

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SEVENTH PROGRESS REPORT ON THE COOPERATIVE INVESTIGATION
OF SPRINGS AND STREAMFLOW IN THE TECOLOTE TUNNEL AREA
OF SANTA BARBARA COUNTY, CALIF.

BY

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Prepared in cooperation with the
Santa Barbara County Water Agency

May 1957

OPEN-FILE REPORT

57-89

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PREFACE

This seventh progress report on the investigation of springs and streamflow in the Tecolote Tunnel area was prepared by the U. S. Geological Survey, Water Resources Division, Surface Water Branch, California district, R. S. Lord, district engineer, under the direction of W. M. Littlefield, engineer in charge, Los Angeles, Calif.

The collection of basic records of springs and streamflow is part of a cooperative program with the Santa Barbara County Water Agency. Field work was accomplished by G. E. Stanton, W. C. Heinrich, and W. J. Wheatley. The report was prepared with the general assistance of Walter Hofmann.

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Seventh Progress Report
on the Cooperative Investigation of Springs and Streamflow in the
Tecolote Tunnel Area of Santa Barbara County, Calif.

by

W. C. Peterson

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INTRODUCTION

This report is the seventh in a continuing series of progress reports giving the results of discharge measurements made at selected springs and streams in the Tecolote Tunnel area of the Santa Ynez Mountains. The measurement program was begun on its present scale in the latter part of 1948 by the Geological Survey at the request of the Santa Barbara County Water Agency and is being continued under a cooperative agreement whereby each agency pays half the cost of the investigation.

The purpose of the program is to obtain sufficient factual data to determine what effect, if any, the inflow of ground water into Tecolote Tunnel will have on the flow of springs and streams in the vicinity of the tunnel. The area involved in the study, shown by plate 1, was made large enough to include a number of springs and streams believed to be outside the zone of influence of the tunnel.

Tecolote Tunnel, completed late in 1955, was built by the Bureau of Reclamation for the purpose of conveying water stored in Cachuma Reservoir to the city of Santa Barbara and adjacent coastal communities.

The alinement of the tunnel is roughly north and south through the center of the arbitrarily chosen study area which extends from the Painted Cave area on the east to Refugio Pass on the west and from the Santa Ynez River on the north to the Pacific Ocean on the south.

The purpose of this report is to make available the factual data obtained from July 1954 to June 1956, together with a brief presentation of precipitation, springflow, and tunnel outflow for the entire period of the investigation.

BASIC DATA

Precipitation

Rainfall records obtained at the city of Santa Barbara, about 15 miles southwest of the center of the Tecolote Tunnel, are assumed to be a suitable index of precipitation for the tunnel area. These monthly precipitation data have been assembled to indicate their trend for the observational period of this investigation by two different methods of presentation. The trend as shown on figure 1 is based on the 12-month progressive average monthly precipitation and includes record from January 1, 1949, to June 30, 1956. Each 12-month progressive average monthly discharge is plotted at the middle of the 12-month period it represents.

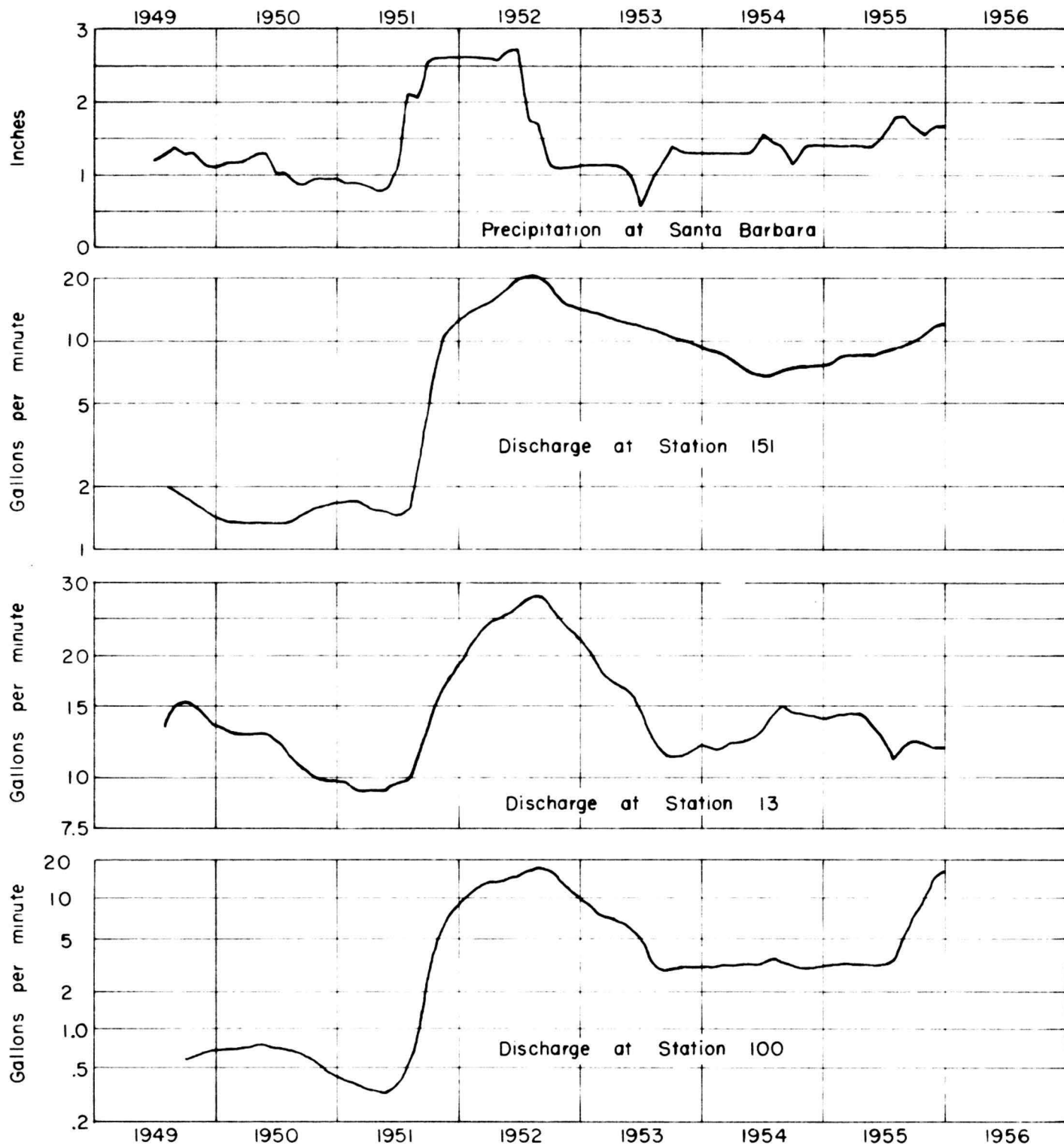


Figure 1.-- Twelve-month progressive average monthly precipitation and discharge

Fold out |

The trend of precipitation shown on figure 2 is based on the cumulative deviations of the actual monthly precipitation from one-twelfth the mean annual precipitation for the period July 1949 to June 1956, expressed in percent of the mean annual. Upward trends in this graph signify an excess of monthly precipitation; downward trends show the reverse or a deficiency in precipitation. Residual mass curves of this type are considered to be indicative of changes in ground-water storage -- that is, excessive precipitation generally results in an increase of ground-water storage whereas deficient precipitation results in a depletion of these reserves.

Springs and streamflow

The surface runoff in the Tecolote Tunnel area, as in other southern California mountain areas, is a combination of flood runoff due to excessive rates of storm rainfall, and seepage from ground-water storage sustained in the mountain block. Experience has indicated that as much as 90 percent of the annual mountain runoff may enter the stream channel from ground-water sources.

During the period July 1954 to June 1956 observations of flow generally were obtained monthly at 120 springs and streams in the area; outflow observations made at Tecolote Tunnel are included in this total. Within practicable limits discharge measurements are not made during or immediately following a storm period. Thus, the influence of direct storm runoff is greatly minimized or completely eliminated.

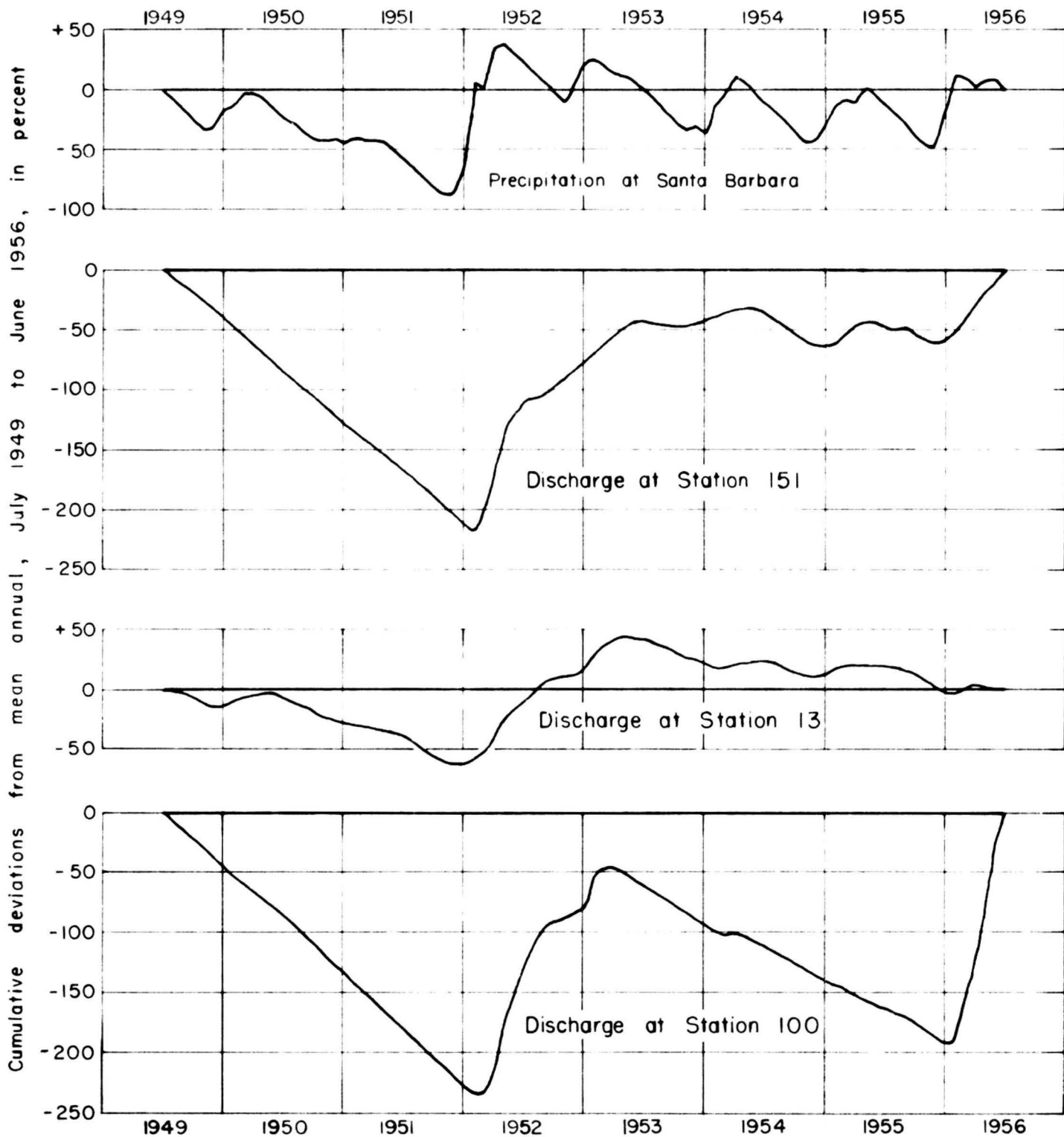


Figure 2.--Residual mass curves of precipitation and discharge

The gradually lengthening records of 54 selected springs are currently being analyzed to determine significant changes in trend for the entire observational period. In general, these selected springs are perennial and adequately sample the Tecolote Tunnel area. The trends of discharge for three arbitrarily chosen springs in this group -- stations 13, 100, and 151 -- are shown on figures 1 and 2; station 13 is in the Painted Cave area 6 miles east of the tunnel, station 100 is 2 miles east of the tunnel near the crest of the mountain range, and station 151 is in the Refugio Pass area 9 miles west of the tunnel (see pl. 1). Stations 100 and 151 are considered to be outside the zone of influence of Tecolote Tunnel.

