1	30	48						

Site 7--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
June 19	0.5		Jan. 9	6.5	56	Nov. 10	No flow	
1949			Feb. 25	24	58	Dec. 8	do	
Feb. 9	4.0		Apr. 8	32	58	1956		
Apr. 11	15		May 19	21	59	Jan. 19	3.0	56
May 23	15		June 23	12		Feb. 14	6.0	51
June 23	5.9	58	Aug. 4	7.1	58	Mar. 15	6.4	50
Aug. 12	.48	58	Sept. 5	2.6	60	Apr. 24	2.7	45
Sept. 29	.18		Oct. 28	.68	61	May 22	7.5	43
Nov. 1	.64		1953			June 15	5.3	52
Dec. 20	6.0	56	Jan. 6	9.4	59	July 19	2.1	54
1950			Apr. 2	2.4	56	Aug. 20	.32	56
Jan. 17	9.1	57	June 4	1.4	56	Sept. 11	No flow	
Feb. 13	14		Sept. 25	.83	58	Oct. 8	.62	55
Mar. 7	8.3	59	Dec. 17	No flow		Nov. 19	.67	54
Apr. 19	5.2	58	1954			Dec. 19	.83	54
May 18	1.8	57	Mar. 25	6.2	54	1957		
June 22	1.1	58	Apr. 26	3.3	55	Jan. 7	.60	56
Aug. 10	.4	60	May 20	1.2	55	Feb. 8	6.8	50
Oct. 24	No flow		June 18	.28	56	Mar. 11	12	48
Nov. 16	.4	55	July 26	.85	63	Apr. 4	5.8	46
Dec. 20	.6	58	Aug. 12	.78	56	May 3	8.3	43
1951			Oct. 8	No flow		June 6	7.5	59
Jan. 18	.97	56	Nov. 19	do		July 2	2.4	55
Feb. 21	.7		Dec. 8	do		Aug. 7	5.0	58
Mar. 20	1.1		1955			Sept. 5	3.5	54
Apr. 23	.7		Jan. 14	1.1	53	Oct. 9	No flow	
June 13	.60	56	Feb. 24	3.8	54	Nov. 5	a	
July 31	No flow		Mar. 10	4.0	55	Dec. 3	a	
Sept. 12	do		Apr. 21	.90	56	1958		
Oct. 22	do		May 3	4.5	57	Jan. 11	4.3	49
Nov. 5	do		June 3	2.9	56	Feb. 17	5.5	52
Dec. 6	1.4	55	July 12	No flow		Mar. 12	6.7	50
			Sept. 16	do		Apr. 21	39	52
			Oct. 13	do		May 21	30	53

Site 7--Spring - E. T. Ogram (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
June 12	30	51						
July 21	10	52						
Aug. 12	12	53						
Sept. 19	4.0	54						
Oct. 6	3.2	57						
Nov. 24	3.3	55						
Dec. 18	2.4	52						
1959								
Jan. 13	4.3	52						
Feb. 24	10	51						
Mar. 11	8.6	52						
Apr. 2	5.8	58						
May 4	5.0	50						
June 2	2.6	46						
July 6	.91	51						
Aug. 7	a							
Sept. 10	No flow							
Oct. 8	a							
Nov. 6	No flow							
Dec. 11	1.5	49						
1960								
Jan. 14	5.9	55						
Feb. 5	12	51						
Mar. 1	9.4	56						

a A few drops per minute

Sites 9 and 10--Spring - Sam Nuckols

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

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

Description.--Concrete curbed seeps in landslide on hillside. After June 4, 1953, combined discharge of springs 9 and 10 measured at inflow into concrete crib at spring 11. Prior to June 4, 1953 both springs measured separately.

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1956		
Oct. 26	3.1		Jan. 9	8.3	54	Jan. 19	12	54
1949			Feb. 25	6.8	56	Feb. 14	15	53
Feb. 9	9.0		Apr. 8	6.6	55	Mar. 15	13	49
Apr. 11	11		May 19	4.0	56	Apr. 24	15	43
May 23	18		June 23	8.1		May 22	13	42
June 23	11		Aug. 4	11	56	June 15	14	51
Aug. 12	5.7	57	Sept. 5	6.6	58	July 19	12	54
Sept. 29	5.1		Oct. 28	5.7	58	Aug. 20	14	58
Nov. 1	4.3	61	1953			Sept. 11	b	63
Dec. 20	9.9	55	Jan. 6	10	50	Oct. 8	b	
1950			Apr. 2	a 12	50	Nov. 19	3.53	60
Jan. 17	12	54	June 4	12	58	Dec. 19	b	
Feb. 9	18	54	Sept. 25	4.7	64	1957		
Mar. 8	17	55	Dec. 17	7.6	57	Jan. 7	4.00	
Apr. 19	10	55	1954			Feb. 8	b	
May 18	9.4	55	Mar. 25	12	53	Mar. 11	12	43
June 22	5.9	57	Apr. 26	14	53	Apr. 4	b	
Aug. 10	3.3	58	May 20	13	54	May 3	10	46
Oct. 24	2.2	61	June 18	10	57	June 6	9.6	60
Nov. 15	3.3	58	July 26	7.0	64	July 2	b	
Dec. 20	4.7	58	Aug. 12	4.4	57	Aug. 7	4.48	60
1951			Oct. 8	5.4	58	Sept. 5	b	
Jan. 18	5.8	57	Nov. 19	4.3	56	Oct. 9	3.00	
Feb. 21	4.5	56	Dec. 8	8.8	52	Nov. 5	4.61	50
Mar. 20	7.7		1955			Dec. 3	3.16	57
Apr. 23	5.4		Jan. 14	14	50	1958		
June 13	2.0	57	Feb. 24	15	51	Jan. 11	8.6	
July 31	1.0	62	Mar. 10	16	50	Feb. 17	11	50
Sept. 12	.56	62	Apr. 21	7.4	52	Mar. 12	10	46
Oct. 22	.72	60	May 3	12	53	Apr. 21	10	54
Nov. 5	.34	60	June 3	9.4	55	May 21	10	50
Dec. 6	8.2	57	July 12	5.2	59	June 12	10	52
			Sept. 16	3.8	63	July 21	11	53
			Oct. 13	3.4	66	Aug. 12	10	54
			Nov. 10	b		Sept. 19	12	55
			Dec. 8	3.5		Oct. 6	11	57

Sites 9 and 10--Spring - Sam Nuckols (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Nov. 24	7.5	56						
Dec. 18	6.5	55						
1959								
Jan. 13	9.7							
Feb. 24	11	49						
Mar. 11	10	52						
Apr. 2	9.7	60						
May 4	8.1	59						
June 2	8.5	48						
July 6	No flow							
Aug. 7	b							
Sept. 10	3.9	57						
Oct. 8	b							
Nov. 6	b							
Dec. 11	b							
1960								
Jan. 14	11	51						
Feb. 5	13	55						
Mar. 1	12	55						

a Spring being cleaned

b No measurement was obtainable

Site 11--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
June 19	2.1		Jan. 9	No flow		Nov. 10	c	
Oct. 26	.80		Feb. 25	4.3		Dec. 8	1.1	
1949			Apr. 8	5.0	58	1956		
Feb. 16	5.4		May 19	3.9	61	Jan. 19	3.0	54
Apr. 11	3.8		June 23	b 9.2		Feb. 14	5.0	
May 23	3.3		Aug. 4	7.9	60	Mar. 15	4.2	48
June 23	4.3	59	Sept. 5	4.3	62	Apr. 24	1.3	43
Aug. 12	a 1.7	57	Oct. 28	2.9	62	May 22	2.5	43
Sept. 29	No flow		1953			June 15	3.0	51
Nov. 1	do		Jan. 6	5.4	58	July 19	1.9	
Dec. 20	do		Apr. 2	4.4	58	Aug. 20	1.1	57
1950			June 4	2.7		Sept. 11	c	
Jan. 17	do		Sept. 25	c		Oct. 8	c	
Feb. 14	do		Dec. 17	2.1	52	Nov. 19	c	
Mar. 8	do		1954			Dec. 19	c	
Apr. 19	6.4	58	Mar. 25	6.0	53	1957		
May 18	6.2	55	Apr. 26	2.6	53	Jan. 7	.21	
June 22	4.0	58	May 20	2.2	55	Feb. 8	c	
Aug. 10	No flow		June 18	.78	58	Mar. 11	2.9	43
Oct. 24	do		July 26	c		Apr. 4	c	
Nov. 16	.20	52	Aug. 12	c		May 3	1.6	46
Dec. 20	2.8	59	Oct. 8	c		June 6	.70	
1951			Nov. 19	c		July 2	c	
Jan. 18	1.4	55	Dec. 8	c		Aug. 7	.70	60
Feb. 21	1.9	51	1955			Sept. 5	c	
Mar. 20	3.7		Jan. 14	6.8	51	Oct. 9	.74	
Apr. 23	4.3		Feb. 24	2.4	52	Nov. 5	.84	50
June 13	No flow		Mar. 10	2.2	53	Dec. 3	c	
July 31	do		Apr. 21	1.5	52	1958		
Sept. 12	.15	67	May 3	3.4	54	Jan. 11	c	
Oct. 22	No flow		June 3	3.2	56	Feb. 17	1.3	50
Nov. 5	do		July 12	.89	60	Mar. 12	3.3	46
Dec. 6	.21	49	Sept. 16	.79	66	Apr. 21	3.0	54
			Oct. 13	.16	65	May 21	4.0	50

Site 11--Spring - Sam Nuckols (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
June 12	2.8	52						
July 21	4.3	53						
Aug. 12	1.7	54						
Sept. 19	c							
Oct. 6	c							
Nov. 24	1.0	56						
Dec. 18	c							
1959								
Jan. 13	1.6							
Feb. 24	1.0							
Mar. 11	.68	52						
Apr. 2	c							
May 4	c							
June 2	1.1	48						
July 6	c							
Aug. 7	c							
Sept. 10	c							
Oct. 8	c							
Nov. 6	c							
Dec. 11	c							
1960								
Jan. 14	c	51						
Feb. 5	.60	55						
Mar. 1	.42	55						

- a Combined flow of springs 10 and 11.
- b Reflects new curb built at station 10.
- c No measurement obtainable.

Site 12--Maria Ygnacio Creek at Old San Marcos Pass Road

Location.--Lat 34°27'40", long 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Oct. 27	54		Oct. 11	Pools		May 11	254	
Nov. 15	No flow		Nov. 6	do		June 6	43	60
Dec. 13	do		Dec. 6	22	50	July 22	4.5	67
1949			1952			Aug. 22	4.5	66
Jan. 3	49		Jan. 9	180	47	Sept. 23	4.5	58
Mar. 17	166		Feb. 21	203	58	Oct. 14	16	59
Apr. 11	72		Apr. 8	616	62	Nov. 9	13	53
May 11	62		May 15	197	76	Dec. 12	72	51
June 13	8.1		June 23	144		1956		
July 19	9.9	66	July 30	89		Feb. 28	153	46
Aug. 12	1.1		Sept. 8	39	70	Mar. 13	89	53
Nov. 1	1.4	55	Oct. 28	107	58	Apr. 24	81	46
Nov. 16	1.1	56	1953			May 22	188	44
Dec. 14	53	46	Jan. 6	418	54	June 12	57	64
1950			Apr. 2	120	59	July 19	31	60
Jan. 10	79	42	June 4	27	73	Aug. 17	11	
Feb. 13	120	46	Sept. 16	2.7	62	Sept. 17	11	62
Mar. 8	19		Dec. 11	126	48	Oct. 9	9.4	61
Apr. 19	2.7	58	1954			Nov. 16	20	58
May 18	2.7	55	Jan. 8	4.5	45	Dec. 20	11	53
June 19	2.7	60	Mar. 12	143	46	1957		
July 17	31	63	June 3	9.0	60	Jan. 7	89	57
Aug. 10	4.5	57	June 21	9.0	68	Feb. 6	85	47
Oct. 24	.4	64	July 14	10	68	Mar. 11	180	46
Nov. 22	74	60	Aug. 17	4.5	72	Apr. 4	31	48
Dec. 14	65	58	Sept. 22	5.8	61	May 2	130	49
1951			Oct. 8	9.4	56	June 4	28	68
Jan. 18	87	53	Nov. 19	73	50	July 8	11	59
Feb. 15	88	52	Dec. 17	116	51	Aug. 9	13	58
Mar. 14	73	59	1955			Sept. 7	7.5	61
Apr. 23	6.3		Jan. 17	140	48	Oct. 7	9.4	59
June 13	4.5	57	Feb. 10	135	53	Nov. 5	58	56
July 31	Pools		Mar. 10	240	54	Dec. 3	14	56
Sept. 10	do		Apr. 26	97	52			

Site 12--Maria Ygnacio Creek at Old San Marcos Pass Road (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Jan. 9	56	49						
Feb. 14	243	54						
Mar. 13	476	43						
Apr. 21	1,270	57						
May 20	288	64						
June 9	126	64						
July 18	58	60						
Aug. 11	27	65						
Sept. 18	5.0	69						
Oct. 6	15	63						
Nov. 24	71	51						
Dec. 18	7.0	55						
1959								
Jan. 12	116	52						
Feb. 24	385	51						
Mar. 10	116	59						
Apr. 1	61	66						
May 1	93	58						
June 2	44	52						
July 6	34	59						
Aug. 12	19	57						
Sept. 10	4.5	57						
Oct. 8	28	55						
Nov. 5	14	51						
Dec. 14	37	45						
1960								
Jan. 13	150	50						
Feb. 5	202	53						
Mar. 3	174	51						

Site 13--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
July 20	9.4		Feb. 25	29	58	July 12	a 12	59
1949			Apr. 8	46	55	Sept. 16	9.3	59
Feb. 8	5.1		May 19	32		Oct. 13	11	59
Apr. 11	19		June 19	22	61	Nov. 10	1.6	54
May 23	27		Aug. 4	34	87	Dec. 8	4.6	
June 23	15		Sept. 8	24	65	1956		
Aug. 11	12	60	Oct. 22	13	65	Feb. 28	35	44
Sept. 30	6.9		1953			Mar. 13	19	43
Nov. 1	5.9		Jan. 6	38	51	Apr. 23	7.0	44
Dec. 20	18	44	Apr. 2	19		May 21	20	42
1950			June 2	13		June 12	2.5	55
Jan. 17	24	49	Sept. 24	6.6	59	July 16	b	
Feb. 14	24	50	Oct. 23	7.3	54	Aug. 17	12	
Mar. 8	18	55	Nov. 18	15	51	Sept. 11	6.6	60
Apr. 18	16	59	Dec. 17	5.5	43	Oct. 8	12	55
May 15	16	53	1954			Nov. 19	8.6	53
June 22	7.0	59	Jan. 7	12	51	Dec. 19	8.6	52
Aug. 9	8.1	59	Feb. 23	12	54	1957		
Oct. 25	6.8	59	Mar. 25	24	46	Jan. 11	15	48
Nov. 16	11	51	Apr. 26	15	52	Feb. 7	20	46
Dec. 20	9.8	54	May 19	18	57	Mar. 11	28	43
1951			June 15	16	59	Apr. 2	14	44
Jan. 30	16	45	July 26	7.1	64	May 3	31	40
Feb. 13	10		Aug. 12	9.5	60	June 6	23	63
Mar. 20	11		Oct. 8	8.8	56	July 8	10	60
Apr. 16	13		Nov. 19	15	54	Aug. 6	10	63
June 13	11	57	Dec. 8	15		Sept. 7	8.0	60
July 30	3.8	65	1955			Oct. 7	9.7	54
Aug. 27	3.9	64	Jan. 14	30	46	Nov. 5	9.4	46
Sept. 18	.50		Feb. 23	14	46	Dec. 3	7.3	48
Sept. 26	5.2		Mar. 10	18	50	1958		
Oct. 25	11	53	Apr. 21	12	50	Jan. 9	8.8	48
Nov. 5	9	58	May 10	19	55	Feb. 14	32	48
Dec. 13	15	48	June 2	13	50	Mar. 13	33	40

Site 13--Unnamed Creek near Hobo Rock (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Apr. 21	72	51						
May 20	19	54						
June 9	13	51						
July 18	14	56						
Aug. 11	9.1	55						
Sept. 19	7.0	59						
Oct. 6	6.5	59						
Nov. 14	8.3							
Dec. 19	4.5	54						
1959								
Jan. 12	17	53						
Feb. 24	115	45						
Mar. 10	34	50						
Apr. 1	19	59						
May 1	8.3	50						
June 2	8.5	45						
July 6	6.0	53						
Aug. 7	5.7	56						
Sept. 9	4.0	56						
Oct. 9	6.5	56						
Nov. 6	6.7	49						
Dec. 14	5.9	43						
1960								
Jan. 13	12	44						
Feb. 5	16	53						
Mar. 3	18	46						

a Hobo Rock destroyed by construction.

b No measurement was obtainable.

Site 14--Spring - Foster 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1956		
July 19	0.7		Feb. 25	3.6	51	Feb. 28	3.8	45
1949			Apr. 8	9.4	54	Mar. 13	2.4	46
Feb. 10	1.3		May 19	3.5	62	Apr. 25	2.3	44
Apr. 13	1.8		June 19	1.8	61	May 21	2.3	44
May 23	2.5		Aug. 4	1.0		June 12	1.3	58
June 23	.63		Sept. 8	.31	65	July 16	.70	62
Aug. 11	.58		Oct. 22	.20	59	Aug. 17	.36	
Sept. 30	No flow		1953			Sept. 11	.30	60
Nov. 1	.02		Jan. 6	6.2	52	Oct. 8	.23	56
Dec. 20	1.2		Apr. 2	1.8	59	Nov. 21	.14	54
1950			June 2	1.2		Dec. 19	.17	50
Jan. 17	.74	47	Sept. 24	.03	63	1957		
Feb. 14	.85	51	Dec. 17	.33	60	Jan. 7	.27	50
Mar. 8	1.1	55	1954			Feb. 6	1.1	46
Apr. 18	.22	68	Mar. 25	2.7	47	Mar. 11	2.3	43
May 15	.14	55	Apr. 26	2.0	54	Apr. 2	.43	46
June 22	.11	60	May 19	1.4	57	May 3	1.1	45
Aug. 9	.23	67	June 15	.82	62	June 6	.54	67
Oct. 25	.02	61	July 26	.12	66	July 8	.33	57
Nov. 16	.50	53	Aug. 12	.11	59	Aug. 6	.14	59
Dec. 20	.52	58	Oct. 8	.08	59	Sept. 7	No flow	
1951			Nov. 19	.13	55	Oct. 7	do	
Jan. 30	.90	50	Dec. 8	.54	52	Nov. 5	do	
Feb. 13	.82		1955			Dec. 3	do	
Mar. 20	.77		Jan. 14	1.6	48	1958		
Apr. 16	.79		Feb. 23	1.6	50	Jan. 9	.79	45
June 13	.39	59	Mar. 10	1.7	50	Feb. 14	4.3	48
July 30	No flow		Apr. 21	1.6	50	Mar. 13	7.2	38
Aug. 27	do		May 10	2.8	54	Apr. 21	14	51
Sept. 26	.10	58	June 2	2.0	55	May 20	a 6.0	50
Oct. 25	.08	63	July 12	b 3.2		June 9	4.0	52
Nov. 5	.16	57	Sept. 16	No flow		July 18	5.4	55
Dec. 13	.89	50	Oct. 13	do		Aug. 11	.68	55
			Nov. 10	do		Sept. 19	.31	58
			Dec. 8	do		Oct. 6	No flow	

Site 14--Spring - Foster Glen Park, County of Santa Barbara (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Nov. 24	0.24	55						
Dec. 19	.18	51						
1959								
Jan. 12	.94	53						
Feb. 24	7.3	43						
Mar. 10	1.7	51						
Apr. 1	1.0	57						
May 1	.75	51						
June 2	.14	49						
July 6	.21	53						
Aug. 7	c	55						
Sept. 9	No flow							
Oct. 9	do							
Nov. 6	do							
Dec. 14	do							
1960								
Jan. 13	.48	46						
Feb. 5	1.41	51						
Mar. 3	1.15	49						

a Spring cleaned.

b New concrete crib installed.

c A few drops a minute.

Site 15--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
June 15	1.0		Aug. 27	.83	70	Jan. 12	No flow	
1949			Sept. 26	1.2	58	Feb. 23	do	
Feb. 16	1.1		Oct. 25	1.2	45	Mar. 8	.83	56
Apr. 13	1.4		Nov. 6	1.2	61	Apr. 19	.76	50
May 24	1.4		1952			May 10	c	
June 24	1.1		Feb. 26	.87	57			
Aug. 11	.80	59	Apr. 9	1.6	56			
Sept. 30	.58		May 16	1.3	59			
Nov. 28	.73	58	June 19	.42	58			
Dec. 28	.77	59	Aug. 1	.26				
1950			Sept. 8	.24				
Jan. 26	.94	59	Oct. 29	.30				
Feb. 17	2.1		1953					
Mar. 9	1.1	59	Jan. 9	2.0				
Apr. 18	.86	60	Apr. 6	No flow				
May 15	.89	57	June 3	do				
June 22	.78	60	Sept. 24	do				
Aug. 1	.60	60	Dec. 17	do				
Aug. 22	a		1954					
Dec. 1	2.4	53	Mar. 24	b do				
Dec. 21	.87	58	May 19	do				
1951			June 15	do				
Jan. 30	2.3	44	July 26	do				
Feb. 23	1.1	52	Aug. 11	do				
Mar. 22	.72		Oct. 7	do				
Apr. 19	.63		Nov. 19	do				
June 15	.59	62	Dec. 9	do				
July 30	.68	65						

a No measurement obtainable, union frozen.

b Spring line plugged.

c No measurements obtainable after May 10, 1955.

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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
June 15	3.3		Feb. 26	4.0	59	Jan. 13	0.63	53
1949			Apr. 9	5.4	60	Feb. 23	.74	55
Feb. 16	3.4		May 16	4.5	59	Mar. 8	.98	58
Apr. 13	4.1		June 19	3.8	62	Apr. 19	a 2.1	56
May 24	4.0		Aug. 1	3.7	60	May 10	3.6	54
June 24	3.4	58	Sept. 8	2.7	60	June 2	2.9	57
Aug. 11	3.4	59	Oct. 29	1.6	62	July 12	2.5	56
Sept. 30	2.3		Nov. 26	1.6	59	Sept. 16	b 2.4	59
Nov. 28	2.3	59	Dec. 19	1.6	59	Oct. 13	2.6	60
Dec. 28	2.4	59	1953			Nov. 10	2.1	59
1950			Jan. 9	6.4	62	Dec. 8	2.2	51
Jan. 26	2.2	58	Feb. 9	6.3	58	1956		
Feb. 17	1.2		Mar. 16	1.7	58	Jan. 17	4.5	50
Mar. 9	2.6	59	Apr. 6	1.6	56	Feb. 28	7.9	
Apr. 18	1.8	57	May 21	1.1	58	Mar. 13	6.2	51
May 15	2.0	56	June 3	.94	56	Apr. 23	6.8	46
June 22	2.0	59	July 14	.89	61	May 21	8.1	48
Aug. 1	2.4	60	Sept. 24	.65	58	June 12	5.8	53
Aug. 22	1.8	61	Oct. 23	.59	58	July 16	4.7	58
Oct. 25	2.3	61	Nov. 18	.35	55	Aug. 17	3.6	
Dec. 1	2.0	57	Dec. 17	.68	48	Sept. 24	3.9	60
Dec. 21	2.0	60	1954			Oct. 10	3.6	56
1951			Jan. 7	.50	57	Nov. 21	3.2	60
Jan. 30	2.2	59	Feb. 23	1.0	58	Dec. 19	3.2	55
Feb. 23	2.0	57	Mar. 24	1.9	57	1957		
Mar. 22	2.0		Apr. 2	1.5	56	Jan. 11	3.3	56
Apr. 19	1.9		May 19	.82	56	Feb. 7	3.9	56
June 15	1.8	59	June 15	.74	58	Mar. 9	8.8	50
July 30	1.7	61	July 26	.74	62	Apr. 2	6.4	46
Aug. 27	1.7	61	Aug. 11	.77	59	May 3	8.6	48
Sept. 26	1.6	62	Oct. 7	.68	61	June 3	8.1	58
Oct. 25	1.7	60	Nov. 19	.38	62	July 1	4.3	58
Nov. 6	1.7	61	Dec. 9	.53	58	Aug. 6	5.5	61
Dec. 13	1.8	59				Sept. 7	3.8	58

Site 16--Spring - Tom Kinevan (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Oct. 7	4.3	58						
Nov. 6	3.3	56						
Dec. 3	3.8	56						
1958								
Jan. 9	4.8	53						
Feb. 14	11	52						
Mar. 12	8.6	50						
Apr. 22	11	54						
May 20	8.5	53						
June 9	7.8	52						
July 18	7.2	54						
Aug. 11	7.0	56						
Sept. 18	6.4	59						
Oct. 6	7.0	60						
Nov. 24	7.4	59						
Dec. 19	4.9	59						
1959								
Jan. 12	7.2	59						
Feb. 24	7.9	52						
Mar. 11	6.4	49						
Apr. 1	6.7	60						
May 1	9.1	54						
June 1	6.1	49						
July 6	6.4	54						
Aug. 7	5.2	50						
Sept. 9	4.2	57						
Oct. 8	4.5	57						
Nov. 5	4.7	53						
Dec. 11	5.3	53						
1960								
Jan. 13	6.3	57						
Feb. 1	4.6	58						
Mar. 1	5.8	60						

- a This and succeeding measurements include flow from spring 200 ft below, which broke out after minor quake sometime in 1954.
- b Area burned off.

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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
July 30	4.8		Feb. 25	2.9	59	Jan. 14	7.6	56
1949			Apr. 8	3.2	57	Feb. 23	7.1	57
Feb. 16	5.0		May 19	3.2	62	Mar. 10	7.3	57
Apr. 13	5.6		June 19	2.4	62	Apr. 21	7.2	56
May 23	5.5		Aug. 4	14		May 10	7.2	58
June 23	6.3	62	Sept. 8	13	63	June 2	4.1	57
Aug. 11	5.3	60	Oct. 22	9.2	61	July 12	5.5	57
Sept. 30	4.9		Nov. 26	1.3	58	Sept. 16	8.8	59
Nov. 1	4.7	62	Dec. 19	4.4	59	Oct. 13	11	62
Dec. 20	5.3	56	1953			Nov. 10	6.0	59
1950			Jan. 6	9.0	52	Dec. 8	4.6	53
Jan. 17	5.4	54	Feb. 9	9.4	59	1956		
Feb. 14	5.8	51	Mar. 16	9.0	60	Jan. 19	4.3	56
Mar. 9	5.8	60	Apr. 6	6.2	60	Feb. 28	7.5	48
Apr. 18	6.2	62	May 21	7.5	60	Mar. 13	8.1	53
May 15	3.1	58	June 3	7.6	60	Apr. 23	5.4	47
June 22	5.4		July 14	7.0	60	May 21	7.7	48
Aug. 9	4.9	61	Sept. 24	7.3	59	June 12	18	55
Oct. 25	4.8	60	Oct. 21	6.8	60	July 16	4.4	58
Nov. 16	5.5	57	Nov. 18	6.8	59	Aug. 17	7.9	
Dec. 20	4.7	59	Dec. 17	6.2		Sept. 11	8.1	60
1951			1954			Oct. 8	8.1	55
Jan. 30	5.1	52	Jan. 7	5.9		Nov. 21	4.6	50
Feb. 15	5.2	56	Feb. 23	a		Dec. 19	2.6	56
Mar. 20	5.3		Mar. 25	a		1957		
Apr. 19	4.0		Apr. 26	a		Jan. 7	4.4	55
June 13	4.5		May 19	a		Feb. 6	5.0	51
July 30	2.8		June 15	9.7	59	Mar. 9	3.0	45
Aug. 27	3.1	63	July 26	10	65	Apr. 2	10	46
Sept. 26	2.8	61	Aug. 18	6.3	60	May 3	10	46
Oct. 25	2.6	59	Oct. 8	6.8	58	June 6	11	65
Nov. 5	2.7	61	Nov. 19	6.4	58	July 8	10	58
Dec. 13	3.2	57	Dec. 8	11	58	Aug. 6	7.5	59

Site 18--Spring - C. R. Holmes, Jr., et al (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Sept. 7	8.6	58						
Oct. 7	7.5	58						
Nov. 5	7.5	52						
Dec. 3	7.5	53						
1958								
Jan. 9	7.3	48						
Feb. 14	14	50						
Mar. 13	8.8	46						
Apr. 21	12	53						
May 20	11	54						
June 9	10	53						
July 18	8.6	55						
Aug. 11	8.8	57						
Sept. 18	5.5	60						
Oct. 6	7.9	59						
Nov. 24	8.0	56						
Dec. 19	7.3	50						
1959								
Jan. 12	7.9	53						
Feb. 24	47	44						
Mar. 10	9.4	52						
Apr. 1	8.4	56						
May 1	7.3	53						
June 2	8.1	50						
July 6	7.7	52						
Aug. 7	7.7	56						
Sept. 9	7.7	57						
Oct. 9	4.2	52						
Nov. 5	7.9	50						
Dec. 14	7.5	45						
1960								
Jan. 13	8.1	45						
Feb. 1	7.7	48						
Mar. 3	7.9	49						

a No measurement obtainable.

Site 19--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
July 30	7-8		Feb. 25	52	48	Jan. 14	69	42
1949			Apr. 8	1,120	52	Feb. 23	86	42
Feb. 16	7.5		May 19	36	60	Mar. 10	91	47
Apr. 13	12		June 19	15	61	Apr. 21	77	49
May 23	83		Aug. 4	63		May 10	232	54
June 23	12		Sept. 8	60	61	June 2	32	51
Aug. 11	12	56	Oct. 22	55	59	July 12	25	56
Sept. 30	10		Nov. 26	55	52	Sept. 16	a 12	58
Nov. 1	10	55	Dec. 19	44	52	Oct. 13	13	61
Dec. 20	77	44	1953			Nov. 10	12	54
1950			Jan. 6	251	50	Dec. 8	12	53
Jan. 17	200	48	Feb. 9	48	49	1956		
Feb. 14	140	48	Mar. 16	34	52	Jan. 19	58	55
Mar. 9	13	52	Apr. 6	43	54	Feb. 28	372	
Apr. 18	8.1	59	May 21	43	54	Mar. 13	81	53
May 15	17		June 3	38	54	Apr. 23	65	46
June 22	6.7	56	July 14	19	62	May 21	67	47
Aug. 9	5.7	59	Sept. 24	29	57	June 12	50	55
Oct. 25	8.8	57	Oct. 21	27	53	July 16	20	58
Nov. 16	13	50	Nov. 18	29	49	Aug. 17	15	
Dec. 20	11	52	Dec. 17	23	41	Sept. 11	10	59
1951			1954			Oct. 8	15	54
Jan. 30	15	46	Jan. 7	20	49	Nov. 21	10	48
Feb. 15	12	49	Feb. 23	62	52	Dec. 19	10	55
Mar. 20	16		Mar. 25	92	44	1957		
Apr. 19	15		Apr. 26	49	52	Jan. 7	15	55
June 13	11	56	May 19	33	56	Feb. 6	27	43
July 30	7.2	64	June 15	27	57	Mar. 9	318	43
Aug. 27	8.5	62	July 26	18	66	Apr. 2	43	46
Sept. 26	9.0	59	Aug. 12	15	58	May 3	75	41
Oct. 25	12	53	Oct. 8	11	54	June 6	35	64
Nov. 5	8.9	55	Nov. 19	16	50	July 8	15	61
Dec. 13	12	45	Dec. 8	21	49	Aug. 6	10	58

Site 19--San Jose Creek at Holmes' Place, San Marcos Pass (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Sept. 7	11	58						
Oct. 7	10	57						
Nov. 5	12	46						
Dec. 3	11	53						
1958								
Jan. 9	13	46						
Feb. 14	453	44						
Mar. 13	354	45						
Apr. 21	440	51						
May 20	106	52						
June 9	57	52						
July 18	20	54						
Aug. 11	15	57						
Sept. 18	12	60						
Oct. 6	12	58						
Nov. 24	14	55						
Dec. 19	15	50						
1959								
Jan. 12	20	52						
Feb. 24	350	41						
Mar. 10	69	50						
Apr. 1	34	56						
May 1	30	51						
June 2	20	47						
July 6	12	52						
Aug. 7	11	55						
Sept. 9	10	56						
Oct. 9	12	53						
Nov. 5	11	47						
Dec. 14	12	39						
1960								
Jan. 13	36	43						
Feb. 1	27	50						
Mar. 3	73	46						

a Drainage area burned off.

Sites 20 and 21--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.

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
July 30	4.7		Jan. 9	8.8	59	Jan. 14	12	52
1949			Feb. 25	10	65	Feb. 23	12	53
Feb. 10	5.7		Apr. 8	14	61	Mar. 10	13	54
Apr. 11	7.3		May 15	10	62	Apr. 21	5.6	55
May 24	15		June 23	7.1		May 3	11	53
June 23	5.9	74	Aug. 4	9.0	65	June 2	6.9	60
Aug. 11	4.7	72	Sept. 8	9.0	77	July 12	6.4	60
Sept. 29	3.7		Oct. 28	7.5	70	Sept. 16	a	
Nov. 1	3.8	69	Nov. 26	6.4		Oct. 13	3.8	72
Nov. 28	4.6	66	Dec. 19	8.0	56	Nov. 10	4.0	84
Dec. 14	9.0	55	1953			Dec. 8	4.8	58
1950			Jan. 6	11	54	1956		
Jan. 10	5.7	42	Feb. 9	10	61	Jan. 19	7.9	56
Feb. 13	18	55	Mar. 16	8.1	64	Feb. 14	13	56
Mar. 8	8.8	55	Apr. 2	8.5	59	Mar. 13	9.7	58
Apr. 19	6.4	59	May 21	7.4	64	Apr. 23	8.6	49
May 18	5.1	58	June 10	6.9	60	May 21	13	56
June 19	4.9	78	July 14	6.8	85	June 12	12	72
July 17	3.9	60	Sept. 16	5.2	81	July 16	9.1	71
Aug. 10	4.3	64	Oct. 23	6.5	61	Aug. 17	21	
Oct. 24	3.7	68	Nov. 18	8.8	57	Sept. 11	4.7	69
Nov. 22	4.6	67	Dec. 17	7.5	57	Oct. 10	4.8	66
Dec. 13	4.5	57	1954			Nov. 19	18	64
1951			Jan. 7	5.3	61	Dec. 19	5.5	70
Jan. 18	5.4	52	Feb. 23	11	52	1957		
Feb. 15	4.3	56	Mar. 24	11	49	Jan. 7	6.7	52
Mar. 14	4.3	82	Apr. 22	6.8	53	Feb. 7	7.7	52
Apr. 23	4.6		May 19	6.9	69	Mar. 11	14	50
June 13	3.4	56	June 15	7.3	61	Apr. 2	8.8	61
July 31	2.3	73	July 27	4.6	76	May 3	17	54
Sept. 10	2.2	89	Aug. 12	8.0	60	June 6	16	70
Oct. 22	2.3	56	Oct. 7	5.8	61	July 2	19	70
Nov. 6	2.3	79	Nov. 22	6.0	60	Aug. 7	5.8	66
Dec. 6	7.4	50	Dec. 8	9.2	54	Sept. 7	5.0	73

Sites 20 and 21--Spring - San Marcos Trout Club (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Oct. 9	3.7	73						
Nov. 5	3.0	61						
Dec. 3	8.3	68						
1958								
Jan. 9	6.5	58						
Feb. 14	12	56						
Mar. 13	10	42						
Apr. 21	11	68						
May 20	10	62						
June 9	9.1	63						
July 18	9.7	64						
Aug. 11	9.8	67						
Sept. 18	9.4	70						
Oct. 6	11	62						
Nov. 24	6.7	61						
Dec. 18	5.3	67						
1959								
Jan. 12	2.9	62						
Feb. 24	5.4	55						
Mar. 11	6.7	64						
Apr. 1	7.1	78						
May 1	5.5	55						
June 2	7.7	56						
July 6	7.0	64						
Aug. 12	7.9	53						
Sept. 9	7.9	69						
Oct. 9	7.5	65						
Nov. 5	a							
Dec. 14	8.3	58						
1960								
Jan. 13	a							
Feb. 1	8.2	50						
Mar. 1	5.5	60						

a No measurement obtainable

Site 22--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
June 17	2.9		Feb. 26	4.0	59	Nov. 10	2.7	64
1949			Apr. 9	8.2	60	Dec. 8	2.4	55
Feb. 10	3.4		May 16	4.9	59	1956		
Apr. 13	a		June 19	a		Jan. 17	2.8	53
May 24	5.2		Aug. 1	4.3	62	Feb. 27	5.0	52
June 24	3.0	59	Sept. 8	a		Mar. 13	4.2	51
Aug. 11	2.6	59	Oct. 29	a		Apr. 23	a	
Sept. 30	a		1953			May 21	a	
Nov. 28	2.8	57	Jan. 9	a	62	June 12	4.0	55
Dec. 28	3.1		Apr. 6	4.2	58	July 16	3.5	58
1950			June 3	a		Aug. 17	a	
Jan. 26	a		Sept. 24	3.1	60	Sept. 24	a	
Feb. 17	6.0		Nov. 18	2.9	56	Oct. 8	2.9	56
Mar. 9	a		Dec. 17	3.0	49	Nov. 21	a	
Apr. 18	a		1954			Dec. 19	2.5	58
May 15	a		Mar. 24	7.3	46	1957		
June 22	2.3	59	Apr. 22	3.1	56	Jan. 11	2.9	54
Aug. 1	a		May 19	2.8	58	Feb. 6	3.8	52
Aug. 22	a		June 15	a		Mar. 9	4.5	47
Oct. 25	2.2	60	July 26	a		Apr. 2	a	
Dec. 1	2.5	58	Aug. 11	a		May 7	4.8	42
Dec. 20	2.5	60	Oct. 7	2.6	58	June 3	4.6	59
1951			Nov. 19	2.4	59	July 1	a	
Jan. 30	2.7		Dec. 9	2.6	54	Aug. 6	a	
Feb. 23	2.6	53	1955			Sept. 7	2.1	60
Mar. 21	a		Jan. 13	5.0	54	Oct. 9	3.0	58
Apr. 19	2.4		Feb. 23	4.5	56	Nov. 5	3.0	58
June 15	a		Mar. 8	4.3	57	Dec. 3	3.0	56
July 30	a		Apr. 19	a		1958		
Aug. 27	a		May 10	6.3	58	Jan. 9	3.0	56
Sept. 26	2.3	60	June 2	2.7	56	Feb. 14	7.5	54
Oct. 25	2.3	57	July 12	a		Mar. 12	7.5	52
Nov. 6	2.2	60	Sept. 16	c	61	Apr. 22	13	53
Dec. 13	b		Oct. 13	2.6	60	May 20	7.5	54

Site 22--Spring - Rishi Singh Greywall (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
June 9	6.5	54						
July 18	5.0	56						
Aug. 11	4.8	56						
Sept. 18	4.9	60						
Oct. 6	4.9	58						
Nov. 24	4.4	58						
Dec. 19	3.7	49						
1959								
Jan. 12	4.8	60						
Feb. 24	4.9	47						
Mar. 10	6.2	56						
Apr. 1	5.0	60						
May 1	4.5	57						
June 2	4.8	49						
July 6	4.0	53						
Aug. 7	4.0	55						
Sept. 9	3.9	56						
Oct. 8	4.1	56						
Nov. 5	3.8	54						
Dec. 11	3.9	51						
1960								
Jan. 13	4.9	56						
Feb. 1	4.7	49						
Mar. 3	4.4	49						

a No measurement; pump running.

b No measurement obtainable.

c Area burned off.

Site 23--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Oct. 27	31		Sept. 10	7.6	71	May 11	462	54
Nov. 15	54		Oct. 11	.38		June 6	147	58
Nov. 29	28		Nov. 6	25	61	July 22	31	65
Dec. 13	74		Dec. 6	190	50	Aug. 22	34	65
1949			1952			Sept. 23	40	57
Jan. 3	144		Feb. 21	382	55	Oct. 14	46	58
Mar. 17	462		Mar. 14	1,055	49	Nov. 9	64	
Apr. 25	112		Apr. 8	2,920	60	Dec. 12	116	56
May 11	38		May 15	182	69	1956		
June 13	119		June 4	154	65	Feb. 28	655	
July 19	20		July 30	287		Mar. 13	233	57
Aug. 12	38	66	Sept. 15	149		Apr. 24	332	47
Sept. 15	13		Oct. 28	210	56	May 22	385	45
Oct. 17	46	64	1953			June 19	125	59
Nov. 16	87	56	Jan. 19	886	56	July 18	93	73
Dec. 14	124	49	Apr. 2	179	58	Aug. 17	43	
1950			June 4	75	72	Sept. 17	23	70
Jan. 10	374	44	Sept. 18	41	61	Oct. 9	26	67
Feb. 13	680	50	Dec. 11	100	52	Nov. 16	81	58
Mar. 8	170	53	1954			Dec. 20	37	54
Apr. 13	100	64	Mar. 12	260	46	1957		
May 18	110	55	June 3	176	61	Jan. 11	180	50
June 19	36	59	June 21	39	61	Feb. 6	265	
July 17	65	63	July 14	60	66	Mar. 7	790	59
Aug. 10	5.8		Aug. 17	53	65	Apr. 4	135	53
Oct. 30	95	63	Sept. 22	81	59	May 2	293	50
Dec. 14	85	60	Oct. 8	69	55	June 4	238	73
1951			Nov. 19	116	52	July 8	61	
Jan. 18	187	53	Dec. 17	210	53	Aug. 9	31	60
Feb. 15	96	53	1955			Sept. 3	31	74
Mar. 14	129	59	Jan. 17	416	49	Oct. 7	40	60
Apr. 26	97		Feb. 10	278	46	Nov. 5	81	54
June 13	16	58	Mar. 10	330	52	Dec. 3	16	54
July 23	10	65	Apr. 26	309				

Site 23--San Jose Creek 1.0 mile above Patterson Ave. Bridge (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Jan. 9	231	50						
Feb. 14	1,100							
Apr. 21	1,670	55						
May 20	341	62						
June 9	402	61						
July 18	126	62						
Aug. 11	65	63						
Sept. 18	12	64						
Oct. 6	20	63						
Nov. 24	138	51						
Dec. 18	65	51						
1959								
Jan. 12	193	53						
Feb. 24	1,090	49						
Mar. 10	131	55						
Apr. 1	167	66						
May 1	83	55						
June 2	71	50						
July 6	18	58						
Aug. 12	53	56						
Sept. 10	26	61						
Oct. 8	47	55						
Nov. 5	51	51						
Dec. 14	59	45						
1960								
Jan. 13	278	47						
Feb. 5	385	52						
Mar. 3	350	50						

Site 25--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 Avenue /a

Diversion.--No known diversions above station.

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Nov. 29	108		July 23	74		June 6	11	56
Dec. 2	112		Sept. 10	80		July 22	5.0	62
Dec. 13	117		Oct. 11	65	65	Aug. 22	3.3	62
1949			Nov. 6	59	63	Sept. 23	b 6.0	58
Jan. 3	150		Dec. 6	1.5		Oct. 14	13	61
Feb. 23	120		1952			Nov. 9	13	61
Mar. 17	153		Feb. 21	No flow		Dec. 12	12	51
Apr. 25	No flow		Mar. 14	do		1956		
May 11	do		May 15	20	64	Jan. 17	11	49
June 13	do		June 4	9.4	60	Feb. 27	9.4	54
July 19	9.0		July 30	11		Mar. 13	9.7	54
Aug. 12	9.9	61	Sept. 15	12	62	Apr. 24	12	48
Sept. 15	155		Oct. 28	10	56	May 23	21	55
Oct. 17	130	65	1953			June 19	16	60
Nov. 16	97	60	Jan. 19	26	56	July 18	20	64
Dec. 14	No flow		Apr. 2	14	55	Aug. 17	17	
1950			June 4	8.4	64	Sept. 17	16	66
Jan. 10	do		Sept. 18	72	62	Oct. 9	8.6	62
Feb. 13	2.2	51	Dec. 11	No flow		Nov. 16	8.1	57
Mar. 8	13	53	1954			Dec. 20	5.8	54
Apr. 13	6.3	59	Mar. 12	81	54	1957		
May 18	166	62	June 3	7.2	61	Jan. 11	4.5	50
June 19	117	64	June 21	5.0	64	Feb. 6	15	50
July 17	100	66	July 14	12	65	Mar. 7	31	57
Aug. 10	76	63	Aug. 17	7.6	66	Apr. 5	12	55
Oct. 30	.7	62	Sept. 22	3.3	62	May 2	10	45
Nov. 20	.4	63	Oct. 8	7.5	57	June 4	10	69
Dec. 14	117	65	Nov. 19	3.8	54	July 5	7.5	66
1951			Dec. 17	11	59	Aug. 9	10	60
Jan. 22	155	67	1955			Sept. 3	85	72
Feb. 15	86	60	Jan. 17	16	46	Oct. 10	4.5	58
Mar. 14	74	62	Feb. 10	13		Nov. 7	7.6	56
Apr. 26	68		Mar. 10	13	54	Dec. 10	11	53
June 13	80	62	May 11	16	55			

Site 25--West Fork San Jose Creek above Reservoir

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Jan. 13	16	55						
Feb. 18	26	56						
Apr. 23	102	62						
May 21	150	58						
June 9	40	67						
July 22	26	65						
Aug. 5	20	68						
Sept. 12	14	66						
Oct. 9	20	65						
Nov. 19	20	51						
Dec. 12	26	58						
1959								
Jan. 26	102	64						
Feb. 26	16	59						
Mar. 9	34	62						
Apr. 2	7.6	65						
May 18	5.8							
June 4	4.5							
July 27	2.0	70						
Aug. 11	2.0	71						
Sept. 14	100	71						
Oct. 9	No flow							
Nov. 5	do							
Dec. 8	4.5	53						
1960								
Jan. 8	16	50						
Feb. 8	37	59						
Mar. 7	16	57						

- a A portion of measured runoff is from well operated in the headwater area.
b Area recently burned.

Site 26--Spring - A. Armando

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

Altitude.--About 470 feet, from topographic map.

Description.--Cave in sandstone beds.

Remarks.--No outflow from pool below spring at the time of visits to this site.

Site 27--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948								
Oct. 18	a							
1949								
Feb. 23	0.1							
Mar. 31	No flow							
May 26	do							
June 20	do							
July 19	do							
Aug. 16	do							
Sept. 15	do							
Oct. 12	do							
Nov. 29	do							
Dec. 13	do							
1950								
Jan. 23	do							
Mar. 17	do							
Apr. 20	do							
June 15	do							
Aug. 8	do							
Oct. 30	do							
Nov. 22	do							
Dec. 14	.07							
1951								
Jan. 24	b .06							

a Less than 1.

b Last visit, observations at this site discontinued.