On figure 1 the 12-month progressive average monthly discharge for each station has been plotted at the middle of the 12-month period it represents. This procedure effectively suppresses the relatively large month-to-month fluctuations and demonstrates more clearly the general trend of discharge. Although the use of a 12-month average assists in showing the trend, it has the effect of reducing the length of record -- that is, the hydrographs are based on observational periods February 1949 to June 1956 for stations 13 and 151, and April 1949 to June 1956 for station 100, but the trend is delineated for a total interval of 12 months less than each of these periods.

For making the most efficient use of the moderate-length records obtained at these three stations, data based on an observational period July 1949 to June 1956 are plotted on figure 2 in the form of residual mass curves of discharge. This presentation of the data appears to be equally useful for determining significant changes in the trend of discharge. However, the 12-month progressive average presentation readily facilitates the incorporation of successively obtained data; consequently, the trends of discharge of the 54 selected springs are kept current and are available in that form.

Early in September 1955 the Refugio fire burned over the major part of the Tecolote Tunnel area. The areal extent of the burn was delineated by the U. S. Forest Service and the boundary incorporated in plate 1. Certain isolated areas within the boundary, such as the bottoms of canyons where residences and farms were maintained, were not burned, but in general all ground cover and tree foliage were destroyed. There probably will be a decrease in summer transpiration losses at springs where measuring sites are somewhat distant from the source of flow and where water-loving vegetation growing between the source and the measuring site has been destroyed. As yet there is insufficient record to determine this effect. Overall, the greatest effect of the burn may be the alteration of the infiltration characteristics of the area.

A study of the available data reveals that, as yet, no conclusion can be drawn as to the influence, if any, of the Tecolote Tunnel on spring and streamflow of the area. As a decrease in the magnitude of spring and streamflow due to the tunnel excavation would probably occur gradually over a period of years, the effect in any one year would be small and perhaps hidden by other factors. A longer period of observation than that now available is required to establish a definite and significant trend of the data now being collected.

Tecolote Tunnel Flow

Excavation of the 6.4-mile Tecolote Tunnel was started from the North portal on February 17, 1950, and from the South portal on May 3, 1950. Excavation from the North portal was discontinued in May 1952 after the heading had penetrated 14,969 feet. The work of lining this section of the tunnel with concrete was completed March 10, 1953. Excavation from the South portal was completed with the official "hole through" of January 15, 1955; the lining was finished late in 1955. Flow of ground water into the tunnel is through uncontrolled weep-holes installed in the lining.

Tunnel outflow, furnished by U. S. Bureau of Reclamation, for the period July 1954 to June 1956 is given in table 1. The distribution of outflow for the complete observational period and its relation to progress of the tunnel headings is shown by figure 3.

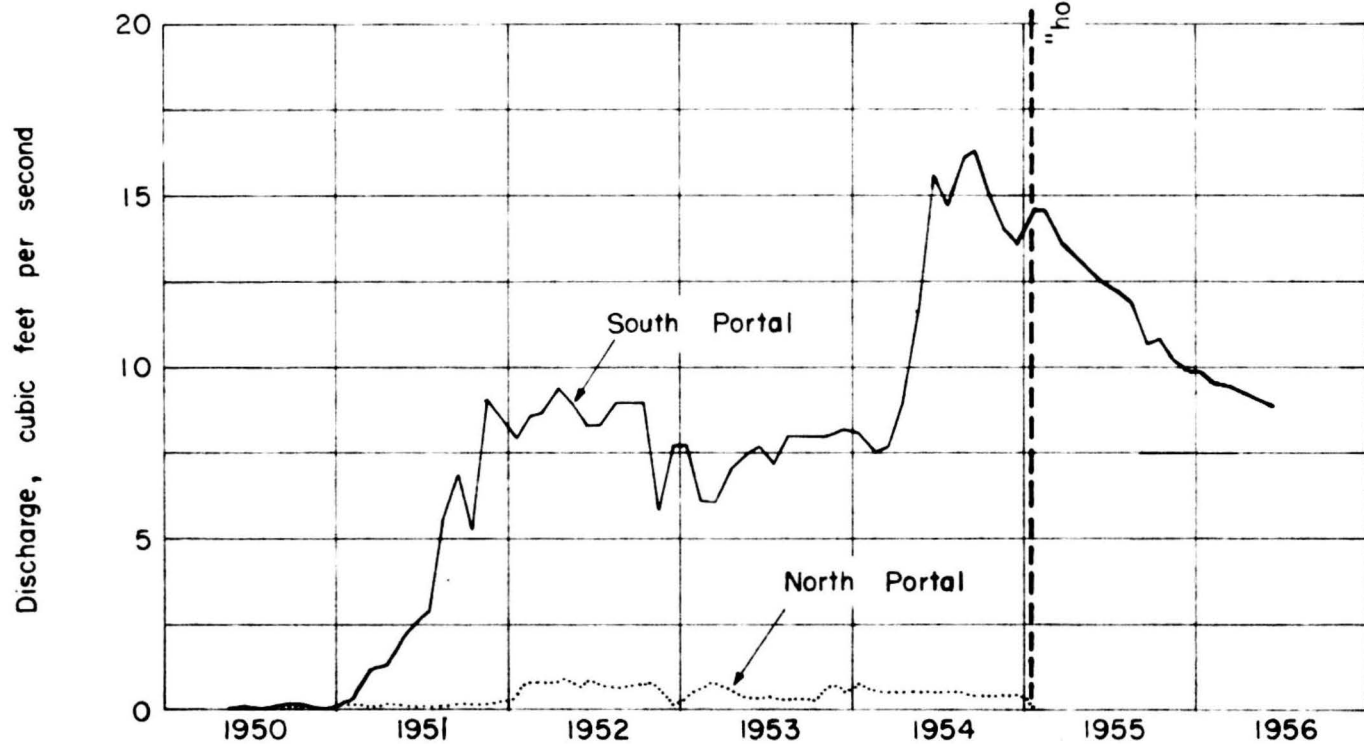
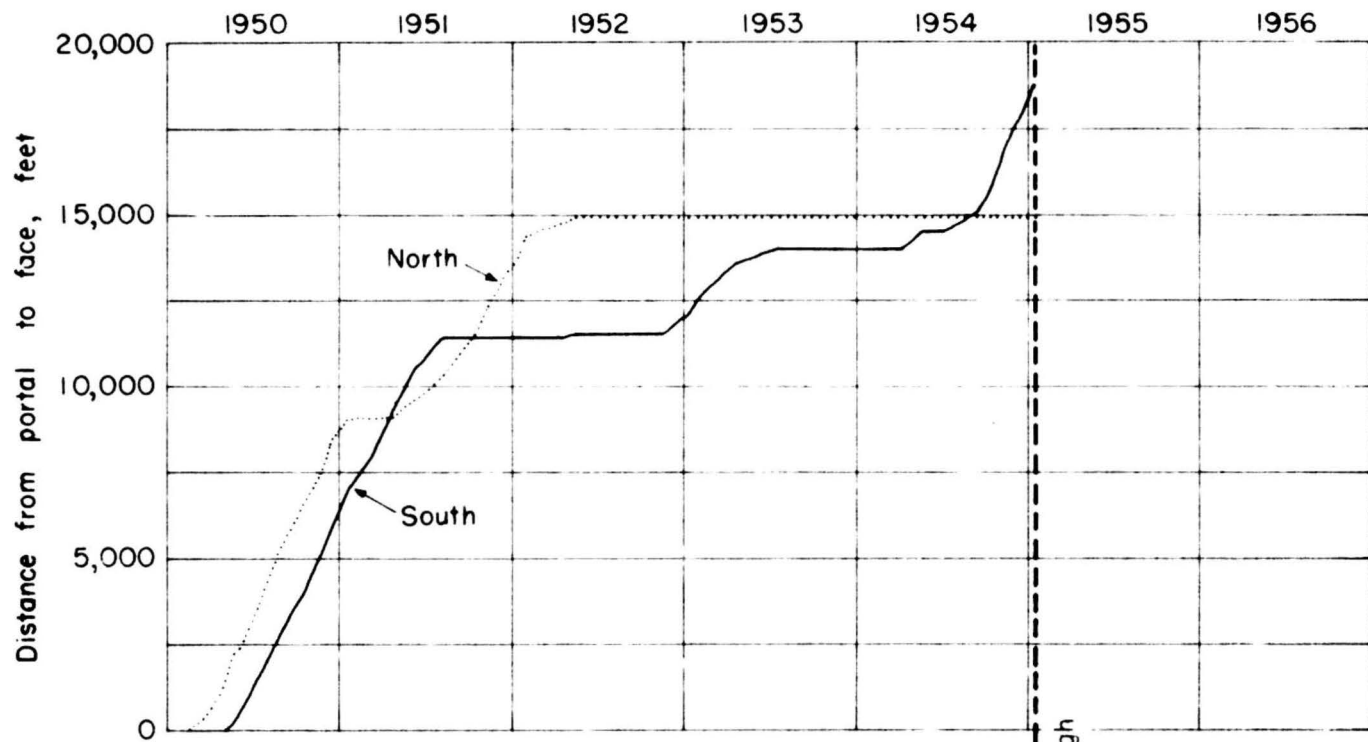


Figure 3.--Heading progress and outflow hydrograph of Tecolote Tunnel

Table 1.--Monthly mean discharge, in cubic feet per second, of
Tecolote Tunnel for the period July 1954 to June 1956

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
1954-55	15.2	16.6	16.7	15.3	14.4	14.0	14.5	14.5	13.7	13.2	12.8	12.4
1955-56	12.2	11.8	10.7	10.8	10.2	9.9	9.8	9.5	9.4	9.2	9.0	8.8

Discharge Measurements

The results of all discharge measurements, including observations of no flow, of selected springs and streams in the Tecolote Tunnel area made from July 1, 1954, to June 30, 1956, are given in table 2. The records are arranged in numerical order, using a station number that corresponds to the location number shown on the map of the Tecolote Tunnel area included as plate 1. The records for each station are headed by a brief description giving the name, location, altitude, and type, followed by a chronological listing of the observations. All available information concerning diversions is included where applicable.

Station 110b, Hot Springs Creek at source, was established July 23, 1954.

Since the beginning of the investigation certain stations have been dropped from the measurement program at various intervals owing to general inaccessibility, early cessation of flow, or elimination through combination with other measuring sites. They are: stations 5, 6, 8, 17, 24, 27, 28a, 29, 32, 34, 38, 39, 40, 41, 44, 51a, 52, 53, 54, 55, 56, 58, 60, 69, 71, 72, 73a, 75, 76, 77, 79, 80, 83, 93a, 96, 139, 143a, 145, and 152.

Table 2.--Discharge measurements of selected springs
and streams in the Tecolote Tunnel area
for the period July 1954 to June 1956

SAN ANTONIO CREEK AT SAN MARCOS PASS ROAD

Location.--Lat. $34^{\circ}28'00''$, long. $119^{\circ}46'10''$. 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.

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 14	3:15 p.m.	0.021	9.4	69	One small pool. Channel bulldozed since last visit.
Aug. 17	6:25 a.m.	No flow	No flow		
Sept. 22	7:30 a.m.	No flow	No flow		
Oct. 8	8:00 a.m.	No flow	No flow		Pools.
Nov. 19	8:20 a.m.	No flow	No flow		
Dec. 17	2:30 p.m.	No flow	No flow		
1955					
Jan. 17	2:15 p.m.	.22	98	46	Pools.
Feb. 10	8:15 a.m.	.15	69	44	
Mar. 10	12:30 p.m.	.27	120	55	
Apr. 26	7:40 a.m.	.093	42	49	
May 11	12 M.	.34	150	58	
June 6	7:00 a.m.	.19	84	57	
July 22	7:00 a.m.	.035	16	60	
Aug. 22	1:30 p.m.	No flow	No flow		
Sept. 23	7:15 a.m.	No flow	No flow		
Oct. 14	11:10 a.m.	No flow	No flow		
Nov. 9	10:50 a.m.	.013	5.8	61	
Dec. 12	2:10 p.m.	.051	23	54	
Feb. 14	12:30 p.m.	.62	278	50	
Mar. 15	12:15 p.m.	.44	197	47	
Apr. 23	1:00 p.m.	.20	91.6	48	
May 21	1:00 p.m.	.51	228	51	
June 12	12 M.	.23	103	66	

SPRING - ETIENNE LEJEUNE

Location.--Lat. $34^{\circ}30'50''$, long. $119^{\circ}47'10''$, 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 26	8:40 a.m.	0.0013	0.58	68	
Aug. 12	9:10 a.m.	.0015	.68	57	
Oct. 8	7:55 a.m.	.0022	.99	52	
Nov. 19	8:00 a.m.	.0052	2.31	51	
Dec. 8	8:50 a.m.	.0080	3.57	45	
1955					
Jan. 14	9:15 a.m.	.0056	2.50	39	
Feb. 24	9:35 a.m.	.010	4.54	41	
Mar. 10	10:35 a.m.	.010	4.55	49	
Apr. 21	7:45 a.m.	.0089	4.00	46	
May 3	10:20 a.m.	.041	18	51	
June 3	7:25 a.m.	.012	5.4	50	
July 12	10:55 a.m.	.012	5.3	59	
Sept. 16	11:40 a.m.	.0035	1.56	59	
Oct. 13	2:00 p.m.	.0021	.94	58	
Nov. 10	2:00 p.m.	.0034	1.54	55	
Dec. 8	1:45 p.m.	.0064	2.85	48	
1956					
Jan. 19	1:40 p.m.	.020	9.1	48	
Feb. 14	10:30 a.m.	.022	10	44	
Mar. 15	11:05 a.m.	.033	15	41	
Apr. 24	9:20 a.m.	.014	6.2	41	
May 22	8:10 a.m.	.043	19	43	
June 15	10:15 a.m.	.017	7.5	51	

SPRING - ETIENNE LEJEUNE

Location.--Lat. $34^{\circ}30'50''$, long. $119^{\circ}47'20''$, 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 26	8:30 a.m.	0.0010	0.44	64	
Aug. 12	9:00 a.m.	.00066	.29	56	
Oct. 8	7:50 a.m.	.00067	.30	51	
Nov. 19	7:50 a.m.	.00084	.38	51	
Dec. 8	8:40 a.m.	.0033	1.50	44	
1955					
Jan. 14	9:05 a.m.	.011	5.0	38	
Feb. 24	9:20 a.m.	.0041	1.85	40	
Mar. 10	10:25 a.m.	.0043	1.92	47	
Apr. 21	7:50 a.m.	.0028	1.25	47	
May 3	12 M.	.091	41	51	
June 3	7:35 a.m.	.0033	1.48	49	
July 12	12:10 p.m.	.0014	.62	60	
Sept. 16	11:50 a.m.	.00052	.24	58	
Oct. 13	2:20 p.m.	.00048	.21	58	
Nov 10	1:30 p.m.	.00045	.20	52	
Dec. 8	1:15 p.m.	.0012	.56	48	
1956					
Jan. 19	1:20 p.m.	.0086	3.85	48	
Feb. 14	10:50 a.m.	.011	5.0	45	
Mar. 15	10:05 a.m.	.0079	3.53	40	
Apr. 24	9:00 a.m.	.0067	3.00	42	
May 22	8:00 a.m.	.015	6.7	41	
June 15	9:55 a.m.	.0028	1.25	51	

SPRING - PAINTED CAVE - MUTUAL WATER COMPANY

Location.--Lat. $34^{\circ}30'30''$, long. $119^{\circ}47'20''$, 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 26	8:20 a.m.	No flow	No flow		
Aug. 12	8:55 a.m.	No flow	No flow		
Oct. 8	7:45 a.m.	No flow	No flow		
Nov. 19	7:40 a.m.	No flow	No flow		
Dec. 8	8:30 a.m.	0.0012	0.54	42	
1955					
Jan. 14	9:00 a.m.	.013	5.8	38	
Feb. 24	9:00 a.m.	.0080	3.57	41	
Mar. 10	10:15 a.m.	.0086	3.84	47	
Apr. 21	7:35 a.m.	No flow	No flow		Small pools in channel.
May 3	12:10 p.m.	.093	42	48	
June 3	7:45 a.m.	.00080	.36	51	
July 12	10:50 a.m.	No flow	No flow		
Sept. 16	11:30 a.m.	No flow	No flow		
Oct. 13	1:45 p.m.	No flow	No flow		
Nov. 10	1:00 p.m.	No flow	No flow		
Dec. 8	1:05 p.m.	No flow	No flow		
1956					
Jan. 19	1:00 p.m.	.0035	1.58	51	
Feb. 14	11:05 a.m.	.012	5.3	48	
Mar. 15	10:20 a.m.	.0042	1.88	43	
Apr. 24	8:50 a.m.	.0040	1.78	44	
May 22	8:30 a.m.	.0091	4.08	45	
June 15	10:30 a.m.	.0023	1.04	51	

STATION 7.

SPRING - E. T. OGRAM

Location.--Lat. $34^{\circ}30'20''$, long. $119^{\circ}47'10''$, 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 26	8:50 a.m.	0.0019	0.85	63	Pumping to #4.
Aug. 12	9:20 a.m.	.0017	.78	56	Pumping to #4.
Oct. 8	8:05 a.m.	No flow	No flow		
Nov. 19	8:05 a.m.	No flow	No flow		
Dec. 8	8:55 a.m.	No flow	No flow		
1955					
Jan. 14	9:25 a.m.	.0024	1.09	53	
Feb. 24	9:50 a.m.	.008	3.85	54	
Mar. 10	10:00 a.m.	.0088	3.95	55	
Apr. 21	8:05 a.m.	.0020	.90	56	
May 3	10:10 a.m.	.010	4.54	57	
June 3	7:50 a.m.	.0064	2.88	56	
July 12	10:45 a.m.	No flow	No flow		
Sept. 16	11:25 a.m.	No flow	No flow		
Oct. 13	1:15 p.m.	No flow	No flow		
Nov. 10	12:30 p.m.	No flow	No flow	70	Pumping to #4.
Dec. 8	1:00 p.m.	No flow	No flow		
1956					
Jan. 19	1:15 p.m.	.0067	3.00	56	
Feb. 14	11:25 a.m.	.013	6.0	51	
Mar. 15	11:25 a.m.	.014	6.4	50	
Apr. 24	9:35 a.m.	.0061	2.73	45	
May 22	8:40 a.m.	.017	7.5	43	
June 15	10:45 a.m.	.012	5.3	52	

SPRING - SAM NUCKOLS

Location.--Lat. $34^{\circ}30'20''$, long. $119^{\circ}47'10''$, 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	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 26	9:05 a.m.	0.016	7.0	64	
Aug. 12	9:30 a.m.	.0097	4.35	57	
Oct. 8	8:20 a.m.	.012	5.4	58	
Nov. 19	8:15 a.m.	.0096	4.28	56	
Dec. 8	9:10 a.m.	.020	8.8	52	
1955					
Jan. 14	9:35 a.m.	.031	14	50	
Feb. 24	10:00 a.m.	.034	15	51	
Mar. 10	9:35 a.m.	.036	16	50	
Apr. 21	8:20 a.m.	.016	7.4	52	
May 3	10:00 a.m.	.028	12	53	
June 3	8:05 a.m.	.021	9.4	55	
July 12	10:35 a.m.	.012	5.2	59	
Sept. 16	11:15 a.m.	.0085	3.82	63	
Oct. 13	12:30 p.m.	.0076	3.41	66	
Nov. 10	12 M.	-	-		No meas. All flow going into storage tanks.
Dec. 8	12:30 p.m.	.0079	3.54		
1956					
Jan. 19	12 M.	.027	12	54	
Feb. 14	11:45 a.m.	.033	15	53	
Mar. 15	11:40 a.m.	.029	13	49	
Apr. 24	9:50 a.m.	.033	15	43	
May 22	9:00 a.m.	.028	13	42	
June 15	11:15 a.m.	.031	14	51	

STATION 11.

SPRING - SAM NUCKOLS

Location.--Lat. $34^{\circ}30'10''$, long. $119^{\circ}47'10''$, 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 26	9:00 a.m.	-	-		No meas.--distilling plant taking flow.
Aug. 12	9:25 a.m.	-	-		do
Oct. 8	8:15 a.m.	-	-		do
Nov. 19	8:10 a.m.	-	-		do
Dec. 8	9:05 a.m.	-	-		do
1955					
Jan. 14	9:30 a.m.	0.016	6.8	51	
Feb. 24	9:55 a.m.	.0052	2.42	52	
Mar. 10	9:30 a.m.	.005	2.2	53	
Apr. 21	8:10 a.m.	.0034	1.54	52	
May 3	9:50 a.m.	.0075	3.45	54	
June 3	8:00 a.m.	.0070	3.19	56	
July 12	10:30 a.m.	.0020	.89	60	
Sept. 16	11:10 a.m.	.0018	.79	66	
Oct. 13	12:25 p.m.	.00036	.16	65	
Nov. 10	12 M.	-	-		No meas.--flow going into storage tanks.
Dec. 8	12:30 p.m.	.0024	1.07		
1956					
Jan. 19	12 M.	.0067	3.00	54	
Feb. 14	11:50 a.m.	.011	5.0		
Mar. 15	11:35 a.m.	.0094	4.20	48	
Apr. 24	9:50 a.m.	.0029	1.30	43	
May 22	9:00 a.m.	.0056	2.50	43	
June 15	11:15 a.m.	.0067	3.00	51	

STATION 12.