Site 28--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1956		
Oct. 19	No flow		Sept. 12	7.2		Apr. 24	23	47
1949			Oct. 28	6.3	55	May 23	56	51
Feb. 23	do		1953			June 19	20	59
Mar. 31	do		Jan. 12	93	55	July 19	16	60
May 26	do		Apr. 14	20	52	Aug. 20	11	62
June 20	8.6	65	June 10	14	54	Sept. 24	5.4	61
July 19	8.5		Sept. 18	8.1	58	Oct. 10	9.7	54
Aug. 16	3.6	59	Dec. 11	9.4		Nov. 23	8.1	55
Sept. 15	3.6		1954			Dec. 20	9.7	52
Nov. 29	5.4	56	Mar. 12	3.7	59	1957		
Dec. 13	9.9	60	May 20	37	55	Jan. 22	16	41
1950			June 21	11	58	Feb. 6	23	46
Jan. 23	16		July 14	3.7	63	Mar. 11	48	46
Mar. 17	8.5	52	Aug. 17	4.0	63	Apr. 9	16	45
Apr. 20	8.5	55	Sept. 22	2.1	60	May 2	27	49
June 15	11	55	Oct. 8	2.6	58	June 6	25	62
Aug. 8	2.2	60	Nov. 19	7.1	56	July 5	15	61
Oct. 30	7.2	59	Dec. 17	12	51	Aug. 9	12	66
Nov. 22	10	61	1955			Sept. 3	15	67
Dec. 14	8.1	57	Jan. 17	12	46	Oct. 10	12	60
1951			Feb. 10	14	49	Nov. 7	10	58
Jan. 24	10	55	Mar. 28	14	54	Dec. 10	6.0	54
Mar. 14	18	54	May 11	23	53	1958		
June 12	1.8		June 6	12	56	Jan. 13	15	53
July 23	No flow		July 22	6.3	59	Apr. 23	141	61
Sept. 12	do		Aug. 22	2.8	58	May 21	57	67
Oct. 26	do		Sept. 23	7.5	59	June 9	37	70
Nov. 7	do		Oct. 20	12	56	July 22	20	67
Dec. 12	7.6	51	Nov. 22	12		Aug. 5	19	70
1952			Dec. 12	12	53	Sept. 12	14	69
Feb. 21	42	51	1956			Oct. 9	17	66
May 7	19	57	Jan. 17	14	51	Nov. 19	20	53
June 4	10	57	Feb. 27	b		Dec. 12	20	58
July 30	13		Mar. 19	20	47			

Site 28--Spring - Sawyer Estate (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1959								
Jan. 26	26	58						
Feb. 26	98	58						
Mar. 9	53	62						
Apr. 2	23	66						
May 18	20	66						
June 4	18							
July 27	20	73						
Aug. 11	18	74						
Sept. 14	3.5	73						
Oct. 9	3.3	71						
Nov. 5	14	59						
Dec. 8	16	53						
1960								
Jan. 19	23	51						
Feb. 8	50	60						
Mar. 8	28	56						

a Area burned off.

b No measurement obtainable.

Site 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949								
Oct. 12	13							
1950								
Jan. 23	15	60						
Apr. 20	12	57						
Aug. 8	17	62						
1951								
Mar. 14	13	59						
Sept. 12	8.5	60						
Oct. 26	a 6.7	55						

a Last visit; observations at this site discontinued.

Site 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948								
Oct. 19	27							
1949								
Feb. 23	47							
Mar. 31	32							
May 26	41.7							
June 20	46.2	58						
July 19	28.3							
Aug. 16	31.0	61						
Nov. 29	36	56						
Dec. 13	a 49	49						

a Last visit, observations at this site discontinued.

Site 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
July 23	30		Apr. 16	44		June 21	42	61
Nov. 1	29		June 12	36	59	July 14	57	66
Nov. 15	41		July 23	30	64	Aug. 16	72	63
Nov. 29	45		Sept. 10	29		Sept. 22	60	59
Dec. 13	50		Oct. 11	35		Oct. 8	55	56
1949			Nov. 7	32		Nov. 19	84	52
Feb. 23	45		Dec. 12	60	49	Dec. 17	90	47
Mar. 17	81		1952			1955		
Apr. 25	51		Feb. 21	100	49	Jan. 14	92	44
May 26	49		May 7	120	58	Feb. 10	78	46
June 20	52		June 5	97	58	Mar. 10	122	51
July 19	38		July 30	67		Apr. 26	57	51
Aug. 16	36	61	Sept. 12	67	60	May 11	99	55
Sept. 15	30		Oct. 28	63	53	June 6	61	59
Oct. 17	39	60	Nov. 25	65	51	July 22	55	61
Nov. 29	54	55	Dec. 19	85	53	Aug. 22	94	61
Dec. 14	56	47	1953			Sept. 23	65	60
1950			Jan. 12	201	57	Oct. 20	77	57
Jan. 10	63	49	Feb. 9	104	50	Nov. 22	61	50
Feb. 24	58	53	Mar. 16	102	50	Dec. 12	53	50
Mar. 15	66		Apr. 14	95	52	1956		
Apr. 13	51	59	May 26	53	57	Jan. 17	80	50
May 11	37	60	June 10	52	59	Feb. 27	125	51
June 15	48	56	July 21	68	62	Mar. 15	121	46
July 27	35	65	Sept. 16	42	60	Apr. 25	118	47
Aug. 15	40	60	Oct. 21	45	53	May 22	242	47
Oct. 23	29		Nov. 23	52	49	June 19	98	58
Nov. 22	25	62	Dec. 11	40		July 18	80	64
Dec. 13	44	56	1954			Aug. 20	65	64
1951			Jan. 8	48	48	Sept. 17	54	66
Jan. 19	66	50	Feb. 10	79	52	Oct. 9	63	58
Feb. 13	47		Mar. 11	67	50	Nov. 16	43	54
Mar. 13	38	53	Apr. 15	117	56	Dec. 20	53	46
			May 20	87	57			

Site 30--San Pedro Canyon Creek above Diversion (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957			1960					
Jan. 22	103	42	Jan. 19	89	48			
Feb. 7	84	45	Feb. 8	121				
Mar. 7	217	49	Mar. 8	93	57			
Apr. 9	99	46						
May 2	81	48						
June 4	44	66						
July 5	53	68						
Aug. 9	50	72						
Sept. 3	50	66						
Oct. 9	53	59						
Nov. 19	50	45						
Dec. 10	65	48						
1958								
Jan. 13	93	50						
Feb. 18	150	56						
Apr. 23	970	56						
May 21	155	67						
June 9	107	67						
July 22	107	67						
Aug. 5	130	71						
Sept. 12	126	66						
Oct. 9	76	64						
Nov. 6	80	60						
Dec. 12	73	53						
1959								
Jan. 26	121	53						
Feb. 26	160	54						
Mar. 9	150	59						
Apr. 2	89	65						
May 18	61	66						
June 4	76	62						
July 27	37	74						
Aug. 11	47	72						
Sept. 14	50	70						
Oct. 9	50	64						
Nov. 5	34	57						
Dec. 8	53	50						

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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
July 23	25-35		Feb. 22	34		Jan. 14	58	62
Oct. 19	18-20		May 7	33	63	Feb. 10	60	63
Nov. 1	29		June 5	31		Mar. 10	59	62
1949			July 30	125		Apr. 26	50	63
Feb. 23	34		Sept. 12	136		May 11	52	64
Apr. 25	30		Oct. 28	111	66	June 6	49	65
May 26	29		Nov. 25	115	65	July 22	43	66
Aug. 16	28	66	Dec. 19	116	66	Aug. 22	52	64
Sept. 15	28		1953			Sept. 23	45	65
Oct. 17	29	65	Jan. 12	125	66	Oct. 20	45	65
Nov. 29	29	65	Feb. 9	104	62	Nov. 22	45	62
Dec. 14	29		Mar. 16	94	66	Dec. 12	43	64
1950			Apr. 14	94	64	1956		
Jan. 10	29	60	May 21	97	66	Jan. 17	40	63
Feb. 24	29	59	June 10	83	67	Feb. 27	42	65
Mar. 15	29		July 21	77	68	Mar. 15	46	62
Apr. 13	28	66	Sept. 16	83	68	Apr. 25	40	55
May 11	25	67	Oct. 21	81	66	May 22	49	49
June 15	a		Nov. 23	79	63	June 19	44	62
July 27	27	68	Dec. 11	79	64	July 18	40	67
Aug. 15	27	66	1954			Aug. 20	43	68
Oct. 23	30	69	Jan. 8	75	62	Sept. 17	37	71
Nov. 22	30	69	Feb. 10	80	56	Oct. 9	38	66
Dec. 13	30	66	Mar. 11	79	62	Nov. 16	39	61
1951			Apr. 15	77	62	Dec. 20	36	64
Jan. 19	33	63	May 20	71	63	1957		
Feb. 13	27		June 21	61	63	Jan. 22	a	
Mar. 13	26	68	July 14	67	67	Feb. 7	a	53
Apr. 16	27		Aug. 16	65	66	Mar. 7	a	
June 12	26	65	Sept. 22	60	67	Apr. 9	38	56
July 23	29	67	Oct. 8	55	66	May 2	38	52
Sept. 10	28	69	Nov. 19	58	64	June 4	35	71
Oct. 11	24	69	Dec. 17	64	63	July 5	35	76
Nov. 7	30	65				Aug. 9	36	68
Dec. 12	29	64				Sept. 3	35	69

Site 31--Spring - Mrs. K. C. Canatsey & Mrs. B. O'Bannon (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Oct. 9	33	59						
Nov. 19	38	50						
Dec. 10	100	58						
1958								
Jan. 13	42	64						
Feb. 18	38	64						
Apr. 23	a	69						
May 21	38	67						
June 9	34	69						
July 22	23	68						
Aug. 5	25	69						
Sept. 12	35	68						
Oct. 9	34	68						
Nov. 6	38	68						
Dec. 12	38	65						
1959								
Jan. 26	37	65						
Feb. 26	35	65						
Mar. 9	40	67						
Apr. 2	75	67						
May 18	36	65						
June 4	34	67						
July 27	37	70						
Aug. 11	37	70						
Sept. 14	36	71						
Oct. 9	100	67						
Nov. 5	38	67						
Dec. 8	60	64						
1960								
Jan. 19	41	62						
Feb. 8	136	61						
Mar. 8	50	62						

a No measurement obtainable.

Site 33--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
July 28	24		June 12	16		June 17	44	58
Oct. 29	14		July 23	17	66	July 13	49	63
Nov. 15	18		Sept. 10	19	65	Aug. 17	52	62
Nov. 29	17		Oct. 11	9.5	67	Sept. 22	40	61
Dec. 13	20		Nov. 7	9.3	63	Oct. 11	46	57
1949			Dec. 3	8.6	55	Nov. 19	46	55
Feb. 18	21		1952			Dec. 14	68	51
Mar. 17	41		Feb. 20	30	51	1955		
Apr. 26	24		Apr. 4	48	59	Jan. 14	81	47
May 26	22		May 15	33	62	Feb. 11	51	49
June 13	20		June 5	35	61	Mar. 28	54	56
July 18	15	66	Aug. 7	74		Apr. 19	38	51
Aug. 16	15	61	Sept. 12	65	60	May 9	64	53
Sept. 15	14		Oct. 27	52	59	June 6	50	
Oct. 17	17	60	Nov. 25	65		July 21	31	62
Nov. 14	26	58	Dec. 18	70		Aug. 19	32	65
Dec. 13	25	50	1953			Sept. 23	58	60
1950			Jan. 20	82		Oct. 20	48	57
Jan. 25	26	53	Feb. 10	60	54	Nov. 22	56	53
Feb. 24	25	54	Mar. 17	57		Dec. 12	36	
Mar. 15	22	53	Apr. 13	66	56	1956		
Apr. 13	17	59	May 21	60		Jan. 17	50	50
May 9	11	59	June 11	47	62	Feb. 27	53	50
June 14	16	56	July 21	26	65	Mar. 19	23	48
July 27	15	65	Sept. 18	44	60	Apr. 25	47	48
Aug. 14	18	63	Oct. 23	43	54	May 23	37	54
Oct. 23	11	63	Nov. 23	29	52	June 19	31	57
Nov. 27	20	59	Dec. 10	35	55	July 18	20	60
Dec. 13	33	57	1954			Aug. 16	41	61
1951			Jan. 7	40	51	Sept. 17	31	61
Jan. 22	22	53	Feb. 11	67	53	Oct. 9	22	57
Feb. 13	17		Mar. 11	49	52	Nov. 16	29	56
Mar. 13	21	55	Apr. 14	61	57	Dec. 21	9.4	49
Apr. 16	17		May 20	51	56			

Site 33--Bartlett Canyon Creek above Diversion (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957			1960					
Jan. 11	16	46	Jan. 19	47	49			
Feb. 7	19	46	Feb. 8	28	58			
Mar. 7	158	50	Mar. 8	49	57			
Apr. 9	20	46						
May 7	23	45						
June 4	11	64						
July 5	11	66						
Aug. 15	18							
Sept. 3	19	66						
Oct. 9	9.4	61						
Nov. 7	32	56						
Dec. 10	a							
1958								
Jan. 13	34	53						
Apr. 23	228	55						
May 21	40	69						
June 9	40	62						
July 22	34	64						
Aug. 4	47	68						
Sept. 12	31	67						
Oct. 9	40	65						
Nov. 19	40	51						
Dec. 12	40	56						
1959								
Jan. 26	47	54						
Feb. 25	188	57						
Mar. 9	47	58						
Apr. 2	40	59						
May 18	26	60						
June 4	40	60						
July 27	5.8	72						
Aug. 11	18	68						
Sept. 14	37	69						
Oct. 9	23	67						
Nov. 5	18	58						
Dec. 8	16	60						

a No measurement obtainable.

Site 35--Spring - T. B. Bishop Company

Location.--Lat 34°29'00", 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
July 29	24		Nov. 7	15	58	Oct. 11	29	57
1949			Dec. 3	20	53	Nov. 24	36	53
Feb. 18	30		1952			Dec. 14	57	49
Mar. 31	75		Feb. 20	79		1955		
Apr. 26	48		Apr. 4	338	60	Jan. 14	54	50
May 26	45		May 15	180	60	Feb. 11	56	52
June 13	38		June 5	132	59	Mar. 28	49	55
July 18	23	63	Aug. 7	92		Apr. 19	50	51
Aug. 15	28	59	Sept. 12	51	58	May 9	104	56
Sept. 15	25		Oct. 27	40	56	June 7	61	57
Oct. 17	28	60	Nov. 25	60		July 21	43	59
Nov. 14	29	57	Dec. 18	64	56	Aug. 19	34	59
Dec. 13	45	50	1953			Sept. 30	a 38	58
1950			Jan. 20	79		Oct. 20	71	58
Jan. 25	60	50	Feb. 10	122	54	Nov. 22	58	54
Feb. 24	61		Mar. 17	59	55	Dec. 12	41	52
Mar. 15	64	54	Apr. 13	51	55	1956		
Apr. 13	62	57	May 21	42		Feb. 27	142	
May 9	31	57	June 11	36	56	Mar. 19	83	47
June 14	29	57	July 21	33	60	Apr. 25	115	44
July 27	28	60	Sept. 18	31	59	May 23	158	54
Aug. 14	30	59	Oct. 23	28	55	June 19	94	56
Oct. 23	15	63	Nov. 23	19	53	July 18	60	58
Nov. 27	31	57	Dec. 10	36	56	Aug. 16	60	
Dec. 13	28	58	1954			Sept. 17	54	59
1951			Jan. 7	26	54	Oct. 9	45	56
Jan. 22	25	55	Feb. 11	43	55	Nov. 16	38	55
Feb. 13	28		Mar. 11	46	52	Dec. 21	42	51
Mar. 13	26	54	Apr. 14	71	56	1957		
Apr. 16	23		May 20	39	56	Jan. 11	40	48
June 12	22	57	June 17	41	58	Feb. 7	60	47
July 23	18	61	July 13	40	60	Mar. 7	323	47
Sept. 10	18	61	Aug. 17	34	58	Apr. 9	83	46
Oct. 11	13	60	Sept. 20	25	63	May 7	107	44

Site 31--Spring - Mrs. K. C. Canatsey & Mrs. B. O'Bannon (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Oct. 9	33	59						
Nov. 19	38	50						
Dec. 10	100	58						
1958								
Jan. 13	42	64						
Feb. 18	38	64						
Apr. 23	a	69						
May 21	38	67						
June 9	34	69						
July 22	23	68						
Aug. 5	25	69						
Sept. 12	35	68						
Oct. 9	34	68						
Nov. 6	38	68						
Dec. 12	38	65						
1959								
Jan. 26	37	65						
Feb. 26	35	65						
Mar. 9	40	67						
Apr. 2	75	67						
May 18	36	65						
June 4	34	67						
July 27	37	70						
Aug. 11	37	70						
Sept. 14	36	71						
Oct. 9	100	67						
Nov. 5	38	67						
Dec. 8	60	64						
1960								
Jan. 19	41	62						
Feb. 8	136	61						
Mar. 8	50	62						

a No measurement obtainable.

Site 33--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
July 28	24		June 12	16		June 17	44	58
Oct. 29	14		July 23	17	66	July 13	49	63
Nov. 15	18		Sept. 10	19	65	Aug. 17	52	62
Nov. 29	17		Oct. 11	9.5	67	Sept. 22	40	61
Dec. 13	20		Nov. 7	9.3	63	Oct. 11	46	57
1949			Dec. 3	8.6	55	Nov. 19	46	55
Feb. 18	21		1952			Dec. 14	68	51
Mar. 17	41		Feb. 20	30	51	1955		
Apr. 26	24		Apr. 4	48	59	Jan. 14	81	47
May 26	22		May 15	33	62	Feb. 11	51	49
June 13	20		June 5	35	61	Mar. 28	54	56
July 18	15	66	Aug. 7	74		Apr. 19	38	51
Aug. 16	15	61	Sept. 12	65	60	May 9	64	53
Sept. 15	14		Oct. 27	52	59	June 6	50	
Oct. 17	17	60	Nov. 25	65		July 21	31	62
Nov. 14	26	58	Dec. 18	70		Aug. 19	32	65
Dec. 13	25	50	1953			Sept. 23	58	60
1950			Jan. 20	82		Oct. 20	48	57
Jan. 25	26	53	Feb. 10	60	54	Nov. 22	56	53
Feb. 24	25	54	Mar. 17	57		Dec. 12	36	
Mar. 15	22	53	Apr. 13	66	56	1956		
Apr. 13	17	59	May 21	60		Jan. 17	50	50
May 9	11	59	June 11	47	62	Feb. 27	53	50
June 14	16	56	July 21	26	65	Mar. 19	23	48
July 27	15	65	Sept. 18	44	60	Apr. 25	47	48
Aug. 14	18	63	Oct. 23	43	54	May 23	37	54
Oct. 23	11	63	Nov. 23	29	52	June 19	31	57
Nov. 27	20	59	Dec. 10	35	55	July 18	20	60
Dec. 13	33	57	1954			Aug. 16	41	61
1951			Jan. 7	40	51	Sept. 17	31	61
Jan. 22	22	53	Feb. 11	67	53	Oct. 9	22	57
Feb. 13	17		Mar. 11	49	52	Nov. 16	29	56
Mar. 13	21	55	Apr. 14	61	57	Dec. 21	9.4	49
Apr. 16	17		May 20	51	56			

Site 33--Bartlett Canyon Creek above Diversion (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957			1960					
Jan. 11	16	46	Jan. 19	47	49			
Feb. 7	19	46	Feb. 8	28	58			
Mar. 7	158	50	Mar. 8	49	57			
Apr. 9	20	46						
May 7	23	45						
June 4	11	64						
July 5	11	66						
Aug. 15	18							
Sept. 3	19	66						
Oct. 9	9.4	61						
Nov. 7	32	56						
Dec. 10	a							
1958								
Jan. 13	34	53						
Apr. 23	228	55						
May 21	40	69						
June 9	40	62						
July 22	34	64						
Aug. 4	47	68						
Sept. 12	31	67						
Oct. 9	40	65						
Nov. 19	40	51						
Dec. 12	40	56						
1959								
Jan. 26	47	54						
Feb. 25	188	57						
Mar. 9	47	58						
Apr. 2	40	59						
May 18	26	60						
June 4	40	60						
July 27	5.8	72						
Aug. 11	18	68						
Sept. 14	37	69						
Oct. 9	23	67						
Nov. 5	18	58						
Dec. 8	16	60						

a No measurement obtainable.

Site 35--Spring - T. B. Bishop Company

Location.--Lat 34°29'00", 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
July 29	24		Nov. 7	15	58	Oct. 11	29	57
1949			Dec. 3	20	53	Nov. 24	36	53
Feb. 18	30		1952			Dec. 14	57	49
Mar. 31	75		Feb. 20	79		1955		
Apr. 26	48		Apr. 4	338	60	Jan. 14	54	50
May 26	45		May 15	180	60	Feb. 11	56	52
June 13	38		June 5	132	59	Mar. 28	49	55
July 18	23	63	Aug. 7	92		Apr. 19	50	51
Aug. 15	28	59	Sept. 12	51	58	May 9	104	56
Sept. 15	25		Oct. 27	40	56	June 7	61	57
Oct. 17	28	60	Nov. 25	60		July 21	43	59
Nov. 14	29	57	Dec. 18	64	56	Aug. 19	34	59
Dec. 13	45	50	1953			Sept. 30	a 38	58
1950			Jan. 20	79		Oct. 20	71	58
Jan. 25	60	50	Feb. 10	122	54	Nov. 22	58	54
Feb. 24	61		Mar. 17	59	55	Dec. 12	41	52
Mar. 15	64	54	Apr. 13	51	55	1956		
Apr. 13	62	57	May 21	42		Feb. 27	142	
May 9	31	57	June 11	36	56	Mar. 19	83	47
June 14	29	57	July 21	33	60	Apr. 25	115	44
July 27	28	60	Sept. 18	31	59	May 23	158	54
Aug. 14	30	59	Oct. 23	28	55	June 19	94	56
Oct. 23	15	63	Nov. 23	19	53	July 18	60	58
Nov. 27	31	57	Dec. 10	36	56	Aug. 16	60	
Dec. 13	28	58	1954			Sept. 17	54	59
1951			Jan. 7	26	54	Oct. 9	45	56
Jan. 22	25	55	Feb. 11	43	55	Nov. 16	38	55
Feb. 13	28		Mar. 11	46	52	Dec. 21	42	51
Mar. 13	26	54	Apr. 14	71	56	1957		
Apr. 16	23		May 20	39	56	Jan. 11	40	48
June 12	22	57	June 17	41	58	Feb. 7	60	47
July 23	18	61	July 13	40	60	Mar. 7	323	47
Sept. 10	18	61	Aug. 17	34	58	Apr. 9	83	46
Oct. 11	13	60	Sept. 20	25	63	May 7	107	44

Site 35--Spring - T. B. Bishop Company (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
June 4	68	60						
July 5	54	60						
Aug. 15	52	59						
Sept. 3	45	62						
Oct. 9	43	62						
Nov. 7	43	57						
Dec. 10	b							
1958								
Jan. 13	73	53						
Apr. 22	458	60						
May 21	188	61						
June 9	167	60						
July 22	214	61						
Aug. 5	167	61						
Sept. 12	137	60						
Oct. 9	94	61						
Nov. 19	167	47						
Dec. 12	146							
1959								
Jan. 26	50	52						
Feb. 25	334	59						
Mar. 9	300	54						
Apr. 2	136	59						
May 18	43							
June 4	47	60						
July 27	68	66						
Aug. 11	63	65						
Sept. 14	74	65						
Oct. 9	71	69						
Nov. 5	60	60						
Dec. 8	58	62						
1960								
Jan. 19	63	51						
Feb. 8	100	59						
Mar. 8	60	56						

a Area recently burned.

b No measurement obtainable.

Site 35a--McCoy 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 out-crop about 50 feet above horizontal well.

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1950			1953			1956		
Jan. 25	11	49	Apr. 13	12	56	Feb. 27	107	48
Apr. 13	7.6	57	May 21	2.8	59	Mar. 19	52	46
May 9	No flow		June 11	No flow		Apr. 25	47	44
June 14	do		July 21	do		May 23	113	56
July 27	do		Sept. 28	do		June 19	33	58
Aug. 14	do		Oct. 23	do		July 18	19	62
Oct. 23	do		Nov. 23	do		Aug. 16	15	
Nov. 27	do		Dec. 10	do		Sept. 17	5.4	70
Dec. 13	do		1954			Oct. 9	1.5	56
1951			Feb. 11	do		Nov. 16	No flow	
Jan. 22	do		Mar. 11	4.8		Dec. 21	do	
Feb. 13	do		Apr. 14	41	57	1957		
Mar. 13	do		May 20	12		Jan. 11	No flow	
Apr. 16	do		June 17	No flow		Feb. 7	23	46
June 12	do		July 13	do		Mar. 7	250	48
July 23	do		Aug. 17	do		Apr. 9	60	44
Sept. 10	do		Sept. 20	do		May 7	38	45
Oct. 11	do		Oct. 11	do		June 4	11	66
Nov. 7	do		Nov. 24	do		July 5	7.5	62
Dec. 3	do		Dec. 14	3.2	50	Aug. 15	1.4	63
1952			1955			Sept. 3	No flow	
Feb. 20	56		Jan. 14	12	65	Oct. 9	do	
Apr. 4	190		Feb. 11	6.8	50	Nov. 7	7.5	56
May 15	110		Mar. 28	7.4	57	Dec. 10	b	
June 5	61	60	Apr. 19	1.2	52	1958		
Aug. 7	56		May 9	83	54	Jan. 13	30	51
Sept. 12	23	60	June 7	20		Apr. 22	507	
Oct. 27	6.5	58	July 21	No flow		May 21	126	64
Nov. 25	16	49	Aug. 19	do		June 9	93	61
Dec. 18	31	54	Sept. 30	a No flow		July 22	89	
1953			Oct. 20	do		Aug. 5	111	65
Jan. 20	34		Nov. 22	do		Sept. 12	76	62
Feb. 10	41	51	Dec. 12	do		Oct. 9	47	63
Mar. 17	60					Nov. 19	44	48
						Dec. 12	31	54

Site 35a--McCoy Canyon Creek (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1959								
Jan. 26	8.1	67						
Feb. 25	210	59						
Mar. 9	145	55						
Apr. 2	37	60						
May 18	23							
June 4	18	60						
July 27	No flow							
Aug. 11	do							
Sept. 14	9.4	71						
Oct. 9	6.8	66						
Nov. 5	3.1	61						
Dec. 8	4.5	63						
1960								
Jan. 19	11	47						
Feb. 8	14	57						
Mar. 8	No flow							

a Area recently burned.

b No measurement obtainable.

Site 35b--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1950			1953			1955		
Jan. 25	168	67	Jan. 20	a		Oct. 20	a	
Apr. 13	150	68	Feb. 10	a		Nov. 22	a	
May 9	48	68	Mar. 17	18	68	Dec. 12	a	
June 1	35	68	Apr. 13	23	60	1956		
June 14	36	68	May 21	15	68	Feb. 27	a	
July 27	31	68	June 11	12	68	Mar. 19	a	
Aug. 14	30	59	July 21	20	66	Apr. 25	a	
Oct. 23	a		Sept. 18	9.8	66	May 23	a	
Nov. 27	a		Oct. 23	47	54	June 19	a	
Dec. 13	a		Nov. 23	a		July 18	a	
1951			Dec. 10	a		Aug. 16	21	
Jan. 22	a		1954			Sept. 17	a	
Feb. 13	a		Feb. 11	a		Oct. 9	a	
Mar. 13	a		Mar. 11	a		Nov. 16	a	
Apr. 16	30		Apr. 14	a		Dec. 21	a	
June 12	26	68	May 20	No flow		1957		
July 23	28	68	June 17	23	66	Jan. 11	a	
Sept. 10	21	69	July 13	14	67	Feb. 7	a	
Oct. 11	24	68	Aug. 17	9.1	65	Mar. 7	a	
Nov. 7	23		Sept. 20	13	68	Apr. 9	a	
Dec. 3	a		Oct. 11	14	67	May 7	a	
1952			Nov. 24	a		June 4	a	
Feb. 20	a		Dec. 14	a		July 5	a	
Apr. 4	a		1955			Aug. 15	10	66
May 15	a		Jan. 14	a		Sept. 3	9.4	68
May 19	30	69	Feb. 11	a		Oct. 9	8.6	68
June 5	a		Mar. 28	a		Nov. 7	7.5	66
Aug. 7	30		Apr. 19	a		Dec. 10	a	
Sept. 12	22	70	May 9	a		1958		
Oct. 27	a		June 7	a		Jan. 13	7.7	67
Nov. 25	27	70	July 21	15	67	Apr. 22	34	67
Dec. 18	20	68	Aug. 19	14	64	May 21	37	68
			Sept. 30	b 11	65	June 9	a	

Site 35b--Horizontal Well, McCoy Canyon, Bishop Ranch Co. (Continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
July 22	a							
Aug. 5	6.6	65						
Sept. 12	6.8	68						
Oct. 9	5.9	68						
Nov. 19	8.5	67						
Dec. 12	8.9	67						
1959								
Jan. 26	84	51						
Feb. 25	6.6	67						
Mar. 9	4.3	67						
Apr. 2	5.1	69						
May 18	a							
June 4	9.3	65						
July 27	3.4	68						
Aug. 11	4.4	69						
Sept. 14	4.0	71						
Oct. 9	7.5	68						
Nov. 5	a							
Dec. 8	9.4	68						
1960								
Jan. 19	a							
Feb. 8	a							
Mar. 8	12	66						

a No measurement obtainable.

b Area burned off.

Site 36--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
July 22	1.7		Sept. 10	.91	61	Aug. 16	1.6	63
Oct. 15	1.7		Oct. 11	.37	59	Sept. 20	1.4	62
1949			Nov. 7	.50	62	Oct. 11	1.7	59
Feb. 17	3.1		Dec. 3	1.5	51	Nov. 12	1.8	55
Mar. 31	4.8		1952			Dec. 14	2.4	48
Apr. 25	6.9		Feb. 20	7.9	54	1955		
June 13	5.7		Mar. 14	11	52	Jan. 17	2.5	43
July 18	3.2	62	Apr. 4	7.9	60	Feb. 11	2.9	49
Aug. 15	2.7	59	May 15	8.7	60	Mar. 10	2.7	61
Sept. 15	2.3		June 5	16	59	Apr. 19	2.1	51
Oct. 12	1.0	63	Aug. 7	14	62	May 9	4.0	52
Nov. 14	2.8	55	Sept. 12	6.8	58	June 7	3.0	56
Dec. 13	4.1	44	Oct. 27	4.7	54	July 21	2.0	60
1950			Nov. 25	4.9	52	Aug. 24	1.9	58
Jan. 10	4.5	53	Dec. 18	6.0	56	Sept. 30	2.1	62
Feb. 24	8.3	55	1953			Oct. 24	a 1.7	66
Mar. 15	7.8	52	Jan. 12	15	56	Nov. 22	1.7	55
Apr. 13	5.6	55	Feb. 10	11	52	Dec. 16	1.7	51
May 9	5.4	56	Mar. 17	9.4	52	1956		
June 14	4.1	58	Apr. 13	6.8	54	Jan. 19	1.1	53
July 14	3.3	61	May 21	5.0	54	Feb. 28	1.4	56
July 27	3.0	60	June 11	4.7	58	Mar. 19	2.8	56
Aug. 8	2.2	57	July 21	3.3	59	Apr. 25	1.6	47
Oct. 23	1.2	64	Sept. 15	2.9	61	May 22	2.1	46
Nov. 20	3.3	64	Oct. 21	2.4	57	June 18	4.0	60
Dec. 13	2.1	56	Nov. 23	2.8	61	July 13	3.2	63
1951			Dec. 10	3.0	58	Aug. 17	2.3	66
Jan. 22	2.1	54	1954			Sept. 4	2.5	63
Feb. 13	1.8		Feb. 11	3.8	52	Oct. 11	1.7	67
Mar. 13	1.6	52	Mar. 9	4.4	54	Nov. 21	1.5	47
Apr. 16	1.3		Apr. 14	4.9	55	Dec. 19	1.5	57
May 28	1.7	56	May 19	3.5	57	1957		
June 12	1.3	56	June 17	2.8		Jan. 7	1.5	58
July 23	1.0	61	July 13	2.2	60	Feb. 8	.33	51

Site 36--Spring - Olaf Hove (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957			1960					
Mar. 7	.28	69	Jan. 12	6.8	52			
Apr. 4	3.1	66	Feb. 1	10	54			
May 7	2.9	57	Mar. 2	7.3	51			
June 3	1.6	63						
July 5	.42	78						
Aug. 9	1.9	68						
Sept. 3	1.7	64						
Oct. 11	1.6	66						
Nov. 6	1.6	56						
Dec. 3	1.4	52						
1958								
Jan. 10	.51	52						
Feb. 17	32	52						
Mar. 11	33	47						
Apr. 28	116	49						
May 15	102	49						
June 9	27	50						
July 14	24	61						
Aug. 25	15	66						
Sept. 12	17	61						
Oct. 1	15	57						
Nov. 4	13	57						
Dec. 17	5.1	57						
1959								
Jan. 21	11	54						
Feb. 5	9.0	53						
Mar. 5	30	57						
Apr. 6	14	57						
May 4	13	53						
June 1	15	58						
July 15	9.7	66						
Aug. 11	8.3	63						
Sept. 11	6.5	62						
Oct. 8	7.0	61						
Nov. 6	b							
Dec. 8	5.4	56						

a Area above burned off.

b No measurement obtainable.

Site 36a--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1950			1951			1953		
May 9	No flow		May 31	1,190		Apr. 13	3,115	90
June 1	19		June 1	1,095		May 21	* 3,100	83
June 14	7.3	66	June 8	1,095		June 11	* 2,700	86
July 13	35		June 12	1,120		July 21	* 2,000	85
July 14	33	66	June 22	1,120	78	Sept. 15	* 2,700	94
July 26	50		June 29	965	78	Oct. 21	* 2,700	94
July 27	42		July 16	1,310		Nov. 23	a	
Aug. 8	63		July 23	1,350		Dec. 10	* 2,900	95
Aug. 14	45		Aug. 1	2,060		1954		
Aug. 23	36	68	Aug. 9	2,840	81	Feb. 11	a	95
Sept. 12	112	68	Sept. 10	2,420	82	Mar. 9	a	90
Sept. 28	112	67	Sept. 25	3,020		Apr. 14	a	97
Oct. 13	81	69	Oct. 11	1,680		May 19	a	116
Oct. 23	54	70	Oct. 18	1,815	82	June 17	a	116 b
Nov. 10	38		Oct. 30	2,950	84	July 13	a	
1951			Nov. 7	a		Aug. 16	7,370	113
Jan. 22	45		Dec. 3	3,780	85	Sept. 20	7,442	104
Feb. 6	378		Dec. 27	3,200	85	Oct. 11	7,011	96
Feb. 7	100	71	1952			Nov. 12	6,390	
Feb. 13	250		Jan. 7	3,150	84	Dec. 14	6,570	101
Feb. 19	256		Feb. 20	3,820	85	1955		
Feb. 23	360		Mar. 14	3,620		Jan. 17	6,530	100
Mar. 2	503	70	Apr. 14	3,570	83	Feb. 11	6,720	97
Mar. 6	637		May 15	3,870	86	Mar. 10	6,330	99
Mar. 9	453	74	June 5	4,060	85	Apr. 19	5,650	104
Mar. 13	653		Aug. 7	3,210	86	May 9	5,080	103
Mar. 20	640		Sept. 12	3,320	86	June 7	4,700	106
Mar. 30	596	69	Oct. 27	3,660	87	July 21	4,390	104
Apr. 11	559	76	Nov. 25	3,350	86	Aug. 24	2,640	103
Apr. 16	718		Dec. 18	2,840	87	Sept. 30	1,380	92
Apr. 23	674		1953			Oct. 24	940	82
Apr. 26	745		Jan. 12	2,480	87	Nov. 22	a	81
May 18	213	70	Feb. 10	1,880	86	Dec. 16	2.4	
May 25	336		Mar. 17	* 2,700	88			

* Estimated.
a No measurement obtainable.
b In tunnel.

a No measurement obtainable.

b In tunnel.

Station 37--Glen Anne Creek at Damsite

Location.--Lat 34°28'20", long 119°52'40", at narrows in Glen Anne Canyon and at dams site 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
Nov. 2	No flow		Aug. 7	No flow		Sept. 30	3.1	64
Dec. 13	No flow		Sept. 12	No flow		Oct. 24	3.1	68
1949			Oct. 27	No flow		Nov. 22	2.6	53
Feb. 17	No flow		Nov. 25	No flow		Dec. 16	20	56
Mar. 16	No flow		Dec. 18	2.7	61	1956		
Aug. 15	No flow		1953			Jan. 19	703	69
Nov. 14	No flow		Jan. 12	14	59	Feb. 28	26	62
1950			Feb. 10	No flow		Mar. 19	16	66
Jan. 10	No flow		Mar. 17	b 75	57	Apr. 25	9.4	54
July 27	a 44	65	Apr. 13	9.4	66	May 22	11	50
Aug. 8	53	63	May 21	118	65	June 18	4.1	63
Oct. 23	75	69	June 11	190		July 13	3.8	65
Nov. 20	83	70	July 21	5.0	65	Aug. 17	1.3	68
Dec. 13	67	65	Sept. 15	No flow		Sept. 4	2.4	65
1951			Dec. 10	No flow		Oct. 11	No flow	
Jan. 22	150	65	1954			Nov. 21	No flow	
Feb. 7	100	71	Mar. 9	6.7	64	Dec. 19	No flow	
May 18	213	70	May 19	5.8		1957		
May 25	336	72	June 17	No flow		Jan. 7	No flow	
Aug. 7	47	67	July 13	No flow		Feb. 8	3.8	54
Aug. 17	2.3		Aug. 16	No flow		Mar. 7	13	67
Sept. 10	No flow		Sept. 20	No flow		Apr. 4	1.5	75
Sept. 25	No flow		Oct. 11	No flow		May 7	4.2	57
Oct. 11	No flow		Nov. 12	2.0	66	June 3	2.3	65
Nov. 7	No flow		Dec. 14	7.6	54	July 5	No flow	
Dec. 3	No flow		1955			Aug. 9	No flow	
Dec. 27	No flow		Jan. 17	12	45	Sept. 3	No flow	
1952			Feb. 11	5.8	56	Oct. 11	No flow	
Jan. 7	21	49	Mar. 10	10	54	Nov. 6	No flow	
Feb. 20	24	54	Apr. 19	2.0	63	Dec. 3	No flow	
Mar. 14	34	54	May 9	16	58	1958		
Apr. 4	220	76	June 7	7.6	55	Jan. 10	No flow	
May 15	29	59	July 21	3.1	63	Feb. 17	26	52
June 5	4.4	59	Aug. 24	.7	64	Mar. 11	126	

Station 37--Glen Anne Creek at Damsite (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Apr. 28	126	49						
May 15	76	51						
June 9	50							
July 14	31	62						
Aug. 25	9.4	73						
Sept. 12	11	61						
Oct. 1	5.8	60						
Nov. 4	5.8	57						
Dec. 17	4.5	48						
1959								
Feb. 5	5.8							
Mar. 5	34	53						
Apr. 6	14	58						
May 4	16	53						
June 1	7.6	58						
July 15	3.2	74						
Aug. 11	3.4	66						
Sept. 11	7.0	69						
Oct. 8	1.8	68						
Nov. 6	c							
Dec. 11	3.4	62						
1960								
Jan. 12	12	49						
Feb. 1	29	54						
Mar. 2	12	41						

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

b Entire flow represents tunnel seepage.

c No measurement obtainable.

Station 37a--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1951			1954		
June 13	21		Sept. 10	18		Jan. 7	a	
July 18	22		Oct. 11	13		Feb. 11	a	
Aug. 15	20		Nov. 7	a		Mar. 9	a	
Sept. 15	a		Dec. 3	a		Apr. 14	a	
Oct. 12	a		1952			May 19	a	
Nov. 14	a		Jan. 7	a		June 17	31	
Dec. 13	a		Feb. 20	a				
1950			Mar. 14	a				
Jan. 10	a		Apr. 4	a				
Feb. 24	a		May 15	a				
Mar. 15	a		June 5	a				
Apr. 13	a		Aug. 7	24				
May 9	39		Sept. 12	2.1				
June 14	25		Oct. 27	1.4				
July 14	23		Nov. 25	1.1				
July 27	a		Dec. 18	1.5				
Aug. 8	27		1953					
Oct. 23	22		Jan. 12	1.2				
Nov. 20	a		Feb. 10	1.5				
Dec. 13	a		Mar. 17	No flow				
1951			Apr. 13	24				
Jan. 22	27		May 21	a				
Feb. 13	27		June 11	a				
Mar. 13	27		July 21	a				
Apr. 16	8.2		Sept. 15	a				
May 28	9.4		Oct. 21	a				
June 12	26		Dec. 10	a				
July 23	21							

a No measurement obtainable.

Note: No measurements obtainable on monthly visits during period July 1954 to March 1960.

Site 40--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948								
Aug. 16	1.2							
1949								
Feb. 17	3.4							
Mar. 16	2.1							
Mar. 30	16							
Apr. 26	60							
Sept. 13	1.0							

Site 40a--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 #39 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Oct. 28	No flow		Nov. 7	.15	65	Aug. 19	2.6	73
Nov. 15	do		Dec. 4	1.0	54	Sept. 27	3.1	65
Nov. 29	do		1952			Oct. 25	2.0	66
1949			Feb. 20	321	49	Nov. 22	3.1	62
Feb. 17	34		Apr. 3	920	60	Dec. 9	2.1	61
Mar. 16	440		May 14	296	63	1956		
Mar. 30	148		June 4	197		Jan. 19	143	50
Apr. 26	60		July 30	35		Feb. 28	542	
June 20	14	62	Sept. 15	5.8	60	Mar. 15	301	50
July 19	7.6	59	Oct. 22	3.2	59	Apr. 9	155	55
Aug. 15	1.2	62	1953			May 18	670	61
Nov. 14	.45	63	Jan. 12	608	55	June 15	220	
Dec. 19	114		Apr. 13	30	53	July 13	89	62
1950			June 2	9.9		Aug. 17	40	64
Jan. 23	149	55	Sept. 16	.47		Sept. 4	43	66
Feb. 21	170		Dec. 10	* .1		Oct. 11	16	64
Mar. 15	54	51	1954			Nov. 21	8.5	47
Apr. 12	52	53	Mar. 10	31	56	Dec. 19	4.5	46
May 11	18	60	May 19	38	58	1957		
June 15	13	56	June 11	9.9	61	Jan. 7	7.6	47
July 28	4.5	73	July 13	5.8	66	Feb. 5	102	51
Aug. 14	4.5		Aug. 16	4.5	58	Mar. 7	980	56
Oct. 30	.8		Sept. 20	.79		Apr. 4	150	63
Nov. 22	1.5	66	Oct. 11	.21	62	May 7	144	56
Dec. 15	1.8	61	Nov. 24	.72	55	June 3	73	59
1951			Dec. 14	3.1	48	July 2	47	60
Jan. 19	62	50	1955			Aug. 9	5.8	66
Feb. 23	21	50	Jan. 13	89	48	Sept. 3	5.4	64
Mar. 15	27	59	Feb. 11	47	50	Oct. 9	2.3	55
Apr. 26	13		Mar. 9	57	55	Nov. 6	2.0	53
June 18	6.3	58	Apr. 19	13	60	Dec. 3	1.0	52
July 31	1.4		May 9	278	51	1958		
Sept. 12	.76	61	June 7	44	61	Jan. 10	135	48
Oct. 26	.85	50	July 21	5.8	73	Feb. 17	862	53

Site 40a--Ellwood Canyon Creek above diversions (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Mar. 12	1,610	46						
Apr. 28	1,020	45						
May 15	642	54						
June 9	332	52						
July 14	139	62						
Aug. 23	57	66						
Sept. 12	31	61						
Oct. 1	16	61						
Nov. 4	9.4	60						
Dec. 17	11	49						
1959								
Jan. 21	47	51						
Feb. 5	28	59						
Mar. 5	359	55						
Apr. 6	130	60						
May 4	80	53						
June 1	40	57						
July 15	5.8	66						
Aug. 11	4.4	64						
Sept. 11	1.6	66						
Oct. 8	1.9	64						
Nov. 5	1.2	71						
Dec. 11	1.4	65						
1960								
Jan. 16	28	44						
Feb. 8	98	56						
Mar. 2	69	47						

* Estimate.

Site 41--Ellwood Canyon Creek at Doty Diversion

Location.--Lat $34^{\circ}27'40''$, long $119^{\circ}53'30''$, at Doty diversion dam in Ellwood 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.

Remarks.--No flow observed on all visits to site during period August 1948 to December 1949.

Site 42--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
Aug. 17	0.8		Feb. 20	0.53		Nov. 22	No flow	
1949			Apr. 3	6.1	59	Dec. 9	do	
Mar. 30	No flow		May 14	No flow		1956		
Apr. 26	.53		June 4	4.9	60	Jan. 19	.02	52
June 20	.35		July 30	a		Feb. 28	No flow	
July 19	No flow		Sept. 15	5.3	62	Mar. 15	do	
Aug. 15	do		Oct. 22	4.3	61	Apr. 9	do	
Sept. 13	do		1953			May 18	b	
Nov. 14	.04		Jan. 12	No flow		June 15	a	
Dec. 19	.56		Apr. 13	do		July 13	a	
1950			June 2	do		Aug. 17	No flow	
Jan. 23	1.3		Sept. 16	do		Sept. 4	do	
Feb. 21	No flow		Dec. 10	5.0	58	Oct. 11	do	
Mar. 15	do		1954			Nov. 21	do	
Apr. 12	.03		Mar. 10	4.6		Dec. 19	do	
May 11	.08	67	May 19	No flow		1957		
June 15	.07	59	June 11	do		Jan. 7	do	
July 28	.07	71	July 13	.02	68	Feb. 5	.04	49
Aug. 14	.03	68	Aug. 16	a		Mar. 7	No flow	
Oct. 30	1.4	68	Sept. 20	No flow		Apr. 4	do	
Nov. 22	4.0	63	Oct. 11	do		May 7	do	
Dec. 15	No flow		Nov. 12	a		June 3	do	
1951			Dec. 14	a		July 2	do	
Jan. 19	.02		1955			Aug. 9	do	
Feb. 23	No flow		Jan. 13	.11	53	Sept. 3	do	
Mar. 15	a		Feb. 11	.15	47	Oct. 9	do	
Apr. 26	3.7		Mar. 9	b		Nov. 6	do	
June 18	a		Apr. 19	b		Dec. 3	do	
July 31	No flow		May 9	b		1958		
Sept. 12	do		June 7	b		Jan. 10	do	
Oct. 26	do		July 21	No flow		Feb. 17	.04	55
Nov. 7	do		Aug. 19	do		Mar. 12	.62	45
Dec. 4	do		Sept. 27	do		Apr. 28	2.1	51
			Oct. 25	do		May 15	1.2	55

Site 42--Spring - Ellwood Dairies (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
June 9	3.1	57						
July 14	2.3	68						
Aug. 25	a							
Sept. 12	b							
Oct. 1	No flow							
Nov. 4	do							
Dec. 17	do							
1959								
Jan. 21	do							
Feb. 5	do							
Mar. 5	do							
Apr. 6	do							
May 4	do							
June 1	do							
July 15	do							
Aug. 11	do							
Sept. 11	do							
Oct. 8	do							
Nov. 5	do							
Dec. 11	do							
1960								
Jan. 15	do							
Feb. 6	do							
Mar. 2	do							

a Less than 0.005 gpm.

b No measurement obtainable.

Site 43--Spring - Ellwood Dairies

Location.--Lat $34^{\circ}27'00''$, long $119^{\circ}53'40''$.

Altitude.--About 160 feet, from topographic map.

Description.--Former seep in alluvium of valley floor.

Remarks.--No flow observed on all visits to site during period August 1948 to March 1960.

Site 44--Spring - Ellwood Dairies

Location.--Lat $34^{\circ}26'40''$, long $119^{\circ}53'40''$.

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

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

Remarks.--No flow observed on all visits to site during period August 1948 to December 1949.

Site 45--Winchester Canyon Creek

Location.--Lat 34°28'50", long 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.

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1956								
Mar. 15	0.21	46						
Apr. 9	.44	57						
1958								
Apr. 24	7.6	60						
May 15	.27	45						

Note.--No flow observed on any other visit to site during periods November 1948 to February 1956, April 1956 to March 1958 and June 1958 to March 1960.