MARIA YGNACIO CREEK AT OLD SAN MARCOS PASS ROAD

Location.--Lat. $34^{\circ}27'40''$, long. $119^{\circ}47'40''$. 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	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 14	10:50 a.m.	0.023	10	68	Pumping upstream.	
Aug. 17	12:35 p.m.	.010	4.48	72		
Sept. 22	7:50 a.m.	.013	5.8	61		
Oct. 8	8:45 a.m.	.02	9.4	56		
Nov. 19	8:35 a.m.	.16	73	50		
Dec. 17	1:20 p.m.	.26	116	51		
1955						
Jan. 17	1:55 p.m.	.31	140	48		
Feb. 10	12:30 p.m.	.30	135	53		
Mar. 10	12:10 p.m.	.54	240	54		
Apr. 26	8:10 a.m.	.22	97	52		
May 11	11:30 a.m.	.57	254			
June 6	7:30 a.m.	.10	43	60		
July 22	12:40 p.m.	.010	4.49	67		
Aug. 22	1:00 p.m.	.010	4.48	66		
Sept. 23	7:30 a.m.	.010	4.48	58		
Oct. 14	11:30 a.m.	.035	16	59		
Nov. 9	11:20 a.m.	.030	13	53		
Dec. 12	1:45 p.m.	.16	72	51		
1956						
Feb. 28	10:45 a.m.	.34	153	46		
Mar. 13	1:10 p.m.	.20	89	53		
Apr. 24	10:05 a.m.	.18	81	46		
May 22	9:30 a.m.	.42	188	44		
June 12	12:30 p.m.	.13	57	64		

UNNAMED CREEK NEAR HOBO ROCK

Location.--Lat. $34^{\circ}30'20''$, long. $119^{\circ}48'10''$, 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 26	9:20 a.m.	0.016	7.1	64	
Aug. 12	9:55 a.m.	.021	9.5	60	
Oct. 8	8:30 a.m.	.020	8.8	56	
Nov. 19	8:30 a.m.	.033	15	54	
Dec. 8	11:30 a.m.	.033	15	53	
1955					
Jan. 14	10:05 a.m.	.066	30	46	
Feb. 23	10:00 a.m.	.032	14	46	
Mar. 10	8:15 a.m.	.040	18	50	
Apr. 21	10:05 a.m.	.027	12	50	
May 10	10:25 a.m.	.042	19	55	
June 2	10:20 a.m.	.028	13	50	
July 12	9:50 a.m.	.027	12	59	
Sept. 16	10:35 a.m.	.021	9.3	59	
Oct. 13	11:45 a.m.	.023	11	59	
Nov. 10	11:15 a.m.	.0035	1.58	54	
Dec. 8	11:30 a.m.	.010	4.60		
1956					
Feb. 28	10:10 a.m.	.078	35	44	
Mar. 13	11:20 a.m.	.042	19	43	
Apr. 23	12:05 p.m.	.016	7.0	44	
May 21	11:30 a.m.	.045	20	42	
June 12	11:00 a.m.	.0055	2.48	55	

SPRING - FOSTER GLEN PARK, COUNTY OF SANTA BARBARA

Location -- Lat. $34^{\circ}30'20''$, long. $119^{\circ}48'20''$, 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	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 26	9:40 a.m.	0.00027	0.12	66	
Aug. 12	10:15 a.m.	.00024	.11	59	
Oct. 8	8:55 a.m.	.00017	.075	59	
Nov. 19	8:45 a.m.	.00029	.13	55	
Dec. 8	11:45 a.m.	.0012	.54	52	
1955					
Jan. 14	10:15 a.m.	.0036	1.60	48	
Feb. 23	9:45 a.m.	.0036	1.63	50	
Mar. 10	7:55 a.m.	.0037	1.69	50	
Apr. 21	10:30 a.m.	.0035	1.58	50	
May 10	10:00 a.m.	.0062	2.78	54	
June 2	9:00 a.m.	.0044	1.98	55	Spring pit being cleaned out by road contractor so he can use flow.
July 12	9:35 a.m.	.0071	3.19		New concrete crib and new pipe installed since last visit.
Sept. 16	10:10 a.m.	No flow	No flow		Water in spring pit.
Oct. 13	11:05 a.m.	No flow	No flow		
Nov. 10	10:50 a.m.	No flow	No flow		Water in spring pit.
Dec. 8	1:10 p.m.	No flow	No flow		do
1956					
Feb. 28	9:40 a.m.	.0085	3.80	45	
Mar. 13	11:00 a.m.	.0053	2.39	46	Pipe line from spring repaired.
Apr. 23	11:40 a.m.	.0052	2.31	44	
May 21	11:10 a.m.	.0051	2.27	44	
June 12	10:30 a.m.	.0029	1.30	58	

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 26	11:25 a.m.	No flow	No flow		
Aug. 11	9:05 a.m.	No flow	No flow		
Oct. 7	7:15 a.m.	No flow	No flow		
Nov. 19	10:40 a.m.	No flow	No flow		
Dec. 9	8:40 a.m.	No flow	No flow		
1955					
Jan. 12	8:15 a.m.	No flow	No flow		
Feb. 23	7:35 a.m.	No flow	No flow		
Mar. 8	7:55 a.m.	0.0019	0.83	56	New 3/4" line bypassing tank. New measuring point beyond junction with line from #16.
Apr. 19	8:00 a.m.	.0017	.76	50	
May 10	7:40 a.m.	-	-		No meas.-valve from #16 leaking into line.
June 2	7:20 a.m.	-	-		No meas.-valve from #16 leaking into line.
July 12	7:20 a.m.	-	-		do
Sept. 16	7:45 a.m.	-	-		do
Oct. 13	7:40 a.m.	-	-		do
Nov. 10	7:30 a.m.	-	-		do
Dec. 8	7:45 a.m.	-	-		do
1956					
Jan. 17	7:30 a.m.	-	-		do
Feb. 28	8:00 a.m.	-	-		do
Mar. 13	7:25 a.m.	-	-		do
Apr. 23	8:35 a.m.	-	-		do
May 21	7:30 a.m.	-	-		do
June 12	6:30 a.m.	-	-		do

SPRING - TOM KINEVAN

Location.--Lat. $34^{\circ}30'30''$, long. $119^{\circ}49'40''$, 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 pipeline to storage tank.

Date	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 26	11:15 a.m.	0.0017	0.74	62	This and succeeding measurements include flow from spring 200 ft below, which broke out after minor quake sometime in 1954.	
Aug. 11	9:15 a.m.	.0017	.77	59		
Oct. 7	7:25 a.m.	.0015	.68	61		
Nov. 19	10:50 a.m.	.00084	.38	62		
Dec. 9	8:50 a.m.	.0012	.53	58		
1955						
Jan. 13	8:25 a.m.	.0014	.63	53		
Feb. 23	7:50 a.m.	.0017	.74	55		
Mar. 8	7:30 a.m.	.0022	.98	58		
Apr. 19	7:30 a.m.	.0044	2.07	56		
May 10	7:55 a.m.	.0082	3.65	54		
June 2	7:30 a.m.	.0065	2.93	57		
July 12	7:30 a.m.	.0057	2.54	56		
Sept. 16	8:00 a.m.	.0053	2.39	59		
Oct. 13	7:50 a.m.	.0059	2.65	60		
Nov. 10	7:45 a.m.	.0047	2.10	59		
Dec. 8	8:00 a.m.	.0050	2.22	51		
1956						
Jan. 17	7:30 a.m.	.010	4.53	50		
Feb. 28	8:10 a.m.	.018	7.9	-		
Mar. 13	8:00 a.m.	.014	6.2	51		
Apr. 23	8:30 a.m.	.015	6.8	46		
May 21	7:30 a.m.	.018	8.1	48		
June 12	6:40 a.m.	.013	5.8	53		

* Area burned off.

SPRING - C. R. HOLMES, JR., ET AL

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

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

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

Date	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 26	9:55 a.m.	0.022	10	65	Spring not flowing, "Y" recapped.
Aug. 18	10:25 a.m.	.014	6.3	60	
Oct. 8	9:10 a.m.	.015	6.8	58	
Nov. 19	9:00 a.m.	.014	6.4	58	
Dec. 8	12 M.	.024	11	58	
1955					
Jan. 14	10:45 a.m.	.017	7.6	56	Found spring plugged-- removed leaves.
Feb. 23	11:45 a.m.	.016	7.1	57	
Mar. 10	8:30 a.m.	.016	7.3	57	
Apr. 21	10:50 a.m.	.016	7.2	56	
May 10	10:45 a.m.	.016	7.2	58	
June 2	9:40 a.m.	.0091	4.09	57	
July 12	9:20 a.m.	.012	5.5	57	
Sept. 16	9:45 a.m.	.020	8.8	59	
Oct. 13	10:20 a.m.	.024	11	62	
Nov. 10	10:30 a.m.	.013	6.0	59	
Dec. 8	10:30 a.m.	.010	4.60	53	
1956					
Jan. 19	11:00 a.m.	.0096	4.29	56	Believed too large.
Feb. 28	9:00 a.m.	.017	7.5	48	
Mar. 13	10:30 a.m.	.018	8.1	53	
Apr. 23	11:00 a.m.	.012	5.4	47	
May 21	10:40 a.m.	.017	7.7	48	
June 12	9:50 a.m.	.039	18	55	

SAN JOSE CREEK AT HOLMES' PLACE, SAN MARCOS PASS

Location.--Lat. $34^{\circ}30'10''$, long. $119^{\circ}48'40''$, 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	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 26	10:00 a.m.	0.041	18	66	Area burned off.	
Aug. 12	10:40 a.m.	.034	15	58		
Oct. 8	9:15 a.m.	.024	11	54		
Nov. 19	9:10 a.m.	.036	16	50		
Dec. 8	12:10 p.m.	.046	21	49		
1955						
Jan. 14	10:30 a.m.	.15	69	42		
Feb. 23	11:30 a.m.	.19	86	42		
Mar. 10	8:40 a.m.	.20	91	47		
Apr. 21	11:00 a.m.	.17	77	49		
May 10	10:30 a.m.	.52	232	54		
June 2	9:30 a.m.	.072	32	51		
July 12	9:10 a.m.	.056	25	56		
Sept. 16	9:50 a.m.	.027	12	58		
Oct. 13	10:35 a.m.	.030	13	61		
Nov. 10	10:15 a.m.	.027	12	54		
Dec. 8	10:45 a.m.	.0027	1.2	53		
1956						
Jan. 19	10:40 a.m.	.13	58	55		
Feb. 28	8:45 a.m.	.83	372	-		
Mar. 13	10:20 a.m.	.18	81	53		
Apr. 23	11:15 a.m.	.14	65	46		
May 21	10:30 a.m.	.15	67	47		
June 12	10:00 a.m.	.11	50	55		

STATIONS 20 AND 21.

SPRING - SAN MARCOS TROUT CLUB

Location.--Lat. $34^{\circ}29'40''$, long. $119^{\circ}48'30''$, about 0.5 mile west of Highway 150.

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

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

Date	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 27	9:30 a.m.	0.010	4.62	76	No meas., storage tanks dry. Area burned; pipe lines broken.	
Aug. 12	9:50 a.m.	.018	8.0	60		
Oct. 7	9:00 a.m.	.013	5.8	61		
Nov. 22	9:00 a.m.	.013	6.0	60		
Dec. 8	9:25 a.m.	.021	9.2	54		
1955						
Jan. 14	9:50 a.m.	.026	12	52		
Feb. 23	10:10 a.m.	.026	12	53		
Mar. 10	9:00 a.m.	.029	13	54		
Apr. 21	8:40 a.m.	.013	5.6	55		
May 3	9:35 a.m.	.023	11	53		
June 2	10:40 a.m.	.015	6.9	60		
July 12	10:00 a.m.	.014	6.4	60		
Sept. 16	10:45 a.m.	-	-			
Oct. 13	12 M.	.0083	3.75	72		
Nov. 10	11:35 a.m.	.0089	4.00	84		
Dec. 8	11:40 a.m.	.011	4.81	58		
1956						
Jan. 19	11:30 a.m.	.018	7.9	56		
Feb. 14	12 M.	.029	13	56		
Mar. 13	11:45 a.m.	.022	9.7	58		
Apr. 23	12:30 p.m.	.019	8.6	49		
May 21	12:05 p.m.	.028	13	56		
June 12	11:30 a.m.	.026	12	72		

SPRING - RISHI SINGH GREYWALL

Location.--Lat. $34^{\circ}29'40''$, long. $119^{\circ}49'00''$.

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 26	11:00 a.m.	-	-		No meas.--pumping.
Aug. 11	10:20 a.m.	-	-		No meas.--pumping.
Oct. 7	8:35 a.m.	0.0058	2.59	58	
Nov. 19	9:30 a.m.	.0054	2.42	59	
Dec. 9	10:30 a.m.	.0058	2.59	54	
1955					
Jan. 13	10:10 a.m.	.011	4.96	54	
Feb. 23	9:15 a.m.	.010	4.54	56	
Mar. 8	9:35 a.m.	.0096	4.29	57	
Apr. 19	9:30 a.m.	-	-		No meas.--pumping.
May 10	9:25 a.m.	.014	6.3	58	
June 2	9:05 a.m.	.0061	2.73	56	
July 12	8:40 a.m.	-	-		No meas.--pumping.
Sept. 16	9:15 a.m.	.0061	2.73	61	Area burned off.
Oct. 13	9:45 a.m.	.0059	2.63	60	
Nov. 10	9:45 a.m.	.0060	2.68	64	
Dec. 8	9:50 a.m.	.0054	2.44	55	
1956					
Jan. 17	9:20 a.m.	.0063	2.81	53	
Feb. 27	9:15 a.m.	.011	5.0	52	
Mar. 13	10:00 a.m.	.0095	4.23	51	
Apr. 23	10:15 a.m.	-	-		No meas.--pumping.
May 21	8:25 a.m.	-	-		No meas.--pumping.
June 12	7:30 a.m.	.0089	4.00	55	

SAN JOSE CREEK 1.0 MILE ABOVE PATTERSON AVENUE BRIDGE

Location.--Lat. $34^{\circ}28'30''$, long. $119^{\circ}48'20''$, 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 14	11:10 a.m.	0.14	60	66	
Aug. 17	12:15 p.m.	.12	53	65	
Sept. 22	8:25 a.m.	.18	81	59	
Oct. 8	9:05 a.m.	.15	69	55	
Nov. 19	9:10 a.m.	.26	116	52	
Dec. 17	1:00 p.m.	.47	210	53	
1955					
Jan. 17	1:15 p.m.	.93	416	49	
Feb. 10	8:45 a.m.	.62	278	46	
Mar. 10	11:15 a.m.	.74	330	52	
Apr. 26	8:50 a.m.	.69	309	-	
May 11	11:10 a.m.	1.03	462	54	
June 6	8:00 a.m.	.33	147	58	
July 22	11:30 a.m.	.069	31	65	
Aug. 22	12:30 p.m.	.076	34	65	
Sept. 23	7:50 a.m.	.090	40	57	
Oct. 14	12 M.	.097	46	58	
Nov. 9	11:40 a.m.	.14	64	-	
Dec. 12	1:15 p.m.	.26	116	56	
1956					
Feb. 28	11:20 a.m.	1.46	655	-	
Mar. 13	12:10 p.m.	.52	233	57	
Apr. 24	10:50 a.m.	.74	332	47	
May 22	11:00 a.m.	.86	385	45	
June 19	1:30 p.m.	.28	125	59	

WEST FORK SAN JOSE CREEK ABOVE RESERVOIR

Location.--Lat. $34^{\circ}28'40''$, long. $119^{\circ}49'20''$. 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	Time	Discharge		Temper- ature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 14	11:30 a.m.	0.028	12	65	Area recently burned.	
Aug. 17	11:45 a.m.	.017	7.6	66		
Sept. 22	8:45 a.m.	.0074	3.34	62		
Oct. 8	9:35 a.m.	.017	7.5	57		
Nov. 19	10:00 a.m.	.0085	3.80	54		
Dec. 17	12:30 p.m.	.025	11	59		
1955						
Jan. 17	12:30 p.m.	.035	16	46		
Feb. 10	9:05 a.m.	.03	13	-		
Mar. 10	11:40 a.m.	.029	13	54		
May 11	10:25 a.m.	.035	16	55		
June 6	8:45 a.m.	.024	11	56		
July 22	10:40 a.m.	.011	5.0	62		
Aug. 22	11:40 a.m.	.0074	3.33	62		
Sept. 23	8:15 a.m.	.013	6.0	58		
Oct. 14	12:30 p.m.	.030	13	61		
Nov. 9	12:10 p.m.	.030	13	61		
Dec. 12	8:10 a.m.	.028	12	51		
1956						
Jan. 17	10:30 a.m.	.025	11	49		
Feb. 27	3:15 p.m.	.021	9.4	54		
Mar. 13	12:40 p.m.	.022	9.7	54		
Apr. 24	11:30 a.m.	.027	12	48		
May 23	7:30 a.m.	.046	21	55		
June 19	1:00 p.m.	.035	16	60		

/a A portion of measured runoff is from well operated in the headwater area.

SPRING - A. ARMANDO

Location.--Lat. $34^{\circ}28'10''$, long. $119^{\circ}49'40''$.

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

Description.--Cave in sandstone beds.

Date	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 14	12:00 M.	No flow	No flow		Pools lower.
Aug. 17	10:15 a.m.	No flow	No flow		Pools lower; no flow in creek.
Sept. 22	9:30 a.m.	No flow	No flow		Pools about empty.
Oct. 8	10:00 a.m.	No flow	No flow		Pools about empty.
Nov. 17	10:20 a.m.	No flow	No flow		Pools about empty.
Dec. 17	12 M.	No flow	No flow		Pools about empty.
1955					
Jan. 17	10:25 a.m.	No flow	No flow		Pools higher--recent rain.
Feb. 10	9:30 a.m.	No flow	No flow		Creek bed dry. Pools higher.
Mar. 28	1:30 p.m.	No flow	No flow		Pools higher.
May 11	8:30 a.m.	No flow	No flow		Pools higher.
June 6	9:10 a.m.	No flow	No flow		Pools lower.
July 22	7:30 a.m.	No flow	No flow		Pools lower.
Aug. 22	7:00 a.m.	No flow	No flow		Pools about empty.
Sept. 23	8:40 a.m.	No flow	No flow		Hillside dry. Pools about empty. Area recently burned.
Oct. 20	9:00 a.m.	No flow	No flow		Pools about empty.
Nov. 22	8:45 a.m.	No flow	No flow		Pools about empty.
Dec. 12	9:00 a.m.	No flow	No flow		Pools about empty.
1956					
Jan. 17	11:10 a.m.	No flow	No flow		Channel dry. Pools high.
Feb. 27	2:30 p.m.	No flow	No flow		Pools high.
Mar. 19	11:00 a.m.	No flow	No flow		Pools high.
Apr. 24	12:15 p.m.	No flow	No flow		Creek bed dry. Pools full.
May 23	8:00 a.m.	No flow	No flow		Pools full.
June 19	11:45 a.m.	No flow	No flow		Pools high.

SPRING - SAWYER ESTATE

Location.--Lat. $34^{\circ}29'10''$, long. $119^{\circ}49'50''$.

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	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 14	1:15 p.m.	0.0082	3.66	63	
Aug. 17	11:00 a.m.	.0089	4.00	63	
Sept. 22	10:00 a.m.	.0047	2.11	60	
Oct. 8	11:00 a.m.	.0058	2.61	58	
Nov. 19	11:10 a.m.	.016	7.1	56	
Dec. 17	11:40 a.m.	.028	12	51	
1955					
Jan. 17	11:05 a.m.	.028	12	46	Prior site flowing.
Feb. 10	10:00 a.m.	.032	14	49	
Mar. 28	2:15 p.m.	.030	14	54	
May 11	9:15 a.m.	.051	23	53	
June 6	10:00 a.m.	.027	12	56	
July 22	8:15 a.m.	.014	6.3	59	
Aug. 22	7:20 a.m.	.0064	2.85	58	Area burned off.
Sept. 23	9:45 a.m.	.017	7.5	59	
Oct. 20	9:30 a.m.	.027	12	56	
Nov. 22	8:15 a.m.	.026	12	-	
Dec. 12	9:30 a.m.	.026	12	53	
1956					
Jan. 17	11:40 a.m.	.031	14	51	No meas.-gate locked.
Feb. 27	2:15 p.m.	-	-	-	
Mar. 19	12:10 p.m.	.045	20	47	
Apr. 24	1:00 p.m.	.051	23	47	
May 23	9:00 a.m.	.12	56	51	
June 19	12:20 p.m.	.044	20	59	

SAN PEDRO CANYON CREEK ABOVE DIVERSION

Location.--Lat. $34^{\circ}28'40''$, long. $119^{\circ}50'10''$, 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 are a concrete dike across creek channel with 6-inch outlet line.

Diversion.--No known diversions above station.

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 14	2:10 p.m.	0.13	57	66	
Aug. 16	12:50 p.m.	.16	72	63	
Sept. 22	12:30 p.m.	.13	60	59	
Oct. 8	12:30 p.m.	.12	55	56	
Nov. 19	12:35 p.m.	.19	84	52	
Dec. 17	9:25 a.m.	.20	90	47	
1955					
Jan. 14	1:35 p.m.	.20	92	44	
Feb. 10	11:40 a.m.	.17	78	46	
Mar. 10	8:00 a.m.	.27	122	51	Recent rain.
Apr. 26	10:00 a.m.	.13	57	51	Recent rain.
May 11	7:20 a.m.	.22	99	55	
June 6	11:15 a.m.	.14	61	59	
July 22	9:30 a.m.	.12	55	61	
Aug. 22	8:50 a.m.	.21	94	61	
Sept. 23	10:40 a.m.	.14	65	60	
Oct. 20	10:15 a.m.	.17	77	57	
Nov. 22	9:45 a.m.	.14	61	50	
Dec. 12	10:35 a.m.	.12	53	50	
1956					
Jan. 17	12:30 p.m.	.18	80	50	
Feb. 27	1:25 p.m.	.28	125	51	
Mar. 15	1:30 p.m.	.27	121	46	
Apr. 25	12:15 p.m.	.26	118	47	
May 22	11:20 a.m.	.54	242	47	
June 19	11:00 a.m.	.22	98	58	

STATION 31.

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

Location.--Lat. 34°28'40", long. 119°50'10".Altitude.--About 425 feet, from topographic map.Description.--Several seeps in landslide on valley walls. Discharge measured at 2-inch valve in pipe line.