Site 46--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1946			1950			1953		
Feb. 15	190		Jan. 19	320	52	July 14	No flow	
Apr. 18	440		Feb. 23	250		Sept. 16	do	
1947			Mar. 14	93	53	Dec. 10	do	
Apr. 7	640		Apr. 12	83	54	1954		
May 15	27		May 11	27	57	Jan. 6	do	
June 18	9.0		June 14	8.5	55	Feb. 10	do	
July 17	a 2.2		July 28	No flow		Mar. 10	19	53
Dec. 5	20		Aug. 14	do		May 19	29	
1948			Nov. 1	do		June 11	3.6	55
Jan. 9	60		Nov. 27	do		July 12	2.3	
Feb. 18	60		Dec. 15	11	59	Aug. 16	No flow	
Mar. 18	92		1951			Sept. 20	do	
Apr. 15	120		Jan. 19	29	51	Oct. 15	do	
May 14	27		Feb. 19	26		Nov. 24	do	
June 11	27		Mar. 15	29	53	Dec. 9	do	
July 21	4.9		Apr. 26	44		1955		
Aug. 19	No flow		June 18	No flow		Jan. 13	59	49
Sept. 15	do		July 27	do		Feb. 9	65	57
Oct. 15	do		Sept. 12	do		Mar. 9	76	49
Oct. 19	do		Oct. 24	do		Apr. 18	20	51
Nov. 15	do		Nov. 5	do		May 6	376	
Dec. 13	do		Dec. 11	do		June 10	28	56
1949			1952			July 20	2.0	62
Jan. 17	81		Feb. 19	505		Aug. 19	No flow	
Mar. 16	510		Apr. 3	1,260	55	Sept. 26	do	
Apr. 25	45		May 14	182	58	Oct. 25	7.1	
May 13	27		June 6	174		Nov. 22	7.5	54
June 20	29		Aug. 6	44	60	Dec. 16	7.5	53
July 18	No flow		Sept. 15	No flow		1956		
Aug. 15	do		Oct. 22	do		Jan. 18	161	53
Sept. 13	do		1953			Feb. 28	573	49
Oct. 12	do		Jan. 8	1,340		Mar. 13	359	54
Nov. 15	do		Apr. 8	No flow		Apr. 6	152	54
Dec. 19	102	52	June 2	do		May 18	630	57

Site 46--Tecolote Canyon Creek above diversion near Ellwood (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1956			1959					
June 15	269		Apr. 6	150	58			
July 13	134		May 4	61	56			
Aug. 17	46	62	June 2	26	63			
Sept. 12	28		July 15	5.8	66			
Oct. 11	16	61	Aug. 10	3.4	71			
Nov. 13	7.9	56	Sept. 11	1.3	65			
Dec. 20	7.3	51	Oct. 8	2.3	60			
1957			Nov. 5	2.2	57			
Jan. 11	15	55	Dec. 11	.50	52			
Feb. 5	61	47	1960					
Mar. 7	990	54	Jan. 13	47	53			
Apr. 5	117	58	Feb. 1	37	53			
May 2	235	55	Mar. 2	76	52			
June 4	93	60						
July 5	20	66						
Aug. 9	4.5	62						
Sept. 3	.97	61						
Oct. 9	3.4	59						
Nov. 6	7.9	54						
Dec. 3	6.2	51						
1958								
Jan. 13	42	52						
Feb. 17	1,230	57						
Mar. 12	1,550	52						
Apr. 25	2,410	52						
May 20	629	52						
June 9	377	56						
July 18	140	65						
Aug. 25	65	64						
Sept. 11	30	67						
Oct. 1	24	63						
Nov. 12	10	59						
Dec. 17	9.4	54						
1959								
Jan. 21	40							
Feb. 4	44							
Mar. 5	453	57						

a Estimated.

b Area recently burned.

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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1954			1956		
Nov. 15	13	60	Jan. 6	5.0	51	Jan. 18	No flow	
Feb. 23	a		Feb. 10	43	53	Feb. 28	do	
1950			Mar. 10	55	54	Mar. 13	143	
Mar. 15	100		Apr. 13	143	54	Apr. 9	149	55
Mar. 20	80		May 19	a		May 18	15	59
Apr. 12	110		June 11	16		June 15	60	
July 28	9		July 12	3.0	66	July 13	163	60
Aug. 14	3.2		Aug. 16	4.0	63	Aug. 17	46	63
Nov. 27	23		Sept. 20	No flow		Sept. 12	28	
1951			Oct. 15	.85	60	Oct. 11	16	62
June 18	2.2	59	Nov. 24	2.6	56	Nov. 13	12	58
July 27	2.7	65	Dec. 9	25	53	Dec. 20	14	55
Sept. 12	1.4	63	1955			1957		
Oct. 24	No flow		Jan. 13	127	51	Jan. 11	23	55
Nov. 5	5.3	62	Feb. 9	62	53	Feb. 5	77	48
Dec. 11	2.4	49	Mar. 9	75	50	Mar. 7	52	56
1952			Apr. 18	19	54	Apr. 5	120	
June 6	200	59	May 6	50	55	May 2	75	55
Aug. 6	57		June 10	30	57	June 4	94	61
Sept. 15	5.0	59	July 20	4.8	63	July 5	21	67
Oct. 22	23		Aug. 19	No flow		Aug. 9	a	
1953			Sept. 26	do		Sept. 3	a	63
Jan. 8	395		Oct. 25	do		Oct. 9	a	
Apr. 8	29	50	Nov. 22	12	56			
June 2	7.5		Dec. 16	15	51			
July 14	5.2	66						
Sept. 16	3.2	61						
Dec. 10	3.8	53						

a No measurement obtainable.

Note.--Station discontinued October 9, 1957.

Site 47--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1952			1955		
Jan. 17	0.12		Feb. 19	.14	54	Nov. 22	.09	55
Mar. 30	.07		Apr. 3	c 1.0		Dec. 12	.55	57
May 13	.10		May 14	No flow		1956		
June 20	.07		June 4	b		Jan. 18	b	55
July 18	.07		Aug. 6	No flow		Feb. 15	b	
Aug. 15	No flow		Sept. 15	do		Mar. 13	b	
Sept. 13	do		Oct. 22	.65	62	Apr. 10	b	
Oct. 12	.03		1953			May 8	b	
Nov. 15	.02		Jan. 19	a		June 18	b	
Dec. 21	.05	52	Apr. 8	No flow		July 16	1.5	66
1950			June 2	do		Aug. 16	1.2	64
Jan. 19	.15	53	Sept. 16	do		Sept. 12	b	
Feb. 21	.04		Dec. 9	a		Oct. 9	.97	63
Mar. 14	.04	57	1954			Nov. 13	.90	60
Apr. 12	.04	63	Mar. 10	No flow		Dec. 20	b	
May 11	a		May 18	a	61	1957		
June 14	a		June 10	.01	60	Jan. 7	b	
July 28	a		July 12	b		Feb. 5	b	
Aug. 15	a		Aug. 12	.17	64	Mar. 4	b	
Nov. 1	a		Sept. 15	.12	64	Apr. 4	b	
Nov. 27	a		Oct. 15	.15	64	May 2	b	
Dec. 15	a		Nov. 24	.45	53	June 4	b	
1951			Dec. 9	.15	55	July 5	b	
Jan. 22	.02		1955			Aug. 6	b	
Feb. 19	.07		Jan. 13	.23	44	Sept. 4	b	
Mar. 15	.11	54	Feb. 9	.20	53	Oct. 11	b	
Apr. 26	.04		Mar. 9	.24	54	Nov. 4	b	
June 18	No flow		Apr. 18	.12	62	Dec. 4	b	
July 27	do		May 6	.73	54	1958		
Sept. 12	do		June 8	.23	66	Jan. 13	b	
Oct. 24	do		July 20	.14	69	Feb. 18	b	
Nov. 5	do		Aug. 19	.06	68	Mar. 13	b	
Dec. 11	a		Sept. 26	.12	62	Apr. 24	b	
			Oct. 20	.15	64	May 19	b	

Site 47--Spring - L. G. Dreyfus Estate (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
June 9	b							
July 17	1.4	65						
Aug. 12	2.9	67						
Sept. 3	2.2	65						
Oct. 8	.94	74						
Nov. 4	b							
Dec. 19	b							
1959								
Jan. 12	b							
Feb. 4	b							
Mar. 9	b							
Apr. 7	b							
May 4	b							
June 2	b							
July 15	.75	67						
Aug. 7	.80	77						
Sept. 9	.39	74						
Oct. 9	.62							
Nov. 4	.66	67						
Dec. 10	.58	65						
1960								
Jan. 15	1.1	53						
Feb. 8	.75	59						
Mar. 3	.56	55						

a Less than 0.005 gpm.

b No measurement obtainable.

c Estimated flow.

Site 48--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
Oct. 18	No flow		Feb. 19	1.9	52	Nov. 22	1.8	57
1949			Apr. 3	24	58	Dec. 12	1.5	59
Jan. 17	3.5		May 14	No flow		1956		
Mar. 30	6.3		June 4	do		Jan. 18	1.9	57
May 13	No flow		Aug. 6	do		Feb. 15	5.1	56
June 20	do		Sept. 15	do		Mar. 13	2.7	56
July 18	do		Oct. 22	do		Apr. 10	10	57
Aug. 15	do		1953			May 8	1.5	60
Sept. 13	do		Jan. 19	do		June 18	10	60
Oct. 12	do		Apr. 8	do		July 16	10	63
Nov. 15	do		June 2	do		Aug. 16	6.8	64
Dec. 21	do		Sept. 16	do		Sept. 12	5.0	
1950			Dec. 9	do		Oct. 9	5.3	63
Jan. 19	do		1954			Nov. 13	3.4	61
Feb. 21	do		Mar. 10	do		Dec. 20	3.1	60
Mar. 14	do		May 18	do		1957		
Apr. 12	do		June 10	3.7	55	Jan. 7	6.3	59
May 11	do		July 12	.99	62	Feb. 5	7.6	44
June 14	do		Aug. 12	No flow		Mar. 4	51	56
July 28	do		Sept. 15	.86	64	Apr. 4	6.5	58
Aug. 15	do		Oct. 15	1.8		May 2	15	57
Nov. 1	do		Nov. 24	.72	64	June 4	7.6	66
Nov. 27	do		Dec. 9	4.8	58	July 5	3.3	63
Dec. 15	do		1955			Aug. 6	1.7	66
1951			Jan. 13	7.6	45	Sept. 4	1.2	68
Jan. 22	do		Feb. 9	7.2	53	Oct. 11	1.1	67
Feb. 19	do		Mar. 9	6.7	53	Nov. 4	3.3	62
Mar. 15	do		Apr. 18	3.8	57	Dec. 4	2.6	61
Apr. 26	do		May 6	13	53	1958		
June 18	do		June 8	4.6	60	Jan. 13	4.8	57
July 27	do		July 20	1.7	64	Feb. 18	79	56
Sept. 12	do		Aug. 19	.97	64	Mar. 13	118	45
Oct. 24	do		Sept. 26	a 1.1	66	Apr. 24	160	56
Nov. 5	do		Oct. 20	1.4	64	May 19	54	55
Dec. 11	do							

Site 48--Middle Fork, Eagle Canyon Creek (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
June 9	41	54						
July 17	14	64						
Aug. 12	11	64						
Sept. 3	12	64						
Oct. 8	7.4							
Nov. 4	5.1	66						
Dec. 19	6.3	62						
1959								
Jan. 12	13	61						
Feb. 4	13							
Mar. 9	23	62						
Apr. 7	13	61						
May 4	8.4	63						
June 2	6.8	62						
July 15	2.0	66						
Aug. 7	2.2	68						
Sept. 9	2.7	68						
Oct. 9	2.3							
Nov. 4	3.3	64						
Dec. 10	2.8	63						
1960								
Jan. 15	17	60						
Feb. 8	27	54						
Mar. 3	13	59						

a Area recently burned.

Site 49--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.

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1946			1950			1954		
Feb. 15	9		Apr. 12	13		Mar. 10	9.0	
Mar. 15	5		May 11	9.4	53	May 18	23	59
1947			June 14	7.2	53	June 10	14	56
Apr. 7	4.5		July 28	2.2	58	July 12	1.1	66
May 5	4.5		Aug. 15	2.7	55	Aug. 12	.83	
Dec. 5	No flow		Nov. 1	1.3	61	Sept. 15	.06	
1948			Nov. 27	1.3	56	Oct. 15	No flow	
Jan. 9	do		Dec. 15	1.4	58	Nov. 24	1.0	52
Feb. 18	do		1951			Dec. 9	1.4	50
Mar. 18	do		Jan. 22	4.0	49	1955		
Apr. 15	do		Feb. 19	12		Jan. 13	15	46
May 14	do		Mar. 15	16	51	Feb. 9	11	55
June 11	do		Apr. 26	5.8		Mar. 9	9.4	51
July 21	do		June 18	4.0	57	Apr. 18	5.3	54
Aug. 19	do		July 27	1.2		May 6	50	52
Sept. 15	do		Sept. 12	1.4	60	June 8	5.3	62
Oct. 19	do		Oct. 24	.51	57	July 20	2.5	63
Nov. 17	do		Nov. 5	.70	55	Aug. 19	.81	59
Dec. 13	do		Dec. 11	1.6		Sept. 26	4.5	62
1949			1952			Oct. 20	.27	62
Jan. 17	.91		Feb. 19	22		Nov. 22	.88	51
Mar. 16	33		Apr. 3	76	55	Dec. 12	3.0	59
Apr. 25	6.7		May 14	17	56	1956		
May 13	3.1		June 4	13		Jan. 18	11	60
June 20	4.5		Aug. 6	3.4	60	Feb. 15	43	56
July 18	1.0		Sept. 15	3.6	57	Mar. 13	30	62
Aug. 15	.99		Oct. 22	1.8	58	Apr. 10	19	57
Sept. 13	1.4		1953			May 8	24	66
Oct. 12	1.5		Jan. 19	65	53	June 18	7.1	60
Nov. 15	1.4	55	Apr. 8	14	56	July 16	7.5	73
Dec. 21	4.6		June 2	4.3		Aug. 16	3.9	77
1950			Sept. 16	.40		Sept. 11	5.9	
Jan. 19	22	51	Dec. 9	No flow		Oct. 9	1.9	74
Feb. 21	26					Nov. 13	2.5	57
Mar. 14	14	54				Dec. 20	1.8	56

Site 49--Eagle Canyon Creek near Ellwood (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957			1959					
Jan. 7	4.9	50	Nov. 4	.56	58			
Feb. 5	11	46	Dec. 10	.94	56			
Mar. 4	57	63	1960					
Apr. 4	10	57	Jan. 15	6.0	52			
May 2	11	61	Feb. 8	15	57			
June 4	10	64	Mar. 3	15	51			
July 5	2.9	68						
Aug. 6	1.1	66						
Sept. 4	.32	70						
Oct. 11	.30	71						
Nov. 4	.55	55						
Dec. 4	.57	52						
1958								
Jan. 13	7.5	51						
Feb. 18	53	55						
Mar. 13	93	43						
Apr. 24	150	57						
May 19	40	65						
June 9	28	58						
July 17	9.4	73						
Aug. 12	7.6	70						
Sept. 3	5.8	63						
Oct. 8	2.0							
Nov. 4	3.0	61						
Dec. 19	5.8	52						
1959								
Jan. 12	5.8	59						
Feb. 4	7.6							
Mar. 9	16	57						
Apr. 7	15	60						
May 4	14	67						
June 2	6.3	56						
July 15	1.9	62						
Aug. 7	.40	72						
Sept. 9	.36	66						
Oct. 9	.08							

Site 50--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1946			1949			1951		
Feb. 15	410		Apr. 25	240		Nov. 9	79	
Mar. 15	340		May 13	215		Dec. 12	333	
Apr. 18	540		June 21	195		1952		
1947			July 18	220		Feb. 19	1,410	
May 5	230		Aug. 15	148		Apr. 4	3,410	
June 18	180		Sept. 9	131		May 12	1,130	
July 17	180		Oct. 12	110		June 4	1,080	
Aug. 7	76		Nov. 15	310	55	Aug. 6	737	
Sept. 10	180		Nov. 29	350	55	Sept. 15	502	60
Oct. 2	130		Dec. 15	440		Oct. 14	948	
Dec. 5	220		1950			1953		
1948			Jan. 9	250		Jan. 8	1,570	55
Jan. 5	260		Jan. 11	1,400		Apr. 8	503	
Feb. 18	300		Feb. 21	590		June 1	871	
Mar. 18	210		Mar. 14	390		July 20	467	59
Apr. 16	290		Apr. 11	300		Sept. 21	376	
May 14	210		May 5	422		Oct. 22	485	
June 11	180		May 10	467		Nov. 20	376	48
July 21	150		June 13	436		Dec. 9	148	
Aug. 19	85		July 31	420		1954		
Sept. 15	23		Aug. 15	33		Jan. 6	133	51
Oct. 19	120		Oct. 31	166		Feb. 10	268	
Oct. 22	130		Nov. 28	193		Mar. 9	304	57
Nov. 2	100		Dec. 15	236		Apr. 13	520	60
Nov. 17	120		1951			May 18	333	
Dec. 14	160		Jan. 19	375		June 14	444	61
1949			Feb. 19	175		July 9	331	66
Jan. 17	210		Mar. 15	214		Aug. 25	320	60
Feb. 2	220		Apr. 17	470		Sept. 23	185	64
Feb. 7	400		June 11	283	62	Oct. 14	194	
Mar. 4	3,200		July 24	215		Nov. 29	246	62
Mar. 11	3,100		Aug. 24	184		Dec. 21	268	50
Mar. 16	940		Sept. 25	12				
Mar. 29	400		Oct. 24	7.3				

Site 50--Dos Pueblos Creek near Naples (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1955			1958					
Jan. 14	225	43	Jan. 13	93	47			
Feb. 9	183	50	Feb. 18	1,770				
Mar. 9	204	49	Mar. 10	2,710	47			
Apr. 20	282	55	Apr. 24	6,870	54			
May 27	298	61	May 20	3,294	55			
June 10	125	57	June 13	1,850	49			
July 26	183	65	July 18	1,500	64			
Aug. 23	133	66	Aug. 12	1,520	66			
Sept. 27	190	62	Sept. 3	920	64			
Oct. 24	193	62	Oct. 8	778	65			
Nov. 23	193	53	Nov. 12	643	55			
Dec. 20	206	56	Dec. 19	535	50			
1956			1959					
Feb. 28	1,870	55	Jan. 12	548	57			
Mar. 15	916	55	Feb. 4	548				
Apr. 9	710	56	Mar. 9	1,040	63			
May 8	1,010	56	Apr. 7	764	58			
June 19	948		May 5	718	56			
July 16	887	61	June 2	602	58			
Aug. 16	660	70	June 17	706	59			
Sept. 11	508		July 14	368	72			
Oct. 9	426	62	Aug. 18	569	64			
Nov. 16	354	54	Sept. 11	364	72			
Dec. 20	296	47	Oct. 9	454				
1957			Nov. 6	468	51			
Jan. 7	306	49	Dec. 14	399	46			
Feb. 8	790	48	1960					
Mar. 4	1,380		Jan. 15	616	45			
Apr. 5	360	61	Feb. 5	674	52			
May 1	633	59	Mar. 4	472	49			
June 4	544	72						
July 5	562	66						
Aug. 6	512	63						
Sept. 4	503							
Oct. 11	426	58						
Nov. 5	377	51						
Dec. 4	377	48						

Site 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1955 Aug. 23	27							

Note.--No flow observed on any visit to site during period June 1949 to July 1955 and September 1955 to March 1960.

Sites 50b&c--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.

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1953			1957		
Dec. 15	307	60	Jan. 8	a		Oct. 11	543	57
1950			Apr. 8	a		Nov. 5	408	48
Feb. 21	a		May 28	546		Dec. 4	350	47
May 10	495	63	June 1	527	60	1959		
June 13	320	62	July 20	425	60	June 12	395	55
July 31	303	63	Sept. 21	365		June 17	655	60
Aug. 15	a		Oct. 22	338	61	July 14	382	67
Oct. 30	a		Nov. 20	313	59	Aug. 18	236	60
Nov. 28	a		1954			Aug. 18	174	61
Dec. 15	a		June 14	412	59	Aug. 18	424	62
1951			July 9	366	60	Sept. 11	386	68
Jan. 19	a		Aug. 25	687	60	Oct. 9	404	
Feb. 19	a		Sept. 23	296	60	Nov. 6	309	49
Mar. 15	a		Oct. 14	280	59	Dec. 14	314	45
Mar. 23	a		Nov. 29	247	59	1960		
Apr. 17	387	62	Dec. 21	229	60	Jan. 15	467	43
June 11	260		1955			Feb. 5	404	51
July 24	217	63	Apr. 20	294	60	Mar. 4	359	48
Aug. 24	203	62	May 27	261	61			
Sept. 25	a		July 26	255	62			
Oct. 24	a		Aug. 23	240	61			
Nov. 9	a		Sept. 27	211	61			
Dec. 12	a		Oct. 24	193	62			
1952			Nov. 23	178	61			
Feb. 19	a		Dec. 20	170	62			
Apr. 4	a		1956					
May 12	587	62	Feb. 29	a				
June 4	a		1957					
Aug. 6	a		Jan. 21	135				
Sept. 15	a		Feb. 26	a				
Oct. 9	a		June 28	a				
Oct. 14	546	62	July 9	440				
			Aug. 6	520	61			
			Sept. 4	471	59			

Site 50d--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1950			1954			1959		
July 31	39	64	June 14	114	63	June 12	123	55
Oct. 31	51	64	July 9	92	64	June 17	123	
Nov. 28	75		Aug. 25	90	64	July 14	79	67
1951			Sept. 23	81		Aug. 18	66	63
Apr. 17	33		Oct. 14	81	62	Aug. 18	123	64
June 11	26		Nov. 29	76	63	Sept. 11	54	69
July 24	24	65	Dec. 21	74	62	Oct. 9	76	
Aug. 24	32	64	1955			Nov. 6	76	50
Sept. 25	29	64	Apr. 20	73	63	Dec. 14	63	45
Oct. 24	120	63	May 27	75	63	1960		
Nov. 9	176		June 10	75	66	Jan. 15	108	44
Dec. 12	120		July 26	72	65	Feb. 5	188	48
1952			Aug. 23	65	65	Mar. 4	103	48
Apr. 4	a		Sept. 27	62	60			
May 12	202	65	Oct. 24	b	63			
June 4	a		Nov. 23	63	61			
Aug. 6	a		Dec. 20	64	62			
Sept. 15	a		1956					
Oct. 14	133	63	Feb. 29	a				
1953			1957					
Jan. 8	a		June 28	a				
Apr. 8	a		July 19		63			
May 28	345		Aug. 6	76	61			
June 1	153	62	Sept. 4	67	54			
July 20	No flow		Oct. 11	40				
Sept. 21	107		Nov. 5	34	48			
Oct. 22	100	63	Dec. 4	35	45			
Nov. 20	96	62		32				

a No measurement obtainable, well cut-off.

b Area recently burned.

Site 51--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Nov. 1	1.8		Sept. 25	1.3	61	June 8	3.6	66
Nov. 18	1.6		Oct. 12	1.3	73	July 20	1.9	80
1949			Nov. 5	1.3	55	Aug. 22	2.2	70
Jan. 18	2.4		Dec. 4	2.7	57	Sept. 26	2.4	60
Mar. 15	12		1952			Oct. 20	3.0	64
Apr. 27	3.4		Feb. 19	3.7	52	Nov. 22	1.4	54
May 13	2.7		Apr. 3	a		Dec. 12	2.4	55
June 21	2.5		May 14	5.1	56	1956		
July 21	1.8		June 3	4.3	60	Jan. 17	1.6	68
Aug. 16	1.6	79	July 29	a		Feb. 15	3.8	57
Sept. 9	1.6	61	Sept. 15	a		Mar. 15	2.4	74
Oct. 14	1.6	62	Oct. 21	a		Apr. 11	2.8	57
Nov. 15	2.0	65	1953			May 8	2.1	57
Dec. 21	a		Jan. 8	32	58	June 19	4.8	60
1950			Apr. 8	a		July 16	3.8	58
Jan. 19	a		June 2	a		Aug. 16	3.2	66
Feb. 21	a		Sept. 15	a		Sept. 12	2.4	
Mar. 14	4.5	55	Dec. 9	a		Oct. 9	2.2	58
Apr. 11	3.7	65	1954			Nov. 13	2.2	59
May 19	2.5	55	Mar. 8	a		Dec. 20	2.4	49
June 13	2.0	56	May 18	a		1957		
July 28	1.8	58	June 10	a		Jan. 11	2.8	
Aug. 11	1.5	58	July 12	3.4	61	Feb. 8	1.4	49
Oct. 31	1.7	55	Aug. 17	3.1	61	Mar. 4	4.8	58
Nov. 28	2.2	53	Sept. 15	1.9		Apr. 5	3.6	
Dec. 15	a		Oct. 13	1.9	78	May 2	2.9	
1951			Nov. 12	2.0	66	June 4	2.1	84
Jan. 19	a		Dec. 9	3.4	54	July 5	3.6	70
Feb. 13	a		1955			Aug. 9	3.1	
Mar. 15	a		Jan. 12	6.3	60	Sept. 4	2.3	74
Apr. 17	2.2	56	Feb. 9	6.6	53	Oct. 9	1.0	78
June 11	1.6	54	Mar. 7	7.1	63	Nov. 5	2.1	66
July 24	1.5	58	Apr. 18	2.7	60	Dec. 4	3.5	67
Aug. 24	1.3	56	May 6	9.3	55			

Site 51--Spring - W. H. Woods (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Jan. 9	2.0	68						
Feb. 18	7.9							
Mar. 1	9.4	53						
Apr. 24	8.6	66						
May 20	10	60						
June 13	13							
July 14	9.1	65						
Aug. 12	7.0							
Sept. 11	5.4	71						
Oct. 8	11	65						
Nov. 10	8.6	64						
Dec. 19	9.9							
1959								
Jan. 12	6.3	60						
Feb. 4	6.1							
Mar. 9	14	63						
Apr. 7	9.0	61						
May 5	8.2	59						
June 2	6.2	67						
July 14	5.9	66						
Aug. 10	5.6	68						
Sept. 10	4.7	69						
Oct. 9	4.9							
Nov. 5	5.3	63						
Dec. 11	4.4	60						
1960								
Jan. 13	8.0	52						
Feb. 5	12	59						
Mar. 4	9.8	58						

a No measurement obtainable.

Site 52--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948								
Nov. 29	No flow							
Dec. 14	do							
1949								
Jan. 18	do							
May 13	do							
June 21	do							
1950								
Jan. 19	do							

Site 54--Las Varas Canyon Creek at upper Doty diversion

Location.--Lat $34^{\circ}28'50''$, long $119^{\circ}57'50''$, at diversion dam in Las Varas Canyon on Russell E. Doty property, about 18 miles north of Highway 101.

Altitude.--About 400 feet, 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.

Remarks.--No flow observed on all visits to site during period December 1948 to December 1949.

Site 57--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 E. Doty property, about 0.7 mile north of Highway 101.

Altitude.--About 240 feet, 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Dec. 13	6.0		Oct. 12	a		July 20	4.2	57
1949			Nov. 5	a		Aug. 22	5.4	57
Jan. 18	6.4		Dec. 4	5.8	53	Sept. 26	9.4	56
Mar. 29	8.1		1952			Oct. 20	8.6	54
Apr. 27	7.6		Feb. 19	9.8	43	Nov. 22	2.0	43
May 13	a		Apr. 3	63	55	Dec. 12	3.4	62
June 21	a		May 14	26	57	1956		
July 21	2.2		June 3	17	62	Jan. 17	15	52
Aug. 16	1.3	63	July 29	3.9		Feb. 15	76	51
Sept. 9	a		Sept. 15	2.9	57	Mar. 15	45	56
Oct. 14	3.2	60	Oct. 21	3.2	60	Apr. 12	b 126	57
Nov. 15	4.5	50	1953			May 8	32	55
Dec. 21	8.1	40	Jan. 8	68	55	June 19	34	60
1950			Apr. 8	7.4	50	July 16	23	57
Jan. 19	7.4		June 2	4.7		Aug. 16	26	59
Feb. 21	7.3		Sept. 15	6.2	60	Sept. 11	23	
Mar. 14	7.9	46	Dec. 9	5.6	46	Oct. 9	26	55
Apr. 11	7.1	57	1954			Nov. 13	26	52
May 19	10	50	Mar. 8	5.8		Dec. 20	23	
June 13	4.4	54	May 18	10		1957		
July 28	8.5	57	June 10	7.1	55	Jan. 11	16	60
Aug. 11	2.2	55	July 12	6.0		Feb. 8	18	56
Oct. 31	4.2	55	Aug. 12	4.2	59	Mar. 4	13	51
Nov. 28	5.4	50	Sept. 15	4.0	51	Apr. 5	13	55
Dec. 15	7.1	55	Oct. 13	3.6	60	May 2	7.6	
1951			Nov. 12	3.3	55	June 4	11	73
Jan. 19	11	49	Dec. 9	11	46	July 5	14	62
Feb. 15	6.8	49	1955			Aug. 9	16	58
Mar. 15	5.4	49	Jan. 12	16	46	Sept. 4	13	62
Apr. 17	5.8	55	Feb. 9	11	43	Oct. 9	13	58
June 11	2.8	49	Mar. 7	10	55	Nov. 5	11	52
July 24	3.1	56	Apr. 18	5.0		Dec. 4	11	48
Aug. 24	a		May 6	9.4	53			
Sept. 25	a		June 8	6.8	57			

Site 57--Las Varas Canyon Creek at Lower Doty Diversion (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Jan. 9	16	53						
Feb. 18	20	56						
Mar. 11	65	52						
Apr. 24	89	55						
May 20	80	67						
June 13	37	57						
July 14	44	67						
Aug. 12	34	65						
Sept. 11	40	66						
Oct. 8	23	61						
Nov. 10	34	63						
Dec. 19	26	49						
1959								
Jan. 12	28	55						
Feb. 4	34							
Mar. 9	44	59						
Apr. 7	53	59						
May 5	26	53						
June 2	26	62						
July 14	23	64						
Aug. 10	16	64						
Sept. 10	14	62						
Oct. 9	14	62						
Nov. 5	50	52						
Dec. 11	18	45						
1960								
Jan. 13	18	53						
Feb. 5	26	59						
Mar. 4	28	59						

a No measurement obtainable.

b Affected by rain.

Site 59--Gato Canyon Creek above diversions

Location.--Lat 34°29'50", long 119°58'10", at end of roadway up Gato 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Nov. 1	No flow		July 27	No flow		May 6	320	50
Nov. 17	do		Sept. 11	do		June 8	59	57
Nov. 22	do		Oct. 12	do		July 20	12	60
Nov. 30	do		Nov. 2	do		Aug. 18	.30	63
Dec. 14	do		Dec. 11	20	53	Sept. 26	10	60
1949			1952			Oct. 20	26	58
Jan. 18	22		Feb. 18	382	51	Nov. 10	24	60
Mar. 24	250		Apr. 2	1,020	60	Dec. 9	32	54
Apr. 27	28		May 8	228	60	1956		
May 12	34		June 2	a		Jan. 18	332	49
June 21	22		July 29	58	65	Feb. 15	622	48
July 21	1.6		Sept. 11	29	64	Mar. 13	328	52
Aug. 17	No flow		Oct. 21	24	65	Apr. 10	153	55
Oct. 14	do		1953			May 7	557	61
Nov. 15	do		Jan. 19	340	53	June 18	300	58
Dec. 27	90		Apr. 8	36	49	July 10	246	75
1950			June 11	19	60	Aug. 17	117	62
Jan. 23	137	54	Sept. 15	3.1	73	Sept. 11	94	73
Feb. 20	140		Dec. 9	16	51	Oct. 8	98	
Mar. 14	43	49	1954			Nov. 13	84	49
Apr. 11	35	57	Mar. 8	94	55	Dec. 7	76	46
May 19	27	58	May 18	66		1957		
June 9	22	58	June 11	51	53	Jan. 9	76	50
July 24	.7	102	July 8	16	72	Feb. 6	202	49
Aug. 11	.4	72	Aug. 12	14	60	Mar. 4	647	52
Oct. 31	No flow		Sept. 13	1.3	66	Apr. 5	153	54
Nov. 24	14	58	Oct. 15	.20	62	May 1	140	55
Dec. 15	7	56	Nov. 22	15	56	June 4	76	79
1951			Dec. 9	65	51	July 1	98	
Jan. 23	26	52	1955			Aug. 5	65	61
Feb. 15	24	53	Jan. 12	120	48	Sept. 4	47	69
Mar. 16	23	53	Feb. 8	74	48	Oct. 10	37	62
Apr. 18	16		Mar. 28	69	50	Nov. 4	89	54
June 18	1.2	66	Apr. 18	27	50	Dec. 2	34	51

Site 59--Gato Canyon Creek above diversions

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Jan. 9	102	52						
Feb. 18	624	54						
Mar. 11	1,100	46						
Apr. 24	1,630	46						
May 20	462	63						
June 12	294	57						
July 18	161	63						
Aug. 11	108							
Sept. 11	114	64						
Oct. 8	88							
Nov. 4	80	62						
Dec. 19	63							
1959								
Jan. 12	90	54						
Feb. 2	57	47						
Mar. 9	490	54						
Apr. 8	170	56						
May 1	180	56						
June 2	145	59						
July 14	53	66						
Aug. 7	37	69						
Sept. 9	34	64						
Oct. 12	26	67						
Nov. 4	28	58						
Dec. 10	23	53						
1960								
Jan. 13	108	44						
Feb. 8	211	54						
Mar. 3	134	49						

a No measurement obtainable.

Site 61--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
Nov. 1	1.8		June 18	14	58	July 8	10	66
Nov. 17	7.8		July 27	7.3	60	Aug. 11	10	61
Nov. 23	7.8		Sept. 11	9.4	60	Sept. 13	6.0	59
Nov. 30	8.6		Oct. 12	7.6	55	Oct. 13	6.7	56
Dec. 14	11		Nov. 2	11	59	Nov. 22	13	50
1949			Dec. 11	31	44	Dec. 8	23	48
Jan. 18	14		1952			1955		
Mar. 15	43		Feb. 18	112	52	Jan. 12	69	44
Apr. 27	24		Apr. 2	237	57	Feb. 8	60	48
May 12	15		May 8	75	60	Mar. 7	57	51
June 21	13		June 3	46	59	Apr. 12	42	53
July 21	8.6		July 29	23	64	May 5	47	57
Aug. 17	6.7	58	Sept. 11	6.7	60	June 8	54	56
Sept. 9	5.8	59	Oct. 21	21	57	July 12	20	60
Oct. 13	6.2	58	Nov. 25	43	46	Aug. 18	13	60
Nov. 16	8.3	54	Dec. 18	44	51	Sept. 26	a 26	57
Dec. 21	19	45	1953			Oct. 14	26	57
1950			Jan. 19	90	53	Nov. 10	27	53
Jan. 18	40		Mar. 16	50	48	Dec. 12	37	51
Feb. 20	50		Apr. 11	38	54	1956		
Mar. 13	35	52	May 14	20	55	Jan. 17	112	53
Apr. 11	29	49	June 11	3.1	57	Feb. 14	143	59
May 19	19	55	July 14	2.9	63	Mar. 13	112	49
June 9	17	53	Sept. 15	6.0	59	Apr. 11	65	54
July 24	11	63	Oct. 21	6.8	51	May 7	135	73
Aug. 11	8.6	58	Nov. 19	15	48	June 18	68	59
Nov. 1	10	55	Dec. 9	20	46	July 10	44	76
Nov. 28	29	54	1954			Aug. 14	54	
Dec. 18	18	56	Jan. 6	20	48	Sept. 11	37	66
1951			Feb. 10	43		Oct. 8	23	72
Jan. 23	49	49	Mar. 8	57	54	Nov. 16	23	54
Feb. 15	67	48	Apr. 13	116	54	Dec. 7	26	49
Mar. 16	32	50	May 14	48				
Apr. 18	30		June 9	25	61			

Site 61--Las Yeguas Canyon Creek (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957			1959					
Jan. 9	31	49	Dec. 11	44	45			
Feb. 6	58	47	1960					
Mar. 5	72		Jan. 15	57	42			
Apr. 2	40	70	Feb. 8	69	53			
May 1	49	56	Mar. 3	69	54			
June 5	34	58						
July 1	20							
Aug. 5	21	58						
Sept. 5	21	61						
Oct. 10	20	60						
Nov. 4	27	52						
Dec. 2	28	47						
1958								
Jan. 9	38	51						
Feb. 18	89	55						
Mar. 12	126	43						
Apr. 21	237	62						
May 20	140	70						
June 12	76	59						
July 18	50	58						
Aug. 11	8.1	69						
Sept. 11	53	60						
Oct. 6	44	65						
Nov. 10	47	59						
Dec. 18	47	51						
1959								
Jan. 5	47	51						
Feb. 2	50	43						
Mar. 6	140	63						
Apr. 8	61	68						
May 1	61	63						
June 3	40	67						
July 13	23	72						
Aug. 10	26	62						
Sept. 10	20	60						
Oct. 12	26	64						
Nov. 5	40	51						

a Area above recently burned.

Site 62--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
Nov. 23	9.2		Nov. 2	10.4	66	Sept. 13	No flow	
1949			Dec. 11	a		Oct. 13	a	
Mar. 29	12		1952			Nov. 22	a	
Apr. 27	12		Feb. 18	11.9	65	Dec. 8	10	62
May 12	a		Apr. 2	12.6	66	1955		
June 21	7.5		May 8	12.1	67	Jan. 12	8.8	62
July 21	13.2		June 3	10.6	66	Feb. 8	10	63
Aug. 17	a		July 29	12	65	Mar. 7	10	62
Sept. 9	a		Sept. 11	12	65	Apr. 12	a	
Sept. 9	8.6		Oct. 21	12	66	May 5	12	64
Oct. 13	8.8	65	Nov. 25	11	65	June 8	a	
Nov. 16	9.8	65	Dec. 18	10	65	July 12	a	
Dec. 21	10	65	1953			Aug. 18	a	
1950			Jan. 19	9.7	65	Sept. 26	a	
Jan. 18	13		Feb. 10	11	64	Oct. 20	No flow	
Feb. 20	13		Mar. 16	10	63	Nov. 10	a	
Mar. 13	14	64	Apr. 7	9.6	64	Dec. 12	9.1	63
Apr. 11	14	65	May 14	6.4	64	1956		
May 19	17	65	June 11	9.3	63	Jan. 17	a	
June 9	10	65	July 14	9.2	63	Feb. 14	a	
July 24	7.7		Sept. 15	a		Mar. 13	6.4	62
Aug. 11	a		Oct. 21	10	63	Apr. 11	a	
Nov. 1	a		Nov. 19	7.8	63	May 7	9.6	64
Nov. 28	12	65	Dec. 9	a		June 18	a	
Dec. 18	10	65	1954			July 10	8.9	64
1951			Jan. 6	a		Aug. 14	a	
Jan. 23	12	65	Jan. 8	10	63	Sept. 11	8.6	65
Feb. 15	13	65	Feb. 10	10		Oct. 8	8.8	67
Mar. 16	12	66	Mar. 8	11	61	Nov. 16	8.1	64
Apr. 18	a		Apr. 13	10	61	Dec. 7	8.3	63
June 18	11	65	May 14	10	62	1957		
July 27	8.3	63	June 9	12	62	Jan. 9	8.4	62
Sept. 11	a		July 8	9.0	64	Feb. 6	No flow	
Oct. 12	a		Aug. 11	a		Mar. 5	9.5	67

Site 62--Spring - Edwards Estate (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957			1960					
Apr. 2	9.1	65	Jan. 13	8.7	59			
May 1	a		Feb. 8	8.9	63			
June 5	a		Mar. 3	9.4	64			
July 1	a							
Aug. 5	9.0	63						
Sept. 5	a							
Oct. 10	a							
Nov. 4	9.0	64						
Dec. 2	8.6	62						
1958								
Jan. 9	9.3	63						
Feb. 18	9.7	62						
Mar. 12	a							
Apr. 21	a							
May 20	a							
June 12	9.6	56						
July 18	9.2	64						
Aug. 11	9.2	62						
Sept. 11	8.7	64						
Oct. 6	8.7	66						
Nov. 10	8.6	65						
Dec. 18	8.8	64						
1959								
Jan. 5	8.7	63						
Feb. 2	9.1	59						
Mar. 6	9.3	68						
Apr. 8	9.4	66						
May 1	9.5	66						
June 3	8.3							
July 13	8.3	66						
Aug. 10	8.4	65						
Sept. 10	8.8	64						
Oct. 12	8.1	65						
Nov. 5	8.3	64						
Dec. 11	8.0	62						

a No measurement obtainable.

Site 63--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 feet, 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Nov. 23	50		Nov. 2	45	59	Apr. 12	34	56
1949			Dec. 11	67	48	May 5	107	57
Jan. 18	72		1952			June 8	102	58
Mar. 15	110		Feb. 18	183	54	July 12	65	59
Apr. 27	71		Apr. 2	360	60	Aug. 18	53	58
May 12	48		May 8	118	62	Sept. 26	57	58
June 21	50		June 3	116	59	Oct. 20	67	54
July 21	44		July 29	60		Nov. 10	26	57
Aug. 17	45	59	Sept. 11	60	58	Dec. 12	81	51
Sept. 9	40		Oct. 21	78	59	1956		
Oct. 13	33	62	Dec. 18	129	53	Jan. 17	125	53
Nov. 16	67	57	1953			Feb. 14	264	
Dec. 21	57		Jan. 19	202	55	Mar. 13	238	54
1950			Feb. 10	132	52	Apr. 11	47	59
Jan. 18	91	53	Apr. 7	106	58	May 7	193	75
Feb. 20	110		June 11	69	57	June 18	116	61
Mar. 13	110	58	July 14	66	61	July 10	84	78
Apr. 11	105	55	Sept. 15	59	59	Aug. 14	45	68
May 9	77	57	Dec. 9	49	49	Sept. 11	53	72
June 9	79	55	1954			Oct. 8	85	70
July 24	54	65	Jan. 6	61		Nov. 16	73	52
Aug. 11	38	58	Feb. 10	83	59	Dec. 7	80	48
Nov. 1	47	59	Mar. 8	163	56	1957		
Nov. 28	79	54	May 14	112	55	Jan. 9	94	50
Dec. 18	78	55	June 9	115	58	Feb. 6	97	46
1951			July 8	58	66	Mar. 5	84	
Jan. 23	103	54	Aug. 11	28	65	Apr. 2	89	70
Feb. 15	106	51	Sept. 13	53	60	May 1	84	62
Mar. 16	82	52	Oct. 13	69	58	June 5	80	61
Apr. 18	83		Nov. 22	80	55	July 1	69	
June 18	64	60	Dec. 8	89	53	Aug. 5	65	60
July 27	40	62	1955			Sept. 5	a	
Sept. 11	55	62	Jan. 12	118	47	Oct. 10	a	
Oct. 12	45	56	Feb. 8	132	47	Nov. 4	a	
			Mar. 7	138	52	Dec. 2	a	

Site 63--Las Yeguas Canyon Creek at Highway 101 (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Jan. 9	84	54						
Feb. 18	140	56						
Mar. 12	150	47						
Apr. 21	400	72						
May 20	215	71						
June 12	150	61						
July 18	121	62						
Aug. 11	121	74						
Sept. 11	93	63						
Oct. 6	76	67						
Nov. 10	93	61						
Dec. 18	93	50						
1959								
Jan. 6	111	53						
Feb. 2	126	45						
Mar. 6	160	64						
Apr. 8	111	62						
May 1	65	65						
June 3	107							
July 13	9.4	69						
Aug. 10	69	65						
Sept. 10	76	64						
Oct. 12	73	63						
Nov. 5	76	54						
Dec. 11	80	49						
1960								
Jan. 13	121	43						
Feb. 8	130	55						
Mar. 3	130	54						

a No measurement obtainable.

Site 64--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1956		
Nov. 24	No flow		Feb. 18	4.5	56	Jan. 17	.62	49
1949			Apr. 2	35	60	Feb. 14	11	57
Jan. 18	.88		May 8	7.1	62	Mar. 13	5.0	46
Mar. 29	2.0		June 3	5.6	59	Apr. 11	8.1	58
May 12	No flow		July 29	.60	63	May 7	3.1	62
Sept. 12	do		Sept. 11	.25	59	June 18	1.6	57
Oct. 13	.31	59	Oct. 21	.74	58	July 10	1.1	63
Nov. 17	No flow		1953			Aug. 10	1.0	63
Dec. 27	do		Jan. 19	28	54	Sept. 11	.83	62
1950			Apr. 7	2.9	58	Oct. 8	.41	63
Jan. 18	do		June 11	.29	61	Nov. 16	.37	49
Feb. 20	2.8		Sept. 15	.54	59	Dec. 7	.26	50
Mar. 13	2.2		Dec. 9	.58	55	1957		
Apr. 11	.90	54	1954			Jan. 9	.24	52
May 19	1.0	58	Mar. 8	2.0		Feb. 6	.32	46
June 9	2.7		May 14	No flow		Mar. 5	.38	67
July 24	1.0	65	June 9	do		Apr. 2	No flow	
Aug. 11	No flow		July 8	do		May 1	do	
Nov. 1	.2	60	Aug. 11	.72	66	June 5	1.2	63
Nov. 28	.6	55	Sept. 13	.36		July 1	.75	
Dec. 18	.8	56	Oct. 13	No flow		Aug. 15	No flow	
1951			Nov. 22	do		Sept. 5	do	
Jan. 23	.7	49	Dec. 8	do		Oct. 10	a	
Feb. 15	1.2	49	1955			Nov. 4	.03	56
Mar. 16	1.2	50	Jan. 14	.19	40	Dec. 4	No flow	
Apr. 18	1.0		Feb. 8	No flow		1958		
June 18	.62	60	Mar. 7	1.1	53	Jan. 9	do	
July 27	No flow		Apr. 12	.58	56	Feb. 18	do	
Sept. 11	do		May 5	1.4	57	Mar. 12	.83	43
Oct. 12	do		June 8	1.4	57	Apr. 21	17	64
Nov. 2	do		July 12	.58	60	May 20	7.6	60
Dec. 11	do		Sept. 26	.24	56	June 12	3.1	53
			Oct. 14	.09	58	July 18	1.7	58
			Nov. 10	.05	54	Aug. 11	1.2	67
			Dec. 12	.05	49	Sept. 2	1.2	63

Site 64--Spring - Gila Land Company (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Oct. 6	.65	64						
Nov. 10	.86	59						
Dec. 18	.94	52						
1959								
Jan. 5	.88	51						
Feb. 2	.47	40						
Mar. 6	7.5	63						
Apr. 8	1.6	62						
May 1	.86	60						
June 3	.57	61						
July 13	.19	67						
Aug. 10	.42	62						
Sept. 10	.31	61						
Oct. 12	.10	64						
Nov. 5	.11	51						
Dec. 11	.06	44						
1960								
Jan. 13	.13	38						
Feb. 8	.36	54						
Mar. 13	.75	54						

a A few drops per minute.