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 14	2:25 p.m.	0.15	67	67	
Aug. 16	1:00 p.m.	.14	65	66	
Sept. 22	12:50 p.m.	.13	60	67	
Oct. 8	1:00 p.m.	.12	55	66	
Nov. 19	12:55 p.m.	.13	58	64	
Dec. 17	10:15 a.m.	.14	64	63	
1955					
Jan. 14	2:00 p.m.	.13	58	62	
Feb. 10	12:05 p.m.	.13	60	63	
Mar. 10	8:25 a.m.	.13	59	62	
Apr. 26	10:20 a.m.	.11	50	63	
May 11	7:45 a.m.	.12	52	64	
June 6	11:35 a.m.	.11	49	65	
July 22	9:50 a.m.	.096	43	66	
Aug. 22	9:00 a.m.	.12	52	64	
Sept. 23	10:50 a.m.	.10	45	65	
Oct. 20	10:35 a.m.	.10	45	65	
Nov. 22	10:00 a.m.	.10	45	62	
Dec. 12	10:50 a.m.	.096	43	64	
1956					
Jan. 17	12:50 p.m.	.089	40	63	
Feb. 27	1:40 p.m.	.094	42	65	
Mar. 15	1:50 p.m.	.10	46	62	
Apr. 25	12:35 p.m.	.090	40	55	
May 22	11:35 a.m.	.11	49	49	
June 19	11:20 a.m.	.099	44	62	

BARTLETT CANYON CREEK ABOVE DIVERSION

Location.--Lat. $34^{\circ}28'40''$, long. $119^{\circ}51'20''$, 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 13	9:50 a.m.	0.11	49	63	
Aug. 17	9:30 a.m.	.12	52	62	
Sept. 22	1:30 p.m.	.089	40	61	
Oct. 11	8:35 a.m.	.10	46	57	
Nov. 19	2:05 p.m.	.10	46	55	
Dec. 14	1:50 p.m.	.15	68	51	
1955					
Jan. 14	10:30 a.m.	.18	81	47	
Feb. 11	8:00 a.m.	.11	51	49	
Mar. 28	11:00 a.m.	.12	54	56	
Apr. 19	8:00 a.m.	.084	38	51	
May 9	12:40 p.m.	.14	64	53	
June 6	12:30 p.m.	.11	50	-	
July 21	7:15 a.m.	.068	31	62	
Aug. 19	7:00 a.m.	.072	32	65	
Sept. 23	12:30 p.m.	.13	58	60	
Oct. 20	10:30 a.m.	.11	48	57	
Nov. 22	10:45 a.m.	.12	56	53	
Dec. 12	11:15 a.m.	.08	36	-	
1956					
Jan. 17	1:30 p.m.	.11	50	50	
Feb. 27	12:30 p.m.	.12	53	50	
Mar. 19	10:35 a.m.	.052	23	48	
Apr. 25	10:30 a.m.	.11	47	48	
May 23	10:00 a.m.	.083	37	54	
June 19	10:00 a.m.	.069	31	57	

SPRING - T. B. BISHOP COMPANY

Location.--Lat. $34^{\circ}29'00''$, long. $119^{\circ}52'10''$.

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

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

Date	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 13	8:00 a.m.	0.088	40	60	Area recently burned.	
Aug. 17	8:20 a.m.	.076	34	58		
Sept. 20	1:00 p.m.	.056	25	63		
Oct. 11	10:10 a.m.	.066	29	57		
Nov. 24	9:10 a.m.	.080	36	53		
Dec. 14	12:40 p.m.	.13	57	49		
1955						
Jan. 14	12:05 p.m.	.12	54	50		
Feb. 11	9:30 a.m.	.12	56	52		
Mar. 28	12:10 p.m.	.11	49	55		
Apr. 19	9:30 a.m.	.11	50	51		
May 9	11:45 a.m.	.23	104	56		
June 7	9:30 a.m.	.14	61	57		
July 21	9:30 a.m.	.096	43	59		
Aug. 19	9:00 a.m.	.076	34	59		
Sept. 30	9:30 a.m.	.083	38	58		
Oct. 20	12:30 p.m.	.16	71	58		
Nov. 22	12:30 p.m.	.13	58	54		
Dec. 12	12:30 p.m.	.091	41	52		
1956						
Feb. 27	11:30 a.m.	.32	142	-		
Mar. 19	9:00 a.m.	.19	83	47		
Apr. 25	8:30 a.m.	.26	115	44		
May 23	11:30 a.m.	.35	158	54		
June 19	8:00 a.m.	.21	94	56		

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 outcrop about 50 feet above horizontal well.

Date	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 13	8:40 a.m.	No flow	No flow		
Aug. 17	7:15 a.m.	No flow	No flow		
Sept. 20	12:15 p.m.	No flow	No flow		
Oct. 11	10:45 a.m.	No flow	No flow		
Nov. 24	9:40 a.m.	No flow	No flow		No pools.
Dec. 14	12:10 p.m.	0.0071	3.16	50	
1955					
Jan. 14	11:50 a.m.	.026	12	65	
Feb. 11	8:50 a.m.	.015	6.8	50	
Mar. 28	11:45 a.m.	.017	7.4	57	
Apr. 19	9:00 a.m.	.0028	1.25	52	Entire flow is spill from #35.
May 9	11:15 a.m.	.19	83	54	
June 7	9:00 a.m.	.044	20	58	
July 21	9:10 a.m.	No flow	No flow		No pools.
Aug. 19	8:30 a.m.	No flow	No flow		
Sept. 30	9:00 a.m.	No flow	No flow		Area recently burned.
Oct. 20	12:10 p.m.	No flow	No flow		
Nov. 22	12:00 M.	No flow	No flow		
Dec. 12	12:00 M.	No flow	No flow		
1956					
Feb. 27	11:00 a.m.	.24	107	48	
Mar. 19	8:30 a.m.	.12	52	46	
Apr. 25	8:05 a.m.	.10	47	44	
May 23	11:10 a.m.	.25	113	56	
June 19	8:45 a.m.	.074	33	58	

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 13	8:50 a.m.	0.031	14	67	
Aug. 17	7:45 a.m.	.020	9.1	65	
Sept. 20	12:10 p.m.	.029	13	68	
Oct. 11	10:40 a.m.	.030	14	67	
Nov. 24	9:50 a.m.	-	-	-	Valve closed; P=6.0 psi.
Dec. 14	12:05 p.m.	-	-	-	do P=11.5 psi.
1955					
Jan. 14	11:40 a.m.	-	-	-	do P=13.0 psi.
Feb. 11	9:00 a.m.	-	-	-	do P=14.3 psi.
Mar. 28	11:35 a.m.	-	-	-	do P=16.4 psi.
Apr. 19	8:50 a.m.	-	-	-	do P=17.2 psi.
May 9	11:00 a.m.	-	-	-	do P=17.2 psi.
June 7	8:50 a.m.	-	-	-	do P=17.5 psi.
July 21	9:00 a.m.	.033	15	67	
Aug. 19	8:15 a.m.	.031	14	64	
Sept. 30	9:10 a.m.	.025	11	65	Area burned off.
Oct. 20	12:05 p.m.	-	-	-	Valve closed; P=12.0 psi.
Nov. 22	11:45 a.m.	-	-	-	do P=13.0 psi.
Dec. 12	12 M.	-	-	-	do P=14.0 psi.
1956					
Feb. 27	10:50 a.m.	-	-	-	do P=19.0 psi.
Mar. 19	8:20 a.m.	-	-	-	do P=19.2 psi.
Apr. 25	9:10 a.m.	-	-	-	do P=19.0 psi.
May 23	11:00 a.m.	-	-	-	do P=19.5 psi.
June 19	9:00 a.m.	-	-	-	do P=19.5 psi.

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	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 13	12:50 p.m.	0.0049	2.19	60	Area above burned off.	
Aug. 16	11:30 a.m.	.0035	1.58	63		
Sept. 20	11:35 a.m.	.0032	1.42	62		
Oct. 11	11:30 a.m.	.0038	1.68	59		
Nov. 12	1:00 p.m.	.0040	1.81	55		
Dec. 14	10:50 a.m.	.0054	2.40	48		
1955						
Jan. 17	9:50 a.m.	.0056	2.50	43		
Feb. 11	10:35 a.m.	.0064	2.86	49		
Mar. 10	10:00 a.m.	.0060	2.68	51		
Apr. 19	11:00 a.m.	.0048	2.14	51		
May 9	10:20 a.m.	.0088	3.95	52		
June 7	7:45 a.m.	.0066	2.96	56		
July 21	10:30 a.m.	.0044	1.97	60		
Aug. 24	10:15 a.m.	.0042	1.88	58		
Sept. 30	10:30 a.m.	.0048	2.14	62		
Oct. 24	1:30 p.m.	.0037	1.67	66		
Nov. 22	2:00 p.m.	.0037	1.66	55		
Dec. 16	10:40 a.m.	.0037	1.67	51		
1956						
Jan. 19	10:55 a.m.	.0025	1.11	53		
Feb. 28	2:10 p.m.	.0031	1.40	56		
Mar. 19	2:00 p.m.	.0064	2.85	56		
Apr. 25	11:15 a.m.	.0035	1.58	47		
May 22	1:00 p.m.	.0048	2.14	46		
June 18	11:45 a.m.	.0088	3.95	60		

SEEPAGE - SOUTH PORTAL - TECOLOTE TUNNEL

Location.--Lat. $34^{\circ}29'00''$, long. $119^{\circ}53'00''$, 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	Time	Discharge		Temper- ature °F	Distance from north portal USER station (feet)	Remarks
		Cubic feet per second	Gallons per minute			
1954						
July 13	1:00 p.m.	-	-	-	191+17	
Aug. 16	11:30 a.m.	16.4	7370	113	188+87	
Sept. 20	11:25 a.m.	16.6	7442	104*	185+67	
Oct. 11	11:40 a.m.	15.7	7011	96	180+28	
Nov. 12	2:00 p.m.	14.2	6390	-	168+69	
Dec. 14	11:30 a.m.	14.7	6570	101	159+18	
1955						
Jan. 17	10:00 a.m.	14.5	6530	100*	-	Tunnel completely holed thru' 1/15/55
Feb. 11	10:40 a.m.	15.0	6720	97	-	
Mar. 10	9:45 a.m.	14.1	6330	99	-	
Apr. 19	10:30 a.m.	12.6	5650	104	-	Some flow being diverted out North Portal; see 128a.
May 9	10:00 a.m.	11.3	5080	103	-	
June 7	8:00 a.m.	10.5	4700	106	-	
July 21	10:30 a.m.	9.8	4390	104	-	
Aug. 24	10:00 a.m.	5.9	2640	103	-	
Sept. 30	10:40 a.m.	3.08	1380	92	-	
Oct. 24	1:10 p.m.	2.10	940	82	-	
Nov. 22	2:10 p.m.	-	-	81	-	Flume in backwater; recorder removed.
Dec. 16	10:30 a.m.	.0053	2.40	-	-	V-notch weir.
1956						
Jan. 19	10:45 a.m.	.18	81	-	-	
Feb. 28	2:25 p.m.	-	-	-	-	No meas.; all tunnel flow now in pipeline
Mar. 19	2:15 p.m.	-	-	-	-	do
Apr. 25	11:30 a.m.	-	-	-	-	do

* At entrance.