Site 65--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Oct. 28	42		July 27	No flow		May 5	355	
Nov. 17	17		Sept. 11	.49	58	June 13	157	53
Nov. 24	16		Oct. 12	.26	54	July 12	86	
Nov. 30	32		Nov. 2	.18	69	Aug. 18	32	58
Dec. 14	76		Dec. 11	21	49	Oct. 14	53	58
1949			1952			Nov. 10	45	56
Jan. 18	90		Feb. 18	1,060	51	Dec. 12	72	51
Mar. 15	485		Apr. 2	3,490	56	1956		
Apr. 27	135		May 8	920	56	Jan. 18	296	47
May 12	109		June 3	625	57	Feb. 14	448	52
June 21	58	59	July 29	408	63	Mar. 12	364	
July 21	5.4		Sept. 11	411	58	Apr. 11	140	55
Aug. 17	15	59	Oct. 21	273	58	May 7	395	62
Sept. 12	No flow		1953			June 12	650	69
Oct. 13	1.8	54	Jan. 19	1,270	51	July 10	480	68
Nov. 17	21		Apr. 7	271	53	Aug. 14	346	67
Dec. 27	80	48	June 11	135	56	Sept. 11	197	66
1950			Sept. 25	a		Oct. 8	170	68
Jan. 18	190	49	Dec. 9	73	49	Nov. 16	116	48
Feb. 20	320		1954			Dec. 7	116	44
Mar. 13	150	54	Mar. 8	152	53	1957		
Apr. 10	106	54	May 14	202		Jan. 9	116	45
June 9	43	56	June 9	166	54	Feb. 6	292	51
July 24	13	60	July 8	68	62	Mar. 5	832	61
Aug. 11	a		Aug. 11	82	60	Apr. 2	340	60
Nov. 1	22	59	Sept. 13	64	59	May 1	328	61
Nov. 28	51	56	Oct. 13	47	57	June 5	191	64
Dec. 18	39	56	Nov. 22	60	52	July 1	111	
1951			Dec. 8	160	51	Aug. 5	160	65
Jan. 23	70	52	1955			Sept. 5	140	62
Feb. 15	65	53	Jan. 12	405	45	Oct. 10	140	
Mar. 16	62	55	Feb. 8	161	50	Nov. 4	167	59
Apr. 18	48		Mar. 28	172	51	Dec. 2	126	47
June 18	34	57	Apr. 12	134	53			

Site 65--Capitan Creek above Gila Land Company Diversion (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Jan. 9	144	52						
Feb. 14	1,820							
Mar. 11	2,970	44						
Apr. 21	4,670	64						
May 20	1,894	59						
June 12	1,250	54						
July 17	610	73						
Aug. 11	526	74						
Sept. 2	508	66						
Oct. 6	400	66						
Nov. 12	256	53						
Dec. 18	202	49						
1959								
Jan. 5	202	50						
Feb. 4	224							
Mar. 6	1,160	64						
Apr. 8	464	68						
May 1	449	65						
June 3	305	65						
July 13	175	74						
Aug. 7	160	73						
Sept. 9	160	66						
Oct. 12	165	67						
Nov. 4	166	61						
Dec. 10	76	53						
1960								
Jan. 12	341	52						
Feb. 5	503	59						
Mar. 2	296	63						

a No measurement obtainable.

Site 66--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
Nov. 16	0.67		Feb. 18	.30	52	Jan. 7	.70	50
1949			Apr. 2	.29	60	Feb. 9	1.0	55
Jan. 19	1.4		May 8	1.1	60	Mar. 7	1.1	59
Mar. 29	1.4		June 3	1.1	60	Apr. 12	.48	62
May 12	1.3		July 29	1.2	64	May 5	.86	57
June 21	1.1		Sept. 11	1.1	60	June 13	1.0	59
July 21	1.4	62	Oct. 21	.97	60	July 12	.94	60
Aug. 17	1.2	66	Nov. 25	1.3	55	Aug. 18	1.0	58
Sept. 12	1.1	63	Dec. 18	1.4	57	Sept. 13	1.2	71
Oct. 13	1.3	62	1953			Oct. 14	1.2	60
Nov. 17	1.2	62	Jan. 8	1.6	61	Nov. 10	1.2	57
Dec. 27	1.3	62	Feb. 10	1.6	62	Dec. 9	1.1	58
1950			Mar. 16	1.4	53	1956		
Jan. 18	1.4	59	Apr. 7	1.3	58	Jan. 17	1.3	53
Feb. 26	1.2		May 14	1.2	58	Feb. 14	1.2	
Mar. 13	1.1	60	June 10	1.2	66	Mar. 12	1.6	
Apr. 10	1.1	59	July 14	1.4	62	Apr. 10	1.1	56
June 9	.9	64	Sept. 15	1.4	60	May 7	1.1	58
July 29	1.2	66	Oct. 21	.47		June 12	1.1	62
Aug. 11	1.2	64	Nov. 19	.83	52	July 10	1.3	62
Nov. 1	1.1	61	Dec. 8	.88	50	Aug. 14	.45	60
Nov. 30	.6	60	1954			Sept. 11	1.2	64
Dec. 18	.6	56	Jan. 6	.88	53	Oct. 8	.42	62
1951			Feb. 10	.56	56	Nov. 16	1.3	54
Jan. 23	1.2	64	Mar. 5	.84	63	Dec. 7	a	
Feb. 26	1.1	54	Apr. 13	1.2	60	1957		
Mar. 16	1.2	60	May 13	1.2	57	Jan. 9	1.2	50
Apr. 18	1.1		June 9	1.3	57	Feb. 6	1.2	41
June 18	.80	64	July 8	1.0	63	Mar. 5	1.2	59
July 27	.21	57	Aug. 11	1.1	61	Apr. 2	1.1	60
Sept. 11	1.2	60	Sept. 13	.75	60	May 1	1.2	54
Oct. 12	1.0	67	Oct. 13	.58	62	June 5	1.0	63
Nov. 2	.96	60	Nov. 22	.28	54	July 1	1.1	
Dec. 4	.90	59	Dec. 8	.48	51	Aug. 5	.82	66

Site 66--Spring - George M. Williams Estate (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Sept. 5	.67	59						
Oct. 10	1.0	61						
Nov. 4	1.5	59						
Dec. 2	1.1	52						
1958								
Jan. 9	1.3	55						
Feb. 14	.94	53						
Mar. 10	.34	50						
Apr. 21	1.4	60						
May 18	1.5	55						
June 12	.86	53						
July 17	1.3	64						
Aug. 11	1.3	65						
Sept. 2	.75	63						
Oct. 6	.66	65						
Nov. 10	.83	59						
Dec. 18	.67	52						
1959								
Jan. 5	.82	57						
Feb. 4	1.2							
Mar. 6	1.6	59						
Apr. 8	1.5	58						
May 1	1.1	54						
June 3	1.5	61						
July 13	1.3	65						
Aug. 7	1.5	64						
Sept. 9	1.4	63						
Oct. 12	1.5	64						
Nov. 4	1.4	61						
Dec. 10	1.4	58						
1960								
Jan. 15	1.0	51						
Feb. 1	1.3	56						
Mar. 3	1.2	56						

a No measurement obtainable.

Site 67--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Oct. 28	14		Oct. 12	1.1	60	Jan. 7	132	45
Nov. 19	17		Nov. 2	10	52	Feb. 9	182	50
Nov. 30	9.9		Dec. 4	19	52	Mar. 7	197	
Dec. 14	13		1952			Apr. 12	47	56
1949			Feb. 18	654	50	May 5	230	55
Jan. 19	50		Apr. 2	1300	55	June 13	57	
Mar. 15	460		May 8	464	55	July 12	18	60
May 12	65		June 3	283	56	Aug. 18	2.9	56
June 21	26		July 29	289	64	Sept. 13	1.6	61
July 21	23	59	Sept. 11	164	57	Oct. 14	4.0	57
Aug. 17	14	59	Oct. 21	105	56	Nov. 10	3.1	55
Sept. 12	12	59	Nov. 25	236	48	Dec. 9	67	55
Oct. 13	13	54	Dec. 18	239	52	1956		
Nov. 17	11	50	1953			Jan. 17	278	47
Dec. 27	59		Jan. 8	932	55	Feb. 14	703	52
1950			Mar. 16	111	48	Mar. 12	390	
Jan. 18	250	50	Apr. 7	122	51	Apr. 10	233	54
Feb. 20	210		May 14	73	56	May 7	260	58
Mar. 13	120	50	June 10	68	61	June 12	278	63
Apr. 10	85	51	July 14	12	62	July 10	278	64
June 9	34	60	Sept. 15	5.8	59	Aug. 14	130	61
July 24	17	55	Oct. 21	6.2	50	Sept. 11	84	64
Aug. 11	9.4	60	Nov. 19	40	45	Oct. 8	81	62
Nov. 1	18	55	Dec. 8	51	48	Nov. 16	80	47
Nov. 30	22	54	1954			Dec. 7	99	47
Dec. 18	23	50	Mar. 5	235	54	1957		
1951			May 13	139	59	Jan. 9	112	46
Jan. 23	40	53	June 9	66	55	Feb. 6	202	44
Feb. 26	62	49	July 8	18	63	Mar. 5	516	58
Mar. 16	60	55	Aug. 11	6.0	62	Apr. 2	165	56
Apr. 18	43		Sept. 13	1.5	58	May 1	171	55
June 18	19	64	Oct. 13	1.7	58	June 5	150	65
July 27	12	59	Nov. 22	2.7	53	July 1	94	
Sept. 11	4.0	60	Dec. 8	22	50	Aug. 5	44	67

Site 67--Corral Creek (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Sept. 5	34	56						
Oct. 10	37	57						
Nov. 4	69	52						
Dec. 2	47	43						
1958								
Jan. 9	130	49						
Feb. 14	890	48						
Mar. 10	1940	43						
Apr. 21	3400	58						
May 19	1210	53						
June 12	876	52						
July 17	557							
Aug. 11	490	67						
Sept. 2	180	64						
Oct. 6	238							
Nov. 10	193	58						
Dec. 18	189	44						
1959								
Jan. 5	198	51						
Feb. 4	211							
Mar. 6	832	56						
Apr. 8	598	57						
May 1	260	61						
June 3	211	62						
July 13	98	67						
Aug. 7	98	66						
Sept. 9	76	64						
Oct. 12	93	63						
Nov. 4	93	55						
Dec. 10	80	50						
1960								
Jan. 15	337	44						
Feb. 1	252	52						
Mar. 3	300	57						

Site 68--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1956		
Nov. 16	4.0		June 3	1.8	56	Jan. 17	33	49
1949			July 29	1.1	62	Feb. 14	21	49
Jan. 19	3.4		Sept. 11	1.7	57	Mar. 12	8.5	
Mar. 29	4.9		Oct. 21	1.3	57	Apr. 10	1.6	54
May 12	1.6		1953			May 7	6.0	57
Oct. 13	.28	58	Jan. 8	19	57	June 12	4.7	62
Nov. 17	1.4	57	Apr. 7	2.8	52	July 10	4.7	61
Dec. 27	2.7		June 10	1.4	58	Aug. 14	2.2	59
1950			Sept. 15	.68	59	Sept. 11	3.0	63
Jan. 18	2.0	50	Dec. 8	1.2	50	Oct. 8	5.6	59
Feb. 20	4.2		1954			Nov. 16	3.6	59
Mar. 13	3.6		Mar. 5	2.1	53	Dec. 7	3.0	46
Apr. 10	1.8	57	May 13	2.0	59	1957		
June 9	1.8	65	June 9	1.7	55	Jan. 9	9.7	46
July 24	3.1	62	July 8	1.5	64	Feb. 6	6.8	44
Aug. 11	1.8	68	Aug. 11	1.2	61	Mar. 5	15	55
Nov. 1	1.7		Sept. 13	.81	58	Apr. 2	5.8	54
Nov. 30	.9	54	Oct. 13	.71	57	May 1	4.2	57
Dec. 18	.5	56	Nov. 22	.90	54	June 5	4.3	63
1951			Dec. 8	1.3	50	July 1	3.8	
Jan. 23	2.1	55	1955			Aug. 5	4.2	62
Feb. 26	3.6	56	Jan. 7	2.4	46	Sept. 5	3.0	56
Mar. 16	2.3	54	Feb. 9	2.7	48	Oct. 10	3.6	56
Apr. 18	1.4		Mar. 7	2.4	49	Nov. 4	7.4	52
June 18	.52	58	Apr. 12	2.1	53	Dec. 2	3.8	47
July 27	.68	59	May 5	1.9	54	1958		
Sept. 11	1.1	61	June 13	1.7	57	Jan. 9	6.3	49
Oct. 12	.60		July 12	1.1	59	Feb. 14	17	48
Nov. 2	1.5	55	Aug. 18	1.3	60	Mar. 10	11	42
Dec. 4	2.8	52	Sept. 13	3.0	67	Apr. 21	47	48
1952			Oct. 14	3.3	62	May 15	40	55
Feb. 18	26	51	Nov. 10	3.0	53	June 12	31	54
Apr. 2	21	55	Dec. 9	3.0	54	July 17	7.6	64
May 8	6.3	57				Aug. 11	7.9	65

Site 68--Spring - George M. Williams Estate (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Sept. 2	8.1	63						
Oct. 6	6.8	63						
Nov. 10	5.7	58						
Dec. 18	7.5	48						
1959								
Jan. 5	6.8	51						
Feb. 4	9.4							
Mar. 6	40	52						
Apr. 8	34	54						
May 1	16	59						
June 3	9.4	58						
July 13	8.6	64						
Aug. 7	8.1	63						
Sept. 9	8.6	63						
Oct. 12	8.8	62						
Nov. 4	9.7	55						
Dec. 10	10	51						
1960								
Jan. 15	65	43						
Feb. 1	12	53						
Mar. 3	12	54						

a Area recently burned.

Site 70--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
Nov. 16	2.0		Feb. 18	639	49	Apr. 12	52	52
1949			Apr. 2	1230	55	May 5	186	54
Mar. 29	180		May 8	487	55	June 13	49	58
May 12	31		June 3	394	56	July 12	12	58
June 21	13		July 29	79	63	Aug. 18	3.1	56
July 21	.40		Sept. 11	113	57	Sept. 13	4.5	60
Aug. 17	1.2		Oct. 21	108	57	Oct. 14	1.8	58
Sept. 12	4.9		Nov. 25	177	50	Nov. 10	3.0	54
Oct. 13	1.8		Dec. 18	224	53	Dec. 9	3.8	56
Nov. 17	.90	58	1953			1956		
Dec. 27	45	53	Jan. 8	1300	57	Jan. 17	a	
1950			Mar. 16	272	49	Feb. 14	748	51
Jan. 18	250	51	Apr. 7	206	51	Mar. 12	435	
Feb. 20	240		May 14	100	56	Apr. 10	251	56
Mar. 13	140		June 10	87	62	May 7	472	62
Apr. 10	120	51	July 14	21	68	June 12	354	66
June 9	32	60	Sept. 15	13	58	July 10	318	65
July 24	4.0	61	Oct. 21	10	52	Aug. 14	140	63
Aug. 11	4.0	62	Nov. 19	6.7	50	Sept. 11	89	64
Nov. 1	.9	59	Dec. 8	27	51	Oct. 8	94	62
Nov. 30	1.9	58	1954			Nov. 16	76	50
Dec. 18	2.1	55	Mar. 5	285		Dec. 7	94	49
1951			May 13	304	60	1957		
Jan. 23	3.1	60	June 9	110	54	Jan. 9	130	48
Feb. 26	51	52	July 8	14	68	Feb. 6	224	46
Mar. 16	57	58	Aug. 11	3.8	60	Mar. 5	795	61
Apr. 18	19		Sept. 13	6.7		Apr. 2	156	61
June 18	4.9	60	Oct. 13	3.1	58	May 1	210	55
July 27	2.7	60	Nov. 22	3.1	55	June 5	135	64
Sept. 11	1.3	62	Dec. 8	12	54	July 1	76	
Oct. 12	.73	66	1955			Aug. 5	18	66
Nov. 2	.80	58	Jan. 7	72	46	Sept. 5	9.4	59
Dec. 4	3.1	55	Feb. 9	173	48	Oct. 10	5.8	61
			Mar. 7	207	46	Nov. 4	50	56
						Dec. 2	31	54

Site 70--Spring - Covarrubias Estate (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Jan. 9	145	52						
Feb. 14	980	50						
Mar. 10	2370	44						
Apr. 21	3300	59						
May 19	1480	56						
June 12	974	54						
July 17	511	67						
Aug. 11	368	67						
Sept. 2	359	64						
Oct. 6	278	64						
Nov. 10	372	60						
Dec. 18	180	48						
1959								
Jan. 5	238	53						
Feb. 4	238							
Mar. 6	823	60						
Apr. 8	628	61						
May 1	317	62						
June 3	224	61						
July 13	93	65						
Aug. 7	93	65						
Sept. 9	80	64						
Oct. 12	84	66						
Nov. 4	100	58						
Dec. 10	76	57						
1960								
Jan. 15	350	44						
Feb. 1	228	53						
Mar. 3	323	58						

a No measurement obtainable.

Site 73--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
Nov. 17	No flow		Feb. 18	No flow		Nov. 10	7.6	62
1949			Apr. 2	No flow		Dec. 9	143	53
Jan. 21	0.62		May 8	38	56	1956		
May 12	No flow		June 3	24	57	Jan. 17	30	45
July 21	No flow		July 29	50	64	Feb. 14	99	50
Aug. 17	No flow		Sept. 9	26	59	Mar. 12	45	-
Sept. 12	No flow		Oct. 20	22	60	Apr. 10	42	54
Oct. 13	No flow		1953			May 7	37	56
Nov. 17	No flow		Jan. 8	236	56	June 12	23	58
Dec. 27	No flow		Apr. 7	15	51	July 10	20	59
1950			June 10	7.1	68	Aug. 14	16	68
Jan. 18	No flow		Sept. 15	7.6	59	Sept. 11	12	62
Feb. 20	No flow		Dec. 8	6.6	47	Oct. 8	16	61
Mar. 13	No flow		1954			Nov. 16	7.6	56
Apr. 10	No flow		Mar. 5	4.7	55	Dec. 7	11	44
June 9	No flow		May 13	12	57	1957		
July 24	No flow		June 9	8.1	56	Jan. 7	11	49
Aug. 11	No flow		July 8	4.4	70	Feb. 6	16	41
Nov. 1	No flow		Aug. 11	4.7	61	Mar. 5	11	55
Nov. 30	No flow		Sept. 13	3.8	59	Apr. 2	11	52
Dec. 18	No flow		Oct. 13	3.2	60	May 1	11	52
1951			Nov. 22	2.7	54	June 5	9.9	64
Jan. 23	No flow		Dec. 8	2.9	52	July 1	8.4	
Feb. 26	No flow		1955			Aug. 5	6.8	72
Apr. 18	No flow		Jan. 7	4.5		Sept. 5	5.1	54
June 19	No flow		Feb. 8	9.4	53	Oct. 10	5.0	55
July 25	No flow		Mar. 7	6.7	49	Nov. 4	5.0	49
Aug. 22	No flow		Apr. 12	2.0	55	Dec. 2	5.9	43
Sept. 24	No flow		May 5	3.2	54	1958		
Oct. 12	No flow		June 13	2.6	60	Jan. 9	6.8	46
Nov. 2	No flow		July 12	2.0	59	Feb. 14	11	47
Dec. 4	No flow		Aug. 18	1.9	59	Mar. 10	84	39
			Sept. 13	4.5	67	Apr. 21	292	62
			Oct. 14	3.8		May 15	89	51

Site 73--Spring - Erro Estate (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
June 12	89	51						
July 17	53	62						
Aug. 11	44	64						
Sept. 2	34	63						
Oct. 6	28	63						
Nov. 4	27	63						
Dec. 18	26	44						
1959								
Jan. 5	26	52						
Feb. 2	25	44						
Mar. 6	47	51						
Apr. 8	47	51						
May 1	26	59						
June 3	22	57						
July 13	16	64						
Aug. 7	16	64						
Sept. 9	14	63						
Oct. 12	18	63						
Nov. 4	15	55						
Dec. 10	13	51						
1960								
Jan. 12	16	49						
Feb. 1	15	53						
Mar. 2	14	62						

Site 73a--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.

Diversions.--None.

Remarks.--No flow observed on all visits to site during period October 1948 to March 1949.

Site 74--Spring - George M. Williams Estate

Location.--Lat $34^{\circ}28'40''$, long $120^{\circ}03'20''$.

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

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

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948								
Nov. 17	No flow							
1949								
Jan. 21	0.13							

Note.--No flow observed on visits to site during periods February 1949 to December 1955, August 1956 to February 1958, and July 1958 to March 1960.

Seepage was observed on monthly visits during periods January 1956 to July 1956 and March 1958 to June 1958. Because this seepage was uncontrolled, no measurements could be obtained.

Site 75--Spring - D. A. Sattler

Location.--Lat $34^{\circ}31'50''$, long $120^{\circ}03'00''$.

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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948								
Aug. 27	4.6							
Dec. 2	4.6							
1949								
May 28	5.6							

Site 78--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 2,000 feet below spring.

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
Nov. 8	.38		Sept. 4	2.1	60	May 3	.33	55
1949			Oct. 20	2.6	64	June 21	.12	60
Jan. 28	.51		Nov. 24	3.0	57	July 11	.38	58
May 25	.40		Dec. 16	3.1	58	Aug. 17	.12	64
Sept. 14	a		1953			Sept. 12	.09	61
Dec. 29	a		Jan. 5	2.2	62	Oct. 13	No flow	
1950			Feb. 12	2.4	57	Nov. 9	.01	58
Mar. 10	.45	85	Mar. 2	2.4	56	Dec. 8	No flow	
Apr. 21	3.1	60	Apr. 10	1.9	60	1956		
June 8	2.2	58	May 12	1.7	57	Jan. 16	No flow	
July 20	2.9	59	June 9	1.7	58	Feb. 13	No flow	
Aug. 24	1.5	60	July 13	1.4	58	Mar. 16	.26	56
Nov. 2	.3	60	Sept. 14	.75	59	Apr. 24	a	
Nov. 29	.1	59	Oct. 19	1.3	57	May 16	a	
Dec. 19	.1		Nov. 12	1.6	57	June 11	a	
1951			Dec. 7	1.6	57	July 9	.87	59
Jan. 29	2.4	58	1954			Aug. 13	.27	58
Feb. 26	3.0	55	Jan. 5	1.4	56	Sept. 13	.18	58
Mar. 21	2.9		Feb. 12	1.5	54	Oct. 10	.06	60
Apr. 24	2.7		Mar. 4	1.4	55	Nov. 19	.04	59
June 19	.95	59	Apr. 12	1.6	56	Dec. 21	1.36	56
July 25	.85	59	May 12	1.2	54	1957		
Aug. 22	.90	60	June 8	1.2	55	Jan. 11	1.2	57
Sept. 24	.87	63	July 7	.43		Feb. 7	1.0	57
Oct. 22	1.1	61	Aug. 10	.02	57	Mar. 9	1.0	57
Nov. 8	.93	57	Sept. 14	.08	58	Apr. 8	1.7	57
Dec. 7	.39	55	Oct. 12	.10	57	May 3	1.6	57
1952			Nov. 9	.11	56	June 6	1.0	59
Jan. 8	b		Dec. 7	.10	53	July 8	.81	58
Mar. 13	4.0	55	1955			Aug. 7	.94	
Apr. 10	3.3	57	Jan. 6	.11	47	Sept. 6	1.6	58
May 21	2.6	58	Feb. 7	.09	52	Oct. 7	1.4	61
June 18	2.5	59	Mar. 8	.14	56	Nov. 5	.88	
Aug. 5	1.8	59	Apr. 5	.21	62	Dec. 9	1.2	56

Site 78---Spring - Mrs. Florence Brown (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Jan. 9	1.2	56						
Feb. 17	2.5	57						
Mar. 10	2.4	55						
Apr. 21	2.6	57						
May 19	2.1	58						
June 6	2.0	58						
July 21	.30							
Aug. 4	1.3	60						
Sept. 8	1.2	60						
Oct. 6	1.5	59						
Nov. 5	1.5	59						
Dec. 9	1.3	58						
1959								
Jan. 14	1.1	59						
Feb. 26	.40							
Mar. 6	.50	58						
Apr. 3	.39	59						
May 4	.55	52						
June 8	.52							
July 10	.35	62						
Aug. 10	.33	61						
Sept. 11	.39	64						
Oct. 5	3.8	66						
Nov. 6	13	68						
Dec. 11	4.6	58						
1960								
Jan. 8	3.8	57						
Feb. 1	3.7							
Mar. 5	.99	54						

a No measurement obtainable

b A few drops per minute

Site 81--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
Nov. 15	1.8		May 21	1.4	67	Sept. 12	a	
1949			June 18	2.7	62	Oct. 13	No flow	
Jan. 21	3.1		Aug. 5	1.6	67	Nov. 9	do	
May 10	.37		Sept. 4	1.3	78	Dec. 8	do	
July 20	1.6		Oct. 20	1.8	72	1956		
Sept. 12	2.3		Nov. 24	1.6	48	Jan. 16	do	
Nov. 17	1.5		Dec. 16	a		Feb. 13	do	
Dec. 29	2.6		1953			Mar. 16	a	
1950			Jan. 5	a		Apr. 24	No flow	
Jan. 16	2.0	61	Feb. 12	a		May 16	do	
Feb. 16	a		Mar. 2	a		June 11	do	
Mar. 10	2.1		Apr. 10	a		July 9	do	
Apr. 21	1.8	60	June 9	.83	60	Aug. 13	do	
June 8	1.9	64	July 13	a		Sept. 13	do	
July 20	1.9	63	Sept. 14	a		Oct. 10	do	
Aug. 23	2.2	62	Dec. 7	a		Nov. 19	do	
Nov. 2	1.6	66	1954			Dec. 21	do	
Nov. 29	1.8	60	Mar. 4	2.2	60	1957		
Dec. 19	2.1	65	May 12	.94		Jan. 11	do	
1951			June 8	No flow		Feb. 7	do	
Jan. 29	2.0	61	July 7	a		Mar. 9	do	
Feb. 26	1.9	61	Aug. 10	a		Apr. 8	do	
Mar. 21	2.1		Sept. 14	a		May 3	do	
Apr. 24	1.4		Oct. 12	No flow		June 6	do	
June 19	1.5	60	Nov. 9	a		July 8	do	
July 25	1.7	61	Dec. 7	a		Aug. 7	do	
Aug. 22	1.5	66	1955			Sept. 6	do	
Sept. 24	5.4	65	Jan. 6	a		Oct. 8	a	
Oct. 22	5.9	68	Feb. 7	a		Nov. 6	No flow	
Nov. 8	4.7	62	Mar. 8	a		Dec. 9	do	
Dec. 7	4.2	56	Apr. 5	a		1958		
1952			May 3	a		Jan. 9	do	
Jan. 8	5.4	56	June 21	a		Feb. 17	do	
Mar. 13	a		July 11	a		Mar. 10	a	
Apr. 10	a		Aug. 17	a		Apr. 21	No flow	

Site 81--Spring - Mrs. Florence Brown (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
May 20	a							
June 6	a							
July 21	a							
Aug. 4	a							
Sept. 8	a							
Oct. 6	No flow							
Nov. 5	do							
Dec. 9	do							
1959								
Jan. 31	do							
Feb. 26	do							
Mar. 6	do							
Apr. 3	do							
May 4	do							
June 8	do							
July 10	do							
Aug. 10	do							
Sept. 11	do							
Oct. 5	do							
Nov. 6	do							
Dec. 11	do							
1960								
Jan. 8	do							
Feb. 22	do							
Mar. 5	do							

a No measurement obtainable.

Site 82---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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
Nov. 3	1.2		May 21	g 3.0		Jan. 6	14	53
1949			June 18	c 2.0	72	Feb. 7	16	54
Jan. 21	2.1		Aug. 5	c 2.3		Mar. 8	12	53
May 10	1.9		Sept. 4	d 4.0		Apr. 5	9.5	57
July 20	2.2	76	Oct. 20	d 4.0		May 3	17	56
Sept. 12	2.4		Nov. 24	d 8.0	60	June 21	8.7	66
Nov. 17	1.7	74	Dec. 16	4.3	62	July 11	7.2	60
Dec. 29	2.3	44	1953			Aug. 17	6.5	64
1950			Jan. 5	2.4	63	Sept. 12	7.2	
Jan. 16	1.7	62	Feb. 12	6.2	63	Oct. 13	4.8	
Feb. 16	1.7	63	Mar. 2	7.9	63	Nov. 9	3.6	62
Mar. 10	1.8	65	Apr. 10	6.2	64	Dec. 8	8.6	56
Apr. 21	1.5	62	May 12	5.4		1956		
June 8	1.5	63	June 9	4.9	61	Jan. 16	9.4	55
July 20	1.9	64	July 13	5.6	64	Feb. 13	8.1	61
Aug. 23	1.4	62	Sept. 14	d 4.0	63	Mar. 16	10	56
Nov. 2	1.5	67	Oct. 19	d 2.0	59	Apr. 24	8.7	57
Nov. 29	1.3	60	Nov. 12	d 2.0	61	May 16	9.3	57
Dec. 19	1.3	66	Dec. 7	a		June 11	19	68
1951			1954			July 9	17	68
Jan. 29	.9	60	Jan. 5	10	57	Aug. 13	15	70
Feb. 26	1.2	62	Feb. 12	12	52	Sept. 13	15	
Mar. 21	a		Mar. 4	14	54	Oct. 10	14	63
Apr. 24	1.7		Apr. 12	11	57	Nov. 19	12	60
June 19	3.6	59	May 12	7.4		Dec. 21	19	58
July 25	a		June 8	10	58	1957		
Aug. 22	1.4	86	July 7	7.6	62	Jan. 11	16	63
Sept. 24	2.5	71	Aug. 10	11	49	Feb. 7	14	63
Oct. 22	.93	94	Sept. 14	7.7	64	Mar. 9	348	
Nov. 8	a		Oct. 12	7.8	60	Apr. 8	9.4	64
Dec. 7	3.0	51	Nov. 9	9.2	59	May 3	12	63
1952			Dec. 7	8.1	55	June 6	7.4	66
Jan. 8	b 2.6	53				July 8	6.6	67
Mar. 13	.38					Aug. 7	8.7	
Apr. 10	a					Sept. 6	9.5	71

Site 82--Spring - Mrs. Florence Brown (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Oct. 8	8.0	59						
Nov. 6	7.8	61						
Dec. 9	11	56						
1958								
Jan. 9	8.4	56						
Feb. 17	31	59						
Mar. 10	50	56						
Apr. 21	162	66						
May 20	23	61						
June 6	22	63						
July 21	26	65						
Aug. 4	24	67						
Sept. 8	19							
Oct. 6	10							
Nov. 5	19	66						
Dec. 9	17	67						
1959								
Jan. 31	8.2	53						
Feb. 26	32	52						
Mar. 6	16	63						
Apr. 3	5.8	61						
May 4	18	57						
June 8	17							
July 10	9.7	66						
Aug. 10	10	69						
Sept. 11	9.8	68						
Oct. 5	13	65						
Nov. 6	a							
Dec. 11	4.7	55						
1960								
Jan. 8	3.4	52						
Feb. 22	11	53						
Mar. 5	16	58						

- a. No measurement obtainable.
- b. Some overflow at spring.
- c. Some leakage at spring box.
- d. Partly estimated.

Site 84--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. Spring sealed in December 1956.
Discharge measured at valve in 1 1/4-inch line to water tank.

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
Dec. 2	No flow		Jan. 8	No flow		Jan. 6	0.56	54
1949			Mar. 13	1.6	61	Feb. 7	.98	60
Jan. 28	do		Apr. 10	3.8	60	Mar. 8	1.1	52
Mar. 28	0.45		May 21	2.5	62	Apr. 5	1.1	62
May 25	.38		June 18	2.3	62	May 3	.92	64
July 20	.34		Aug. 5	.60	61	June 21	1.2	66
Sept. 14	.08		Sept. 4	.38	65	July 11	1.0	61
Nov. 30	No flow		Oct. 20	.82	64	Aug. 17	.65	68
Dec. 29	do		Nov. 24	.88	61	Sept. 12	b 1.0	67
1950			Dec. 16	1.3	63	Oct. 13	1.0	61
Jan. 16	.11	62	1953			Nov. 9	.81	61
Feb. 16	.33		Jan. 5	.93	63	Dec. 8	.81	61
Mar. 10	.34	63	Feb. 12	.63	62	1956		
Apr. 21	.67	57	Mar. 2	.97		Jan. 16	1.3	60
June 8	.47	54	Apr. 10	1.1	60	Feb. 13	1.6	61
July 20	.50	62	May 12	.79	61	Mar. 16	1.5	61
Aug. 24	.83	65	June 9	1.2	60	Apr. 24	1.8	61
Nov. 2	.37	66	July 13	1.2		May 16	1.9	61
Nov. 29	.37	61	Sept. 14	.47	63	June 11	7.7	62
Dec. 19	.29	65	Oct. 19	.39	59	July 9	1.7	62
1951			Nov. 12	.40	59	Aug. 13	1.5	62
Jan. 29	.55	58	Dec. 7	1.1	63	Sept. 13	1.4	62
Feb. 26	.62	55	1954			Oct. 10	1.4	62
Mar. 21	.63	63	Jan. 5	.53	62	Nov. 19	1.4	61
Apr. 24	No flow		Feb. 12	.54	56	Dec. 21	1.5	
June 19	do		Mar. 4	.80	58	1957		
July 25	.17	65	Apr. 12	.51	62	Jan. 11	17	61
Aug. 22	a		May 12	1.0	54	Feb. 7	1.2	61
Sept. 24	No flow		June 8	1.2	58	Mar. 9	1.4	61
Oct. 22	do		July 7	.91	65	Apr. 8	1.9	62
Nov. 8	do		Aug. 10	1.5	61	May 3	1.9	62
Dec. 7	do		Sept. 14	1.0	66	June 6	1.6	62
			Oct. 12	.88	63	July 8	1.3	63
			Nov. 9	.79	61	Aug. 7	1.7	
			Dec. 7	.72	59	Sept. 6	2.3	61

Site 84--Spring - William Feliz (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Oct. 7	1.7	63						
Nov. 6	1.9	60						
Dec. 9	1.7	61						
1958								
Jan. 9	2.8	62						
Feb. 17	2.7	62						
Mar. 10	2.9	60						
Apr. 21	2.7	65						
May 20	2.9	60						
June 6	2.7	62						
July 21	3.0	61						
Aug. 4	3.6	62						
Sept. 8	2.8	63						
Oct. 6	2.2	62						
Nov. 5	2.2							
Dec. 9	2.0	62						
1959								
Jan. 14	2.0	64						
Feb. 26	2.4							
Mar. 6	2.4	64						
Apr. 3	2.1	62						
May 4	2.6	61						
June 8	1.9							
July 10	1.7	63						
Aug. 10	3.4	65						
Sept. 11	1.7	66						
Oct. 5	2.4	66						
Nov. 6	2.6	65						
Dec. 11	2.6	62						
1960								
Jan. 8	2.6	62						
Feb. 1	2.6							
Mar. 5	2.8	59						

a A few drops per minute.

b Area recently burned.

Site 85--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 2 1/2-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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
Oct. 28	54		July 25	23	63	May 12	143	58
Nov. 19	49		Aug. 22	27	62	June 8	105	
Nov. 30	43		Sept. 24	26	61	July 7	65	64
Dec. 3	38		Oct. 22	17	59	Aug. 10	79	61
Dec. 7	49		Nov. 8	28	56	Sept. 14	67	63
Dec. 14	63		Dec. 7	70	48	Oct. 12	120	60
1949			1952			Nov. 9	60	55
Jan. 21	85		Jan. 8	112	48	Dec. 7	111	53
Mar. 15	314		Mar. 13	557	49	1955		
May 10	60		Apr. 10	410	55	Jan. 7	120	45
June 22	34		May 21	171	62	Feb. 7	176	49
July 20	24	65	June 18	150		Mar. 8	167	54
Aug. 17	32	65	Aug. 5	327		Apr. 5	97	54
Sept. 12	29	63	Sept. 4	250	66	May 3	150	54
Oct. 14	38	63	Oct. 20	187	63	June 21	75	61
Nov. 17	39	58	Nov. 24	231	51	July 11	56	62
Dec. 29	57	47	Dec. 16	262	55	Aug. 17	54	64
1950			1953			Sept. 12	45	65
Jan. 16	190	48	Jan. 5	385	51	Oct. 13	100	59
Feb. 16	180	53	Feb. 12	208	53	Nov. 9	83	57
Mar. 10	83	54	Mar. 2	206	48	Dec. 8	94	53
Apr. 21	67	59	Apr. 10	178	50	1956		
June 8	46	56	May 12	182	54	Jan. 16	136	52
July 20	47	61	June 9	160	55	Feb. 13	430	54
Aug. 23	50	60	July 13	105	65	Mar. 16	150	52
Nov. 2	38	61	Sept. 14	111	63	Apr. 24	136	57
Nov. 29	70	55	Oct. 19	115	55	May 16	148	54
Dec. 19	55	66	Nov. 12	136	57	June 11	135	65
1951			Dec. 7	111	52	July 9	120	66
Jan. 29	104	54	1954			Aug. 13	120	67
Feb. 26	59	51	Jan. 5	100		Sept. 13	99	63
Mar. 16	42	56	Feb. 12	150	52	Oct. 10	98	63
Apr. 23	55		Mar. 5	158	55	Nov. 19	102	
June 19	43	59	Apr. 12	214	58	Dec. 21	98	

Site 85--Canada del Refugio Creek (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957			1960					
Jan. 11	126	50	Jan. 8	150	53			
Feb. 7	220	48	Feb. 22	155	54			
Mar. 9	588	56	Mar. 5	102	58			
Apr. 8	108	60						
May 2	150	61						
June 6	135	64						
July 8	84	68						
Aug. 7	72							
Sept. 6	79	65						
Oct. 7	60	61						
Nov. 6	75	55						
Dec. 9	100	55						
1958								
Jan. 9	130	54						
Feb. 17	166	57						
Mar. 10	625	55						
Apr. 21	1,390	65						
May 20	716	61						
June 6	166	63						
July 21	214	65						
Aug. 4	187	67						
Sept. 8	a							
Oct. 6	94	56						
Nov. 5	137	63						
Dec. 9	143	56						
1959								
Jan. 31	178	53						
Feb. 26	525	54						
Mar. 6	230	61						
Apr. 3	140	61						
May 4	121	61						
June 8	98							
July 10	89	68						
Aug. 10	107	61						
Sept. 11	100	70						
Oct. 5	89	64						
Nov. 6	79	59						
Dec. 11	69	55						

a No measurement obtainable.

Site 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
Nov. 3	0.82		Nov. 8	1.0	56	Sept. 14	1.3	63
Dec. 2	.77		Dec. 7	1.8	49	Oct. 12	1.6	60
1949			1952			Nov. 9	1.2	56
Jan. 21	1.4		Jan. 8	2.0	50	Dec. 7	2.3	55
Mar. 28	1.6		Mar. 13	2.7	52	1955		
May 10	1.2		Apr. 10	4.4	56	Jan. 7	2.0	47
June 22	.80		May 21	2.7	64	Feb. 7	2.1	53
July 20	.69		June 18	2.5	61	Mar. 8	1.8	57
Aug. 17	.59		August 5	3.1	65	Apr. 5	1.4	56
Sept. 12	.51	68	Sept. 4	1.9	68	May 3	1.8	55
Oct. 14	.74	65	Oct. 20	1.8	63	June 21	1.5	63
Nov. 17	.86	62	Nov. 24	2.1	54	July 11	1.5	62
Dec. 29	1.3	51	Dec. 16	2.6	60	Aug. 17	1.2	65
1950			1953			Sept. 12	1.3	65
Jan. 16	1.7	51	Jan. 5	3.8	53	Oct. 13	1.5	60
Feb. 16	1.4	55	Feb. 12	2.9	52	Nov. 9	1.2	59
Mar. 10	1.4	56	Mar. 2	2.8	50	Dec. 8	7.3	56
Apr. 21	1.3		Apr. 10	1.8	54	1956		
June 8	1.0	58	May 12	2.3	55	Jan. 16	.31	54
July 20	1.1	62	June 9	1.4	56	Feb. 13	1.8	56
Aug. 23	.22	60	July 13	1.9	66	Mar. 16	.70	52
Nov. 2	.90	63	Sept. 14	1.5	64	Apr. 24	.53	56
Nov. 30	1.1	58	Oct. 19	1.7	55	May 16	.25	64
Dec. 19	1.0	60	Nov. 12	1.8	57	June 11	.06	66
1951			Dec. 7	1.6	56	July 9	.08	65
Jan. 29	1.5	57	1954			Aug. 13	.53	63
Feb. 26	1.2	55	Jan. 5	1.9	54	Sept. 13	.39	64
Mar. 16	1.2	60	Feb. 12	2.0	53	Oct. 10	.62	64
Apr. 23	1.1		Mar. 5	2.5	54	Nov. 19	.63	56
June 19	.97	60	Apr. 12	2.1	60	Dec. 21	.65	54
July 25	.57	65	May 12	2.0	56	1957		
Aug. 22	.56	63	June 8	1.5	62	Jan. 11	.75	54
Sept. 24	.11	66	July 7	1.2	66	Feb. 7	.69	50
Oct. 22	.66	61	Aug. 10	1.6	62	Mar. 9	2.2	56

Site 86--Spring - C. Dal Pozzo & Alegria Estate (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957			1960					
Apr. 8	0.65	59	Jan. 8	1.3	56			
May 2	.71	59	Feb. 22	1.6	59			
June 6	.78	64	Mar. 5	.75	59			
July 8	.63	65						
Aug. 7	.68							
Sept. 6	.66	64						
Oct. 8	.75	60						
Nov. 6	.88	57						
Dec. 9	1.1	57						
1958								
Jan. 9	.82	68						
Feb. 17	1.6	60						
Mar. 10	5.4	54						
Apr. 21	11	66						
May 20	3.8	62						
June 6	2.4	65						
July 21	1.4	64						
Aug. 4	1.2	68						
Sept. 8	1.2	69						
Oct. 6	.55	65						
Nov. 5	.93	65						
Dec. 9	1.2	59						
1959								
Jan. 31	1.1	55						
Feb. 26	3.3	55						
Mar. 6	1.5	60						
Apr. 3	1.1	61						
May 4	1.0	59						
June 8	.83							
July 10	.76	68						
Aug. 10	.75	70						
Sept. 11	.71	71						
Oct. 5	1.0	66						
Nov. 6	1.0	62						
Dec. 11	1.1	58						

Site 87--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1952			1955		
Jan. 28	1.1		May 21	.47	72	Jan. 7	1.1	55
Mar. 28	1.9		June 18	.41		Feb. 7	1.1	66
May 10	1.2		Aug. 5	1.5	70	Mar. 8	1.0	64
Aug. 17	2.6		Sept. 4	1.4		Apr. 5	1.1	67
Oct. 14	1.1	68	Oct. 20	1.0	72	May 3	1.2	64
Nov. 17	1.1	71	Nov. 24	.74	62	June 13	1.2	63
Dec. 29	1.6	64	Dec. 16	.84	64	July 11	.90	70
1950			1953			Aug. 17	.80	72
Jan. 16	1.5	64	Jan. 5	.69	60	Sept. 12	1.1	83
Feb. 16	1.4	61	Feb. 12	.44	58	Oct. 13	.86	62
Mar. 10	1.2	65	Mar. 2	1.6	59	Nov. 9	.62	65
Apr. 21	1.2	65	Apr. 10	1.8	63	Dec. 8	.94	74
June 8	1.1	65	May 12	2.1	62	1956		
July 20	1.0	65	June 9	1.1	63	Jan. 16	2.3	68
Aug. 23	.83	68	July 13	1.0	69	Feb. 13	1.0	
Nov. 2	5.6	67	Sept. 14	2.8	68	Mar. 16	1.4	64
Nov. 30	1.1	66	Oct. 19	1.4	61	Apr. 24	1.2	66
Dec. 19	5.4	69	Nov. 12	1.3	62	May 16	1.4	68
1951			Dec. 7	1.7	65	June 11	.81	71
Jan. 29	1.5	65	1954			July 9	.75	
Feb. 26	1.1	63	Jan. 5	1.5	66	Aug. 13	1.2	74
Mar. 16	.76	64	Feb. 12	1.5	57	Sept. 14	1.0	73
Apr. 23	.95		Mar. 5	1.4	60	Oct. 10	1.0	72
June 19	.88	64	Apr. 12	1.3		Nov. 19	.99	72
July 25	.95	68	May 13	1.3	60	Dec. 21	.83	68
Aug. 22	.88	67	June 7	1.3	72	1957		
Sept. 24	.75	69	July 7	1.3	76	Jan. 11	1.1	60
Oct. 22	.99	71	Aug. 10	1.1	69	Feb. 7	.79	61
Nov. 8	1.5	66	Sept. 14	1.1	70	Mar. 9	.98	59
Dec. 7	2.1	61	Oct. 12	1.2	67	Apr. 8	.79	71
1952			Nov. 9	1.1	66	May 2	.80	70
Jan. 8	.47	60	Dec. 7	1.2	63	June 6	1.0	72
Mar. 13	.67	58				July 8	.83	84
Apr. 10	.55	60				Aug. 7	.78	

Site 87--Spring - John Alegria (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Sept. 6	1.1	73						
Oct. 7	1.2	73						
Nov. 6	1.1	71						
Dec. 9	1.9	72						
1958								
Jan. 9	1.0	58						
Feb. 17	1.2	65						
Mar. 12	1.2							
Apr. 21	16	68						
May 20	1.6	66						
June 6	1.7	69						
July 21	1.5	69						
Aug. 4	1.2	72						
Sept. 8	.68	70						
Oct. 6	.64	67						
Nov. 6	1.4	75						
Dec. 9	1.1	71						
1959								
Jan. 31	.79							
Feb. 26	1.0	66						
Mar. 6	1.1	72						
Apr. 3	1.0	66						
May 4	1.1	69						
June 8	1.1							
July 10	.38							
Aug. 10	1.0	75						
Sept. 11	1.0	73						
Oct. 5	1.1	75						
Nov. 6	1.1	76						
Dec. 11	1.2	60						
1960								
Jan. 8	.99	62						
Feb. 22	1.2	67						
Mar. 5	.87	60						

Site 88--Spring - M. F. Erro

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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
Dec. 2	0.87		Jan. 8	b		Oct. 13	No flow	
1949			Mar. 13	b		Nov. 9	do	
Jan. 21	.90		Apr. 10	b		Dec. 9	.75	63
Mar. 28	.77		May 21	b		1956		
May 10	.71		June 18	b		Jan. 16	.77	62
June 22	.73		Aug. 5	b		Feb. 13	1.0	64
July 20	.69		Sept. 4	b		Mar. 16	1.0	63
Aug. 17	.08		Oct. 20	b		Apr. 24	2.0	65
Sept. 12	.13	70	Nov. 24	b		May 16	b	
Oct. 14	a		1953			June 11	b	
Nov. 17	.87	67	Jan. 5	b		July 9	b	
Dec. 21	.96	62	Apr. 10	b		Aug. 13	b	
1950			June 9	b		Sept. 13	b	
Jan. 16	.96	61	Sept. 14	b		Oct. 10	b	
Feb. 16	.87	61	Dec. 7	b		Nov. 19	b	
Mar. 10	.85	60	1954			Dec. 21	b	
Apr. 10	.78	68	Mar. 5	No flow		1957		
June 9	b		May 13	b		Jan. 11	b	
July 20	.71	65	June 7	No flow		Feb. 7	b	
Aug. 23	.60	64	July 7	do		Mar. 9	b	
Nov. 2	.09	62	Aug. 10	b		Apr. 8	b	
Nov. 30	.51	62	Sept. 14	No flow		May 2	b	
Dec. 18	.66	65	Oct. 12	do		June 6	b	
1951			Nov. 9	do		July 8	b	
Jan. 29	.65	62	Dec. 7	b		Aug. 7	b	
Feb. 26	.66	60	1955			Sept. 6	b	
Mar. 16	.64	64	Jan. 7	b		Oct. 8	b	
Apr. 18	.20		Feb. 7	b		Nov. 6	.25	69
June 19	No flow		Mar. 8	b		Dec. 9	.48	65
July 25	do		Apr. 5	b		1958		
Aug. 22	do		May 3	b		Jan. 9	.75	65
Sept. 24	b		June 13	b		Feb. 17	.66	66
Oct. 22	b		July 11	b		Mar. 12	.76	
Nov. 8	b		Aug. 17	b		Apr. 21	1.0	67
Dec. 7	b		Sept. 12	b c		May 20	1.4	67

Site 88--Spring - M. F. Erro (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
June 6	1.2	67						
July 21	.68							
Aug. 4	.60	68						
Sept. 8	.41	69						
Oct. 6	1.3							
Nov. 6	1.1	67						
Dec. 9	b							
1959								
Jan. 31	1.4	66						
Feb. 26	1.1	67						
Mar. 6	1.4	68						
Apr. 3	1.1	67						
May 4	1.3	67						
June 8	1.1							
July 10	.90	70						
Aug. 10	.71	70						
Sept. 11	.53	71						
Oct. 5	.24	70						
Nov. 6	1.5	69						
Dec. 11	1.1	62						
1960								
Jan. 8	.99	64						
Feb. 21	.89	67						
Mar. 5	.98	61						

a A few drops per minute.

b No measurement obtainable.

c Nearby area burned.

Site 89--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
Dec. 2	0.30		Jan. 8	a		Oct. 13	No flow	
1949			Mar. 13	b		Nov. 9	No flow	
Jan. 21	.08		Apr. 10	b		Dec. 9	0.70	60
Mar. 28	.02		May 21	b		1956		
May 10	.34		June 18	b		Jan. 16	.60	58
June 22	.22		Aug. 5	b		Feb. 13	.56	60
July 20	.25	76	Sept. 4	b		Mar. 16	3.0	63
Aug. 17	.16		Oct. 20	b		Apr. 24	3.1	65
Sept. 12	.09	70	Nov. 24	b		May 16	b	
Oct. 14	.09	65	1953			June 11	b	
Nov. 17	.21	64	Jan. 5	b		July 9	b	
Dec. 21	.29	55	Apr. 10	b		Aug. 13	b	
1950			June 9	b		Sept. 13	b	
Jan. 16	.29	51	Sept. 14	b		Oct. 10	b	
Feb. 16	.29		Dec. 7	b		Nov. 19	b	
Mar. 10	.31	55	1954			Dec. 21	b	
Apr. 10	.24	71	Mar. 5	b		1957		
June 9	.20	70	May 13	b		Jan. 11	b	
July 20	.25	63	June 7	b		Feb. 7	b	
Aug. 23	.33	63	July 7	b		Mar. 9	b	
Nov. 2	.05	62	Aug. 10	b		Apr. 8	b	
30	.27	61	Sept. 14	b		May 2	b	
Dec. 18	.28	63	Oct. 12	b		June 6	b	
1951			Nov. 9	b		July 8	b	
Jan. 29	.34	60	Dec. 7	b		Aug. 7	b	
Feb. 26	.30	56	1955			Sept. 6	b	
Mar. 16	.28	64	Jan. 7	b		Oct. 8	b	
Apr. 18	.25		Feb. 7	b		Nov. 6	b	
June 19	.24	63	Mar. 8	b		Dec. 9	b	
July 25	.14	67	Apr. 5	b		1958		
Aug. 22	.03	68	May 3	b		Jan. 9	b	
Sept. 24	.04	68	June 13	b		Feb. 17	b	
Oct. 22	a		July 11	b		Mar. 12	b	
Nov. 8	a		Aug. 17	b		Apr. 21	b	
Dec. 7	a		Sept. 12	bc		May 20	b	

Site 89---Spring - M. F. Erro (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
June 6	b							
July 21	b							
Aug. 4	b							
Sept. 8	b							
Oct. 6	No flow							
Nov. 6	do							
Dec. 9	b							
1959								
Jan. 31	b							
Feb. 26	No flow							
Mar. 6	do							
Apr. 3	do							
May 4	do							
June 8	do							
July 10	do							
Aug. 10	do							
Sept. 11	do							
Oct. 5	do							
Nov. 6	b							
Dec. 11	No flow							
1960								
Jan. 8	No flow							
Feb. 21	do							
Mar. 5	do							

- a. A few drops per minute
- b. No measurement obtainable
- c. Nearby area burned

Site 90--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1954		
Dec. 7	4.5		Jan. 8	2.4	62	Dec. 7	1.8	59
1949			Feb. 26	a		1955		
Jan. 21	4.3		Mar. 13	a		Jan. 7	2.3	55
Mar. 28	4.0		Apr. 10	a		Feb. 7	2.1	60
May 10	4.0		May 21	6.8		Mar. 8	2.1	61
June 22	4.0		June 18	7.8		Apr. 5	1.9	64
July 20	4.1		Aug. 5	10	65	May 3	2.1	60
Aug. 17	4.7		Sept. 4	5.6	68	June 13	2.0	63
Sept. 12	3.9	67	Oct. 20	13	66	July 11	2.2	64
Oct. 14	3.9		Nov. 24	6.0	62	Aug. 17	2.5	66
Nov. 17	3.5	63	Dec. 16	6.5	65	Sept. 12	2.1	66
Dec. 21	4.1	65	1953			Oct. 13	1.7	62
1950			Jan. 5	6.5	61	Nov. 9	1.9	63
Jan. 16	3.8		Feb. 12	9.7	63	Dec. 8	2.7	62
Feb. 16	4.0	64	Mar. 2	8.3	60	1956		
Mar. 10	4.2	66	Apr. 10	7.5	62	Jan. 16	4.0	61
Apr. 10	4.5	70	May 12	3.6	61	Feb. 13	16	63
June 9	3.9	69	June 9	6.0	64	Mar. 16	17	64
July 20	3.5	66	July 13	5.0	66	Apr. 24	15	65
Aug. 23	4.1	65	Sept. 14	4.4	64	May 16	13	67
Nov. 2	2.7	69	Oct. 19	3.7	61	June 11	11	66
Nov. 30	1.3	65	Nov. 12	4.2	62	July 9	10	66
Dec. 18	2.2	68	Dec. 7	3.6	61	Aug. 13	7.9	65
1951			1954			Sept. 13	10	66
Jan. 29	2.2	67	Jan. 5	3.4	60	Oct. 10	10	67
Feb. 26	1.8	63	Feb. 12	3.4	60	Nov. 19	7.5	63
Mar. 16	1.5	69	Mar. 5	8.9	60	Dec. 21	6.7	61
Apr. 18	2.6		Apr. 12	3.0	62	1957		
June 19	a		May 13	4.2		Jan. 11	6.7	63
July 25	a		June 7	3.0	63	Feb. 7	6.7	61
Aug. 22	a		July 7	3.3	67	Mar. 9	9.0	
Sept. 24	2.1	67	Aug. 10	2.8	66	Apr. 8	6.2	64
Oct. 22	2.1	69	Sept. 14	3.5	64	May 2	4.8	66
Nov. 8	2.1	65	Oct. 12	2.9	63	June 6	7.5	66
Dec. 7	2.3	63	Nov. 9	3.3	62	July 8	8.3	67

Site 90--Spring - M. F. Erro (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Aug. 7	5.9							
Sept. 6	6.7	66						
Oct. 7	8.7	66						
Nov. 6	6.0	66						
Dec. 9	5.7	65						
1958								
Jan. 9	5.5	61						
Feb. 17	5.1	65						
Mar. 12	6.0							
Apr. 21	28	67						
May 20	33	67						
June 6	30	68						
July 21	28	66						
Aug. 4	5.9	68						
Sept. 8	23	68						
Oct. 6	21	66						
Nov. 6	23	66						
Dec. 9	28	65						
1959								
Jan. 31	33	65						
Feb. 26	19	65						
Mar. 6	12							
Apr. 3	11	66						
May 4	6.1	67						
June 8	12							
July 10	11	69						
Aug. 10	18	74						
Sept. 11	19	70						
Oct. 5	18	67						
Nov. 6	6.0	56						
Dec. 11	37	64						
1960								
Jan. 8	11	64						
Feb. 21	11	65						
Mar. 5	31							

a No measurement obtainable.

Site 91--Spring - Tom Kinevan

Location.--Lat $34^{\circ}30'30''$, long $119^{\circ}50'00''$.

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

Description.--Open pool in alluvial veneer on sandstone.

Remarks.--No flow observed on all visits to site during period June 1948 to March 1960.

Site 92--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
June 15	No flow		Jan. 9	.26	46	Nov. 9	No flow	
1949			Feb. 26	b		Dec. 9	do	
Feb. 15	No flow		Apr. 9	b		1956		
Apr. 13	0.27		May 16	b		Jan. 19	0.28	50
May 24	.32		June 19	b		Feb. 14	.47	47
June 24	.14		Aug. 1	No flow		Mar. 15	.23	42
Aug. 12	.08	58	Sept. 8	No flow		Apr. 24	.43	46
Sept. 30	.05		Oct. 27	No flow		May 22	.54	41
Nov. 1	.08	60	1953			June 15	.25	47
Dec. 20	.39	45	Jan. 20	b		July 19	.07	56
1950			Apr. 6	No flow		Aug. 17	a	
Jan. 17	No flow		June 3	No flow		Sept. 11	No flow	
Feb. 14	do		Sept. 24	No flow		Oct. 10	No flow	
Mar. 9	do		Dec. 18	No flow		Nov. 23	No flow	
Apr. 18	a		1954			Dec. 20	No flow	
May 15	.16		Mar. 25	No flow		1957		
June 23	.12	56	Apr. 26	No flow		Jan. 7	No flow	
July 17	.11	63	May 19	No flow		Feb. 7	.29	40
Aug. 22	.04		June 18	No flow		Mar. 9	.60	42
Oct. 25	.04	57	July 27	No flow		Apr. 4	.43	42
Nov. 16	.09	54	Aug. 11	No flow		June 3	.24	62
Dec. 14	.18	54	Oct. 8	No flow		July 1	No flow	
1951			Nov. 19	do		Aug. 7	No flow	
Jan. 30	.40	46	Dec. 9	do		Sept. 5	No flow	
Feb. 21	.26	45	1955			Oct. 10	No flow	
Mar. 14	.34	54	Jan. 13	do		Nov. 7	No flow	
Apr. 19	.26		Feb. 23	do		Dec. 11	No flow	
June 12	.14	60	Mar. 8	do		1958		
July 30	.02	73	Apr. 19	do		Jan. 14	1.1	44
Aug. 27	No flow		May 10	do		Feb. 14	.47	42
Sept. 26	a		June 3	do		Mar. 11	.40	43
Oct. 25	.06	59	July 12	do		Apr. 21	.26	53
Nov. 5	.06	59	Sept. 16	do		May 20	5.8	58
Dec. 13	a		Oct. 14	do		June 13	4.5	53

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
July 8	No flow							
Aug. 12	do							
Sept. 15	do							
Oct. 10	do							
Nov. 7	do							
Dec. 10	do							
1959								
Jan. 12	4.5	55						
Feb. 4	2.0	44						
Mar. 5	14	49						
Apr. 1	5.8	55						
May 1	3.1	52						
June 3	No flow							
July 9	do							
Aug. 7	do							
Sept. 9	do							
Oct. 8	do							
Nov. 4	do							
Dec. 10	do							
1960								
Jan. 20	2.2	46						
Feb. 12	3.2	49						
Mar. 3	4.6	49						

- a. A few drops per minute
- b. No measurement obtainable

Site 93--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
June 15	3.8		Jan. 9	3.3	55	Jan. 13	6.8	55
1949			Feb. 26	1.6	54	Feb. 23	6.4	55
Feb. 15	4.0		Apr. 9	6.8	52	Mar. 8	8.6	58
Apr. 13	4.5		May 16	2.3	54	Apr. 19	6.0	56
May 24	4.2		June 19	2.2	60	May 10	8.3	56
June 24	3.9		Aug. 1	4.7	58	June 3	9.7	56
Aug. 12	3.8	59	Sept. 8	3.3		July 12	5.7	60
Sept. 30	3.4		Oct. 27	8.8	61	Sept. 16	3.3	58
Nov. 1	3.3	58	Nov. 26	5.0	57	Oct. 13	7.5	57
Dec. 20	5.5	55	Dec. 19	10	57	Nov. 9	5.7	57
1950			1953			Dec. 9	5.4	55
Jan. 17	14	65	Jan. 20	9.0		1956		
Feb. 14	13	55	Feb. 9	10	56	Jan. 19	7.5	55
Mar. 9	11	56	Mar. 16	14	56	Feb. 14	9.4	53
Apr. 18	8.1	57	Apr. 6	15		Mar. 15	5.9	49
May 15	3.6	58	June 3	6.8	56	Apr. 24	8.8	43
June 23	8.6	60	July 21	6.8	57	May 22	11	43
July 17	3.1	57	Sept. 24	6.0	58	June 15	6.7	51
Aug. 22	3.6	59	Oct. 21	6.5	56	July 19	7.5	54
Oct. 25	3.2	59	Nov. 18	7.9	56	Aug. 17	5.4	
Nov. 16	3.3	58	Dec. 18	7.9	56	Sept. 11	7.5	55
Dec. 14	2.9	57	1954			Oct. 10	7.2	56
1951			Jan. 7	5.4	58	Nov. 23	6.7	56
Jan. 30	2.0	56	Feb. 23	12	58	Dec. 20	9.4	54
Feb. 21	a		Mar. 25	11	47	1957		
Mar. 14	1.8	57	Apr. 26	5.6	54	Jan. 7	8.0	56
Apr. 19	3.1		May 19	4.9	56	Feb. 7	10	52
June 12	3.1	57	June 18	5.4	58	Mar. 9	10	48
July 30	3.3	59	July 27	5.0	59	Apr. 4	9.4	46
Aug. 27	10.0	60	Aug. 11	5.4	58	June 3	6.4	55
Sept. 26	3.1	59	Oct. 8	4.4	57	July 1	a	
Oct. 22	10	57	Nov. 19	3.3	57	Aug. 7	4.6	56
Nov. 5	3.2	59	Dec. 9	5.6	54	Sept. 5	10	55
Dec. 13	3.1	56				Oct. 10	9.0	57

Site 93--Spring - Mrs. Nell K. Ream (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Nov. 19	8.1	48						
Dec. 11	8.8	55						
1958								
Jan. 13	a	55						
Feb. 14	1.5	55						
Mar. 11	4.4	54						
Apr. 21	3.7	57						
May 20	4.4	58						
June 13	1.8	58						
July 8	8.3	57						
Aug. 12	16	59						
Sept. 15	12	57						
Oct. 10	19	59						
Nov. 7	a							
Dec. 10	30	57						
1959								
Jan. 12	21	57						
Feb. 4	10	56						
Mar. 5	19	57						
Apr. 1	21	60						
May 1	18	56						
June 3	4.6	54						
July 9	1.7	64						
Aug. 7	5.4	60						
Sept. 9	8.3	61						
Oct. 8	10	66						
Nov. 4	5.4	59						
Dec. 10	5.0	60						
1960								
Jan. 20	16	57						
Feb. 12	20	58						
Mar. 3	16	57						

a. No measurement obtainable

Site 93a--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1950			1952					
May 15	.22	54	Oct. 27	a				
June 23	.22		Nov. 26	b				
July 17	.15	61						
Aug. 22	.11	62						
Oct. 25	.12							
Nov. 16	.16	55						
Dec. 14	.18	55						
1951								
Jan. 30	.22	49						
Feb. 21	.20	49						
Mar. 14	.19	54						
Apr. 19	.24							
June 12	.17	58						
July 30	.11	72						
Aug. 23	.09	66						
Sept. 26	.08	59						
Oct. 25	.11	53						
Nov. 5	.12	59						
Dec. 13	.22	51						
1952								
Jan. 9	.36	49						
Feb. 26	.23	52						
Apr. 9	.44	52						
May 16	a							
June 19	a							
Aug. 1	a							
Sept. 8	a							

a No measurement obtainable.

b Last visit; observation at this site discontinued.

Site 94--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
June 15	2.1		Jan. 9	2.6	58	Jan. 13	3.3	58
1949			Feb. 26	2.0	60	Feb. 23	2.3	59
Feb. 15	2.3		Apr. 9	3.1	60	Mar. 8	2.3	60
Apr. 13	3.0		May 16	2.0	62	Apr. 19	1.6	58
May 24	3.3		June 19	2.2	64	May 10	3.4	60
June 24	1.5		Aug. 1	1.6	64	June 3	2.1	60
Aug. 12	1.7	62	Sept. 8	1.4	65	July 12	.93	66
Sept. 30	1.3		Oct. 27	1.2	64	Sept. 16	.94	66
Nov. 1	1.2	62	Nov. 26	1.7	61	Oct. 14	.75	60
Dec. 20	a		Dec. 19	2.0	60	Nov. 9	.60	60
1950			1953			Dec. 9	.35	
Jan. 17	a	60	Jan. 20	2.1		1956		
Feb. 14	2.1	59	Feb. 9	2.7	60	Jan. 19	1.7	56
Mar. 9	3.2	60	Mar. 16	2.3	60	Feb. 14	2.5	57
Apr. 18	2.6	62	Apr. 6	2.0	60	Mar. 15	1.8	51
May 15	2.4	60	June 3	1.1	62	Apr. 24	2.5	47
June 23	2.1	60	July 21	1.2	64	May 22	2.9	44
July 17	1.6	63	Sept. 24	.57	64	June 15	1.6	54
Aug. 22	1.2	65	Oct. 21	.69	59	July 19	2.1	58
Oct. 25	1.1	62	Nov. 18	.82	57	Aug. 17	1.5	
Nov. 16	1.6	61	Dec. 18	.83	58	Sept. 11	1.8	60
Dec. 14	1.4	60	1954			Oct. 10	1.0	60
1951			Jan. 7	.60	57	Nov. 23	a	
Jan. 30	1.6	59	Feb. 23	2.2	60	Dec. 20	.43	56
Feb. 21	1.7	59	Mar. 25	2.6	58	1957		
Mar. 14	2.2	63	Apr. 26	1.6	57	Jan. 7	.21	56
Apr. 19	1.7		May 19	1.1	60	Feb. 7	1.7	50
June 12	1.2	62	June 18	.17	61	Mar. 9	1.4	50
July 30	.88	67	July 27	.60	67	Apr. 4	1.0	51
Aug. 27	.72	67	Aug. 11	.60	65	June 3	2.4	65
Sept. 26	.71	62	Oct. 8	.66	63	July 1	2.0	62
Oct. 25	.80	60	Nov. 19	.88	60	Aug. 7	1.4	60
Nov. 5	.82	62	Dec. 9	1.6	57	Sept. 5	.81	62
Dec. 13	1.4	59				Oct. 10	.90	61

Site 94--Spring - Tom Kinevan (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Nov. 7	.54	59						
Dec. 11	.79	57						
1958								
Jan. 13	.72	55						
Feb. 14	3.0	58						
Mar. 11	1.1	56						
Apr. 21	1.1	60						
May 20	.53	66						
June 13	.76	62						
July 8	a							
Aug. 12	2.4	65						
Sept. 15	1.3	62						
Oct. 10	2.3	64						
Nov. 7	1.7	60						
Dec. 10	.51	60						
1959								
Jan. 12	1.2	59						
Feb. 4	.87	57						
Mar. 5	1.5	60						
Apr. 1	1.3	65						
May 1	.34	58						
June 3	1.8	58						
July 9	3.2	60						
Aug. 7	.76	67						
Sept. 9	1.2	66						
Oct. 8	7.5	61						
Nov. 4	.64	60						
Dec. 10	.63	60						
1960								
Jan. 20	1.0	58						
Feb. 12	1.9	59						
Mar. 3	1.3	59						

a No measurement obtainable.

Site 95--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
June 17	No flow		Feb. 26	.60	57	Nov. 10	a No flow	
1949			Apr. 9	50	54	Dec. 8	do	
Feb. 10	2.1		May 16	1.8	54	1956		
Apr. 13	1.1		June 19	No flow		Jan. 17	.54	39
May 24	4.7		Aug. 1	No flow		Feb. 27	7.5	42
June 24	No flow		Sept. 8	No flow		Mar. 13	1.2	46
Aug. 11	No flow		Oct. 29	No flow		Apr. 23	2.8	44
Sept. 30	No flow		1953			May 21	5.0	48
Nov. 28	No flow		Jan. 9	21	52	June 12	.37	60
Dec. 28	.91	53	Apr. 6	No flow		July 16	No flow	
1950			June 3	No flow		Aug. 17	No flow	
Jan. 26	2.7	50	Sept. 24	No flow		Sept. 24	No flow	
Feb. 17	8.2		Nov. 18	No flow		Oct. 8	No flow	
Mar. 9	2.3	59	Dec. 17	No flow		Nov. 21	No flow	
Apr. 18	1.1	68	1954			Dec. 19	No flow	
May 15	.14	57	Mar. 24	5.4	46	1957		
June 22	No flow		Apr. 22	.50	62	Jan. 11	No flow	
Aug. 1	No flow		May 19	.10	67	Feb. 6	2.2	41
Aug. 22	No flow		June 15	No flow		Mar. 9	10	43
Oct. 25	No flow		July 26	No flow		Apr. 2	.46	44
Dec. 1	1.09	51	Aug. 11	No flow		May 3	1.8	46
Dec. 20	No flow		Oct. 7	No flow		June 3	No flow	
1951			Nov. 19	No flow		July 1	No flow	
Jan. 30	4.7	43	Dec. 9	.68	46	Aug. 6	No flow	
Feb. 23	.30		1955			Sept. 7	No flow	
Mar. 22	1.3		Jan. 13	8.8	41	Oct. 7	No flow	
Apr. 19	No flow		Feb. 23	3.6	57	Nov. 5	No flow	
June 15	No flow		Mar. 8	3.4	50	Dec. 3	No flow	
July 30	No flow		Apr. 19	.31	49	1958		
Aug. 27	No flow		May 10	13	52	Jan. 9	.19	41
Sept. 26	No flow		June 2	.83	49	Feb. 14	4.2	49
Oct. 25	No flow		July 12	No flow		Mar. 12	20	41
Nov. 6	No flow		Sept. 16	No flow		Apr. 22	4.9	53
Dec. 13	.15	45	Oct. 13	No flow		May 20	.44	54

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
June 9	0.10	55						
July 18	No flow							
Aug. 11	No flow							
Sept. 18	No flow							
Oct. 6	No flow							
Nov. 24	No flow							
Dec. 19	No flow							
1959								
Jan. 12	No flow							
Feb. 24	13	43						
Mar. 10	.92	48						
Apr. 1	No flow							
May 1	No flow							
June 2	No flow							
July 6	No flow							
Aug. 7	No flow							
Sept. 9	No flow							
Oct. 8	No flow							
Nov. 5	No flow							
Dec. 11	No flow							
1960								
Jan. 13	1.1	37						
Feb. 1	No flow							
Mar. 1	15	50						

a. Area recently burned

Site 97--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
June 24	1.1		Feb. 25	4.3	60	Dec. 9	6.0	54
1949			Apr. 9	8.4	59	1956		
Feb. 15	.83		May 16	5.6	61	Jan. 19	6.0	52
Apr. 12	1.2		June 19	4.4	63	Feb. 14	5.0	52
May 11	.85		Aug. 1	4.1	63	Mar. 15	1.2	46
June 23	.59	59	Sept. 8	2.4	60	Apr. 23	2.0	44
Aug. 11	1.6	60	Oct. 27	3.0	62	May 21	3.5	45
Sept. 30	.73		1953			June 15	7.3	52
Nov. 1	.56	60	Jan. 12	6.6	60	July 16	6.0	56
Dec. 20	1.6	57	Apr. 6	3.3	60	Aug. 17	6.4	
1950			June 2	3.8		Sept. 11	6.0	57
Jan. 17	.67	57	Sept. 24	4.4	59	Oct. 8	6.4	57
Feb. 14	2.1		Dec. 18	9.4	57	Nov. 19	5.3	54
Mar. 9	1.2		1954			1957		
Apr. 18	1.2	62	Mar. 25	14	57	Feb. 8	5.5	50
May 15	1.0	58	Apr. 26	9.4	58	Dec. 11	1.7	59
June 23	5.0	61	May 19	6.8	59	1958		
Aug. 9	7.1	60	June 15	5.1	61	Feb. 14	18	
Oct. 24	12	60	July 27	4.4	62	Mar. 11	17	41
Nov. 16	7.6	60	Aug. 11	5.7	59	Apr. 21	15	55
Dec. 14	9.4		Oct. 8	5.8	57	May 20	19	57
1951			Nov. 19	5.6	56	June 13	4.3	
Jan. 30	9.7	59	Dec. 8	4.7	54	July 25	4.0	61
Feb. 21	8.2	59	1955			Sept. 15	3.0	60
Mar. 14	8.8	61	Jan. 13	5.4	52	Oct. 18	6.5	60
Apr. 19	6.5		Feb. 23	2.9	53	Nov. 7	1.7	53
June 13	6.7	61	Mar. 8	4.8	57	Dec. 10	1.8	58
July 30	2.7	65	Apr. 19	5.8	54	1959		
Aug. 27	1.7	65	May 10	6.0	56	Jan. 12	1.8	58
Sept. 26	a 3.12	59	June 3	8.3	57	Feb. 4	1.3	57
Oct. 25	3.23	58	July 12	2.3	61	Mar. 5	2.5	51
Dec. 13			Sept. 16	b 6.0	59	May 1	1.3	57
			Oct. 14	4.1	56	June 3	15	52
			Nov. 9	6.9	57	July 9	.51	61

Site 97^{GR-1} Spring - ^{GR-2} Mrs. Adelaide Ovington (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1959								
Aug. 7	.55	61						
Sept. 9	3.7	62						
Oct. 8	3.6	62						
Nov. 4	2.2	61						
Dec. 10	3.1	62						
1960								
Jan. 20	2.3	47						
Feb. 12	2.6	58						
Mar. 3	2.1	49						

- a. No measurement obtainable
- b. Grass burned in area

Site 98--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Oct. 29	No flow		Sept. 6	5.4	57	Apr. 13	22	48
Nov. 5	No flow		20	5.8	59	May 11	78	
Dec. 15	No flow		Oct. 12	4.6	56	June 8	24	50
1949			Nov. 6	2.7		July 13	13	50
Jan. 31	8.0		Dec. 14	9.9	48	Aug. 11	12	56
Apr. 18	15		1952			Sept. 21	a 9.9	48
May 27	21		Jan. 11	41	48	Oct. 26	21	42
June 22	14	57	Feb. 20	48	48	Nov. 15	20	46
July 18	1.5	69	Apr. 16	149	50	Dec. 12	17	46
Aug. 16	10	55	May 9	46	54	1956		
Sept. 27	16	61	May 21	36	55	Jan. 12	52	
Oct. 25	9.9	53	June 19	18		Feb. 10	90	46
Nov. 18	2.2	54	July 15	28	57	Mar. 8	54	46
Dec. 21	32	47	Sept. 4	64	59	Apr. 5	32	48
1950			Oct. 20	58	55	May 13	70	46
Jan. 16	44	45	1953			June 7	30	52
Feb. 23	28	50	Jan. 13	343	54	July 5	23	54
Mar. 23	11	50	Apr. 8	29	50	Aug. 9	18	56
Apr. 21	11	55	June 5	31	52	Sept. 6	23	56
May 18	10	51	Sept. 10	22	58	Oct. 4	24	56
June 28	2.7	56	Dec. 17	18	46	Nov. 15	31	47
July 27	4.5	60	1954			Dec. 5	31	50
Aug. 29	2.7	61	Mar. 10	24	48	1957		
Oct. 18	5.8	56	May 14	26	48	Jan. 10	17	
Nov. 29	8.1	53	June 9	17	50	Feb. 7	42	46
Dec. 14	7.2	54	July 22	14	56	Mar. 7	198	52
1951			Aug. 20	16	52	Apr. 4	34	52
Jan. 9	7.2	47	Sept. 5	13	54	May 3	65	52
Feb. 9	6.3		Oct. 13	11	54	June 5	34	56
Mar. 6	21	50	Nov. 10	11	50	July 5	31	58
Apr. 6	13	48	Dec. 8	22	48	Aug. 6	26	56
May 18	7.2	54	1955			Sept. 5	18	56
June 13	5.4	56	Jan. 5	26	44	Oct. 8	12	
July 20	3.1	62	Feb. 17	54	48	Nov. 7	15	52
			Mar. 17	50	44	Dec. 11	20	48

Site 98--Cold Spring Canyon Creek at Highway 150 (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Feb. 14	142							
Mar. 11	253	41						
Apr. 21	145	55						
May 20	7.6	57						
June 13	50	56						
July 25	60	61						
Sept. 15	16	58						
Oct. 10	25	59						
Nov. 7	38	56						
Dec. 10	33	53						
1959								
Jan. 12	23	53						
Feb. 4	50	49						
Mar. 5	80	52						
Apr. 1	60	59						
May 1	50	54						
June 3	30	52						
July 9	20	62						
Aug. 7	15	61						
Sept. 9	15	63						
Oct. 8	10	63						
Nov. 4	14	56						
Dec. 10	13	58						
1960								
Jan. 20	16	49						
Feb. 12	14	59						
Mar. 3	30	50						

a. Area recently burned.

Site 99--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.

Remarks.--No flow observed on all visits to site during period August 1948 to March 1960.

Site 100--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
Aug. 19	1		Feb. 26	6.5	56	Nov. 10	1.8	55
1949			Apr. 9	48	54	Dec. 8	2.1	52
Feb. 10	1		May 16	24	54	1956		
Apr. 13	.59		June 19	21		Jan. 17	7.3	46
May 24	.43		Aug. 1	22	60	Feb. 27	40	45
June 24	.57		Sept. 8	10	58	Mar. 13	26	45
Aug. 11	.32		Oct. 29	6.6	57	Apr. 23	43	44
Sept. 30	.20		1953			May 21	62	43
Nov. 28	.56	57	Jan. 9	25	55	June 12	25	50
Dec. 28	.41	56	Apr. 6	3.7	54	July 16	20	57
1950			June 3	2.3	56	Aug. 17	15	
Jan. 26	.86	56	Sept. 24	2.0	58	Sept. 24	11	58
Feb. 17	1.6		Nov. 18	2.1	52	Oct. 8	10	53
Mar. 9	1.3	57	Dec. 17	1.5	48	Nov. 21	6.0	60
Apr. 18	.91	66	1954			Dec. 19	4.8	52
May 15	1.4	57	Mar. 24	9.0	53	1957		
June 22	.74	58	Apr. 22	3.4	55	Jan. 11	5.5	51
Aug. 1	.33	60	May 19	3.3	56	Feb. 6	5.8	48
Aug. 22	.45	60	June 15	2.9	58	Mar. 9	31	46
Oct. 25	.56	59	July 26	2.8	61	Apr. 2	12	45
Dec. 1	.23	56	Aug. 11	3.1	58	May 3	40	42
Dec. 20	.29	56	Oct. 7	2.2	56	June 3	17	63
1951			Nov. 19	2.4	55	July 1	21	58
Jan. 30	.37	52	Dec. 9	2.4	52	Aug. 5	10	56
Feb. 23	1.3	52	1955			Sept. 7	8.6	56
Mar. 22	.51		Jan. 13	3.8	49	Oct. 7	7.3	54
Apr. 19	.28		Feb. 23	3.1	49	Nov. 5	7.2	52
June 15	.13	58	Mar. 8	4.1	52	Dec. 3	4.4	52
July 30	.24		Apr. 19	2.1	53	1958		
Aug. 27	.23	60	May 10	5.2	55	Jan. 9	6.7	50
Sept. 26	.23	57	June 2	4.3	54	Feb. 14	75	44
Oct. 25	.19	54	July 12	3.3	57	Mar. 12	136	43
Nov. 6	.11	57	Sept. 16	2.6	56	Apr. 22	88	50
Dec. 13	.91	54	Oct. 13	2.1	57	May 20	64	50

Site 100--Spring - P. C. Bryce, U. S. Forest Service (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
June 9	34	52						
July 18	20	55						
Aug. 11	15	56						
Sept. 18	14	58						
Oct. 6	9.4	59						
Nov. 24	23	56						
Dec. 19	4.5	50						
1959								
Jan. 12	4.5	58						
Feb. 24	44	44						
Mar. 10	16	49						
Apr. 1	8.1	54						
May 1	6.1	52						
June 2	5.9	47						
July 6	5.4	52						
Aug. 7	4.9	48						
Sept. 9	4.2	54						
Oct. 8	3.5	50						
Nov. 5	2.9	47						
Dec. 11	3.9	48						
1960								
Jan. 13	3.5	48						
Feb. 1	3.2	53						
Mar. 1	3.3	55						

a Area recently burned.

Sites 101 & 102--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
June 25	6.3		June 23	a		May 12	19	59
1949			Aug. 11	a		June 3	No flow	
Feb. 28	6.2		Sept. 17	17		July 12	do	
May 11	6.6		Oct. 29	15	69	Sept. 16	b do	
June 24	6.7		Nov. 26	20	54	Oct. 14	do	
Sept. 30	No flow		1953			Nov. 9	do	
Nov. 1	a		Feb. 9	20		Dec. 9	do	
Dec. 1	a		Mar. 17	18	58	1956		
Dec. 20	17	53	Apr. 14	17	60	Jan. 19	9.7	47
1950			May 21	17		Feb. 14	104	55
Jan. 17	18	53	May 27	9.1		Mar. 15	64	42
Feb. 14	44	55	June 27	1.9		Apr. 23	188	42
Mar. 17	18		July 15	No flow		May 20	426	48
Apr. 20	a		Sept. 24	do		June 15	150	54
May 31	8.9	57	Oct. 23	do		July 16	31	58
June 23	6.4		Nov. 18	.13	56	Aug. 20	2.8	52
Aug. 9	No flow		Dec. 18	.21	41	Sept. 11	c	
Oct. 24	do		1954			Oct. 8	No flow	
Dec. 1	13	58	Jan. 7	No flow		Nov. 23	do	
Dec. 21	14	51	Feb. 23	31	48	Dec. 19	do	
1951			Mar. 25	27	53	1957		
Feb. 21	13	55	Apr. 26	27	58	Jan. 7	c	
Mar. 22	a		May 20	4.7	54	Feb. 8	5.4	50
Apr. 25	13		June 18	No flow		Mar. 11	103	46
June 15	2.0	58	July 27	do		Apr. 2	83	44
July 30	No flow		Aug. 11	do		May 3	188	45
Aug. 27	do		Oct. 8	do		June 3	38	65
Sept. 26	do		Nov. 19	do		July 8	No flow	
Oct. 25	do		Dec. 9	c		Aug. 6	do	
Dec. 19	a		1955			Sept. 5	do	
1952			Jan. 12	14	50	Oct. 7	do	
Feb. 25	24		Feb. 23	16	48	Nov. 8	do	
Apr. 9	a		Mar. 8	16	58	Dec. 11	c	
May 19	24		Apr. 19	No flow				

Sites 101 & 102--Spring - Irving Wills (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Jan. 10	2.3	50						
Feb. 14	9.7	58						
Mar. 11	12	54						
Apr. 21	1,918	62						
May 22	14							
June 14	37	57						
July 25	144	69						
Aug. 25	50	79						
Sept. 15	26	67						
Oct. 10	5.6	70						
Nov. 7	2.2	70						
Dec. 10	2.0							
1959								
Jan. 12	41							
Feb. 4	9.1	58						
Mar. 5	265	59						
Apr. 1	81	65						
May 1	27	57						
June 3	a							
July 9	a							
Aug. 7	a							
Sept. 29	a							
Oct. 8	No flow							
Nov. 4	do							
Dec. 10	do							
1960								
Jan. 20	a							
Feb. 12	9.2	52						
Mar. 3	4.9	57						

a No measurement obtainable.

b Area recently burned.

c A few drops per minute.

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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1953			1956		
June 25	a		Feb. 9	2.7	60	Jan. 19	1.6	56
1949			Mar. 17	2.6	60	Feb. 14	2.5	56
Feb. 16	0.58		Apr. 14	2.9	59	Mar. 15	1.3	53
May 11	2.3		May 21	2.6		Apr. 23	2.1	46
June 24	2.1		July 15	1.5	60	May 21	3.0	49
Sept. 30	.83		Sept. 24	1.6	60	June 15	2.3	55
Nov. 1	.93	60	Oct. 23	.79	57	July 16	1.5	57
Dec. 20	1.0	55	Nov. 18	1.2	56	Aug. 20	1.2	57
1950			Dec. 18	.65	54	Sept. 11	.79	58
Jan. 17	2.1		1954			Oct. 8	.72	58
Feb. 14	2.2	59	Jan. 7	.79	57	Nov. 23	.53	55
Mar. 17	2.6		Feb. 23	1.0	58	Dec. 19	.54	49
May 31	1.1		Mar. 25	1.1	57	1957		
June 23	1.2		Apr. 26	1.4	54	Jan. 7	.37	55
Aug. 9	.87	62	May 20	.60	57	Feb. 8	1.2	48
Oct. 24	.88	61	June 18	.57	58	Mar. 11	.91	46
Dec. 1	1.1		July 27	.56	62	Apr. 2	2.1	52
Dec. 21	1.5	60	Aug. 11	.60	61	May 3	2.5	48
1951			Oct. 8	.57	62	June 3	1.7	61
Feb. 21	1.8		Nov. 19	.58	60	July 8	1.0	58
Apr. 25	1.0		Dec. 9	.60	59	Aug. 6	1.0	58
June 15	.78		1955			Sept. 5	.60	60
July 30	.83		Jan. 12	1.2	57	Oct. 8	.25	60
Aug. 27	.61	63	Feb. 23	1.7	56	Nov. 8	.38	56
Sept. 26	.55	61	Mar. 8	1.6	59	Dec. 11	a	
Oct. 25	.75	58	Apr. 19	.77	58	1958		
Dec. 13	.88		May 12	1.2	58	Jan. 10	1.2	57
1952			June 3	1.1	60	Feb. 14	3.3	58
Feb. 25	a		July 12	.60	59	Mar. 11	4.7	57
Apr. 9	2.0		Sept. 16	.50		Apr. 21	6.7	59
May 19	2.6		Oct. 14	.31	58	May 22	5.6	59
Aug. 11	2.9		Nov. 9	.19	56	June 14	5.1	58
Sept. 17	1.9		Dec. 9	.33	53	July 25	1.9	62
Oct. 29	1.9	60				Aug. 25	2.2	61
Nov. 26	1.7	59						

Site 103--Spring - S. A. Nash-Bouldan, U. S. Forest Service (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Sept. 15	1.1	62						
Oct. 10	1.2							
Nov. 7	1.3	60						
Dec. 10	1.2							
1959								
Jan. 12	.64	61						
Feb. 4	.46	57						
Mar. 5	3.4	59						
Apr. 1	2.3	61						
May 1	1.6	60						
June 3	.70	59						
July 9	.95	68						
Aug. 7	.93	69						
Sept. 29	.78	64						
Oct. 8	.96	64						
Nov. 4	.77	60						
Dec. 10	.87	60						
1960								
Jan. 20	.81	58						
Feb. 12	1.1	59						
Mar. 3	1.4	50						

a No measurement obtainable.

Site 104--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-Bouldan.

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Oct. 29	No flow		July 20	No flow		Jan. 5	No flow	
Nov. 5	do		Sept. 6	do		Feb. 17	16	50
Dec. 15	do		Sept. 20	do		Mar. 17	38	50
1949			Oct. 12	do		Apr. 13	No flow	
Jan. 31	58		Nov. 6	do		May 11	45	60
Mar. 16	359		Dec. 14	14		June 8	No flow	
Apr. 18	82		1952			July 13	do	
May 27	13		Jan. 11	135	58	Aug. 11	do	
June 22	No flow		Feb. 20	476	50	Sept. 21	a do	
July 18	do		Apr. 16	890	56	Oct. 26	do	
Aug. 16	do		May 9	538	58	Nov. 15	do	
Sept. 27	do		May 21	392	63	Dec. 12	do	
Oct. 25	do		June 19	190		1956		
Nov. 18	7.6	57	July 15	94	67	Jan. 12	89	52
Dec. 21	49		Sept. 4	62	68	Feb. 8	555	50
1950			Oct. 20	24	57	Mar. 8	180	56
Jan. 16	146	43	1953			Apr. 5	47	
Feb. 23	114	52	Jan. 13	624	54	May 3	486	62
Mar. 23	75	50	Apr. 8	58	50	June 7	330	68
Apr. 21	44	58	June 5	8.7	56	July 5	106	72
May 18	38	55	Sept. 10	No flow		Aug. 9	5.4	76
June 27	No flow		Dec. 17	do		Sept. 6	No flow	
July 27	do		1954			Oct. 4	do	
Aug. 29	do		Mar. 10	23	54	Nov. 15	do	
Oct. 18	do		May 14	16	54	Dec. 5	do	
Nov. 29	13	53	June 9	No flow		1957		
Dec. 14	27	55	July 22	do		Jan. 10	do	
1951			Aug. 20	do		Feb. 7	44	48
Jan. 9	24	45	Sept. 15	do		Mar. 7	925	60
Feb. 9	52		Oct. 13	do		Apr. 4	98	66
Mar. 6	102	52	Nov. 10	do		May 3	329	64
Apr. 6	32	52	Dec. 8	do		June 5	98	72
May 18	No flow					July 5	3.1	78
June 13	do					Aug. 6	No flow	

Site 104--Unnamed Creek tributary to Los Laureles Canyon Creek (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Sept. 5	No flow							
Oct. 8	do							
Nov. 8	do							
Dec. 11	do							
1958								
Jan. 10	16	50						
Feb. 14	1,340	54						
Mar. 11	250	50						
Apr. 28	2,340	65						
May 22	1,080	59						
June 14	579	62						
July 25	160	71						
Aug. 25	37							
Sept. 15	40	66						
Oct. 10	31	74						
Nov. 7	14	59						
Dec. 10	16							
1959								
Jan. 12	53	56						
Feb. 4	16	53						
Mar. 5	295	56						
Apr. 1	93	68						
May 1	50							
June 3	3.1							
July 9	No flow							
Aug. 7	do							
Sept. 29	do							
Oct. 8	do							
Nov. 4	do							
Dec. 10	do							
1960								
Jan. 20	18	57						
Feb. 12	23	49						
Mar. 3	3.1	54						

a Area recently burned.

Site 105--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1951			1954		
Mar. 2	0.50		June 13	a		Aug. 20	0.31	60
Apr. 20	1.1		July 20	No flow		Sept. 15	No flow	
May 27	.31		Sept. 6	do		Oct. 13	do	
June 22	.12		Sept. 20	.43	64	Nov. 10	.19	62
July 18	.10	88	Oct. 12	No flow		Dec. 8	.63	52
Aug. 16	.08		Nov. 6	do		1955		
Sept. 27	.35		Dec. 14	do		Jan. 5	.26	46
Oct. 25	.09		1952			Feb. 17	.79	52
Nov. 18	.34		Jan. 11	.60	46	Mar. 17	.47	54
Dec. 21	.38		Feb. 20	1.67	55	Apr. 13	.48	67
1950			Apr. 16	1.88	60	May 11	.22	66
Jan. 16	.16		May 9	1.50	63	June 8	.94	66
Feb. 23	.24	57	May 21	1.25	65	July 13	.94	70
Mar. 23	.44	51	June 19	.84		Aug. 11	.26	74
Apr. 21	.35	67	July 15	.25	73	Sept. 21	b .60	52
May 18	.02	55	Sept. 4	.12	77	Oct. 26	No flow	
June 28	No flow		Oct. 20	.83	56	Nov. 15	do	
July 25	do		1953			Dec. 12	a	
Aug. 29	do		Jan. 13	.71	56	1957		
Oct. 18	do		Apr. 8	1.0	50	Mar. 7	a	
Nov. 29	do		June 5	.35	58	Apr. 4	.19	69
Dec. 14	do		Sept. 10	.17	76	May 3	.79	64
1951			Dec. 17	.54	50			
Jan. 9	do		1954					
Feb. 9	do		May 14	.38	54			
Mar. 6	a		June 9	.40	62			
Apr. 6	No flow		July 22	No flow				
May 18	do							

a A few drops per minute.

b Area recently burned.

Note.--No flow observed on visits to site during periods January 1956 to February 1957 and June 1957 to March 1960.

Site 106--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1952			1955		
Mar. 2	1.4		Jan. 11	.34	40	Nov. 15	.43	
Apr. 20	a		Feb. 20	.23	51	Dec. 12	1.0	52
May 27	.13		Apr. 16	2.6	56	1956		
June 22	.27		May 9	1.4	60	Jan. 12	2.1	56
July 18	.41	87	May 21	1.2	65	Feb. 10	3.0	52
Aug. 16	.62		June 19	.88		Mar. 8	1.5	
Sept. 27	.60		July 15	.64	67	Apr. 5	1.0	
Oct. 25	.56		Sept. 4	2.5	66	May 3	1.7	65
Nov. 18	.62		Oct. 20	1.6	60	June 7	.83	60
Dec. 21	.48		1953			July 5	.68	76
1950			Jan. 13	1.9	55	Aug. 9	.41	80
Jan. 16	.48		Apr. 8	1.0	54	Sept. 6	.83	70
Feb. 23	.75	57	June 5	1.5	58	Oct. 4	.13	68
Mar. 23	.68	54	Sept. 10	1.4	65	Nov. 15	.88	60
Apr. 21	.16	68	Dec. 17	1.7	54	Dec. 5	.33	56
May 18	.17	58	1954			1957		
June 28	.50	66	Mar. 10	1.5	52	Jan. 10	.39	50
July 27	.28	72	May 14	1.7	54	Feb. 7	1.4	54
Aug. 29	.31	73	June 9	1.4	60	Mar. 7	1.2	66
Oct. 18	.11	72	July 22	.71	72	Apr. 4	.50	74
Nov. 29	.50	55	Aug. 20	1.0	60	May 3	.75	68
Dec. 14	.47	55	Sept. 15	.88	66	June 5	.71	72
1951			Oct. 13	.88	70	July 5	.43	80
Jan. 9	.45	46	Nov. 10	.47	60	Aug. 6	No flow	
Feb. 9	.33		Dec. 8	.75	52	Sept. 5	.40	78
Mar. 6	.29	50	1955			Oct. 8	.08	73
Apr. 6	.20	52	Jan. 5	.01	42	Nov. 8	.62	48
May 18	.41	60	Feb. 17	.65	54	Dec. 11	.63	49
June 13	.02	91	Mar. 17	.94	52	1958		
July 20	.24	75	Apr. 13	1.2	60	Jan. 10	.87	53
Sept. 6	.37	66	May 11	2.1	58	Feb. 14	6.0	58
Sept. 20	.29	70	June 8	1.4	62	Mar. 11	4.5	56
Oct. 12	.39	64	July 13	.83	64	Apr. 21	6.3	62
Nov. 6	.08	75	Aug. 11	.75	58	May 22	1.3	62
Dec. 14	.36	44	Oct. 26	b .72	46	June 14	.70	71

Site 106--Spring - A. Dowling (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
July 25	1.6	73						
Aug. 27	.81	79						
Sept. 15	.88	76						
Oct. 10	.63	76						
Nov. 7	.15	67						
Dec. 10	1.5	63						
1959								
Jan. 12	2.5	60						
Feb. 4	1.7							
Apr. 2	a							
May 1	a							
June 3	a							
July 9	a							
Aug. 7	a							
Sept. 29	a							
Oct. 8	a							
Nov. 4	a							
Dec. 10	a							
1960								
Jan. 20	a							
Feb. 12	a							
Mar. 3	a							

a No measurement obtainable.

b Area recently burned.