GLEN ANNE CREEK AT DAMSITE

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

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

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

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

Date	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 13	12:35 p.m.	No flow	No flow		Channel dry.
Aug. 16	11:20 a.m.	No flow	No flow		
Sept. 20	11:00 a.m.	No flow	No flow		
Oct. 11	12 M.	No flow	No flow		
Nov. 12	1:00 p.m.	0.0045	2.02	66	Flow about same for last 2 weeks.
Dec. 14	10:35 a.m.	.017	7.6	54	
1955					
Jan. 17	9:40 a.m.	.028	12	45	
Feb. 11	10:20 a.m.	.013	5.8	56	
Mar. 10	10:15 a.m.	.023	10	54	
Apr. 19	11:15 a.m.	.0045	2.00	63	
May 9	10:00 a.m.	.035	16	58	
June 7	7:30 a.m.	.017	7.6	55	
July 21	10:15 a.m.	.0070	3.14	63	
Aug. 24	9:45 a.m.	.0016	.72	64	
Sept. 30	10:20 a.m.	.0070	3.14	64	
Oct. 24	1:40 p.m.	.0070	3.14	68	
Nov. 22	2:30 p.m.	.0057	2.55	53	
Dec. 16	11:00 a.m.	.045	20	56	
1956					
Jan. 19	11:15 a.m.	1.57	703	69	Probably some tunnel flow.
Feb. 28	2:00 p.m.	.057	26	62	
Mar. 19	1:30 p.m.	.035	16	66	
Apr. 25	11:50 a.m.	.021	9.4	54	
May 22	12:30 p.m.	.025	11	50	
June 18	12 M.	.0092	4.11	63	

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	Time	Discharge		Water Meter	W. H. Meter		Depth to Water	
		Cubic feet per second	Gallons per minute		35J1	35J2	J1	J2
1954								
July 13	12:20 p.m.	Pumps off	Pumps off	-	8482	5193	8.60	12.55
Aug. 16	11:00 a.m.	do	do	-	8582	5193	9.13	12.10
Sept. 20	10:45 a.m.	-	-	-	8637	5256	-	-
Oct. 11	12:15 p.m.	Pumps off	Pumps off	-	8713	5260	21.40	26.12
Nov. 12	12:10 p.m.	do	do	-	8850	5260	15.47	38.81
Dec. 14	10:20 a.m.	do	do	-	8850	5260	9.40	15.11
1955								
Jan. 17	9:00 a.m.	do	do	-	8850	5260	8.60	14.78
Feb. 11	11:10 a.m.	do	do	-	8850	5260	8.30	11.97
Mar. 10	10:40 a.m.	do	do	-	8850	5260	5.94	12.90
Apr. 19	11:40 a.m.	do	do	0351294	8850	5260	7.67	12.85
May 9	9:35 a.m.	do	do	0351294	8850	5260	8.10	14.03
June 7	7:00 a.m.	do	do	0351294	8850	5260	8.40	14.39
July 21	11:00 a.m.	do	do	0351294	9070	5363	11.30	18.10
Aug. 24	9:30 a.m.	do	do	0351294	9098	5376	8.79	15.70
Sept. 30	11:15 a.m.	do	do	0351294	9108	5377	8.30	15.55
Oct. 24	2:00 p.m.	do	do	0351294	9108	5377	7.55	15.90
Nov. 22	1:50 p.m.	do	do	0351294	9120	5387	9.28	16.20
Dec. 16	11:30 a.m.	do	do	-	9120	5397	8.36	16.38
1956								
Jan. 19	12:05 p.m.	do	do	0351294	9120	5397	7.43	14.74
Feb. 28	1:35 p.m.	do	do	0351294	9120	5397	4.42	8.64
Mar. 19	1:00 p.m.	do	do	-	9121?	5397	7.80	8.46
Apr. 25	11:05 a.m.	do	do	-	9121	5397	6.02	10.93
May 22	12:15 p.m.	do	do	-	9121	5397	6.03	11.94
June 18	12:15 p.m.	do	do	-	9121	5397	6.96	12.59

ELLWOOD CANYON CREEK ABOVE DIVERSIONS

Location.--Lat. $34^{\circ}28'10''$, long. $119^{\circ}53'30''$, 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 volumetrically 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 13	12: M.	0.013	5.8	66	
Aug. 16	9:45 a.m.	.010	4.48	58	
Sept. 20	10:20 a.m.	.0017	.79	-	
Oct. 11	1:40 p.m.	.00046	.21	62	
Nov. 24	11:10 a.m.	.0016	.72	55	
Dec. 14	9:50 a.m.	.0070	3.13	48	
1955					
Jan. 13	2:20 p.m.	.20	89	48	
Feb. 11	12 M.	.10	47	50	
Mar. 9	12:40 p.m.	.13	57	55	
Apr. 19	12:15 p.m.	.030	13	60	
May 9	9:00 a.m.	.62	278	51	
June 7	10:15 a.m.	.10	44	61	
July 21	12 M.	.013	5.8	73	
Aug. 19	1:10 p.m.	.0058	2.59	73	
Sept. 27	1:50 p.m.	.0070	3.14	65	
Oct. 25	12:30 p.m.	.0045	2.02	66	
Nov. 22	1:45 p.m.	.0070	3.14	62	
Dec. 9	1:15 p.m.	.0048	2.14	61	
1956					
Jan. 19	10:00 a.m.	.32	143	50	
Feb. 28	9:40 a.m.	1.21	542	-	
Mar. 15	9:55 a.m.	.67	301	50	New diversion dam built below measuring site.
Apr. 9	11:00 a.m.	.34	155	55	
May 18	10:45 a.m.	1.49	670	61	
June 15	10:00 a.m.	.49	220	-	

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	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 13	11:15 a.m.	0.000049	0.022	68	56 drops per minute.	
Aug. 16	9:00 a.m.	-	-	-		
Sept. 20	9:15 a.m.	No flow	No flow	-		
Oct. 11	1:00 p.m.	No flow	No flow	-		
Nov. 12	9:50 a.m.	-	-	-		
Dec. 14	9:10 a.m.	-	-	-	50 drops a minute. 136 drops a minute.	
1955						
Jan. 13	1:25 p.m.	.00025	.11	53	No meas.; trough full. do do do	
Feb. 11	12:45 p.m.	.00034	.15	47		
Mar. 9	11:50 a.m.	-	-	-		
Apr. 19	1:00 p.m.	-	-	-		
May 9	7:40 a.m.	-	-	-		
June 7	11:10 a.m.	-	-	-		
July 21	1:00 p.m.	No flow	No flow	-		
Aug. 19	1:25 p.m.	No flow	No flow	-		
Sept. 27	1:20 p.m.	No flow	No flow	-		
Oct. 25	12:45 p.m.	No flow	No flow	-		
Nov. 22	1:15 p.m.	No flow	No flow	-		
Dec. 9	12:40 p.m.	No flow	No flow	-		
1956						
Jan. 19	9:25 a.m.	.000095	.021	52		Pool in spring pit. do do
Feb. 28	8:50 a.m.	No flow	No flow	-		
Mar. 15	9:10 a.m.	No flow	No flow	-		
Apr. 9	10:10 a.m.	No flow	No flow	-		
May 18	9:50 a.m.	-	-	-		
June 15	8:50 a.m.	-	-	-	No meas.; trough full. 36 drops a minute.	

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.

Date	Time	Discharge		Water level, in feet, below reference point	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 13	11:30 a.m.	No flow	No flow	10.90	
Aug. 16	9:15 a.m.	do	do	12.39	
Sept. 20	9:40 a.m.	do	do	13.14	
Oct. 11	1:15 p.m.	do	do	13.25	
Nov. 12	10:10 a.m.	do	do	13.80	
Dec. 14	9:25 a.m.	do	do	12.32	
1955					
Jan. 13	1:40 p.m.	do	do	11.90	
Feb. 11	12:25 p.m.	do	do	11.90	
Mar. 9	12:10 p.m.	do	do	11.85	
Apr. 19	12:50 p.m.	do	do	11.97	
May 9	8:10 a.m.	do	do	11.20	
June 7	11:00 a.m.	do	do	11.48	
July 21	12:40 p.m.	do	do	11.84	
Aug. 19	1:40 p.m.	do	do	12.32	
Sept. 27	1:30 p.m.	do	do	12.65	
Oct. 25	12:55 p.m.	do	do	12.70	
Nov. 22	1:25 p.m.	do	do	12.80	
Dec. 9	12:50 p.m.	do	do	12.56	
1956					
Jan. 19	9:35 a.m.	do	do	9.46	
Feb. 28	9:00 a.m.	do	do	7.34	
Mar. 15	9:30 a.m.	do	do	7.75	
Apr. 9	10:35 a.m.	do	do	7.86	
May 18	10:20 a.m.	do	do	7.81	
June 15	9:00 a.m.	do	do	7.92	

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.

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

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 13	10:50 a.m.	No flow	No flow	-	No pools.
Aug. 16	8:20 a.m.	No flow	No flow		
Sept. 20	8:45 a.m.	No flow	No flow		
Oct. 11	12:30 p.m.	No flow	No flow		
Nov. 12	9:30 a.m.	No flow	No flow		
Dec. 14	8:30 a.m.	No flow	No flow		
1955					
Jan. 13	12:55 p.m.	No flow	No flow		Area burned off.
Feb. 11	1:20 p.m.	No flow	No flow		
Mar. 9	11:30 a.m.	No flow	No flow		
Apr. 18	2:00 p.m.	No flow	No flow		
May 9	7:10 p.m.	No flow	No flow		
June 7	11:40 a.m.	No flow	No flow		
Sept. 27	1:00 p.m.	No flow	No flow		
Oct. 25	12 M.	No flow	No flow		
Nov. 22	12:55 p.m.	No flow	No flow		
Dec. 9	12:25 p.m.	No flow	No flow		
1956					
Jan. 19	9:00 a.m.	No flow	No flow		Small pools. No flow at regular section; measured 700 ft upstream.
Feb. 28	8:30 a.m.	No flow	No flow		
Mar. 15	8:50 a.m.	.00047	0.21	46	
Apr. 9	9:20 a.m.	.0010	.44	57	
May 18	9:30 a.m.	No flow	No flow		
June 15	8:25 a.m.	No flow	No flow		

TECOLOTE CANYON CREEK ABOVE DIVERSION NEAR ELLWOOD

Location.--Lat. $34^{\circ}29'20''$, long. $119^{\circ}54'30''$, 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 12	3:30 p.m.	0.0052	2.30	-	
Aug. 16	7:15 a.m.	No flow	No flow		
Sept. 20	7:40 a.m.	No flow	No flow		
Oct. 15	12:45 p.m.	No flow	No flow		
Nov. 24	12 M	No flow	No flow		
Dec. 9	12:15 p.m.	No flow	No flow		
1955					
Jan. 13	11:25 a.m.	.13	59	49	
Feb. 9	1:40 p.m.	.14	65	57	
Mar. 9	10:25 a.m.	.17	76	49	
Apr. 18	1:00 p.m.	.044	20	51	
May 6	12:20 p.m.	.84	376	-	
June 10	12:10 p.m.	.06	28	56	
July 20	1:50 p.m.	.0045	2.02	62	
Aug. 19	12 M	No flow	No flow		
Sept. 26	1:40 p.m.	No flow	No flow	-	Area recently burned. 100' above diversion.
Oct. 25	9:50 a.m.	.016	7.1	-	
Nov. 22	11:45 a.m.	.017	7.5	54	
Dec. 16	8:50 a.m.	.017	7.5	53	
1956					
Jan. 18	1:40 p.m.	.36	161	53	
Feb. 28	10:50 a.m.	1.28	573	49	
Mar. 13	2:10 p.m.	.80	359	54	
Apr. 6	11:55 a.m.	.34	152	54	
May 18	7:30 a.m.	1.40	630	57	
June 15	7:30 a.m.	.60	269	-	

SPAULDING RANCH DIVERSION FROM TECOLOTE CANYON CREEK NEAR ELLWOOD

Location.--Lat. $34^{\circ}28'45''$, long. $119^{\circ}43'40''$, about 3 miles north of Highway 101.

Altitude.--About 400 feet, from topographic map.

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

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 12	2:40 p.m.	0.0066	2.98	66	
Aug. 16	7:40 a.m.	.0088	3.95	63	
Sept. 20	8:00 a.m.	No flow	No flow	-	
Oct. 15	1:00 p.m.	.0019	.85	60	
Nov. 24	12:40 p.m.	.0058	2.61	56	
Dec. 9	12:40 p.m.	.056	25	53	
1955					
Jan. 13	12:10 p.m.	.28	127	51	
Feb. 9	2:10 p.m.	.14	62	53	
Mar. 9	11:00 a.m.	.17	75	50	
Apr. 18	1:30 p.m.	.042	19	54	
May 6	12:40 p.m.	.11	50	55	
June 10	12:40 p.m.	.067	30	57	
July 20	1:20 p.m.	.011	4.84	63	
Aug. 19	12:30 p.m.	No flow	No flow	-	
Sept. 26	2:00 p.m.	No flow	No flow	-	
Oct. 25	10:10 a.m.	No flow	No flow	-	
Nov. 22	12:20 p.m.	.027	12	56	
Dec. 16	9:30 a.m.	.033	15	51	
1956					
Jan. 18	1:50 p.m.	No flow	No flow	--	
Feb. 28	10:00 a.m.	No flow	No flow	--	
Mar. 13	2:35 p.m.	.32	143	-	
Apr. 9	12:15 p.m.	.33	149	55	
May 18	7:50 a.m.	.034	15	59	
June 15	7:45 a.m.	.13	60	-	

SPRING - L. G. DREYFUS ESTATE

Location.--Lat. $34^{\circ}28'30''$, long. $119^{\circ}55'40''$.