Site 106a--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1952			1955		
May 27	0.94		Jan. 11	.65	59	Sept. 21	b 1.2	52
June 22	.71		Feb. 20	3.0	59	Oct. 26	.35	48
July 18	.83	61	Apr. 16	4.2	56	Nov. 15	.38	54
Aug. 16	.62	60	May 9	2.1	62	Dec. 12	.47	54
Sept. 27	.47	60	May 21	1.4	59	1956		
Oct. 25	.54	60	June 19	2.0		Jan. 12	3.0	58
Nov. 18	.28	70	July 15	.94		Feb. 10	5.0	56
Dec. 21	.65	58	Sept. 4	1.1	68	Mar. 8	1.5	50
1950			Oct. 20	4.0	59	Apr. 5	1.1	58
Jan. 16	.88		1953			May 3	2.5	58
Feb. 23	.83	59	Jan. 13	2.1	57	June 7	1.2	58
Mar. 23	.88	60	Apr. 8	5.1	58	July 5	3.0	57
Apr. 21	.58	60	June 5	.94	62	Aug. 9	.79	58
May 18	.62	60	Sept. 10	.31	62	Sept. 6	.75	56
June 28	.43	65	Dec. 17	1.5	58	Oct. 4	.60	58
July 27	.56	63	1954			Nov. 15	.56	56
Aug. 29	.56	65	Mar. 10	.94	58	Dec. 5	.56	58
Oct. 18	a		May 14	1.2	54	1957		
Nov. 29	.08	57	June 9	.88	58	Jan. 10	.88	50
Dec. 14	.43	59	July 22	.44	68	Feb. 7	.94	60
1951			Aug. 20	.39	58	Mar. 7	1.2	60
Jan. 9	.50	56	Sept. 15	.33	58	Apr. 4	.63	58
Feb. 9	.60		Oct. 13	.30	60	May 3	1.4	68
Mar. 6	.75	59	Nov. 10	.29	58	June 5	1.2	58
Apr. 6	1.1	60	Dec. 8	.56	56	July 5	.63	70
May 18	.52	60	1955			Aug. 6	.60	
June 13	.60	68	Jan. 5	.46	56	Sept. 5	.60	
July 20	.48	63	Feb. 17	1.0	56	Oct. 8	No flow	
Sept. 6	.28	63	Mar. 17	1.9	56	Nov. 19	1.2	48
Sept. 20	.26	65	Apr. 13	.83	58	Dec. 11	c	
Oct. 12	.37	60	May 11	1.0		1958		
Nov. 6	.41	63	June 8	.68	56	Jan. 10	.79	58
Dec. 14	.47	55	July 13	.50	58	Feb. 14	2.2	58
			Aug. 11	.38	56	Mar. 11	2.2	58

Site 106a--Spring - A. Dowling (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Apr. 21	1.0	58						
May 22	3.1	58						
June 14	2.0	61						
July 25	.75	62						
Aug. 27	a							
Sept. 15	a							
Oct. 10	a							
Nov. 7	c							
Dec. 10	.35	59						
1959								
Jan. 12	1.3	59						
Feb. 4	2.0	56						
Mar. 5	3.8	61						
Apr. 2	2.5	67						
May 1	2.4	63						
June 3	1.3	75						
July 9	1.8	92						
Aug. 7	1.3	89						
Sept. 29	a							
Oct. 8	a							
Nov. 4	1.0	60						
Dec. 10	.68	60						
1960								
Jan. 20	c							
Feb. 12	No flow							
Mar. 3	c							

- a No measurement obtainable.
b Area recently burned.
c A few drops per minute.

Site 106b--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1952			1955		
May 27	2.1		Jan. 11	.28	51	Sept. 21	a .06	50
June 22	3.1	57	Feb. 20	.28	53	Oct. 26	.07	46
July 18	2.1	59	Apr. 16	.45	62	Nov. 15	.07	48
Aug. 16	2.3	60	May 9	.79	68	Dec. 12	.07	48
Sept. 27	.17	58	May 21	.83	56	1956		
Oct. 25	.21	55	June 19	.04		Jan. 12	.28	52
Nov. 18	.08	72	July 15	.54	58	Feb. 10	.38	52
Dec. 21	.01	47	Sept. 4	.50	66	Mar. 8	.17	50
1950			Oct. 20	.58	58	Apr. 5	.12	
Jan. 16	.29	37	1953			May 3	.29	54
Feb. 23	.13	55	Jan. 13	1.0	55	June 7	.18	56
Mar. 23	.13	50	Apr. 8	.43	52	July 5	.13	58
Apr. 21	.10	72	June 5	.25	54	Aug. 9	.09	58
May 18	.10	53	Sept. 10	.19	60	Sept. 6	.26	56
June 28	.27		Dec. 17	.33	50	Oct. 4	.09	58
July 27	.21	59	1954			Nov. 15	.06	50
Aug. 29	.13	65	Mar. 10	.23	52	Dec. 5	.07	54
Oct. 18	.19	57	May 14	.18	52	1957		
Nov. 29	.13	55	June 9	.28	52	Jan. 10	.07	54
Dec. 14	.08	56	July 22	.22	57	Feb. 7	.17	48
1951			Aug. 20	.20	54	Mar. 7	.68	56
Jan. 9	.21	47	Sept. 15	.21	58	Apr. 4	.17	68
Feb. 9	.08		Oct. 13	.19	56	May 3	.17	64
Mar. 6	.33	52	Nov. 10	.06	54	June 5	.10	76
Apr. 6	.08	52	Dec. 8	.09	50	July 5	.07	85
May 18	.21	54	1955			Aug. 6	.05	76
June 13	.19	59	Jan. 5	.09	46	Sept. 5	.04	72
July 20	.18	64	Feb. 17	.16	52	Oct. 8	b	
Sept. 6	.20	57	Mar. 17	.31	48	Nov. 8	.04	45
Sept. 20	.21	63	Apr. 13	.12	50	Dec. 11	.01	52
Oct. 12	.16	57	May 11	.30	50	1958		
Nov. 6	.16	58	June 8	.11	52	Jan. 10	.12	52
Dec. 14	.07	45	July 13	.07	52	Feb. 14	b	
			Aug. 11	.05	54	Mar. 11	b	

Site 106b--Spring - A. Dowling (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Apr. 21	.32	63						
May 22	4.0	62						
June 14	1.7	68						
July 25	.71	76						
Aug. 27	.08	77						
Sept. 15	.13	73						
Oct. 10	.11	72						
Nov. 7	.04	65						
Dec. 10	b							
1959								
Jan. 12	b							
Feb. 4	b							
Mar. 5	b							
Apr. 2	b							
May 1	b							
June 3	No flow							
July 9	do							
Aug. 7	b							
Sept. 29	.15	67						
Oct. 8	.14	60						
Nov. 4	.18	54						
Dec. 10	.12	49						
1960								
Jan. 20	.19	53						
Feb. 12	.24	60						
Mar. 3	.15	50						

a Area recently burned.

b A few drops per minute.

Site 110--Hot Springs Creek at mouth near Santa Barbara

Location.--Lat 34°32'40", long 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 1 1/2 miner's inch above, reported by manager of Murphy Ranch.

Previous measurements.--1935 to 1946.

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1953		
Oct. 29	180		June 14	152	59	June 5	69	52
Nov. 18	140		July 20	34	70	June 12	76	
Nov. 30	150		Aug. 30	70	64	June 19	81	
Dec. 15	200		Sept. 20	83	63	July 3	54	
1949			Oct. 12	54	55	July 10	49	
Jan. 31	210		Nov. 6	107	56	Aug. 31	46	
Mar. 18	320		Dec. 13	128	50	Sept. 8	25	
Apr. 18	198		1952			Sept. 10	18	60
May 27	45		Jan. 11	214	47	Sept. 28	18	
June 21	114	64	Feb. 20	276	52	Oct. 6	33	
July 18	No flow	71	Apr. 16	418	58	Oct. 12	94	
Aug. 16	36	66	May 9	203	59	Oct. 17	90	
Sept. 27	43	61	May 21	152	62	Oct. 26	76	
Oct. 25	70	56	June 19	104		Nov. 2	85	
Nov. 18	130	58	July 15	87	63	Nov. 17	99	54
Dec. 21	190	46	Sept. 4	232	67	Nov. 18	90	
1950			Oct. 20	113	56	Nov. 23	85	
Jan. 16	278	47	Oct. 22	63		Nov. 30	81	54
Feb. 23	230	57	Nov. 6	180		Dec. 7	85	48
Mar. 23	180	52	Dec. 12	512		Dec. 14	81	49
Apr. 21	180	58	1953			Dec. 16	77	50
May 18	101	55	Jan. 12	300		Dec. 21	90	48
June 27	60	63	Jan. 13	309	57	Dec. 28	90	46
July 27	128	62	Jan. 14	287		1954		
Aug. 29	31	60	Jan. 15	215		Jan. 5	76	47
Oct. 18	75	59	Jan. 27	130		Mar. 10	92	54
Nov. 29	170	52	Feb. 3	202		May 14	81	52
Dec. 14	201	57	Feb. 24	188	46	June 9	48	56
1951			Mar. 3	165	45	July 22	13	62
Jan. 9	171	45	Mar. 10	211	46	Aug. 20	No flow	
Feb. 9	206		Apr. 8	156	50	Sept. 15	do	
Mar. 16	166		Apr. 22	180	56	Oct. 13	do	
Apr. 6	113	56	Apr. 29	157	54	Nov. 10	do	
May 17	73	64	May 6	108	56	Dec. 8	41	50
			May 22	99				

Site 110--Hot Springs Creek at mouth near Santa Barbara (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1955			1957					
Jan. 5	35	46	Nov. 8	No flow				
Feb. 17	71	50	Dec. 11	do				
Mar. 17	58	48	1958					
Apr. 13	22	52	Jan. 10	1.8	53			
May 11	23	54	Feb. 14	44	53			
June 18	11	56	Mar. 11	57	47			
July 13	5.0	56	Apr. 21	165	66			
Aug. 11	No flow		May 22	57	62			
Sept. 21	a 5.1	56	June 14	20	68			
Oct. 26	9.9	50	July 25	No flow				
Nov. 15	17		Aug. 27	do				
Dec. 12	13	48	Sept. 15	do				
1956			Oct. 10	do				
Jan. 12	47	50	Nov. 7	do				
Feb. 9	49	50	Dec. 10	do				
Mar. 8	26	51	1959					
Apr. 5	16	56	Jan. 12	5.8	57			
May 3	26	60	Mar. 5	26	58			
June 7	17	65	Apr. 1	No flow				
July 5	7.5		May 1	do				
Aug. 9	11	68	June 3	do				
Sept. 6	6.7	65	July 9	do				
Oct. 4	4.5	64	Aug. 7	do				
Nov. 15	5.1	56	Sept. 29	do				
Dec. 5	6.3	56	Oct. 8	do				
1957			Nov. 4	do				
Jan. 10	6.3	50	Dec. 10	do				
Feb. 7	13	46	1960					
Mar. 7	47	60	Jan. 20	do				
Apr. 4	13	66	Feb. 12	do				
May 3	7.6	62	Mar. 3	do				
June 5	5.8	64						
July 5	1.5	64						
Aug. 6	No flow							
Sept. 5	do							
Oct. 11	do							

a Area recently burned.

Site 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.--Measurements made in creek bed above point of diversion.

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1950			1954			1957		
July 27	137	65	Mar. 10	89	54	Jan. 10	9.9	42
Aug. 29	103	75	May 14	66	52	Feb. 7	18	42
Oct. 18	148	63	June 9	53	54	Mar. 7	40	58
Nov. 29	177	58	July 22	42	58	Apr. 4	13	54
Dec. 14	177	64	Aug. 20	38	60	May 3	18	58
1951			Sept. 15	34	60	June 5	11	64
Jan. 9	176	52	Oct. 13	37	56	July 5	7.6	64
Feb. 9	183		Nov. 10	33	54	Aug. 6	5.8	60
Mar. 16	179	58	Dec. 8	30	46	Sept. 5	3.1	68
Apr. 6	176	60	1955			Oct. 8	2.5	59
May 17	150	67	Jan. 5	29	42	Nov. 19	7.6	46
June 14	147	63	Feb. 17	53	52	Dec. 11	5.8	48
July 20	111	75	Mar. 17	39	43	1958		
Aug. 30	113	69	Apr. 13	22	50	Jan. 10	4.5	48
Sept. 20	130	70	May 11	30	52	Feb. 14	28	52
Oct. 12	99	60	June 8	19	54	Mar. 11	37	50
Nov. 6	115	59	July 13	17	52	Apr. 21	150	64
Dec. 13	165	56	Aug. 11	15	56	May 22	50	63
1952			Sept. 21	a 21	54	June 14	23	66
Jan. 11	154	54	Oct. 26	20	46	July 25	26	72
Feb. 20	359	55	Nov. 15	18	46	Aug. 27	16	69
Apr. 16	428	60	Dec. 12	20	46	Sept. 15	11	66
May 9	295	61	1956			Oct. 10	18	63
May 21	244	62	Jan. 12	27	48	Nov. 7	34	57
June 19	176		Feb. 9	35	46	Dec. 10	14	51
July 15	176	64	Mar. 8	22	54	1959		
Sept. 4	300	68	Apr. 5	19	50	Jan. 12	18	56
Oct. 20	234	59	May 3	13	54	Mar. 5	23	55
1953			June 7	16	58	Apr. 2	16	57
Jan. 13	286	61	July 5	22	58	May 1	9.4	60
Apr. 8	186	52	Aug. 9	14	62	June 3	4.5	
June 5	128	54	Sept. 6	16	56	July 9	3.1	
Sept. 10	87	62	Oct. 4	19	62	Aug. 7	2.0	
Nov. 17	80	52	Nov. 15	13	46	Sept. 29	2.0	63
Dec. 16	76	52	Dec. 5	21	48	Oct. 8	2.0	58

Site 110a--Hot Springs Creek above diversion (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1959								
Nov. 4	3.1	52						
Dec. 10	1.1	47						
1960								
Jan. 20	5.8	47						
Feb. 12	11	46						
Mar. 3	4.5	47						

a Area recently burned.

Site 110b--Hot Springs Creek at Source

Location.--Lat 34°32'10", long 119°52'55", about 0.7 mile above junction with Santa Ynez River.

Altitude.--About 1,050 feet, from topographic map.

Description.--Water brought to surface by a cutoff wall. Flow released through 3-inch pipe from crib 100 feet upstream from cutoff wall and through 1 1/2-inch pipe from crib at cutoff wall. Some leakage from lower crib also measured. Trident water meters installed on both pipes during June 1954.

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1954								
July 20	29	112						
Aug. 20	19	106						
Sept. 15	15	105						
Oct. 13	6.0							
Nov. 10	4.0	106						
Dec. 8	.54	105						
1955								
Jan. 5	No flow							
Feb. 17	1.5	80						

Note.--No flow observed on visits to site during period March 1955 to March 1960.

Site 111--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Nov. 5	No flow		Sept. 20	No flow		Jan. 5	No flow	
Dec. 15	do		Oct. 12	do		Feb. 17	do	
1949			Nov. 6	do		Mar. 17	13	45
Mar. 18	130		Dec. 13	do		Apr. 13	No flow	
Apr. 18	27		1952			May 11	88	52
May 27	No flow		Jan. 11	12	44	June 8	No flow	
June 21	do		Feb. 20	127	48	July 13	do	
July 18	do		Apr. 16	213	54	Aug. 11	do	
Aug. 16	do		May 9	96	54	Sept. 21	a do	
Sept. 27	do		May 21	61	57	Oct. 26	do	
Oct. 25	do		June 19	9.4		Nov. 15	do	
Nov. 18	do		July 15	No flow		Dec. 12	do	
Dec. 21	do		Sept. 4	do		1956		
1950			Oct. 20	do		Jan. 12	116	47
Jan. 16	26	43	Dec. 20	377		Feb. 8	238	
Feb. 23	59	51	1953			Mar. 8	319	46
Mar. 23	21	50	Jan. 13	206	53	Apr. 5	98	52
Apr. 21	10	54	Jan. 15	332		May 3	555	52
May 18	No flow		Apr. 8	No flow		June 7	327	58
June 27	do		June 5	do		July 5	85	58
July 27	do		Sept. 10	do		Aug. 9	9.0	60
Aug. 29	do		Nov. 17	do		Sept. 6	No flow	
Oct. 18	do		Dec. 16	do		Oct. 4	do	
Nov. 29	do		1954			Nov. 15	do	
Dec. 14	do		Mar. 10	25	54	Dec. 5	do	
1951			May 14	No flow		1957		
Jan. 9	do		June 9	do		Jan. 10	do	
Feb. 9	do		July 22	do		Feb. 5	34	
Mar. 16	do		Aug. 20	do		Mar. 6	812	62
Apr. 6	do		Sept. 15	do		Apr. 2	87	57
May 17	do		Oct. 13	do		May 2	170	60
June 14	do		Nov. 10	do		June 4	13	68
July 20	do		Dec. 8	do		July 2	No flow	
Aug. 30	do					Aug. 5	do	

Site 111--Unnamed Creek Tributary to Santa Ynez River (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Sept. 3	No flow							
Oct. 8	do							
Nov. 4	do							
Dec. 2	do							
1958								
Jan. 9	do							
Feb. 12	1680							
Mar. 10	1723							
Apr. 28	3110	50						
May 19	1220							
June 9	538	68						
June 30	133	68						
Aug. 11	7.6	68						
Sept. 4	1.1							
Oct. 6	No flow							
Nov. 5	do							
Dec. 17	do							
1959								
Jan. 8	369							
Feb. 2	2.0	50						
Mar. 4	835							
Apr. 1	No flow							
May 1	do							
June 3	do							
July 8	do							
Aug. 7	do							
Sept. 10	do							
Oct. 5	do							
Nov. 4	do							
Dec. 8	do							
1960								
Jan. 13	do							
Feb. 1	do							
Mar. 3	do							

a Area recently burned.

Site 120--Spring - T. M. Storke

Location.--Lat $34^{\circ}32'50''$, long $119^{\circ}56'10''$

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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
July 20	a		Sept. 7	No flow		Nov. 12	No flow	
Dec. 16	a		Sept. 25	No flow		Dec. 9	No flow	
1949			Oct. 26	No flow		1955		
Feb. 3	1.1		Nov. 8	No flow		Jan. 6	.65	42
Mar. 22	29		Dec. 7	.21	43	Feb. 18	3.6	48
Apr. 21	6.4		1952			Mar. 18	9.0	45
May 31	2.8		Feb. 21	41.	48	Apr. 14	3.1	48
June 23	.72	61	May 8	43.	53	May 12	5.0	50
July 21	No flow		June 18	11.		June 10	3.8	48
Aug. 18	do		July 16	13	56	July 14	1.4	50
Sept. 29	do		Sept. 5	20	59	Aug. 12	No flow	
Oct. 27	do		Oct. 24	14	56	Sept. 22	b do	
Nov. 21	do		1953			Oct. 27	do	
Dec. 22	1.8	47	Jan. 14	55	50	Nov. 22	.05	42
1950			Feb. 25	12	50	Dec. 13	No flow	
Jan. 19	26		Mar. 11	10	49	1956		
Feb. 24	17	55	Apr. 9	10	50	Jan. 13	22	48
Mar. 21	5.8	50	May 20	5.2	50	Feb. 9	72	44
Apr. 20	6.3	55	June 15	3.4	52	Mar. 9	34	46
May 17	2.0	54	Sept. 11	No flow		Apr. 6	22	50
June 29	No flow		Oct. 20	do		May 4	55	54
July 28	do		Nov. 19	do		June 8	39	56
Aug. 31	do		Dec. 18	do		July 6	23	58
Oct. 19	do		1954			Aug. 10	4.3	60
Nov. 30	do		Jan. 15	do		Sept. 7	6.3	56
Dec. 13	do		Feb. 10	9.4		Oct. 5	4.8	60
1951			Mar. 11	15	48	Nov. 16	5.2	54
Jan. 10	do		Apr. 13	18	48	Dec. 6	6.0	56
Feb. 20	do		May 13	7.2	50	1957		
Mar. 16	2.6		June 10	1.7	50	Jan. 11	9.0	53
Apr. 18	12	53	July 23	.54	58	Feb. 8	22	46
May 17	1.7	54	Aug. 31	No flow		Mar. 8	74	52
June 14	No flow		Sept. 17	do		Apr. 5	19	52
July 25	do		Oct. 14	do		May 7	28	52

Site 120--Spring - T. M. Storke (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
June 6	8.2	54						
July 8	3.4	56						
Aug. 7	1.2	56						
Sept. 6	.18	56						
Oct. 10	.17	60						
Nov. 8	1.2	52						
Dec. 9	4.5	52						
1958								
Jan. 13	7.5	46						
Mar. 12	213							
Apr. 23	295	54						
May 21	102	60						
June 17	61	62						
July 2	47	60						
Aug. 15	16	62						
Sept. 8	18	63						
Oct. 8	14	60						
Nov. 7	7.6							
Dec. 19	7.2	53						
1959								
Jan. 14	20	52						
Feb. 5	16	52						
Mar. 6	53							
Apr. 3	26	54						
May 7	34	57						
June 8	5.8	57						
July 10	1.5	60						
Aug. 12	.14	65						
Sept. 14	No flow							
Oct. 9	do							
Nov. 6	do							
Dec. 11	.50	50						
1960								
Jan. 18	18	48						
Feb. 8	26	52						
Mar. 7	16	52						

a No measurement obtainable.

b Area recently burned.

Site 121--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
July 20	0.65		Sept. 7	0.23	71	Aug. 31	0.38	74
Dec. 16	.46		Sept. 25	.18	62	Sept. 17	.38	62
1949			Oct. 26	.19	62	Oct. 14	.36	68
Feb. 3	.58		Nov. 8	.13	63	Nov. 12	.38	56
Mar. 22	.98		Dec. 7	.28	57	Dec. 9	.43	57
Apr. 21	.94		1952			1955		
May 31	.83		Feb. 21	.46	60	Jan. 6	.44	52
June 23	.68	89	May 8	.50	68	Feb. 18	.62	54
July 21	.53	82	June 18	.50		Mar. 18	.79	60
Aug. 18	.34	80	July 16	.46	68	Apr. 14	.75	60
Sept. 29	.26	73	Sept. 5	.68	65	May 12	1.0	62
Oct. 27	.28	63	Oct. 24	.38	65	June 10	.88	62
Nov. 21	.33	62	Nov. 21	1.1	59	July 14	.56	64
Dec. 22	.38		Dec. 16	1.6		Aug. 12	.37	60
1950			1953			Sept. 22	a .36	60
Jan. 19	.56	60	Jan. 14	2.0	57	Oct. 27	.43	52
Feb. 24	1.0	65	Feb. 25	1.6	65	Nov. 22	.43	56
Mar. 21	.97	69	Mar. 11	1.5	57	Dec. 13	.38	60
Apr. 20	.44	71	Apr. 9	1.9	67	1956		
May 17	.43	57	May 20	1.2	70	Jan. 13	.60	57
June 29	.38	82	June 15	1.1	68	Feb. 9	.62	58
July 28	.34	67	July 28	.71	76	Mar. 9	.54	60
Aug. 31	.28	70	Sept. 11	.42	80	Apr. 6	.54	66
Oct. 19	.20	78	Oct. 20	.40	66	May 4	1.9	62
Nov. 30	.36	60	Nov. 19	.44	60	June 8	1.9	67
Dec. 13	.36	62	Dec. 18	.43	54	July 6	1.5	66
1951			1954			Aug. 10	1.5	67
Jan. 10	.35	47	Jan. 15	.47	56	Sept. 7	.88	72
Feb. 20	.35	61	Feb. 10	.75	54	Oct. 5	1.0	60
Mar. 16	.38	71	Mar. 11	1.2	56	Nov. 16	.83	60
Apr. 18	.36	68	Apr. 13	1.5	68	Dec. 6	.72	56
May 17	.35	69	May 13	1.4	60	1957		
June 14	.28	78	June 10	.94	66	Jan. 11	.79	52
July 25	.08		July 23	.58	72	Feb. 8	1.2	54

Site 121--Spring - T. M. Storke (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Mar. 8	1.5	62						
Apr. 5	1.4	68						
May 7	1.7	68						
June 6	1.4	68						
July 8	1.1	72						
Aug. 7	1.1	68						
Sept. 6	.88	74						
Oct. 10	.50	68						
Nov. 8	.71	63						
Dec. 9	.75	64						
1958								
Jan. 13	1.0	56						
Mar. 12	1.9							
Apr. 23	3.8	58						
May 21	3.0	64						
June 17	2.5	57						
July 2	2.2	68						
Aug. 15	1.9							
Sept. 8	1.5	72						
Oct. 8	1.2	72						
Nov. 7	1.0	68						
Dec. 19	1.4	63						
1959								
Jan. 14	1.5	65						
Feb. 5	1.4	65						
Mar. 6	1.0	67						
Apr. 3	1.4	67						
May 7	1.0	73						
June 8	.56	71						
July 10	.50	78						
Aug. 12	.46	78						
Sept. 19	.58	73						
Oct. 9	.60	70						
Nov. 6	.43	68						
Dec. 11	.46	62						
1960								
Jan. 18	.50	56						
Feb. 8	.50	58						
Mar. 7	.50	62						

a Area recently burned.

Site 122--Bear Canyon Creek above Storke Diversion

Location.--Lat 34°32'30", long 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
July 3	1		Sept. 7	.61	54	May. 12	9.5	50
Dec. 16	1.2		Sept. 25	.64	57	June 10	3.8	50
1949			Oct. 26	.85	52	July 14	1.9	50
Feb. 3	4.3	45	Nov. 8	.83	53	Aug. 12	1.4	52
Mar. 22	14		Dec. 7	1.6	46	Sept. 22	a 1.7	50
Apr. 21	4.0		1952			Oct. 27	1.8	40
May 31	2.8		Feb. 21	40	52	Nov. 22	1.9	44
June 23	1.7	58	May 8	78	54	Dec. 13	2.3	46
July 21	1.4	56	June 18	20		1956		
Aug. 18	1.2	55	July 16	15	57	Jan. 13	26	48
Sept. 29	.88	56	Sept. 5	20	58	Feb. 9	60	49
Oct. 27	.94	50	Oct. 24	11	55	Mar. 9	45	
Nov. 21	1.1	52	1953			Apr. 6	36	52
Dec. 22	4.5		Jan. 14	30		May 4	60	54
1950			Apr. 9	9.0		June 8	72	
Jan. 19	12	52	June 15	4.6	52	July 6	36	56
Feb. 24	7.8	50	Sept. 11	1.4	58	Aug. 10	20	58
Mar. 21	4.4	51	Nov. 19	2.3	44	Sept. 7	16	56
Apr. 20	3.9	55	Dec. 18	3.5	46	Oct. 5	14	54
May 17	2.9	52	1954			Nov. 16	12	48
June 29	1.2	58	Mar. 11	7.5	46	Dec. 6	11	50
July 28	1.4	56	May 13	7.8	52	1957		
Aug. 31	.95	60	June 10	4.9	50	Jan. 11	11	50
Oct. 19	.75	55	July 23	2.0	56	Feb. 8	18	50
Nov. 30	.94	52	Aug. 31	1.4	56	Mar. 8	45	52
Dec. 13	1.1	52	Sept. 17	2.1	50	Apr. 5	18	52
1951			Oct. 14	1.2	53	May 7	22	54
Jan. 10	1.9	48	Nov. 12	1.7	52	June 6	18	54
Feb. 20	1.9	45	Dec. 9	5.1	48	July 8	11	56
Mar. 6	3.6	51	1955			Aug. 7	9.0	56
Apr. 18	1.9		Jan. 6	4.7	42	Sept. 6	6.7	56
May 17	1.7	53	Feb. 18	6.0	48	Oct. 10	6.0	56
June 14	1.0	57	Mar. 18	7.2	44	Nov. 8	7.8	50
July 25	.85	55	Apr. 14	3.7	47	Dec. 9	9.0	50

Site 122--Bear Canyon Creek above Storke Diversion (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Jan. 13	10							
Mar. 12	272							
Apr. 23	471	52						
May 21	178	56						
June 17	90	60						
July 2	51	58						
Aug. 15	30	62						
Sept. 8	28	58						
Oct. 8	23	58						
Nov. 7	16	58						
Dec. 19	13	53						
1959								
Jan. 14	18	53						
Feb. 5	14	52						
Mar. 6	72	54						
Apr. 3	30	56						
May 7	20	56						
June 8	15	57						
July 9	8.2	61						
Aug. 12	6.0	61						
Sept. 14	6.4	57						
Oct. 9	6.0	57						
Nov. 6	6.2	50						
Dec. 11	6.2	48						
1960								
Jan. 18	16	48						
Feb. 8	20	53						
Mar. 7	12	52						

a Area recently burned.

Site 123--Spring - Davis 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
Dec. 16	0.42		Sept. 25	0.10	55	Sept. 17	0.65	66
1949			Oct. 26	.11	45	Oct. 14	.60	76
Feb. 3	.50	53	Nov. 8	.11	51	Nov. 12	.75	54
Mar. 22	.70		Dec. 7	.21	39	Dec. 9	.88	54
Apr. 21	.56		1952			1955		
May 31	.47		Feb. 21	3.4	55	Jan. 6	1.0	34
June 23	.35	86	May 18	5.8	57	Feb. 18	1.1	48
July 21	.31	82	June 18	.65		Mar. 18	.88	56
Aug. 18	.30	78	July 16	.65	60	Apr. 14	.86	52
Sept. 29	.24	84	Sept. 5	.53	58	May 12	.94	64
Oct. 27	.23	63	Oct. 24	.75	56	June 10	.79	58
Nov. 21	.31	58	Nov. 21	.75	55	July 14	.65	74
Dec. 22	.38	42	Dec. 16	1.1		Aug. 12	.56	58
1950			1953			Sept. 22	a .44	46
Jan. 19	.54	53	Jan. 14	1.0	53	Oct. 27	.46	42
Feb. 24	.54	53	Feb. 25	.75	57	Nov. 22	.46	45
Mar. 21	.47	60	Mar. 11	1.0	52	Dec. 13	.44	46
Apr. 20	.41	76	Apr. 9	1.0	57	1956		
May 17	.37	52	May 20	1.2	62	Jan. 13	.50	50
June 29	.19	104	June 15	1.1	58	Feb. 9	.75	
July 28	.18	65	July 28	.83	70	Mar. 9	3.0	52
Aug. 31	.15	69	Sept. 11	.79		Apr. 6	1.9	54
Oct. 19	.14	76	Oct. 20	.94	58	May 4	3.8	54
Nov. 30	.22	57	Nov. 19	.75	48	June 8	3.8	56
Dec. 13	.22	57	Dec. 18	.75	60	July 6	3.8	56
1951			1954			Aug. 10	3.3	56
Jan. 10	.20	46	Jan. 15	.71	44	Sept. 7	3.1	56
Feb. 20	.20	42	Feb. 10	.88	54	Oct. 5	2.2	56
Mar. 16	.21	64	Mar. 11	1.0	50	Nov. 16	1.9	54
Apr. 18	.19	64	Apr. 13	1.5	56	Dec. 6	1.7	52
May 17	.17	70	May 13	1.4	56	1957		
June 14	.07	81	June 10	1.2	70	Jan. 11	1.4	52
July 25	.11	60	July 23	1.1	76	Feb. 8	1.2	50
Sept. 7	.10	65	Aug. 31	.83	78	Mar. 8	2.5	54

Site 123--Spring - Davis Gray, Jr. (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Apr. 5	1.5	54						
May 7	2.2	54						
June 6	1.9	54						
July 8	1.2	54						
Aug. 7	1.1	54						
Sept. 6	.94	56						
Oct. 10	.88	56						
Nov. 8	.88	53						
Dec. 9	.83	51						
1958								
Jan. 13	2.5	47						
Mar. 12	8.2							
Apr. 23	16	52						
May 21	12	54						
June 17	4.0	57						
July 2	6.4	57						
Aug. 15	9.0	58						
Sept. 8	7.8	58						
Oct. 8	2.8	57						
Nov. 7	3.0	56						
Dec. 19	2.5	53						
1959								
Jan. 14	4.5	54						
Feb. 5	1.8	52						
Mar. 6	5.0	54						
Apr. 3	3.3	55						
May 7	2.8	56						
June 8	2.2	56						
July 10	1.7	58						
Aug. 12	1.5	59						
Sept. 14	1.5	57						
Oct. 9	1.4	58						
Nov. 6	1.4	55						
Dec. 11	1.4	52						
1960								
Jan. 18	1.5	50						
Feb. 8	1.5	55						
Mar. 7	1.5	52						

a Area recently burned.

Sites 124 & 125--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
July 20	0.18		Sept. 7	.08		Jan. 6	2.1	48
Dec. 16	.22		Sept. 25	.07		Feb. 18	.94	48
1949			Oct. 26	No flow		Mar. 18	.65	52
Feb. 3	.13		Nov. 8	.50		Apr. 14	.45	50
Mar. 22	.12		Dec. 7	.35	42	May 12	.17	52
Apr. 21	.20		1952			June 10	2.1	58
May 31	.11		Feb. 21	9.8	52	July 14	1.9	58
June 23	.07		May 8	1.0	62	Aug. 12	1.7	56
July 21	.02		June 18	2.5		Sept. 22	a 1.7	52
Aug. 18	.04	80	July 16	3.0	64	Oct. 27	1.5	48
Sept. 29	.09	77	Sept. 5	3.0	62	Nov. 22	1.9	50
Oct. 27	.14	62	Oct. 24	1.7	56	Dec. 13	2.1	56
Nov. 21	.20	56	1953			1956		
Dec. 22	.20	40	Jan. 14	1.9		Jan. 13	.75	54
1950			Apr. 9	2.1	56	Feb. 9	2.5	50
Jan. 19	.26	54	June 15	2.4	62	Mar. 9	2.5	52
Feb. 24	.36	54	July 28	1.9		Apr. 6	1.9	54
Mar. 21	.40	59	Sept. 11	1.9	72	May 4	3.8	56
Apr. 20	.39	68	Nov. 19	1.7	52	June 8	3.8	58
May 17	.23	55	Dec. 18	1.5	52	July 6	2.7	60
June 29	.08	75	1954			Aug. 10	3.0	60
July 28	.09	69	Feb. 10	1.4	50	Sept. 7	1.9	60
Aug. 31	.07	70	Mar. 11	1.0	52	Oct. 5	2.0	58
Oct. 19	.05	75	Apr. 13	3.0	64	Nov. 16	1.9	58
Nov. 30	.13	49	May 13	2.2	56	Dec. 6	1.7	56
Dec. 13	.05	60	June 10	1.9	58	1957		
1951			July 23	2.1	64	Jan. 11	2.1	56
Jan. 10	.03	46	Aug. 31	2.0	66	Feb. 8	1.5	52
Feb. 20	.02	49	Sept. 17	1.9	58	Mar. 8	1.5	58
Mar. 16	.05	60	Oct. 14	1.9	66	Apr. 5	3.1	58
Apr. 18	.05	68	Nov. 12	1.9	56	May 7	2.5	56
May 17	.01		Dec. 9	1.9	56	June 6	4.5	58
June 14	No flow					July 8	4.0	60
July 25	.12					Aug. 7	3.8	60

Sites 124 & 125--Spring - T. M. Storke (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Sept. 6	3.8	60						
Oct. 10	3.8	62						
Nov. 8	2.9	58						
Dec. 9	2.8	59						
1958								
Jan. 13	1.9	52						
Mar. 12	6.4							
Apr. 23	5.5	54						
May 21	3.3	60						
June 17	3.0	63						
July 2	3.1	61						
Aug. 15	6.0	67						
Sept. 8	6.0							
Oct. 8	5.6	64						
Nov. 7	5.1	62						
Dec. 19	4.0	58						
1959								
Jan. 14	4.2	58						
Feb. 5	3.5	52						
Mar. 6	5.2	56						
Apr. 3	3.9	61						
May 7	2.9	62						
June 8	2.6	62						
July 10	4.7	68						
Aug. 12	4.3	68						
Sept. 14	2.2	64						
Oct. 9	3.1	63						
Nov. 6	2.2	57						
Dec. 11	2.6	57						
1960								
Jan. 18	2.4	45						
Feb. 8	2.1	52						
Mar. 7	1.6	58						

a Area recently burned.

Site 126--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Dec. 16	No flow		Oct. 26	No flow		May 12	2.5	52
1949			Nov. 8	do		June 10	1.0	52
Feb. 3	do		Dec. 7	do		July 14	No flow	
Mar. 22	0.58		1952			Aug. 12	do	
Apr. 21	3.4		Feb. 21	45	52	Sept. 22	a do	
May 31	.34		May 8	98	63	Oct. 27	do	
June 23	.33	55	June 18	36		Nov. 22	do	
July 21	.28	71	July 16	19	55	Dec. 13	do	
Aug. 18	.27	69	Sept. 5	12	57	1956		
Sept. 29	.26	67	Oct. 24	4.0	55	Jan. 13	27	52
Oct. 27	.15	56	1953			Feb. 9	96	52
Nov. 21	.16	56	Jan. 14	60	54	Mar. 9	48	48
Dec. 22	.15	53	Apr. 9	3.0	53	Apr. 6	38	54
1950			June 15	2.0	54	May 4	51	54
Jan. 19	.20	53	July 28	.60	66	June 8	128	55
Feb. 24	.33	54	Sept. 11	No flow		July 6	64	56
Mar. 21	.33	54	Dec. 18	do		Aug. 10	28	56
Apr. 20	.44	58	1954			Sept. 7	13	56
May 17	.07	49	Jan. 15	do		Oct. 5	19	56
June 29	No flow		Feb. 10	do		Nov. 16	7.8	52
July 28	do		Mar. 11	1.2	54	Dec. 6	6.4	52
Aug. 31	do		Apr. 13	7.5	56	1957		
Oct. 19	do		May 13	8.6	54	Jan. 11	4.9	50
Nov. 30	do		June 10	1.2	54	Feb. 8	12	52
Dec. 13	do		July 23	1.0	62	Mar. 8	18	54
1951			Aug. 31	No flow		Apr. 5	21	54
Jan. 10	do		Sept. 17	do		May 7	28	54
Feb. 20	do		Oct. 14	do		June 6	21	54
Mar. 16	do		Nov. 12	do		July 8	10	65
Apr. 18	do		Dec. 9	do		Aug. 7	6.2	56
May 17	do		1955			Sept. 6	3.4	60
June 14	do		Jan. 6	do		Oct. 10	1.9	62
July 25	do		Feb. 18	1.0	42	Nov. 8	1.8	50
Sept. 7	do		Mar. 18	1.8	42	Dec. 9	.38	54
Sept. 25	do		Apr. 14	1.4	48			

Site 126--Unnamed Tributary to Santa Ynez River above Gray Diversion

(continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Jan. 13	11	50						
Mar. 12	1503							
Apr. 23	1,508	54						
May 21	606	58						
June 17	152	62						
July 2	145	58						
Aug. 15	35	60						
Sept. 8	19	60						
Oct. 8	10	62						
Nov. 7	7.5	59						
Dec. 19	8.2	54						
1959								
Jan. 14	3.6	54						
Feb. 5	5.5	58						
Mar. 6	85	54						
Apr. 13	36	56						
May 7	10	65						
June 8	18	62						
July 9	18	65						
Aug. 12	18	74						
Sept. 14	1.5	64						
Oct. 9	.88	85						
Nov. 6	.72	65						
Dec. 11	.33	48						
1960								
Jan. 18	17	48						
Feb. 8	2.2	56						
Mar. 7	5.7	54						

a. Area recently burned.

Site 127--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Dec. 16	0.11		Oct. 26	No flow		Apr. 14	0.25	
1949			Nov. 8	do		May 12	.26	50
Feb. 3	No flow		Dec. 7	do		June 10	.26	50
Mar. 22	.36		1952			July 14	.23	50
Apr. 21	.38		Feb. 21	.94	56	Aug. 12	.17	50
May 31	.60		May 8	.46	55	Sept. 22	a .14	50
June 23	No flow		June 18	.38		Oct. 27	.13	47
July 21	.26	51	July 16	.34	56	Nov. 22	.13	52
Aug. 18	.27	56	Sept. 5	.33	57	Dec. 13	.12	50
Sept. 29	.18	58	Oct. 24	.33	57	1956		
Oct. 27	No flow		1953			Jan. 13	.50	54
Nov. 21	do		Jan. 14	.42		Feb. 9	.60	56
Dec. 22	do		Apr. 9	.30	55	Mar. 9	.39	54
1950			June 15	.28	54	Apr. 6	.38	57
Jan. 19	do		July 28	.25	56	May 4	.50	54
Feb. 24	.70	47	Sept. 11	.21	58	June 8	.48	55
Mar. 21	1.6	54	Dec. 18	.18	54	July 6	.50	56
Apr. 20	.33	57	1954			Aug. 10	.41	56
May 17	.25	55	Jan. 15	.18	54	Sept. 7	.39	56
June 29	.23	65	Feb. 10	.23	52	Oct. 5	.27	56
July 28	.17	57	Mar. 11	.29	54	Nov. 16	.75	56
Aug. 31	.13	60	Apr. 13	.42	54	Dec. 6	.40	56
Oct. 19	.08	58	May 13	.32	52	1957		
Nov. 30	.19	55	June 10	.27	54	Jan. 11	.47	56
Dec. 13	.21	55	July 23	.23	56	Feb. 8	.40	54
1951			Aug. 31	.21	56	Mar. 8	.49	56
Jan. 10	.14	52	Sept. 17	.20	54	Apr. 5	.44	55
Feb. 20	.18	51	Oct. 14	.17	56	May 7	.45	54
Mar. 16	.22	53	Nov. 12	.15		June 6	.42	54
Apr. 18	.19	54	Dec. 9	.16	54	July 8	.38	54
May 17	.22	59	1955			Aug. 7	.34	55
June 14	.17	58	Jan. 6	.19	52	Sept. 6	.31	54
July 25	No flow		Feb. 18	.27	52	Oct. 10	.30	57
Sept. 7	do		Mar. 18	.25	52	Nov. 8	.30	56
Sept. 25	do					Dec. 9	.29	54

Site 127--Spring - David Gray, Jr. (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Jan. 13	0.42	50						
Mar. 12	.65							
Apr. 23	.68	52						
May 21	.62	52						
June 17	.63	56						
July 2	.68	57						
Aug. 15	.65	57						
Sept. 8	.65	58						
Oct. 8	.54	58						
Nov. 7	.43	58						
Dec. 19	.35	57						
1959								
Jan. 14	.60	56						
Feb. 5	.33	56						
Mar. 6	.75	56						
Apr. 3	.54	56						
May 7	.50	57						
June 8	.38	56						
July 10	.34	57						
Aug. 12	.29	58						
Sept. 14	.50	58						
Oct. 9	.38	58						
Nov. 6	.31	58						
Dec. 11	.30	57						
1960								
Jan. 18	.36	56						
Feb. 8	.41	56						
Mar. 7	.33	58						

a Area recently burned.

Site 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 topographic map.

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

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1950			1951			1952		
Apr. 4	4.9	59	Feb. 1	108	67	Jan. 7	149	73
Apr. 12	4.1	59	Feb. 9	92		Feb. 1	334	
Apr. 18	.84	68	Feb. 12	63		May 9	407	75
May 4	16	59	Feb. 15	80		May 25	322	
May 11	14		Feb. 23	109		June 5	344	76
May 12	15	62	Mar. 2	57		June 18	372	
May 15	17		Mar. 15	30	70	July 2	350	
May 16	25		Mar. 29	63		July 18	360	76
May 18	24		Apr. 3	171	70	Sept. 5	321	76
May 26	32	65	Apr. 11	150	70	Oct. 23	348	75
May 31	72	66	Apr. 19	108	70	Dec. 12	108	70
June 1	86		Apr. 26	100	70	1953		
June 10	61		May 18	86	72	Jan. 14	202	65
June 16	56	67	May 25	70	74	Feb. 25	346	63
June 19	50	67	June 1	64	74	Mar. 10	311	64
July 10	56	69	June 7	70	72	Apr. 9	245	62
July 25	35		June 14	100	74	May 19	184	72
Aug. 3	30		June 22	90	74	June 15	159	68
Aug. 24	28		June 29	84		July 28	126	74
Aug. 31	26	70	July 16	68	75	Sept. 11	159	
Sept. 12	28	68	July 25	65		Oct. 21	118	68
Sept. 28	52	73	Aug. 16	75	74	Oct. 26	256	
Oct. 13	51	72	Aug. 30	80	74	Nov. 2	233	
Oct. 19	43		Sept. 7	92	74	Nov. 9	240	
Oct. 27	36		Sept. 13	84		Nov. 19	288	74
Nov. 2	43		Sept. 24	93		Nov. 23	308	
Nov. 9	48		Oct. 12	95		Nov. 30	229	76
Nov. 27	41	70	Oct. 18	69	75	Dec. 7	247	
Dec. 7	40	71	Oct. 26	65	74	Dec. 14	220	76
Dec. 13	40	71	Nov. 1	69	74	Dec. 18	263	76
Dec. 21	68		Nov. 8	40		Dec. 21	224	75
1951			Nov. 19	111		Dec. 28	238	74
Jan. 5	86	70	Nov. 29	121		1954		
Jan. 18	86		Dec. 7	118	74	Jan. 5	269	75
Jan. 25	75	70	Dec. 13	109		Jan. 15	330	75

Site 128a--Seepage from North Portal of Tecolote Tunnel

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1954			1958					
Feb. 9	277		May 19	No flow				
Mar. 11	No flow		June 18	5,570				
Apr. 13	252	72	July 17	5,400				
May 13	265	70	Aug. 29	7,760				
June 14	246	71	Oct. 27	4,960				
July 23	230	73	1959					
Aug. 17	231	72	Apr. 8	5,610				
Sept. 13	176	72	May 20	8,450				
Oct. 11	166	72	Sept. 2	10,240				
Nov. 8	186	70	Dec. 4	5,480				
Dec. 6	196	70						
1955								
Jan. 3	151	70						
Jan. 14	No flow							
Mar. 14	192	70						
Apr. 4	449							
Apr. 11	1,400	72						
May 9	1,280	70						
June 6	1,400	70						
July 11	1,700	70						
Aug. 8	1,530	80						
Sept. 20	3,250	90						
Oct. 24	4,070	90						
Nov. 9	4,090	97						
Dec. 8	4,560							
1956								
Jan. 13	3,930	98						
Feb. 7	No flow							
1957								
May 6	a							
July 1	a							
July 9	5,430							
Aug. 7	a							
Sept. 9	7,100							
Oct. 25	4,757							
Nov. 12	4,480							

a No measurement obtainable.

Site 128--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.

Diversions.--Several diversions above.

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Oct. 21	11		Apr. 4	7.8	55	Jan. 3	13	48
Nov. 5	10		May 15	6.9	59	Feb. 14	11	56
Nov. 18	8.5		June 11	4.9	62	Mar. 14	12	62
Nov. 30	14		July 23	5.4	65	Apr. 11	9.9	62
Dec. 15	13		Aug. 22	6.0		May 9	11	58
1949			Sept. 17	4.3	64	June 6	12	62
Jan. 31	15		Oct. 10	6.0	63	July 11	10	56
Feb. 3	14		Nov. 5	6.4	58	Aug. 8	9.4	60
Mar. 18	12		Dec. 5	8.6	52	Sept. 20	11	52
Apr. 19	7.6		1952			Oct. 24	9.0	50
May 26	4.9		Jan. 9	9.0	45	Nov. 9	13	52
June 20	5.7	61	Feb. 18	14	52	Dec. 8	12	50
July 19	3.3	66	Apr. 14	111	56	1956		
Aug. 15	4.4	62	May 19	55	68	Jan. 13	11	48
Sept. 26	5.7	59	June 16	19	80	Feb. 7	14	54
Oct. 24	5.0	53	July 3	24	81	Mar. 6	12	54
Nov. 18	5.7	55	Sept. 2	20	86	Apr. 3	11	64
Dec. 19	12	52	Oct. 21	15	74	May 1	8.5	72
1950			1953			June 4	4.3	70
Jan. 16	13	43	Jan. 9	14	65	July 2	3.8	68
Feb. 20	12	54	Apr. 6	12	70	Aug. 6	6.0	68
Mar. 21	15	55	June 1	11	62	Sept. 4	7.5	66
Apr. 21	11	59	Sept. 8	13	72	Oct. 1	5.1	64
May 18	13	56	Dec. 14	14	56	Nov. 13	8.2	56
June 26	11	56	1954			Dec. 3	9.0	56
July 21	4.5	65	Mar. 8	11	62	1957		
Aug. 31	2.9	65	May 10	12	74	Jan. 7	15	54
Oct. 16	6.2	57	June 7	14	64	Feb. 4	13	56
Nov. 13	8.6		July 19	11	72	Mar. 5	14	64
Dec. 11	5.1	55	Aug. 17	9.9	66	Apr. 1	12	62
1951			Sept. 13	9.7	62	May 1	13	62
Jan. 8	5.7	49	Oct. 11	9.9	62	June 3	12	66
Feb. 5	6.0	52	Nov. 8	11	56	July 1	12	64
Mar. 5	7.2	52	Dec. 6	13	52	Aug. 2	6.9	62

Site 128--Unnamed Tributary of N. Santa Ynez River -
R. G. Welch Ranch (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Sept. 3	10	62						
Oct. 8	11	60						
Nov. 4	11	58						
Dec. 2	12	54						
1958								
Jan. 9	14							
Feb. 12	88							
Mar. 10	583							
Apr. 28	1,610							
May 19	620	66						
June 18	358							
June 30	107	67						
Aug. 11	7.6	70						
Sept. 4	9.4	64						
Oct. 6	14	60						
Nov. 5	5.8	56						
Dec. 17	14	47						
1959								
Jan. 8	20	51						
Feb. 2	9.4	45						
Mar. 4	84	54						
Apr. 1	18	60						
May 1	28	58						
June 3	20	62						
July 8	1.1	68						
Aug. 7	No flow							
Sept. 10	do							
Oct. 5	do							
Nov. 14	do							
Dec. 8	do							
1960								
Jan. 13	do							
Feb. 1	do							
Mar. 3	do							

Site 129--Tequepis 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
June 24	15		June 12	8.1	58	Nov. 10	9.9	52
Oct. 29	18		July 23	2.2	62	Dec. 8	23	50
Nov. 18	18		Aug. 20	2.7	59	1955		
Dec. 15	17		Sept. 19	2.4	61	Jan. 5	13	48
1949			Oct. 11	3.6	60	Feb. 17	41	48
Jan. 31	25		Nov. 6	6.7	53	Mar. 17	28	45
Mar. 18	63		Dec. 7	58	52	Apr. 13	23	48
Apr. 20	37		1952			May 11	53	46
May 27	24		Feb. 20	518	51	June 8	17	48
June 22	18	55	Apr. 16	696	50	July 13	13	46
July 20	5.4	60	May 21	404	55	Aug. 11	5.4	50
Aug. 19	15	56	June 19	273		Sept. 21 a	9.7	48
Sept. 28	8.1	55	July 15	220	58	Oct. 26	11	44
Oct. 26	11	53	Sept. 4	181	59	Nov. 15	14	50
Nov. 22	18	54	Oct. 23	98	57	Dec. 12	14	48
Dec. 20	44	51	1953			1956		
1950			Jan. 13	182	53	Jan. 12	124	48
Jan. 18	68	50	Apr. 8	51	50	Feb. 10	323	46
Feb. 21	57	51	June 5	36	52	Mar. 8	402	46
Mar. 22	28	53	Sept. 10	14	56	Apr. 5	345	48
Apr. 18	20	55	Oct. 20	13	50	May 3	574	52
May 15	24	60	Nov. 18	12	49	June 7	480	52
June 28	11	60	Dec. 17	13	49	July 5	290	54
July 27	13	55	1954			Aug. 9	267	56
Aug. 28	7.2	60	Jan. 14	19	46	Sept. 6	184	56
Oct. 18	9.9	55	Feb. 9	21	47	Oct. 4	140	58
Nov. 15	21	55	Mar. 10	20	48	Nov. 15	146	48
Dec. 13	15	54	Apr. 13	81	48	Dec. 5	154	50
1951			May 12	34	50	1957		
Jan. 11	18	52	June 9	23	50	Jan. 10	100	48
Feb. 8	18	53	July 22	16	54	Feb. 7	197	46
Mar. 22	18	50	Aug. 20	9.9	54	Mar. 7	411	50
Apr. 17	15	52	Sept. 15	8.4	54	Apr. 4	213	52
May 16	14		Oct. 13	8.4	54	May 3	382	50

Site 129--Tequepis Creek above Boy Scout Camp Diversion (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
June 5	216	54						
July 5	192							
Aug. 6	175	54						
Sept. 5	135	54						
Oct. 10	108	56						
Nov. 8	108	50						
Dec. 9	87	48						
1958								
Jan. 13	127							
Feb. 18	683							
Mar. 12	1,266							
Apr. 23	2,729	50						
May 21	1,190	52						
June 17	653	56						
July 2	615							
Aug. 15	291	58						
Sept. 8	332	58						
Oct. 8	235	56						
Nov. 7	193	52						
Dec. 19	157	50						
1959								
Jan. 14	188	50						
Feb. 5	122	48						
Mar. 6	361							
Apr. 3	296	53						
May 7	176	53						
June 8	162	54						
July 10	125	58						
Aug. 12	101	59						
Sept. 14	115	58						
Oct. 9	92	57						
Nov. 6	83							
Dec. 11	69	50						
1960								
Jan. 15	126	48						
Feb. 8	114	50						
Mar. 7	92	50						

a. Area recently burned.

Site 130--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
June 23	2.1		Sept. 20	No flow		Aug. 20	2.4	54
1949			Oct. 11	do		Sept. 15	2.1	56
Feb. 3	1.6		Nov. 6	do		Oct. 13	1.7	56
Mar. 18	2.6		Dec. 7	do		Nov. 10	1.6	56
Apr. 20	2.4		1952			Dec. 8	1.6	52
May 27	1.6		Feb. 20	53	57	1955		
June 22	1.3	61	Apr. 16	52	54	Jan. 5	3.5	52
July 20	.88	62	May 21	24	57	Feb. 17	2.0	54
Aug. 19	.83	61	June 19	19		Mar. 17	1.9	53
Sept. 28	.75	58	July 15	13	58	Apr. 13	1.8	56
Oct. 26	.62	58	Sept. 4	12	58	May 11	2.6	54
Nov. 22	.71	56	Oct. 23	8.6	57	June 8	2.4	52
Dec. 20	.83	53	Nov. 20	6.9		July 13	1.8	52
1950			Dec. 16	6.7		Aug. 11	1.2	54
Jan. 18	1.1	56	1953			Sept. 21	a 1.2	50
Feb. 21	1.4		Jan. 13	7.8	56	Oct. 26	1.2	46
Mar. 20	1.2	57	Feb. 24	6.0	57	Nov. 15	1.8	47
Apr. 18	.94	60	Mar. 9	5.5	57	Dec. 12	2.1	52
May 15	.83	60	Apr. 8	4.9	57	1956		
June 28	.50	69	May 18	4.2	62	Jan. 12	36	54
July 25	.31	72	June 5	3.7	58	Feb. 10	45	54
Aug. 28	.14	82	July 27	2.7	58	Mar. 8	42	52
Oct. 18	.15	60	Sept. 10	2.3	56	Apr. 5	36	54
Nov. 15	.27	54	Oct. 20	1.9	54	May 3	41	54
Dec. 13	.30	55	Nov. 18	1.9	54	June 7	60	56
1951			Dec. 17	1.9	52	July 5	30	56
Jan. 11	.31	52	1954			Aug. 9	30	54
Feb. 8	.29	55	Jan. 14	1.8	54	Sept. 6	22	56
Mar. 22	.29	55	Feb. 9	2.0	52	Oct. 4	20	56
Apr. 17	.24	58	Mar. 10	2.2	56	Nov. 15	18	56
May 16	.15	65	Apr. 13	7.8	56	Dec. 5	15	58
June 12	No flow		May 12	5.0	56	1957		
July 23	do		June 9	3.4	56	Jan. 10	14	56
Aug. 20	do		July 22	2.6	56	Feb. 7	13	56
						Mar. 7	18	56

Site 130--Spring - F. F. Leadbetter (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957			1960					
Apr. 4	18	56	Jan. 15	13	56			
May 3	20	56	Feb. 8	14	56			
June 5	22	54	Mar. 7	14	58			
July 5	20	56						
Aug. 6	18	54						
Sept. 5	15	56						
Oct. 10	14	56						
Nov. 8	13	54						
Dec. 9	11	54						
1958								
Jan. 13	13	52						
Feb. 18	60	54						
Mar. 12	186							
Apr. 23	170							
May 21	93	54						
June 17	60	58						
July 2	36	56						
Aug. 15	45	58						
Sept. 8	33	57						
Oct. 8	36	58						
Nov. 7	26	59						
Dec. 19	22	57						
1959								
Jan. 14	23	57						
Feb. 5	20	57						
Mar. 6	51	57						
Apr. 3	36	57						
May 7	22	58						
June 8	23	57						
July 10	18	58						
Aug. 12	20	57						
Sept. 14	15	57						
Oct. 9	15	58						
Nov. 6	15	56						
Dec. 11	14	58						

a Area recently burned.

Site 131--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
June 23	4.8		Sept. 20	2.5	77	Sept. 15	3.6	58
1949			Oct. 11	2.5	62	Oct. 13	3.5	60
Feb. 3	3.7		Nov. 6	2.4	61	Nov. 10	3.5	58
Mar. 18	3.8		Dec. 7	2.8	52	Dec. 8	3.5	54
Apr. 20	3.8		1952			1955		
May 27	3.9		Feb. 20	3.4	55	Jan. 5	1.7	54
June 22	3.8	65	Apr. 16	4.0		Feb. 17	3.5	56
July 20	4.0	66	May 21	4.1	59	Mar. 17	3.5	52
Aug. 19	3.7	64	June 19	4.0	62	Apr. 13	3.5	56
Sept. 28	3.4	62	July 15	4.0	62	May 11	3.7	56
Oct. 26	2.7	64	Sept. 4	4.0	62	June 8	3.8	56
Nov. 22	3.4	60	Oct. 23	4.0	60	July 13	3.6	56
Dec. 20	3.7		Nov. 20	4.0	60	Aug. 11	3.5	57
1950			Dec. 16	4.0		Sept. 21	ab	
Jan. 18	3.7	57	1953			Oct. 26	3.9	48
Feb. 21	3.6	58	Jan. 13	4.0	57	Nov. 15	4.0	52
Mar. 20	4.4	61	Feb. 24	4.0	58	Dec. 12	3.8	54
Apr. 18	3.0	64	Mar. 9	3.9		1956		
May 15	4.4	63	Apr. 8	4.0	58	Jan. 12	4.1	56
June 28	3.6	67	May 18	4.2	56	Feb. 10	4.3	43
July 25	3.6	68	June 5	4.2	60	Mar. 8	4.0	60
Aug. 28	3.4	69	July 27	4.0	64	Apr. 5	4.0	58
Oct. 18	3.3	62	Sept. 10	3.8	62	May 3	5.6	54
Nov. 15	3.0		Oct. 20	3.8	56	June 7	5.4	64
Dec. 13	3.2	57	Nov. 18	3.8	54	July 5	a	
1951			Dec. 17	3.8	54	Aug. 9	4.0	66
Jan. 11	3.2	54	1954			Sept. 6	4.0	62
Feb. 8	3.0	57	Jan. 14	3.8	54	Oct. 4	5.1	64
Mar. 22	3.8	58	Feb. 9	3.8	56	Nov. 15	4.5	58
Apr. 17	4.1	60	Mar. 10	3.5	56	Dec. 5	5.1	56
May 16	3.0	60	Apr. 13	a		1957		
June 12	2.8	66	May 12	4.0	60	Jan. 10	4.2	52
July 23	2.6	65	June 9	3.8	56	Feb. 7	3.6	53
Aug. 20	2.5	70	July 22	3.8	60	Mar. 7	3.8	60
			Aug. 20	3.6	66			

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957			1960					
Apr. 4	4.6	66	Jan. 15	4.2	57			
May 3	3.3	58	Feb. 8	4.3	58			
June 5	2.9	62	Mar. 7	4.2	58			
July 5	3.8	68						
Aug. 6	3.5	58						
Sept. 5	1.9							
Oct. 10	a							
Nov. 8	a	56						
Dec. 9	2.8	56						
1958								
Jan. 13	2.5							
Feb. 18	3.9							
Mar. 12	3.8							
Apr. 23	7.2							
May 21	4.0	40						
June 17	3.7	61						
July 2	4.4	60						
Aug. 15	3.6	65						
Sept. 8	4.2	65						
Oct. 8	4.4	62						
Nov. 7	4.2	60						
Dec. 19	4.2	58						
1959								
Jan. 14	4.3	57						
Feb. 5	4.2	55						
Mar. 6	14	52						
Apr. 3	14	57						
May 7	9.4	57						
June 8	5.8	57						
July 10	4.0	68						
Aug. 12	4.3	63						
Sept. 14	5.0	58						
Oct. 9	4.3	60						
Nov. 6	4.2	58						
Dec. 11	4.2	58						

a. No measurement obtainable.

b. Area recently burned.

NOTE: Prior to May 1956 pipeline from spring to reservoir had a capacity of 4.3 gpm. When this flow was exceeded there were uncontrolled seeps at the spring that were not measured. In May 1956 the capacity of the pipeline was increased, permitting measurement of all discharge.

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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1951			1955		
Feb. 3	0.63	56	Nov. 6	.15	56	Jan. 5	1.2	56
Mar. 18	1.5		Dec. 7	.18	42	Feb. 17	2.8	58
Apr. 20	2.7		1952			Mar. 17	3.0	54
May 27	1.5		Feb. 20	26	57	Apr. 13	2.1	56
June 22	.92	59	Apr. 16	26	54	May 11	2.6	56
July 20	.50	65	May 21	13		June 8	3.0	52
Aug. 19	.38	63	June 19	7.8		July 13	1.5	52
Sept. 28	.33	60	July 15	5.5	58	Aug. 11	1.1	52
Oct. 26	.32	57	Sept. 4	3.3	59	Sept. 21	a .79	52
Nov. 22	.33	58	Oct. 23	2.6	58	Oct. 26	.75	48
Dec. 20	.43	53	1953			Nov. 15	.75	52
1950			Jan. 13	10	60	Dec. 12	.88	52
Jan. 18	.83	57	Feb. 24	5.3	58	1956		
Feb. 21	2.5	58	Mar. 9	5.2	57	Jan. 12	3.4	56
Mar. 20	2.1	58	Apr. 8	3.7	58	Feb. 10	4.9	46
Apr. 18	1.6	60	May 18	3.0	58	Mar. 8	5.0	56
May 15	.94	61	June 5	2.5	58	Apr. 5	3.0	58
June 28	.50	67	July 27	1.6	60	May 3	6.7	54
July 25	.44	67	Sept. 10	1.2	60	June 7	4.5	66
Aug. 28	.29	62	Oct. 20	.79	56	July 5	4.5	56
Oct. 18	.47	58	Nov. 18	.83	52	Aug. 5	5.1	56
Nov. 15	.58		Dec. 17	1.1	52	Sept. 6	4.5	56
Dec. 13	.62	56	1954			Oct. 4	2.8	58
1951			Jan. 14	1.2	54	Nov. 15	2.1	56
Jan. 11	.83	56	Feb. 9	2.1	56	Dec. 5	2.0	58
Feb. 8	.88	56	Mar. 10	3.8	56	1957		
Mar. 22	.71	57	Apr. 13	9.0	56	Jan. 10	2.1	56
Apr. 17	.65	58	May 12	4.5	56	Feb. 7	3.0	56
May 16	.50	58	June 9	2.7	56	Mar. 7	4.7	56
June 12	.37	69	July 22	1.5	57	Apr. 4	4.4	58
July 23	.18	62	Aug. 20	1.2	56	May 3	4.6	56
Aug. 20	.28	65	Sept. 15	1.1	58	June 5	4.2	58
Sept. 20	.11		Oct. 13	.88	58	July 5	3.0	56
Oct. 11	.15	58	Nov. 10	.79	56	Aug. 6	2.3	56
			Dec. 8	1.1	56	Sept. 5	1.6	56

Site 132--Spring - Mrs. W. A. Clark, U. S. Forest Service (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Oct. 10	1.2	56						
Nov. 8	1.2	56						
Dec. 9	1.2	56						
1958								
Jan. 13	2.9	52						
Feb. 18	12							
Mar. 12	14							
Apr. 23	18	54						
May 21	14	56						
June 17	12	58						
July 2	11	58						
Aug. 15	10	58						
Sept. 8	10	58						
Oct. 8	9.0	58						
Nov. 7	8.6	60						
Dec. 19	7.8	58						
1959								
Jan. 14	7.8	57						
Feb. 5	9.0	57						
Mar. 6	11	58						
Apr. 3	12	57						
May 7	12	58						
June 8	7.5	58						
July 10	4.5	58						
Aug. 12	3.2	58						
Sept. 14	3.0	58						
Oct. 9	2.9	58						
Nov. 6	2.8	58						
Dec. 11	2.9	58						
1960								
Jan. 15	3.2	56						
Feb. 8	5.6	58						
Mar. 7	6.0	58						

a Area recently burned.

Site 133--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1952			1955		
Mar. 18	No flow		Jan. 9	No flow		Jan. 3	No flow	
Apr. 19	do		Feb. 18	547	52	Feb. 14	do	
May 26	do		Apr. 14	1,240	57	Mar. 14	do	
June 20	do		May 19	417	66	Apr. 11	do	
July 18	do		June 16	108	64	May 9	do	
Aug. 15	do		July 3	80	64	June 6	do	
Sept. 26	do		Sept. 2	No flow		July 11	do	
Oct. 24	do		Oct. 21	do		Aug. 8	do	
Nov. 17	do		Dec. 2	475		Sept. 20	a do	
Dec. 19	do		Dec. 20	624		Oct. 24	do	
1950			1953			Nov. 9	do	
Jan. 16	do		Jan. 9	206	57	Dec. 8	do	
Feb. 20	do		Jan. 15	301		1956		
Mar. 22	do		Jan. 27	117		Jan. 13	224	45
Apr. 19	do		Apr. 6	No flow		Feb. 7	925	50
May 18	do		Apr. 14	81	60	Mar. 6	655	
June 26	do		Apr. 22	58	63	Apr. 3	402	57
July 21	do		Apr. 29	63	57	May 1	906	60
Aug. 31	do		May 6	54	62	June 4	741	64
Oct. 16	do		June 1	No flow		July 2	385	66
Nov. 13	do		Sept. 8	do		Aug. 6	190	68
Dec. 11	do		Dec. 14	do		Sept. 4	130	68
1951			1954			Oct. 1	206	66
Jan. 8	do		Mar. 8	do		Nov. 13	94	54
Feb. 5	do		May 10	do		Dec. 3	66	53
Mar. 5	do		June 7	do		1957		
Apr. 4	do		July 19	do		Jan. 7	57	48
May 15	do		Aug. 17	do		Feb. 4	158	48
June 11	do		Sept. 13	do		Mar. 5	567	60
July 23	do		Oct. 11	do		Apr. 1	234	56
Aug. 22	do		Nov. 8	do		May 1	322	
Sept. 17	do		Dec. 6	do		June 3	121	68
Oct. 10	do					July 1	61	64
Nov. 5	do					Aug. 12	9.4	
Dec. 5	do					Sept. 3	No flow	

Site 133--Tequepis Canyon Creek at Highway 150 (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Oct. 8	No flow							
Nov. 4	do							
Dec. 2	do							
1958								
Jan. 9	53							
Feb. 12	1,530							
Mar. 10	2,257							
Apr. 24	4,578							
May 19	1,710	62						
June 9	1,050							
June 30	772							
Aug. 11	270	62						
Sept. 4	135	65						
Oct. 6	40	60						
Nov. 5	57	58						
Dec. 17	44	46						
1959								
Jan. 8	471	55						
Feb. 2	122							
Mar. 4	978	58						
Apr. 1	340	63						
May 1	259	58						
June 3	57	63						
July 8	4.5	67						
Aug. 7	No flow							
Sept. 10	do							
Oct. 5	do							
Nov. 4	do							
Dec. 8	do							
1960								
Jan. 13	do							
Feb. 1	do							
Mar. 3	do							

a Area recently burned.

Site 134---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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
Oct. 28	0.5		Sept. 24	0.25	59	Oct. 12	0.50	56
1949			Oct. 11	.22	59	Nov. 9	.58	56
Jan. 26	.47		Nov. 7	.22	57	Dec. 7	.52	52
Mar. 21	.75		Dec. 5	.45	57	1955		
Apr. 21	.52		1952			Jan. 4	.36	48
June 1	.38		Feb. 19	2.5	48	Feb. 15	.75	52
June 23	.33	63	Apr. 15	5.5	52	Mar. 15	.72	54
July 21	.32	60	May 20	1.2	59	Apr. 12	.65	52
Aug. 18	.32	61	June 17	.88	57	May 10	1.0	54
Sept. 28	.33	58	July 14	.58	59	June 7	.60	54
Oct. 26	.27	55	Sept. 3	.75	61	July 12	.50	52
Nov. 21	.35	55	Oct. 22	.68	57	Aug. 9	.47	54
Dec. 22	.50	48	1953			Sept. 19	.54	52
1950			Jan. 12	2.5	53	Oct. 25	.60	48
Jan. 17	.23	52	Feb. 24	1.2	50	Nov. 10	.60	56
Feb. 24	.13	55	Mar. 10	1.0		Dec. 9	.68	50
Mar. 21	.50	55	Apr. 7	1.0	53	1956		
Apr. 20	.45	58	May 19	.75	58	Jan. 19	1.9	
May 17	.42	55	June 2	.75	56	Feb. 8	3.8	46
June 29	.34	63	July 27	.60		Mar. 7	2.1	46
July 28	.71	60	Sept. 9	.56	58	Apr. 4	1.4	50
Aug. 30	.25	59	Oct. 19	.54		May 2	3.0	54
Oct. 17	.25	57	Nov. 18	.54	52	June 5	1.7	63
Nov. 16	.32	58	Dec. 15	.58	52	July 3	.83	60
Dec. 12	.33	55	1954			Aug. 8	.65	60
1951			Jan. 14	.60	50	Sept. 5	.60	58
Jan. 11	.41	52	Feb. 8	.75	52	Oct. 2	.60	58
Feb. 19	.33	52	Mar. 9	.88	56	Nov. 14	.63	52
Mar. 22	.43	53	Apr. 12	1.7	52	Dec. 4	.65	52
Apr. 17	.33	56	May 11	.83	54	1957		
May 16	.32	55	June 8	.58	54	Jan. 8	.65	50
June 11	.26	60	July 21	.50	56	Feb. 5	1.0	50
July 24	.21	60	Aug. 19	.50	56	Mar. 6	2.6	58
Aug. 22	.24		Sept. 14	.46	56	Apr. 2	1.2	56

Site 134--Spring - J. V. Crawford (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
May 2	1.4	60						
June 4	.65	60						
July 2	.50	60						
Aug. 5	.50	56						
Sept. 4	.50	56						
Oct. 9	.47	58						
Nov. 5	.54	54						
Dec. 3	.50	50						
1958								
Jan. 10	.83							
Feb. 18	5.0							
Mar. 11	7.8	56						
Apr. 22	18	56						
May 20	6.7	58						
June 16	2.1	61						
July 9	1.9	57						
Aug. 14	1.0							
Sept. 5	1.0	58						
Oct. 7	1.1	58						
Nov. 6	.94	57						
Dec. 18	1.0	52						
1959								
Jan. 12	1.4	53						
Feb. 4	1.2	48						
Mar. 5	7.2	57						
Apr. 2	2.6	59						
May 4	1.6	55						
June 4	.94	58						
July 9	.68	60						
Aug. 10	.60	61						
Sept. 11	.56	62						
Oct. 8	.60	59						
Nov. 5	.60	56						
Dec. 10	.65	52						
1960								
Jan. 15	1.4	47						
Feb. 5	1.2	53						
Mar. 4	1.0	48						

a. Area recently burned.

Site 135--Spring -- Crow Eleven Ranch

Location.--Lat 34°34'00", long 119°38'10".

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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
Oct. 21	1.0		Sept. 24	.31	66	Aug. 19	1.9	65
1949			Oct. 11	.19	66	Sept. 14	1.4	58
Jan. 26	.86		Nov. 7	.33	64	Oct. 12	1.2	65
Mar. 21	1.0		Dec. 5	No flow		Nov. 9	.42	64
Apr. 21	.91		1952			Dec. 7	1.4	60
June 1	1.8		Feb. 19	1.8	65	1955		
June 23	1.8	66	Apr. 15	2.9	63	Jan. 4	a .47	60
July 21	.75	62	May 20	2.7	67	Feb. 15	2.0	64
Aug. 18	1.4	68	June 17	2.1	67	Mar. 15	2.8	64
Sept. 28	1.3	66	July 14	2.3	67	Apr. 12	2.9	63
Oct. 26	1.0	65	Sept. 3	5.0	68	May 10	3.8	62
Nov. 21	.43	60	Oct. 22	5.1	68	June 7	3.3	62
Dec. 22	.94	62	Nov. 20	5.2	68	July 12	2.6	62
1950			Dec. 15	5.2	67	Aug. 9	1.7	62
Jan. 17	.94	65	1953			Sept. 19	b 1.1	60
Feb. 24	1.9	65	Jan. 12	5.0	67	Oct. 25	1.0	56
Mar. 21	1.6	65	Feb. 24	4.0	67	Nov. 10	1.5	64
Apr. 20	1.7	67	Mar. 10	3.1	67	Dec. 9	1.2	60
May 17	1.8	65	Apr. 7	2.6	67	1956		
June 29	1.4	66	May 19	3.8	68	Jan. 11	1.9	58
July 28	1.2		June 2	3.6	65	Feb. 8	2.6	64
Aug. 30	.54	67	July 27	1.8	67	Mar. 7	3.2	64
Oct. 17	.60	65	Sept. 9	2.5	68	Apr. 4	3.8	64
Nov. 16	1.0	62	Oct. 19	1.4	64	May 2	4.0	64
Dec. 12	1.7	64	Nov. 18	.56	66	June 5	3.6	64
1951			Dec. 15	.50	62	July 3	3.8	64
Jan. 11	.41	64	1954			Aug. 8	5.8	64
Feb. 19	.44	64	Jan. 14	.68	62	Sept. 5	3.2	66
Mar. 22	No flow		Feb. 8	1.2	64	Oct. 2	3.1	64
Apr. 17	.60	64	Mar. 9	3.2		Nov. 14	3.1	64
May 16	.44	64	Apr. 12	1.5	64	Dec. 4	3.6	
June 11	.68	65	May 11	3.3	66	1957		
July 24	.52	66	June 8	2.1	64	Jan. 8	3.1	64
Aug. 22	.45	66	July 21	2.4	66	Feb. 5	2.6	64

Site 135--Spring - Crown Eleven Ranch (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957			1960					
Mar. 6	2.6	66	Jan. 15	3.1	58			
Apr. 2	2.4	66	Feb. 5	5.0	66			
May 2	2.2	64	Mar. 4	2.6	65			
June 4	2.1	64						
July 2	2.9							
Aug. 5	2.6	64						
Sept. 4	3.1	62						
Oct. 9	2.2	66						
Nov. 5	2.5	64						
Dec. 3	1.2	62						
1958								
Jan. 10	1.5	60						
Feb. 18	4.0							
Mar. 11	3.1							
Apr. 22	5.2	62						
May 20	5.0	62						
June 16	.64	67						
July 1	3.1	67						
Aug. 14	3.1	68						
Sept. 5	1.4	68						
Oct. 9	3.1	67						
Nov. 6	3.1	67						
Dec. 18	3.2	68						
1959								
Jan. 12	3.1	66						
Feb. 4	2.5	65						
Mar. 5	1.9	68						
Apr. 2	2.2	68						
May 4	2.6	68						
June 4	5.2	67						
July 9	5.0	67						
Aug. 10	1.9	68						
Sept. 11	1.1	68						
Oct. 8	1.9	67						
Nov. 5	4.3	67						
Dec. 10	1.5	66						

a. No measurement obtainable.

b. Area recently burned.

NOTE:--Some unmeasured seepage at the time of each observation.

Site 136--Spring -- Crown Eleven Ranch

Location.--Lat $34^{\circ}33'50''$, long $119^{\circ}58'10''$.

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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
Oct. 28	0.73		Sept. 24	0.33	64	Sept. 14	5.3	68
1949			Oct. 11	.31	64	Oct. 12	4.5	68
Jan. 26	.62		Nov. 7	.30	64	Nov. 9	3.8	68
Mar. 21	1.4		Dec. 5	.40	62	Dec. 7	3.4	66
Apr. 21	1.2		1952			1955		
June 1	1.2		Feb. 19	1.6	67	Jan. 4	3.3	66
June 23	1.1	65	Apr. 15	3.7	65	Feb. 11	3.8	68
July 21	1.4	67	May 20	3.0	69	Mar. 15	4.9	68
Aug. 18	.68	67	June 17	3.0	68	Apr. 12	4.5	68
Sept. 28	.65	66	July 14	4.3	68	May 10	4.5	64
Oct. 26	.62	65	Sept. 3	14	70	June 7	6.0	
Nov. 21	.58	68	Oct. 22	7.5	70	July 12	5.5	66
Dec. 22	.62	62	Nov. 20	10	70	Aug. 9	4.0	62
1950			1953			Sept. 19	a 1.0	65
Jan. 17	.71	65	Jan. 12	10	70	Oct. 25	1.1	56
Feb. 24	1.1	65	Feb. 24	8.9	70	Nov. 10	1.5	64
Mar. 21	1.2	67	Mar. 10	9.1	67	Dec. 9	2.2	63
Apr. 20	1.2	67	Apr. 7	8.6	70	1956		
May 17	1.2	68	May 19	7.5	70	Jan. 11	.83	
June 29	.24	65	June 2	7.2	70	Feb. 8	1.7	66
July 28	.94	67	July 27	5.1		Mar. 7	2.1	66
Aug. 30	.65	67	Sept. 9	4.5		Apr. 4	2.1	74
Oct. 31	.62	65	Oct. 19	4.5	68	May 2	2.2	70
Nov. 16	.60	63	Nov. 18	3.7	66	June 5	2.5	70
Dec. 12	.60	64	Dec. 15	3.8	68	July 3	2.1	70
1951			1954			Aug. 8	2.0	70
Jan. 11	.52	64	Jan. 14	4.0	68	Sept. 5	1.8	72
Feb. 19	.44	62	Feb. 8	4.6	68	Oct. 2	1.7	70
Mar. 22	.38	62	Mar. 9	6.0	68	Nov. 14	1.5	66
Apr. 17	.36	64	Apr. 12	6.7	68	Dec. 4	1.2	66
May 16	.24	61	May 11	8.2	70	1957		
June 11	.10	64	June 8	7.2	66	Jan. 8	1.1	64
July 24	.07	64	July 21	6.4	68	Feb. 5	1.0	64
Aug. 22	No flow		Aug. 19	5.1	68	Mar. 6	1.2	74

Site 136--Spring - Crown Eleven Ranch (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957			1960					
Apr. 2	1.2	76	Jan. 15	No flow				
May 2	1.4	71	Feb. 5	do				
June 4	1.2	70	Mar. 4	do				
July 2	.88	68						
Aug. 5	1.0	64						
Sept. 4	1.0	68						
Oct. 9	.36	72						
Nov. 5	1.2	62						
Dec. 3	.68	60						
1958								
Jan. 10	1.2	58						
Feb. 18	1.1							
Mar. 11	1.2							
Apr. 22	3.8	66						
May 20	3.8	66						
June 16	4.0	70						
July 1	4.0	71						
Aug. 14	3.4	72						
Sept. 5	2.8	72						
Oct. 7	5.1	72						
Nov. 6	3.5	69						
Dec. 18	2.6	67						
1959								
Jan. 12	2.1	68						
Feb. 4	2.0	65						
Mar. 5	2.2	70						
Apr. 6	1.4	73						
May 4	1.7	70						
June 4	1.1	70						
July 9	1.1	70						
Aug. 10	1.0	71						
Sept. 11	.94	70						
Oct. 8	.65	70						
Nov. 5	.50	70						
Dec. 10	No flow							

a Area recently burned.

Site 137--Unnamed Creek, tributary 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
Oct. 22	2.6		Sept. 24	1.2	57	Oct. 12	11	58
1949			Oct. 11	1.0	57	Nov. 9	13	
Jan. 26	7.2		Nov. 7	.79	53	Dec. 7	12	54
Mar. 21	13		Dec. 5	3.7	50	1955		
Apr. 21	13		1952			Jan. 4	12	50
June 1	11		Feb. 19	24	51	Feb. 15	16	56
June 23	7.5	65	Apr. 15	106	55	Mar. 15	12	54
July 21	5.3	61	May 20	62	63	Apr. 12	18	
Aug. 18	3.8	67	June 17	43		May 10	25	
Sept. 28	3.3	56	July 14	35	64	June 7	24	
Oct. 26	2.9	52	Sept. 3	49	67	July 12	17	56
Nov. 21	3.5		Oct. 22	34	63	Aug. 9	12	60
Dec. 22	6.9	40	1953			Sept. 19	a 9.2	56
1950			Jan. 12	52	60	Oct. 25	16	51
Jan. 17	10	53	Feb. 24	48	57	Nov. 10	14	58
Feb. 24	12	55	Mar. 10	50	60	Dec. 9	12	54
Mar. 21	14	57	Apr. 7	30	60	1956		
Apr. 20	14	62	May 19	40	64	Jan. 11	28	47
May 17	15	57	June 2	39	60	Feb. 8	32	50
June 29	6.0	63	July 27	26	64	Mar. 7	29	50
July 28	5.1	60	Sept. 9	17	60	Apr. 4	29	54
Aug. 30	2.3	60	Oct. 19	18	58	May 2	47	56
Oct. 17	2.2	56	Nov. 18	16	54	June 5	35	60
Nov. 16	4.0	50	Dec. 15	17	56	July 3	23	62
Dec. 12	4.4	53	1954			Aug. 8	19	62
1951			Jan. 14	16	50	Sept. 5	14	62
Jan. 11	5.1	48	Feb. 8	19	56	Oct. 2	16	62
Feb. 19	4.5	46	Mar. 9	19	60	Nov. 14	17	54
Mar. 21	4.5	52	Apr. 12	33	58	Dec. 4	16	52
Apr. 17	3.6	54	May 11	26	58	1957		
May 16	2.9	52	June 8	25	58	Jan. 8	14	52
June 11	1.1	58	July 21	16	62	Feb. 5	18	50
July 24	1.0	60	Aug. 19	13	60	Mar. 6	44	60
Aug. 22	.94	59	Sept. 14	11	58	Apr. 2	26	59

Site 137--Unnamed Creek, tributary to Santa Ynez River at Harvey Ranch (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
May 2	34	58						
June 4	20	63						
July 2	13	62						
Aug. 5	18	60						
Sept. 4	14	58						
Oct. 9	14	60						
Nov. 5	14	56						
Dec. 3	11	50						
1958								
Jan. 10	16							
Feb. 18	50							
Mar. 11	122							
Apr. 22	367	60						
May 20	139							
June 16	76	65						
July 1	47	62						
Aug. 14	26	68						
Sept. 5	20	64						
Oct. 7	23	68						
Nov. 2	18	59						
Dec. 18	18	53						
1959								
Jan. 12	23	57						
Feb. 4	34	52						
Mar. 5	102	56						
Apr. 2	57	60						
May 4	40	57						
June 4	26	60						
July 9	14	65						
Aug. 10	14	65						
Sept. 11	7.6	64						
Oct. 8	16	59						
Nov. 5	9.4	58						
Dec. 10	9.4	56						
1960								
Jan. 15	14	50						
Feb. 5	18	56						
Mar. 4	23	54						

a Area recently burned.

Site 138--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Nov. 18	No flow		Sept. 17	2.2	73	Jan. 3	7.0	56
1949			Oct. 10	2.0	64	Feb. 14	4.2	56
Jan. 31	31		Nov. 5	2.0	62	Mar. 14	2.5	58
Mar. 8	9.0		Dec. 5	13	53	Apr. 11	8.7	58
Apr. 19	5.4		1952			May 9	4.5	58
May 26	No flow		Jan. 9	6.3	48	June 6	2.2	58
June 20	do		Feb. 18	5.1	60	July 11	4.9	58
July 18	do		Apr. 14	3.3		Aug. 8	3.0	58
Aug. 15	do		May 19	2.8	60	Sept. 20	2.2	56
Sept. 26	do		June 16	2.6	61	Oct. 4	3.0	52
Oct. 24	do		July 3	2.6	61	Nov. 9	4.0	58
Nov. 17	do		Sept. 2	18		Dec. 8	3.5	65
Dec. 17	4.9	50	Oct. 21	9.4	62	1956		
1950			Dec. 20	543		Jan. 11	3.1	52
Jan. 16	4.5	40	1953			Feb. 7	3.6	54
Feb. 20	4.5		Jan. 9	13	61	Mar. 6	3.0	57
Mar. 20	2.2	57	Jan. 15	180		Apr. 3	2.5	56
Apr. 21	2.5	55	Jan. 27	99		May 1	3.0	58
May 16	1.5	56	Feb. 24	64		June 4	2.5	58
June 26	No flow		Apr. 6	14	65	July 2	2.5	60
July 21	do		June 1	13	60	Aug. 6	2.6	60
Aug. 28	do		Sept. 8	12		Sept. 4	2.6	58
Oct. 16	do		Dec. 14	9.0	56	Oct. 1	2.6	62
Nov. 13	1.5	53	1954			Nov. 13	2.6	58
Dec. 11	6.7	51	Mar. 8	7.6	58	Dec. 3	2.6	58
1951			May 10	5.8	64	1957		
Jan. 8	7.2	45	June 7	8.1	64	Jan. 7	2.6	58
Feb. 5	4.1	51	July 19	4.8	66	Feb. 4	3.1	56
Mar. 5	1.2	50	Aug. 17	5.8	56	Mar. 5	4.0	58
Apr. 4	6.4	55	Sept. 13	3.7	62	Apr. 1	3.1	58
May 15	1.9	58	Oct. 11	4.9	58	May 1	3.1	58
June 11	No flow		Nov. 8	4.0	58	June 3	3.1	58
July 23	do		Dec. 6	4.5	58	July 1	2.8	58
Aug. 22	do					Aug. 2	2.9	60

Site 138--Spring - Unnamed Tributary to Santa Ynez River at Highway 150 (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Sept. 3	3.1	59						
Oct. 8	3.0	60						
Nov. 4	3.0	60						
Dec. 2	3.0	56						
1958								
Jan. 9	3.5	54						
Feb. 12	5.0							
Mar. 10	5.3							
Apr. 24	9.0	56						
May 19	6.4	58						
June 9	4.5	62						
June 30	4.5	60						
Aug. 11	4.3	62						
Sept. 4	4.3	63						
Oct. 6	4.3	63						
Nov. 5	4.7	62						
Dec. 17	4.3	60						
1959								
Jan. 8	5.3	60						
Feb. 2	4.5	58						
Mar. 4	5.6	58						
Apr. 1	5.2	58						
May 1	5.3	60						
June 3	5.3	60						
July 8	4.5	62						
Aug. 7	4.0	62						
Sept. 10	4.0	67						
Oct. 5	5.2	60						
Nov. 4	4.3	60						
Dec. 8	5.3	58						
1960								
Jan. 13	7.5	58						
Feb. 1	5.2	56						
Mar. 3	5.0	58						

Site 139--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948								
Nov. 18	No flow							
Dec. 15	do							
1949								
Mar. 21	.05							
Apr. 20	No flow							
May 31	do							
June 21	do							
July 20	do							
Aug. 16	do							
Sept. 27	do							
Oct. 25	do							
Nov. 22	do							
Dec. 21	a do							

a Last visit; observation at this site discontinued.

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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Oct. 25	4.6		Sept. 19	0.10		June 7	31	52
1949			Oct. 11	.58	59	July 12	24	50
Jan. 26	38		Nov. 7	1.2	55	Aug. 9	13	56
Mar. 21	50		Dec. 6	14	50	Sept. 19	a 30	50
Apr. 20	31		1952			Oct. 25	13	46
May 31	52		Feb. 19	318	54	Nov. 10	10	52
June 1	44	58	Apr. 15	489	53	Dec. 9	26	48
July 20	37	66	May 20	243	58	1956		
Aug. 16	9.8	57	June 17	135	57	Jan. 11	175	47
Sept. 27	7.3	57	July 14	124		Feb. 8	395	52
Oct. 25	5.5	54	Sept. 3	202	60	Mar. 7	262	50
Nov. 22	7.2	52	Oct. 22	143	57	Apr. 4	152	52
Dec. 21	18	47	1953			May 2	243	54
1950			Jan. 12	149	54	June 5	242	54
Jan. 17	31	52	Apr. 7	79	54	July 3	199	54
Feb. 21	30	50	June 2	66	52	Aug. 8	109	56
Mar. 20	20	54	Sept. 9	21	56	Sept. 5	86	58
Apr. 19	15	58	Dec. 15	26	50	Oct. 2	80	58
May 16	17	52	1954			Nov. 14	56	52
June 27	6.2	58	Mar. 9	38	54	Dec. 4	59	52
July 24	4.1	62	May 11	60	54	1957		
Aug. 30	2.2	61	June 8	47	52	Jan. 8	61	50
Oct. 17	3.4	56	July 21	28	56	Feb. 5	89	47
Nov. 16	7.5	52	Aug. 19	25	54	Mar. 6	97	54
Dec. 12	6.3	55	Sept. 14	25	54	Apr. 2	113	56
1951			Oct. 12	18	56	May 2	105	52
Jan. 11	9.4	50	Nov. 9	28	52	June 4	111	57
Feb. 19	6.8	48	Dec. 7	35	50	July 2	76	58
Mar. 9	9.4	51	1955			Aug. 5	61	56
Apr. 5	6.7	53	Jan. 4	42	46	Sept. 4	47	56
May 28	2.5	58	Feb. 15	34	48	Oct. 9	34	58
June 12	1.7	58	Mar. 15	35	46	Nov. 5	47	51
July 24	1.4	58	Apr. 12	25	48	Dec. 3	40	
Aug. 22	1.1	59	May 10	66	48			

Site 140--Spring - J. V. Crawford (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Jan. 10	69	47						
Feb. 18	627							
Mar. 10	1,050							
Apr. 22	2,512	52						
May 20	916	54						
June 16	443	58						
July 1	409	56						
Aug. 14	237	58						
Sept. 5	224	58						
Oct. 7	172							
Nov. 6	144	56						
Dec. 18	112							
1959								
Jan. 12	100	54						
Feb. 4	99							
Mar. 5	453	54						
Apr. 2	276	57						
May 4	186	53						
June 4	135	56						
July 9	76	58						
Aug. 10	61	60						
Sept. 11	57	60						
Oct. 8	53	56						
Nov. 5	44	54						
Dec. 10	47	53						
1960								
Jan. 15	105	50						
Feb. 5	66	52						
Mar. 4	70	48						

a Area recently burned.

Location.--Lat $34^{\circ}33'20''$, long $119^{\circ}59'00''$.

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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1951			1955			1957		
Mar. 9	0.52	52	Jan. 4	0.63	46	Sept. 4	0.25	56
Apr. 5	.41	54	Feb. 15	.47	52	Oct. 9	.07	56
May 28	.08	62	Mar. 15	.60	46	Nov. 5	.40	
June 12	.12	60	Apr. 12	.30	52	Dec. 3	.27	52
July 24	.15	59	May 10	.23	52	1958		
Aug. 22	No flow		June 7	.23	56	Jan. 10	.14	55
Sept. 19	do		July 12	.25	52	Feb. 18	.38	
Oct. 11	do		Aug. 9	No flow		Mar. 11	.68	
Nov. 7	do		Sept. 19	a .38	50	Apr. 22	1.9	54
Dec. 6	do		Oct. 25	.43	46	May 20	3.8	54
1952			Nov. 10	.18	58	June 16	3.0	
Feb. 19	do		Dec. 9	.44	48	July 1	3.1	58
Apr. 15	do		1956			Aug. 14	1.9	62
May 20	do		Jan. 11	.62	47	Sept. 5	1.5	
June 17	do		Feb. 8	.54	48	Oct. 9	1.5	58
July 14	do		Mar. 7	.28	46	Nov. 6	.72	58
Sept. 3	do		Apr. 4	No flow		Dec. 18	.83	56
Oct. 22	.50	55	May 2	do		1959		
1953			June 5	do		Jan. 12	.72	55
Jan. 12	.33	53	July 3	do		Feb. 4	.75	
Apr. 7	No flow		Aug. 8	do		Mar. 5	.65	56
June 2	do		Sept. 5	b		Apr. 2	.42	58
Sept. 9	.06	62	Oct. 2	.19	58	May 4	.38	52
Dec. 15	.32	52	Nov. 14	.38	50	June 4	.33	57
1954			Dec. 4	.47	50	July 9	.20	64
Mar. 9	.28	54	1957			Aug. 10	.44	62
May 11	.25	54	Jan. 8	.54	48	Sept. 11	.46	62
June 8	.27	52	Feb. 5	.44	46	Oct. 8	.68	57
July 21	.08	59	Mar. 6	.50		Nov. 5	.54	56
Aug. 19	.39	54	Apr. 2	.31	52	Dec. 10	.26	52
Sept. 14	.50	54	May 2	.13	54	1960		
Oct. 12	.31	56	June 4	.08	62	Jan. 15	.32	48
Nov. 9	.28	52	July 2	.14	58	Feb. 5	.47	
Dec. 7	.60	50	Aug. 5	.27	56	Mar. 4	.63	52

a Area recently burned.

b A few drops per minute.

Site 141--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1951			1955		
Mar. 8	No flow		Nov. 5	No flow		Jan. 3	No flow	
Mar. 21	do		Dec. 5	do		Feb. 14	do	
Apr. 19	do		1952			Mar. 14	do	
May 26	do		Jan. 9	do		Apr. 11	do	
June 20	do		Feb. 18	188	49	May 9	do	
July 18	do		Feb. 29	No flow		June 6	do	
Aug. 15	do		Mar. 13	714		July 11	do	
Sept. 26	do		Mar. 16	11,200 *		Aug. 8	do	
Oct. 24	do		Mar. 17	7,800		Sept. 20	a do	
Nov. 17	do		Apr. 3	1,110		Oct. 25	do	
Dec. 19	do		Apr. 14	580	55	Nov. 9	do	
1950			May 19	160	64	Dec. 8	do	
Jan. 16	do		June 16	71	61	1956		
Feb. 20	do		July 3	20	62	Jan. 11	124	50
Mar. 20	do		Sept. 2	No flow		Feb. 7	306	46
Apr. 19	do		Oct. 21	do		Mar. 6	120	48
May 16	do		1953			Apr. 3	26	56
June 26	do		Jan. 9	106	55	May 1	286	56
July 21	do		Apr. 6	No flow		June 4	262	58
Aug. 28	do		June 1	do		July 2	132	65
Oct. 16	do		Sept. 8	do		Aug. 6	No flow	
Nov. 13	do		Dec. 14	do		Sept. 4	do	
Dec. 11	do		1954			Oct. 1	do	
1951			Mar. 8	do		Nov. 13	do	
Jan. 8	do		May 10	do		Dec. 3	do	
Feb. 5	do		June 7	do		1957		
Mar. 5	do		July 19	do		Jan. 7	do	
Apr. 4	do		Aug. 17	do		Feb. 4	do	
May 15	do		Sept. 13	do		Mar. 5	111	60
June 11	do		Oct. 11	do		Apr. 1	No flow	
July 23	do		Nov. 8	do		May 1	40	56
Aug. 22	do		Dec. 6	do		June 3	5.8	62
Sept. 17	do					July 1	No flow	
Oct. 10	do					Aug. 2	do	

Site 141--Hilton Canyon Creek at Highway 150 (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Sept. 3	No flow							
Oct. 8	do							
Nov. 4	do							
Dec. 2	do							
1958								
Jan. 9	do							
Feb. 12	729							
Mar. 10	1,149							
Apr. 24	2,733	56						
May 19	1,149	60						
June 9	655	62						
June 30	534	64						
Aug. 11	40	65						
Sept. 4	34	63						
Oct. 6	28	60						
Nov. 5	5.8	59						
Dec. 17	3.1	45						
1959								
Jan. 8	47	53						
Feb. 2	14	47						
Mar. 4	732							
Apr. 1	187	61						
May 1	57	58						
June 3	14	62						
July 1	1.1	64						
Aug. 7	No flow							
Sept. 10	do							
Oct. 5	do							
Nov. 4	do							
Dec. 8	do							
1960								
Jan. 13	do							
Feb. 1	do							
Mar. 3	do							

a Area recently burned.

* Estimated by U. S. Bureau of Reclamation.

Site 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Oct. 28	0.03		Sept. 17	No flow		May 9	0.33	58
Jan. 26	.06		Oct. 10	do		June 6	.31	62
Mar. 8	.06		Nov. 5	do		July 11	.30	58
Apr. 19	.06		Dec. 5	do		Aug. 8	.29	60
May 26	.05		1952			Sept. 20	.29	56
June 21	.03	106	Jan. 9	do		Oct. 24	.28	56
July 19	No flow		Feb. 18	do		Nov. 9	.29	60
Aug. 15	a		Apr. 14	do		Dec. 8	.29	56
Sept. 26	No flow		May 19	do		1956		
Oct. 24	do		June 16	do		Jan. 10	.28	54
Nov. 17	do		July 3	do		Feb. 7	.27	58
Dec. 19	a	48	Sept. 2	2.1		Mar. 6	.23	56
1950			Oct. 21	1.2	64	Apr. 3	.25	60
Jan. 16	.01	49	1953			May 1	.25	60
Feb. 20	.02	55	Jan. 9	1.0	64	June 4	.25	60
Mar. 20	a	57	Apr. 6	1.0	65	Aug. 6	.22	66
Apr. 20	a		June 1	.83	62	Sept. 9	.21	62
May 16	a		Sept. 8	.75	65	Oct. 1	.20	60
June 26	No flow		Dec. 14	.56	60	Nov. 13	.19	60
July 21	do		1954			Dec. 3	.19	62
Aug. 28	a		Mar. 8	.52		1957		
Oct. 16	No flow		May 10	.47	64	Jan. 7	.17	58
Nov. 13	do		June 7	.44	62	Feb. 4	.14	56
Dec. 11	do		July 19	.41	65	Mar. 5	.20	60
1951			Aug. 17	.46	62	Apr. 1	.19	60
Jan. 8	do		Sept. 13	.30	62	May 1	.19	60
Feb. 5	do		Oct. 11	.34	62	June 3	.18	63
Mar. 5	do		Nov. 8	.40	62	July 1	.17	62
Apr. 4	do		Dec. 6	.37	58	Aug. 2	.16	64
May 15	do		1955			Sept. 3	.17	66
June 12	do		Jan. 3	.38	48	Oct. 8	.15	62
July 24	do		Feb. 14	.33	60	Nov. 4	.15	60
Aug. 20	do		Mar. 14	.33	58	Dec. 2	.16	56
			Apr. 11	.33	62			

Site 142--Spring - J. V. Crawford (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Jan. 9	0.14	54						
Feb. 14	.20							
Mar. 10	.19							
Apr. 24	.25	62						
May 19	.23	60						
June 9	.20	64						
June 30	.20	65						
Aug. 11	.24	67						
Sept. 4	.17	65						
Oct. 6	.17	63						
Nov. 5	.14	63						
Dec. 17	.12	62						
1959								
Jan. 8	.10	58						
Feb. 2	.14	56						
Mar. 4	.11	61						
Apr. 1	.16	63						
May 1	.16	61						
June 3	.13	62						
July 8	.12	65						
Aug. 7	.10	67						
Sept. 10	.11	64						
Oct. 5	.10	64						
Nov. 4	.10	60						
Dec. 8	.09	63						
1960								
Jan. 13	.06	48						
Feb. 1	.03	52						
Mar. 3	a	52						

a A few drops per minute.

Site 143--Won'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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1952			1955		
Jan. 27	26	39	May 21	130	54	Jan. 6	35	42
Mar. 28	44		June 18	104	55	Feb. 7	39	43
May 25	25		Aug. 5	132		Mar. 8	47	47
June 22	19	59	Sept. 4	107	58	Apr. 5	36	45
July 20	15	60	Oct. 20	62	55	May 3	76	48
Sept. 14	13		Nov. 24	63	48	June 21	33	55
Nov. 30	18	50	Dec. 16	61		July 11	33	54
Dec. 28	26	45	1953			Aug. 17	23	57
1950			Jan. 5	127	52	Sept. 12	17	57
Jan. 24	36	48	Feb. 12	73		Oct. 13	15	55
Feb. 16	55		Mar. 2	68	46	Nov. 9	17	50
Apr. 21	26	59	Apr. 20	52	44	Dec. 8	25	47
June 8	23		May 12	58	52	1956		
July 20	16	62	June 9	47	56	Jan. 16	74	50
Aug. 24	16	62	July 13	45	59	Feb. 13	146	50
Nov. 2	18	53	Sept. 14	39	57	Mar. 16	111	51
Nov. 29	21	50	Oct. 19	42	56	Apr. 24	102	51
Dec. 19	20	51	Nov. 12	45	57	May 16	41	53
1951			Dec. 7	41	47	June 11	117	55
Feb. 1	22	43	1954			July 9	87	54
Feb. 28	31		Jan. 5	38		Aug. 13	66	55
Mar. 21	24		Feb. 12	45	47	Sept. 13	57	52
Apr. 24	19		Mar. 4	51	51	Oct. 10	55	55
June 19	15	59	Apr. 12	70	50	Nov. 19	49	49
July 25	10	61	May 12	60	51	Dec. 21	44	47
Aug. 22	8.3	61	June 8	49	51	1957		
Sept. 24	9.6	62	July 7	37	56	Jan. 10	48	47
Oct. 22	9.4	50	Aug. 10	34	55	Feb. 7	54	46
Nov. 8	13	51	Sept. 14	33	54	Mar. 9	65	48
Dec. 7	21	43	Oct. 12	30	53	Apr. 8	51	51
1952			Nov. 9	30	50	May 3	65	51
Jan. 8	46	44	Dec. 7	39	48	June 6	48	54
Mar. 13	200	50				July 8	47	55
Apr. 10	38	53				Aug. 7	42	

Site 143--Won's Creek at G. Walska Fish Pond (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Sept. 9	41	53						
Oct. 7	40	51						
Nov. 5	45	48						
Dec. 9	45	48						
1958								
Jan. 9	51	49						
Feb. 17	136	51						
Mar. 10	250	50						
Apr. 28	321	54						
May 19	234	55						
June 6	167	53						
July 21	110	57						
Aug. 12	91	58						
Sept. 8	77	57						
Oct. 5	69	56						
Nov. 5	64	54						
Dec. 9	30	53						
1959								
Jan. 14	77	51						
Feb. 26	406							
Mar. 6	280	51						
Apr. 3	161	53						
June 8	59							
July 10	47	61						
Aug. 10	40	57						
Sept. 11	36	61						
Oct. 8	41	69						
Nov. 6	38	50						
Dec. 11	40	49						
1960								
Jan. 8	44	48						
Feb. 1	56							
Mar. 5	58	48						

Site 143a--Spring, J. V. Crawford

Location.--Lat 34°32'29", long 120°00'05".

Altitude.--About 1,650 feet from topographic map.

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

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1951								
Feb. 8	2.2	59						
Mar. 9	.94	50						
Apr. 5	1.0	54						
May 28	.81	56						
June 13	.83	55						
July 24	.60	55						
Sept. 6	.54	53						
Sept. 24	.31	55						
Oct. 22	.21	50						
Nov. 7	.64	53						
Dec. 6	1.0	49						
1952								
Feb. 19	1.4	50						
Apr. 15	1.5	62						
May 20	1.1							
June 17	.94							
July 14	1.0	58						
Sept. 3	a 1.2	58						

a Last visit; observation at this site discontinued.

Site 144--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1952			1955		
Dec. 7	2.8		Jan. 8	3.3	46	Jan. 6	3.6	41
1949			Mar. 13	25	50	Feb. 7	6.1	43
Jan. 27	3.9	47	Apr. 10	8.6	53	Mar. 8	6.0	46
Mar. 28	11		May 21	17	54	Apr. 5	4.2	44
May 25	4.5		June 18	29	55	May 3	10	47
June 22	3.6	57	Aug. 5	20		June 21	3.8	
July 20	1.2	58	Sept. 4	18	56	July 11	2.5	53
Sept. 14	4.5		Oct. 20	14	55	Aug. 17	1.4	56
Nov. 30	2.7	52	Nov. 24	13	50	Sept. 12	.75	57
Dec. 28	4.0	46	Dec. 16	12		Oct. 13	.59	55
1950			1953			Nov. 9	.76	48
Jan. 24	10.5	47	Jan. 5	10	52	Dec. 8	1.8	46
Feb. 16	11		Feb. 12	9.1		1956		
Apr. 21	5.4	56	Mar. 2	9.4	49	Jan. 16	12	49
June 8	3.6	52	Apr. 10	8.2	43	Feb. 13	30	50
July 20	1.2		May 12	7.7	51	Mar. 16	30	52
Aug. 24	1.5	58	June 9	6.8	53	Apr. 24	29	52
Nov. 2	1.6	55	July 13	3.8	57	May 16	58	54
Nov. 29	1.6		Sept. 14	3.6	56	June 11	42	54
Dec. 19	2.0	50	Oct. 19	3.7	56	July 9	32	54
1951			Nov. 12	3.8	57	Aug. 13	27	55
Feb. 1	2.3	47	Dec. 7	2.6	45	Sept. 13	19	52
Feb. 28	3.1	40	1954			Oct. 10	17	54
Mar. 21	3.4		Jan. 5	4.3	47	Nov. 19	15	49
Apr. 24	2.0		Feb. 12	7.5	48	Dec. 21	12	48
June 19	1.7	53	Mar. 4	8.5	49	1957		
July 25	.95	57	Apr. 12	14	51	Jan. 10	12	47
Aug. 22	.91	57	May 12	8.5		Feb. 7	15	46
Sept. 24	.77	58	June 8	6.0	49	Mar. 9	20	48
Oct. 22	.76	51	July 7	4.0	55	Apr. 8	14	51
Nov. 8	.93	51	Aug. 10	2.4	54	May 3	15	51
Dec. 7	2.2	42	Sept. 14	2.8	54	June 6	12	54
			Oct. 12	2.0	52	July 8	7.8	55
			Nov. 9	1.8	48	Aug. 7	1.9	
			Dec. 7	2.3	46	Sept. 9	6.0	57

Site 144---Spring - Madame Ganna Walska (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Oct. 7	6.0	50						
Nov. 5	12	47						
Dec. 9	6.7	49						
1958								
Jan. 9	11	50						
Feb. 17	29	52						
Mar. 10	50	48						
Apr. 28	167	53						
May 19	58	54						
June 6	58	53						
July 21	27	56						
Aug. 12	60	57						
Sept. 8	50	56						
Oct. 6	33	55						
Nov. 5	33	54						
Dec. 9	60							
1959								
Jan. 14	16	52						
Feb. 26	60							
Mar. 6	48	49						
Apr. 3	42	52						
June 8	23							
July 10	11	58						
Aug. 10	14	56						
Sept. 11	9.4	61						
Oct. 5	16	58						
Nov. 6	a	50						
Dec. 11	5.8	49						
1960								
Jan. 8	7.6	50						
Feb. 1	18							
Mar. 5	17	49						

a. No measurement obtainable.

Site 146--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
Oct. 25	No flow		Oct. 22	No flow		Nov. 9	0.17	52
1949			Nov. 7	do		Dec. 7	.24	50
Jan. 26	0.08		Dec. 6	do		1955		
Mar. 8	.13		1952			Jan. 4	.35	48
Apr. 19	.19		Feb. 19	.25	48	Feb. 15	.36	52
June 1	.11		Apr. 15	1.3	54	Mar. 15	.42	46
June 21	.08	57	May 20	.44	58	Apr. 12	.33	52
July 20	.04	59	June 17	.21	57	May 10	.40	52
Aug. 16	.02	56	July 14	.06	58	June 7	.38	52
Sept. 27	No flow		Sept. 3	1.4	58	July 12	.33	50
Oct. 25	do		Oct. 22	1.2	56	Aug. 9	.23	52
Nov. 22	do		1953			Sept. 19	.14	48
Dec. 21	.06	40	Jan. 12	.94	55	Oct. 25	.09	44
1950			Feb. 25	.75	53	Nov. 10	.13	56
Jan. 17	.09	50	Mar. 9	.75	54	Dec. 9	.15	48
Feb. 21	.10	46	Apr. 7	.63	52	1956		
Mar. 20	.06	50	May 18	.58	58	Jan. 11	.52	47
Apr. 19	.10	61	June 2	.46	52	Feb. 8	.14	40
June 27	.02	62	July 28	.41	58	Mar. 7	.12	36
July 24	No flow		Sept. 9	.38	56	Apr. 4	.18	42
Aug. 30	do		Oct. 19	.37	52	May 2	.28	50
Oct. 17	do		Nov. 17	.38	50	June 5	.18	52
Nov. 16	do		Dec. 15	.44	52	July 3	.12	55
Dec. 12	do		1954			Aug. 8	.05	56
1951			Jan. 11	.43	48	Sept. 5	a	
Jan. 23	do		Feb. 8	.40	54	Oct. 2	No flow	
Feb. 19	do		Mar. 9	.60	54	Nov. 14	do	
Mar. 9	do		Apr. 12	.63	56	Dec. 4	do	
Apr. 5	do		May 11	.36	54	1957		
May 28	do		June 8	.48	54	Jan. 8	do	
June 13	do		July 21	.40	56	Feb. 5	.21	42
July 24	do		Aug. 19	.31	54	Mar. 6	.12	52
Sept. 6	do		Sept. 14	.28	54	Apr. 2	.09	48
Sept. 24	do		Oct. 12	.23	54	May 2	.08	50

Site 146 -Spring J. V. Crawford (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
June 4	.09	57						
July 2	No flow							
Aug. 5	do							
Sept. 4	do							
Oct. 9	do							
Nov. 5	do							
Dec. 3	do							
1958								
Jan. 10	do							
Feb. 14	.11							
Mar. 11	.28							
Apr. 22	2.1	52						
May 20	1.1	52						
June 16	.79	57						
July 1	.68	57						
Aug. 14	.35	60						
Sept. 5	.27	58						
Oct. 7	.27	58						
Nov. 6	.19	55						
Dec. 18	.08	48						
1959								
Jan. 12	.22	54						
Feb. 4	.27	50						
Mar. 5	.47	54						
Apr. 2	.37	55						
May 4	.32	53						
June 4	.20	57						
July 9	.04	64						
Aug. 10	No flow							
Sept. 11	do							
Oct. 8	do							
Nov. 5	do							
Dec. 10	do							
1960								
Jan. 14	.19	48						
Feb. 5	.19	56						
Mar. 4	.20	50						

a A few drops per minute.

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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
Oct. 25	0.3		Sept. 24	.43	60	Oct. 12	1.0	56
1949			Oct. 22	.39	58	Nov. 9	.94	56
Jan. 26	.48		Nov. 7	.43	59	Dec. 7	1.1	53
Mar. 8	.48		Dec. 6	.52	54	1955		
Apr. 19	.50		1952			Jan. 4	1.0	52
June 1	.47		Feb. 19	.83	54	Feb. 15	1.0	54
June 21	.44	58	Apr. 15	1.5	54	Mar. 15	1.0	52
July 20	.30	60	May 20	1.2	57	Apr. 12	1.0	54
Aug. 16	.34	57	June 17	1.1	58	May 10	1.0	52
Sept. 27	.27	56	July 14	1.0	58	June 7	.79	52
Oct. 25	.16	55	Sept. 3	1.5	58	July 12	.86	50
Nov. 22	.32	53	Oct. 22	1.4	58	Aug. 9	.88	52
Dec. 21	.34	47	1953			Sept. 19	.94	50
1950			Jan. 12	1.4	57	Oct. 25	.83	48
Jan. 17	.39	54	Feb. 25	1.2	56	Nov. 10	.94	56
Feb. 21	.29	49	Mar. 9	1.2	54	Dec. 9	1.0	52
Mar. 20	.38	52	Apr. 7	1.2	52	1956		
Apr. 19	.44	58	May 18	1.2	58	Jan. 11	1.1	49
May 16	.58	56	June 2	1.2	56	Feb. 8	1.2	54
June 27	.50	60	July 28	1.0	58	Mar. 7	1.2	54
July 24	.43	58	Sept. 9	.72	57	Apr. 4	1.0	54
Aug. 30	.34	60	Oct. 19	.77	54	May 2	1.0	54
Oct. 17	.34	55	Nov. 17	.84	52	June 5	1.0	54
Nov. 16	.40	57	Dec. 15	1.2	54	July 3	.83	55
Dec. 12	.47	56	1954			Aug. 8	.62	55
1951			Jan. 11	1.1	52	Sept. 5	.60	56
Jan. 23	.45	55	Feb. 8	1.2	56	Oct. 2	.62	57
Feb. 19	.50	53	Mar. 9	1.2	54	Nov. 14	.68	54
Mar. 9	.71	56	Apr. 12	1.2	56	Dec. 4	.68	56
Apr. 5	.68	56	May 11	1.2	56	1957		
May 28	.61	58	June 8	1.1	54	Jan. 8	.75	54
June 13	.56	58	July 21	.75	57	Feb. 5	.94	52
July 24	.50	60	Aug. 19	.79	56	Mar. 6	.88	54
Sept. 6	.52	58	Sept. 14	1.0	54	Apr. 2	1.0	55

Site 147--Spring - J. V. Crawford (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
May 12	0.83	54						
June 4	.63	58						
July 2	.62	56						
Aug. 5	.60	56						
Sept. 4	.58	56						
Oct. 9	.54	57						
Nov. 5	.68	54						
Dec. 3	.65	54						
1958								
Jan. 10	.79	50						
Feb. 14	1.0							
Mar. 11	1.1							
Apr. 22	2.1	54						
May 20	1.2	54						
June 16	1.4	57						
July 1	1.2	57						
Aug. 14	1.1	58						
Sept. 5	1.1	58						
Oct. 7	1.2	58						
Nov. 6	1.1	57						
Dec. 18	1.0	58						
1959								
Jan. 12	1.2	56						
Feb. 4	1.1	54						
Mar. 5	1.2	56						
Apr. 2	1.1	57						
May 4	1.1	55						
June 4	1.1	57						
July 9	1.0	68						
Aug. 10	.60	58						
Sept. 11	.58	58						
Oct. 8	.60	57						
Nov. 5	.60	56						
Dec. 10	.58	56						
1960								
Jan. 14	.79	54						
Feb. 5	.79	56						
Mar. 4	.89	54						

Site 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
Oct. 25	0.1		Sept. 24	.48		Aug. 29	0.56	54
1949			Oct. 22	.42	58	Sept. 14	1.2	54
Jan. 26	.27		Nov. 7	.45	59	Oct. 12	1.2	56
Mar. 8	.28		Dec. 6	.47	57	Nov. 9	1.2	56
Apr. 19	.12		1952			Dec. 7	1.2	54
June 1	.23		Feb. 19	1.1	57	1955		
June 21	.22	58	Apr. 15	1.5	54	Jan. 4	1.4	54
July 20	.20	60	May 20	1.1	57	Feb. 15	1.5	54
Aug. 16	.20	57	June 17	1.0	57	Mar. 15	1.5	52
Sept. 27	.21	57	July 14	1.5		Apr. 12	1.5	54
Oct. 25	.20	56	Sept. 3	1.7	59	May 10	1.6	52
Nov. 22	.21	54	Oct. 22	1.7	54	June 7	1.5	52
Dec. 21	.22	44	Nov. 21	.94	58	July 12	1.4	50
1950			Dec. 16	.94		Aug. 9	1.2	52
Jan. 17	.22	50	1953			Sept. 19	1.1	50
Feb. 21	.20	49	Jan. 12	1.1	57	Oct. 25	1.3	48
Mar. 20	.13	53	Feb. 25	1.0	57	Nov. 10	.88	56
Apr. 19	.16	63	Mar. 9	1.0	57	Dec. 9	1.2	52
May 16	.25	52	Apr. 7	.94		1956		
June 27	a		May 18	.88	56	Jan. 11	1.6	50
July 24	.11	60	June 2	.83	56	Feb. 8	1.7	54
Aug. 30	.10	63	July 28	.79	57	Mar. 7	1.6	54
Oct. 17	.14	55	Sept. 9	1.2	56	Apr. 4	1.7	56
Nov. 16	.17	53	Oct. 19	1.4	54	May 2	1.5	54
Dec. 12	.13	53	Nov. 17	1.4	52	June 5	1.5	56
1951			Dec. 15	1.4	54	July 3	1.2	55
Jan. 23	.09	50	1954			Aug. 8	1.2	55
Feb. 19	.17	42	Jan. 11	1.4	52	Sept. 5	1.2	56
Mar. 9	.17	48	Feb. 8	.75	56	Oct. 2	1.1	57
Apr. 5	.18	51	Mar. 9	.47	54	Nov. 14	1.0	56
May 28	.19	58	Apr. 12	.20	56	Dec. 4	.33	56
June 13	.15	58	May 11	.50	56	1957		
July 24	.16	56	June 8	.50	54	Jan. 8	.15	50
Sept. 6	1.0	57	July 21	.65	58	Feb. 5	.12	46
						Mar. 6	.08	52

Site 148--Spring - J. V. Crawford (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957			1960					
Apr. 2	.08	50	Jan. 14	.56	54			
May 2	.05	52	Feb. 5	.56	56			
June 4	.03	66	Mar. 4	.56	54			
July 2	.03	62						
Aug. 5	.08	56						
Sept. 4	.25	56						
Oct. 9	.24	57						
Nov. 5	.21	52						
Dec. 3	.21	54						
1958								
Jan. 10	.13	46						
Feb. 14	.11							
Mar. 11	.19							
Apr. 22	1.6	56						
May 20	.52	54						
June 16	.37	58						
July 1	.17	53						
Aug. 14	.75	58						
Sept. 5	.54	58						
Oct. 7	.56	57						
Nov. 6	.54	57						
Dec. 18	.50	58						
1959								
Jan. 12	.60	56						
Feb. 4	.46	54						
Mar. 5	.60	56						
Apr. 2	.58	58						
May 4	.30	54						
June 4	.65	57						
July 9	.68	58						
Aug. 10	.60	58						
Sept. 11	.68	58						
Oct. 8	.38	57						
Nov. 5	.33	56						
Dec. 10	.54	56						

a. A few drops per minute.

Site 149--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 to circular concrete stock trough.

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
Oct. 25	0.12		Sept. 24	0.06	57	Aug. 19	0.17	54
1949			Oct. 22	.06	49	Sept. 14	.17	52
Jan. 26	.43		Nov. 7	.14	52	Oct. 12	.12	52
Mar. 6	.68		Dec. 6	.54	47	Nov. 9	.17	50
Apr. 19	.56		1952			Dec. 7	.33	46
June 1	.38		Feb. 19	2.0	48	1955		
June 21	.25	50	Apr. 15	1.9	48	Jan. 4	.46	38
July 20	.12	56	May 20	4.9	57	Feb. 15	.68	44
Aug. 16	.14	50	June 17	1.6	54	Mar. 15	.72	40
Sept. 27	.11	56	July 14	1.7	57	Apr. 12	.75	42
Oct. 25	.15	55	Sept. 3	.79	61	May 10	.79	46
Nov. 22	.22	48	Oct. 22	.59	53	June 7	.30	50
Dec. 21	.42	41	Nov. 21	.75	48	July 12	.28	46
1950			Dec. 16	1.7		Aug. 9	.16	56
Jan. 17	.60	49	1953			Sept. 19	.11	46
Feb. 21	.52	46	Jan. 12	5.0	52	Oct. 25	.13	42
Mar. 20	.47	50	Feb. 25	2.4	45	Nov. 10	.12	52
Apr. 19	.43	55	Mar. 9	2.0	49	Dec. 9	.33	46
May 16	.33	52	Apr. 7	1.6	47	1956		
June 27	.18	58	May 18	1.2	52	Jan. 11	2.5	43
July 24	.14	58	June 2	.94	50	Feb. 8	5.1	44
Aug. 30	.02	63	July 28	.16	58	Mar. 7	2.5	42
Oct. 17	.12	54	Sept. 9	.17	52	Apr. 4	1.7	46
Nov. 16	.21	51	Oct. 19	.28	52	May 2	3.0	50
Dec. 12	.30	53	Nov. 17	.50	50	June 5	1.9	48
1951			Dec. 15	.47		July 3	1.0	52
Jan. 23	.31	48	1954			Aug. 8	.65	52
Feb. 19	.33	42	Jan. 11	.60	42	Sept. 5	.23	52
Mar. 9	.39	47	Feb. 8	.88	48	Oct. 2	.17	57
Apr. 5	.36	52	Mar. 9	1.0	50	Nov. 14	.25	44
May 28	.19	59	Apr. 12	1.5	52	Dec. 4	.21	46
June 13	No flow		May 11	1.0	50	1957		
July 24	.08	58	June 8	.68	50	Jan. 8	.38	44
Sept. 6	.03	55	July 21	.15	57	Feb. 5	.53	38
						Mar. 6	1.1	52

Site 149---Spring - J. V. Crawford (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957			1960					
Apr. 2	1.0	46	Jan. 14	.90	45			
May 2	.39	48	Feb. 5	.93	48			
June 4	.75	56	Mar. 4	.98	43			
July 2	.14	54						
Aug. 5	.06	52						
Sept. 4	.12	56						
Oct. 9	.08	52						
Nov. 5	.11	44						
Dec. 3	.12	40						
1958								
Jan. 10	.55	44						
Feb. 14	1.8							
Mar. 11	6.0							
Apr. 22	52	50						
May 20	34	52						
June 16	11	57						
July 1	5.6	54						
Aug. 14	1.9	61						
Sept. 5	1.2	56						
Oct. 7	.65	54						
Nov. 6	.57	51						
Dec. 18	.48	48						
1959								
Jan. 12	.91	51						
Feb. 4	.90	43						
Mar. 5	7.5	51						
Apr. 2	2.3	53						
May 4	1.6	49						
June 4	.85	52						
July 9	.39	60						
Aug. 10	.16	62						
Sept. 11	.19	60						
Oct. 8	.27	52						
Nov. 5	.27	49						
Dec. 10	.25	49						

Site 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 No. 149.

Diversion--Spring No. 149 diversion above for stock.

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1952			1955		
Apr. 19	No flow		Feb. 19	30	45	Jan. 4	No flow	
June 1	do		Apr. 15	134	48	Feb. 15	6.2	48
June 21	do		May 20	41	58	Mar. 15	10	46
July 20	do		June 17	6.3	56	Apr. 12	No flow	
Aug. 16	do		July 14	15	59	May 10	10	48
Sept. 27	do		Sept. 3	14	62	June 7	No flow	
Oct. 25	do		Oct. 22	14		July 12	do	
Nov. 22	do		Dec. 16	22		Aug. 9	do	
Dec. 21	do		1953			Sept. 19	do	
1950			Jan. 12	111	52	Oct. 25	do	
Jan. 17	7.5	49	Feb. 25	22	43	Nov. 10	do	
Feb. 21	9.4	50	Mar. 9	11	47	Dec. 9	do	
Mar. 20	4.9	52	Apr. 7	16		1956		
Apr. 19	2.0	55	May 18	No flow		Jan. 17	31	43
May 16	No flow		June 2	do		Feb. 8	68	44
June 27	do		July 28	do		Mar. 7	23	46
July 24	do		Sept. 9	do		Apr. 4	6.0	48
Aug. 30	do		Oct. 19	do		May 2	19	50
Oct. 17	do		Nov. 17	do		June 5	No flow	
Nov. 16	do		Dec. 15	do		July 3	do	
Dec. 12	do		1954			Aug. 8	do	
1951			Jan. 11	do		Sept. 5	do	
Jan. 23	do		Feb. 8	11	48	Oct. 2	do	
Feb. 19	do		Mar. 9	6.7	52	Nov. 14	do	
Mar. 9	do		Apr. 12	22	52	Dec. 4	do	
Apr. 5	do		May 11	8.5	52	1957		
May 28	do		June 8	No flow		Jan. 8	do	
June 13	do		Aug. 19	do		Feb. 5	do	
July 24	do		Sept. 14	do		Mar. 6	23	
Sept. 6	do		Oct. 12	do		Apr. 2	No flow	
Sept. 24	do		Nov. 9	do		May 2	do	
Oct. 22	do		Dec. 7	do		June 4	do	
Nov. 7	do					July 2	do	
Dec. 6	do					Aug. 5	do	

Site 150--San Lucas Creek below Spring #149 (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Sept. 4	No flow							
Oct. 9	do							
Nov. 5	do							
Dec. 3	do							
1958								
Jan. 10	do							
Feb. 14	38							
Mar. 11	155							
Apr. 22	684	50						
May 20	293							
June 16	203	56						
July 1	126	56						
Aug. 14	9.4	60						
Sept. 5	5.8	60						
Oct. 7	No flow							
Nov. 6	do							
Dec. 18	do							
1959								
Jan. 12	22	53						
Feb. 4	34	48						
Mar. 5	90	48						
Apr. 2	40	53						
May 4	20	52						
June 4	2.0	55						
July 9	No flow							
Aug. 10	do							
Sept. 11	do							
Oct. 8	do							
Nov. 5	do							
Dec. 11	do							
1960								
Jan. 14	do							
Feb. 5	44	52						
Mar. 4	18	48						

Site 151--Spring - Rancho Juan y Lolita

Location.--Lat $34^{\circ}34'10''$, long $120^{\circ}03'10''$.

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

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

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1954		
Dec. 3	a		Oct. 10	1.0	63	Aug. 17	2.5	60
1949			Nov. 5	.92	63	Sept. 13	2.2	60
Feb. 1	2.5		Dec. 4	1.1	63	Oct. 11	2.5	60
Apr. 8	2.7		1952			Nov. 8	2.6	60
May 26	2.4		Jan. 9	1.3	62	Dec. 6	12	58
June 20	2.2	68	Feb. 18	33	64	1955		
July 19	2.0	64	Apr. 14	50	66	Jan. 3	8.2	60
Aug. 15	2.0	64	May 19	22	65	Feb. 14	16	60
Sept. 26	1.8	62	June 16	17	65	Mar. 14	16	60
Oct. 24	1.6	62	July 3	9.3		Apr. 11	15	60
Nov. 21	1.1	62	Sept. 2	14	64	May 9	7.2	58
Dec. 20	1.4	60	Oct. 21	17	65	June 6	6.7	58
1950			Nov. 20	17	65	July 11	3.3	56
Jan. 18	1.5	63	Dec. 15	13	55	Aug. 8	15	56
Feb. 20	.89	62	1953			Sept. 20	2.9	56
Mar. 22	1.2	63	Jan. 9	16	65	Oct. 24	2.7	54
Apr. 18	1.3	62	Feb. 24	17	64	Nov. 9	2.1	58
May 15	1.2	63	Mar. 9	18	64	Dec. 8	14	56
June 26	1.7	62	Apr. 6	14	65	1956		
July 21	1.7	62	May 18	13	62	Jan. 10	14	56
Aug. 29	1.6	62	June 1	12	60	Feb. 7	20	62
Oct. 16	1.4	62	July 27	5.0	62	Mar. 6	22	60
Nov. 13	1.4	62	Sept. 8	10	62	Apr. 3	19	62
Dec. 11	1.4	62	Oct. 19	8.4	60	May 1	21	61
1951			Nov. 17	12	60	June 4	18	62
Jan. 8	1.3	62	Dec. 14	12	60	July 2	6.0	60
Feb. 5	1.5	62	1954			Aug. 6	6.0	60
Mar. 5	3.3	62	Jan. 11	11	60	Sept. 4	4.8	58
Apr. 4	1.6	65	Feb. 8	11	62	Oct. 1	4.3	62
May 15	1.5	63	Mar. 8	11	62	Nov. 13	4.1	60
June 12	2.5	63	Apr. 12	11	62	Dec. 3	4.0	
July 23	1.2	63	May 10	10		1957		
Aug. 20	1.1	63	June 7	4.8	60	Jan. 7	4.0	62
Sept. 17	1.1	63	July 19	2.6	62	Feb. 4	4.0	60
						Mar. 5	4.2	62

Site 151--Spring - Rancho Juan y Lolita (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957			1960					
Apr. 1	4.5	62	Jan. 13	4.0	56			
May 1	6.0	60	Feb. 1	3.2	58			
June 3	4.0	62	Mar. 3	2.4	58			
July 1	3.6	62						
Aug. 2	3.1	60						
Sept. 3	2.9	58						
Oct. 8	2.7	62						
Nov. 4	2.8	58						
Dec. 2	1.8	60						
1958								
Jan. 9	1.2	58						
Feb. 14	4.5	58						
Mar. 10	3.4							
Apr. 24	75	58						
May 19	46	60						
June 9	33	64						
June 30	28	65						
Aug. 11	22	66						
Sept. 4	20	65						
Oct. 6	15	60						
Nov. 5	2.2	62						
Dec. 17	5.1	58						
1959								
Jan. 8	4.7	58						
Feb. 2	4.2	57						
Mar. 4	4.0	60						
Apr. 1	4.5	60						
May 1	5.1	61						
June 3	4.0	64						
July 8	5.8	65						
Aug. 7	5.8	68						
Sept. 10	3.2	65						
Oct. 5	3.8	62						
Nov. 4	4.5	58						
Dec. 8	4.8	58						

a No measurement obtainable.

Note:--Some unmeasured seepage at the time of each observation.

Site 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.

Remarks--No flow observed on all visits to site during period May 1949 to January 1950.

Site 153--Spring - Ranch Juan y Lolita

Location.--Lat $34^{\circ}33'30''$, long $120^{\circ}03'30''$.

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

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

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1952			1955		
Feb. 1	0.36		Jan. 9	0.06	44	Nov. 9	0.50	
Apr. 8	.21		Feb. 18	.54	53	Dec. 8	.60	46
May 26	.21		Apr. 14	3.5	58	1956		
June 20	.09	71	May 19	2.5	63	Jan. 10	.83	46
July 19	.07	69	June 16	2.0	62	Feb. 7	1.0	50
Aug. 15	.10	61	July 3	1.2	62	Mar. 6	.88	46
Sept. 26	.04	60	Sept. 2	9.0	66	Apr. 3	.75	52
Oct. 24	.06	54	Oct. 21	6.4	64	May 1	.83	54
Nov. 21	.09	53	1953			June 4	.56	54
Dec. 20	.15	45	Jan. 9	5.0	64	July 2	.36	54
1950			Apr. 6	5.0	61	Aug. 6	.22	58
Jan. 18	.31	55	June 1	3.0	58	Sept. 4	.14	56
Feb. 20	.25	52	Sept. 8	2.0	62	Oct. 1	.15	58
Mar. 22	.25		Dec. 14	1.4	54	Nov. 13	.50	46
Apr. 18	.21	60	1954			Dec. 3	.21	48
May 15	.06	55	Mar. 8	1.9	58	1957		
June 26	.14	62	May 10	1.5	58	Jan. 7	.35	48
July 21	.01	68	June 7	1.7	56	Feb. 4	.45	40
Aug. 29	No flow		July 19	.75	64	Mar. 5	.56	56
Oct. 16	do		Aug. 17	.63	56	Apr. 1	.75	50
Nov. 13	.11	55	Sept. 13	.58	56	May 1	1.0	50
Dec. 11	.18	56	Oct. 11	.50	58	June 3	.33	58
1951			Nov. 8	.68	56	July 1	.10	56
Jan. 8	.11	46	Dec. 6	1.1		Aug. 2	.04	56
Feb. 5	.21	57	1955			Sept. 3	.04	58
Mar. 5	.19	53	Jan. 3	1.2	42	Oct. 8	.04	52
Apr. 4	.20	56	Feb. 14	1.3	56	Nov. 4	.12	50
May 15	.08	55	Mar. 14	1.2	52	Dec. 2	.10	42
June 12	.03	57	Apr. 11	.97	52	1958		
July 23	No flow		May 9	.94	52	Jan. 9	.38	50
Aug. 20	do		June 6	1.0	56	Feb. 14	.50	
Sept. 17	do		July 11	.50	52	Mar. 10	.58	
Oct. 10	do		Aug. 8	.60	56	Apr. 24	6.0	58
Nov. 5	do		Sept. 20	a .50	56	May 19	5.0	58
Dec. 4	do		Oct. 24	.94	50	June 9	3.8	63

Site 153--Spring - Ranch Juan y Lolita (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
June 30	3.1	60						
Aug. 11	1.5	65						
Sept. 4	1.2	60						
Oct. 6	.83	60						
Nov. 5	.84	57						
Dec. 17	.68	50						
1959								
Jan. 8	1.2	56						
Feb. 2	1.0	50						
Mar. 4	1.2	57						
Apr. 1	1.2	61						
May 1	.94	58						
June 3	.75	56						
July 8	1.0	54						
Aug. 7	.21	60						
Sept. 10	.16	57						
Oct. 5	1.2	58						
Nov. 4	1.1	56						
Dec. 8	.75	52						
1960								
Jan. 13	1.1	48						
Feb. 1	1.2	56						
Mar. 3	1.5	52						

a Area recently burned.

Site 154--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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1948			1951			1955		
Nov. 10	.03		Nov. 5	No flow		Aug. 8	No flow	
1949			Dec. 4	do		Sept. 20	a do	
Feb. 1	.27		1952			Oct. 24	b	
Apr. 8	.27		Jan. 9	do		Nov. 9	No flow	
May 26	.17		Feb. 18	6.0	62	Dec. 8	do	
June 20	.12	72	Apr. 14	37	62	1956		
July 19	.08	77	May 19	7.5	65	Jan. 10	.25	52
Aug. 15	.11	65	June 16	5.2	63	Feb. 7	.83	58
Sept. 26	.07	60	July 3	5.0	62	Mar. 6	.88	50
Oct. 24	.08	55	Sept. 2	6.0	66	Apr. 3	.62	54
Nov. 21	.05	52	Oct. 21	2.6	64	May 1	.60	54
Dec. 20	.11	41	1953			June 4	.27	54
1950			Jan. 9	1.5		July 2	.14	54
Jan. 18	.06	56	Apr. 6	1.0	59	Aug. 6	.06	58
Feb. 20	.10	52	June 1	.75		Sept. 4	.12	56
Mar. 22	.04	65	Sept. 8	.75	60	Oct. 1	.09	58
Apr. 18	.06	64	Dec. 14	.34	52	Nov. 13	.04	48
May 15	.06	63	1954			Dec. 3	b	
June 26	.12	62	Mar. 8	.47	58	1957		
July 21	.02	66	May 10	.29	56	Jan. 7	b	
Aug. 29	.01	68	June 7	.20	52	Feb. 4	b	
Oct. 16	.02	62	July 19	.11	62	Mar. 5	.22	56
Nov. 13	.15	55	Aug. 17	.14	56	Apr. 1	.06	52
Dec. 11	.05	55	Sept. 13	.16	56	May 1	.10	52
1951			Oct. 11	.12	56	June 3	.06	58
Jan. 8	.04	52	Nov. 8	.13	56	July 1	No flow	
Feb. 5	.05	58	Dec. 16	.14	54	Aug. 2	do	
Mar. 5	.02	53	1955			Sept. 3	do	
Apr. 4	.09	58	Jan. 3	.16	42	Oct. 8	do	
May 15	No flow		Feb. 14	.23	52	Nov. 4	do	
June 12	do		Mar. 14	.21	54	Dec. 2	do	
July 23	do		Apr. 11	.14	54	1958		
Aug. 20	do		May 9	.32	52	Jan. 9	do	
Sept. 17	do		June 6	.06	56	Feb. 14	.16	
Oct. 10	do		July 11	.02	52	Mar. 10	1.7	

Site 154--Spring - Rancho Juan Y Lolita (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
Apr. 24	69	60						
May 19	40	60						
June 9	26	63						
June 30	18	61						
Aug. 11	7.5							
Sept. 4	5.3	64						
Oct. 6	4.0	64						
Nov. 5	2.8	57						
Dec. 17	2.0	43						
1959								
Jan. 8	3.0	60						
Feb. 2	2.6	57						
Mar. 3	5.2	56						
Apr. 1	4.3	56						
May 1	3.1	58						
June 3	2.4	57						
July 8	2.6	58						
Aug. 7	1.7	62						
Sept. 10	.94	61						
Oct. 5	2.4	60						
Nov. 4	2.6	58						
Dec. 8	1.7	56						
1960								
Jan. 13	1.5	48						
Feb. 1	1.4	56						
Mar. 3	1.2	52						

a Area recently burned.

b No measurement obtainable.

Site 155--Spring - U. S. Forest Service

Location.--Lat $34^{\circ}32'10''$, long $120^{\circ}03'50''$.

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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1952			1955		
Jan. 27	10		May 21	2.5	55	Jan. 6	No flow	
Mar. 28	23		June 18	.42	59	Feb. 7	16	38
May 25	2.2		Aug. 5	15	60	Mar. 8	23	45
June 22	No flow		Sept. 4	4.7	61	Apr. 5	No flow	
July 20	do		Oct. 20	No flow		May 3	126	46
Sept. 14	do		Nov. 24	3.8	50	June 21	No flow	
Nov. 30	do		Dec. 16	2.5	58	July 11	do	
Dec. 29	.65	49	1953			Aug. 17	do	
1950			Jan. 5	44	51	Sept. 12	do	
Jan. 16	85	46	Feb. 12	6.7	58	Oct. 13	do	
Feb. 16	15		Mar. 2	1.1	42	Nov. 9	do	
Mar. 10	.54	51	Apr. 10	.97	45	Dec. 8	do	
Apr. 21	No flow		May 12	.36	56	1956		
June 8	do		June 9	.38	52	Jan. 16	1.5	47
July 20	do		July 13	No flow		Feb. 13	23	
Aug. 24	do		Sept. 14	do		Mar. 16	14	52
Nov. 2	do		Oct. 19	do		Apr. 24	15	51
Nov. 29	do		Nov. 12	do		May 16	40	52
Dec. 19	do		Dec. 7	do		June 11	8.3	54
1951			1954			July 9	5.9	53
Jan. 29	.68	47	Jan. 5	do		Aug. 13	5.1	55
Feb. 26	No flow		Feb. 12	do		Sept. 13	3.8	52
Mar. 21	do		Mar. 4	1.7		Oct. 10	3.0	54
Apr. 24	do		Apr. 12	25	49	Nov. 19	2.3	45
June 19	do		May 12	2.0		Dec. 21	2.3	45
July 25	do		June 8	No flow		1957		
Aug. 22	do		July 7	do		Jan. 10	2.2	42
Sept. 24	do		Aug. 10	do		Feb. 7	14	44
Oct. 22	do		Sept. 14	do		Mar. 9	24	52
Nov. 8	do		Oct. 12	do		Apr. 8	5.5	51
Dec. 7	38	50	Nov. 9	do		May 3	13	51
1952			Dec. 7	do		June 6	6.2	54
Jan. 8	60	46				July 8	1.9	55
Mar. 13	435					Aug. 7	2.1	
Apr. 10	18	50				Sept. 6	1.5	54

Site 155--Spring - U. S. Forest Service (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1957								
Oct. 7	.75	50						
Nov. 5	.60	45						
Dec. 9	2.3	44						
1958								
Jan. 9	1.7	49						
Feb. 17	73	47						
Mar. 10	50	45						
Apr. 21	76	61						
May 19	26	54						
June 6	18	53						
July 21	7.6	57						
Aug. 4	7.5	58						
Sept. 8	4.0	57						
Oct. 6	4.5	57						
Nov. 5	5.8	53						
Dec. 9	2.1	46						
1959								
Jan. 14	3.1	48						
Feb. 26	179							
Mar. 6	16	51						
Apr. 3	7.6	57						
May 4	7.6	45						
June 8	3.1							
July 10	1.3	61						
Aug. 10	.88	60						
Sept. 11	1.5	62						
Oct. 8	2.1	55						
Nov. 6	1.1	45						
Dec. 11	1.3	43						
1960								
Jan. 8	.74	43						
Feb. 1	7.6							
Mar. 3	20	46						

Site 156--West Fork Quiota Creek

Location.--Lat $34^{\circ}33'10''$, long $120^{\circ}04'20''$, 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 (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1949			1952			1955		
Feb. 1	34		Jan. 9	291	40	Nov. 9	No flow	
Apr. 8	70		Feb. 18	388	49	Dec. 8	do	
May 26	5.8		Apr. 14	775	52	1956		
June 20	No flow		May 19	163	58	Jan. 10	268	43
July 19	do		June 16	56	55	Feb. 7	758	45
Aug. 15	do		July 3	6.7	59	Mar. 6	331	44
Sept. 16	do		Sept. 2	77	63	Apr. 3	82	48
Oct. 24	do		Oct. 21	55	54	May 1	573	50
Nov. 21	do		1953			June 4	74	54
Dec. 20	51	42	Jan. 9	1,300	55	July 2	16	54
1950			Apr. 6	103	52	Aug. 6	9.9	54
Jan. 18	89	48	June 1	55	52	Sept. 4	No flow	
Feb. 20	130	50	Sept. 8	20	54	Oct. 9	do	
Mar. 22	6.3	53	Dec. 14	15	40	Nov. 13	6.8	47
Apr. 18	22	57	1954			Dec. 3	12	43
May 15	12	53	Mar. 8	110	52	1957		
June 26	No flow		May 10	37	54	Jan. 7	51	46
July 21	do		June 7	10	58	Feb. 4	46	36
Aug. 29	do		July 19	No flow		Mar. 5	258	52
Oct. 16	do		Aug. 17	do		Apr. 1	84	50
Nov. 13	do		Sept. 13	do		May 1	141	50
Dec. 11	do		Oct. 11	do		June 3	31	53
1951			Nov. 8	do		July 1	16	56
Jan. 8	do		Dec. 6	11	45	Aug. 2	No flow	
Feb. 5	do		1955			Sept. 3	do	
Mar. 5	26	48	Jan. 3	18	36	Oct. 8	do	
Apr. 4	17	53	Feb. 14	45	46	Nov. 4	do	
May 15	15	54	Mar. 14	159	46	Dec. 2	do	
June 12	No flow		Apr. 11	14	46	1958		
July 23	do		May 9	130	48	Jan. 9	34	42
Aug. 20	do		June 6	9.7	52	Feb. 14	678	
Sept. 17	do		July 11	No flow		Mar. 10	763	
Oct. 10	do		Aug. 8	do		Apr. 24	1,680	50
Nov. 5	do		Sept. 20	a do		May 19	790	54
Dec. 4	29	51	Oct. 24	do		June 9	364	

Site 156--West Fork Quiota Creek (continued)

Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)	Date	Discharge (gpm)	Temp. (°F)
1958								
June 30	205	57						
Aug. 11	30	62						
Sept. 4	5.8	58						
Oct. 6	26	58						
Nov. 5	9.4	52						
Dec. 17	23							
1959								
Jan. 8	82	51						
Feb. 2	48	40						
Mar. 4	628	48						
Apr. 1	153	51						
May 1	44	55						
June 3	14	54						
July 8	2.0	58						
Aug. 7	No flow							
Sept. 10	do							
Oct. 5	do							
Nov. 4	do							
Dec. 8	3.1	45						
1960								
Jan. 13	124	40						
Feb. 1	19	48						
Mar. 3	263							

a Area recently burned.

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