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

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

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 12	1:00 p.m.	-	-	-	No meas.; valve shut.
Aug. 12	11:05 a.m.	0.00037	0.17	64	
Sept. 15	10:00 a.m.	.00027	.12	64	
Oct. 15	12 M	.00033	.15	64	
Nov. 24	2:25 p.m.	.0010	.45	53	
Dec. 9	11:40 a.m.	.00034	.15	55	
1955					
Jan. 13	9:10 a.m.	.00052	.23	44	
Feb. 9	12 M	.00045	.20	53	
Mar. 9	8:35 a.m.	.00051	.24	54	
Apr. 18	11:10 a.m.	.00028	.12	62	
May 6	11:30 a.m.	.0016	.73	54	
June 8	11:50 a.m.	.00051	.23	66	
July 20	10:30 a.m.	.00032	.14	69	
Aug. 19	10:00 a.m.	.00014	.065	68	
Sept. 26	11:50 a.m.	.00026	.12	62	
Oct. 20	11:30 a.m.	.00034	.15	64	
Nov. 22	10:00 a.m.	.00019	.087	55	
Dec. 12	2:10 p.m.	.0012	.55	57	
1956					
Jan. 18	11:45 a.m.	.000049	.022	55	Pipeline plugged.--?
Feb. 15	12:45 p.m.	-	-	-	do
Mar. 13	12 M	-	-	-	do
Apr. 10	1:20 p.m.	-	-	-	do
May 8	12:40 p.m.	-	-	-	do
June 18	10:10 a.m.	-	-	-	do

MIDDLE FORK, EAGLE CANYON CREEK

Location.--Lat. 34°29'00", long. 119°55'40", in Eagle Canyon at uppermost 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 12	11:55 a.m.	0.0022	0.99	62	Pipeline repaired; water in use.
Aug. 12	10:40 a.m.	No flow	No flow	-	Drilling 8" well about 40' below diversion.
Sept. 15	10:30 a.m.	.0019	.86	64	*See note below.
Oct. 15	11:30 a.m.	.0039	1.76	-	Well connected to pipeline.
Nov. 24	1:20 p.m.	.0016	.72	64	
Dec. 9	11:00 a.m.	.011	4.76	58	
1955					
Jan. 13	9:45 a.m.	.017	7.6	45	Diversion line off; all flow going down channel.
Feb. 9	12:25 p.m.	.016	7.2	53	All flow through diversion line.
Mar. 9	9:15 a.m.	.015	6.7	53	
Apr. 18	11:40 a.m.	.0084	3.75	57	Creek bed dry.
May 6	10:00 a.m.	.030	13	53	
June 8	12:15 p.m.	.010	4.62	60	
July 20	11:00 a.m.	.0038	1.68	64	
Aug. 19	10:30 a.m.	.0022	.97	64	
Sept. 26	12:20 p.m.	.0025	1.11	66	Creek bed dry; area recently burned.
Oct. 20	11:50 a.m.	.0030	1.36	64	
Nov. 22	10:20 a.m.	.0037	1.67	57	
Dec. 12	2:20 p.m.	.0033	1.46	59	
1956					
Jan. 18	12:05 p.m.	.0043	1.94	57	
Feb. 15	1:15 p.m.	.011	5.07	56	Stream plus diversion.
Mar. 13	12:15 p.m.	.0061	2.73	56	
Apr. 10	12:50 p.m.	.023	10	57	Stream plus diversion.
May 8	10:50 a.m.	.0033	1.46	60	
June 18	10:20 a.m.	.022	10	60	

* This is flow from new well; flows by gravity to dam; measurement at junction box about 500 feet below dam and well.

EAGLE CANYON CREEK NEAR ELLWOOD

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

Altitude---About 425 feet, from topographic map.

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

Diversion---None above measuring point.

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

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 12	12:25 p.m.	0.0024	1.07	66	
Aug. 12	11:00 a.m.	.0019	.83	-	
Sept. 15	11:00 a.m.	.00012	.055	--	
Oct. 15	11:50 a.m.	No flow	No flow	-	
Nov. 24	1:55 p.m.	.0022	1.00	52	
Dec. 9	10:40 a.m.	.0032	1.43	50	
1955					
Jan. 13	10:05 a.m.	.033	15	46	
Feb. 9	12:40 p.m.	.024	11	55	
Mar. 9	9:40 a.m.	.021	9.4	51	
Apr. 18	12:05 p.m.	.012	5.3	54	
May 6	10:30 a.m.	.11	50	52	
June 8	12:30 p.m.	.012	5.3	62	
July 20	11:30 a.m.	.0057	2.54	63	
Aug. 19	11:00 a.m.	.0018	.81	59	
Sept. 26	12:30 p.m.	.010	4.48	62	
Oct. 20	12 M	.00060	.27	62	
Nov. 22	10:30 a.m.	.0020	.88	51	
Dec. 12	2:30 p.m.	.0067	3.00	59	
1956					
Jan. 18	12:30 p.m.	.025	11	60	
Feb. 15	1:35 p.m.	.097	43	56	
Mar. 13	1:00 p.m.	.066	30	62	
Apr. 10	1:10 p.m.	.042	19	57	
May 8	10:25 a.m.	.054	24	66	
June 18	10:40 a.m.	.016	7.1	60	

DOS PUEBLOS CREEK NEAR NAPLES

Location.--Lat. $34^{\circ}29'10''$, long. $119^{\circ}57'10''$, 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 9	12:30 p.m.	0.74	331	66	Wells opened 6-8-54.
Aug. 25	12:10 p.m.	.71	320	60	
Sept. 23	12:40 p.m.	.41	185	64	
Oct. 14	1:45 p.m.	.43	194	-	
Nov. 29	2:25 p.m.	.55	246	62	
Dec. 21	1:35 p.m.	.60	268	50	
1955					
Jan. 14	9:30 a.m.	.50	225	43	
Feb. 9	11:25 a.m.	.41	183	50	
Mar. 9	8:05 a.m.	.46	204	49	
Apr. 20	2:15 p.m.	.63	282	55	
May 27	12:50 p.m.	.66	298	61	
June 10	10:40 a.m.	.28	125	57	
July 26	12:50 p.m.	.41	183	65	
Aug. 23	1:40 p.m.	.30	133	66	
Sept. 27	12:20 p.m.	.43	190	62	
Oct. 24	12:20 p.m.	.43	193	62	
Nov. 23	12:40 p.m.	.43	193	53	
Dec. 20	12:25 p.m.	.46	206	56	
1956					
Feb. 28	12:30 p.m.	4.19	1870	55	Wells 50b, 50c, 50d closed 2-29-56.
Mar. 15	11:25 a.m.	2.04	916	55	
Apr. 9	1:25 p.m.	1.58	710	56	
May 8	8:55 a.m.	2.24	1010	56	
June 19	9:20 a.m.	2.11	948	-	

STATION 50a.

**DOS PUEBLOS RANCH WELL ABOVE DIVERSION
IN DOS PUEBLOS CANYON**

Location.--Lat. $34^{\circ}29'15''$, long. $119^{\circ}57'10''$, 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	Time	Discharge		Water level, in feet, below reference point	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 9	6:35 a.m.	No flow	No flow	13.29	
Aug. 25	12 M.	do	do	12.97	
Sept. 23	12:20 p.m.	do	do	13.48	
Oct. 14	1:35 p.m.	do	do	13.20	
Nov. 29	2:15 p.m.	do	do	13.02	
Dec. 21	1:20 p.m.	do	do	12.85	
1955					
Apr. 20	2:00 p.m.	do	do	13.14	
May 27	12:40 p.m.	do	do	11.88	
June 10	10:30 a.m.	do	do	13.12	
July 26	12:30 p.m.	do	do	13.10	
Aug. 23	12:45 p.m.	0.06	27	-	Pump running since 8-22. Temp. 64° .
Sept. 27	12 M.	No flow	No flow	14.25	
Oct. 24	12 M.	do	do	12.56	
Nov. 23	12 M.	do	do	12.77	
Dec. 20	11:30 a.m.	do	do	12.74	
1956					
Feb. 28	12:40 p.m.	do	do	12.15	
Mar. 15	11:05 a.m.	do	do	12.38	
Apr. 9	1:00 p.m.	do	do	12.44	
May 8	8:40 a.m.	do	do	12.67	
June 19	9:00 a.m.	do	do	12.86	

WELL - UPPER HORIZONTAL WELL ON THE DOS PUEBLOS RANCH

Location.--Lat. $34^{\circ}31'05''$, long. $119^{\circ}56'50''$, 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	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 9	8:20 a.m.	0.32	141	60	Well opened 6-8-54.
Aug. 25	8:20 a.m.	.25	114	60	
Sept. 23	8:45 a.m.	.23	103	60	
Oct. 14	10:10 a.m.	.22	97	59	
Nov. 29	10:00 a.m.	.18	80	59	
Dec. 21	9:45 a.m.	.16	73	60	Well closed after meas.
1955					
Apr. 20	9:20 a.m.	.24	106	60	Well opened 4-1-55.
May 27	9:30 a.m.	.20	89	61	Well closed after meas.
July 26	9:00 a.m.	.19	83	62	
Aug. 23	8:45 a.m.	.17	77	61	
Sept. 27	10:10 a.m.	.14	61	61	
Oct. 24	10:40 a.m.	.12	55	62	
Nov. 23	11:00 a.m.	.11	50	61	
Dec. 20	10:30 a.m.	.10	45	62	

STATION 50c.

5⁰ ^b WELL - HORIZONTAL WELL, DOS PUEBLOS RANCH

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

Altitude.---About 1,950 feet, from figure furnished by Dos Pueblos Ranch Company.

Description.---Two 3-inch cased holes: (131a) is 1,415 feet and (131b) 350 feet in a northerly direction. The two holes have a common discharge pipe.

Date	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 9	8:30 a.m.	0.50	225	61	Well opened 6-8-54.
Aug. 25	8:30 a.m.	.46	207	59	
Sept. 23	9:00 a.m.	.43	193	-	
Oct. 14	10:25 a.m.	.41	183	59-60	
Nov. 29	10:10 a.m.	.38	167	60	
Dec. 21	10:00 a.m.	.35	156	59	Well closed after meas.
1955					
Apr. 20	9:10 a.m.	.42	188	60	Well opened 4-1-55.
May 27	9:50 a.m.	.38	172	60	Well closed after meas.
July 26	9:20 a.m.	.38	172	61	Area recently burned.
Aug. 23	9:00 a.m.	.36	163	59	
Sept. 27	10:20 a.m.	.34	150	60	
Oct. 24	10:30 a.m.	.31	138	61	
Nov. 23	10:45 a.m.	.29	128	60	
Dec. 20	10:45 a.m.	.23	125	60	

STATION 50d.

WELL - HORIZONTAL WELL, DOS PUEBLOS RANCH

Location.--Lat. $34^{\circ}30'55''$, long. $119^{\circ}56'15''$, on westerly side of the East Fork of Dos Pueblos Canyon Creek near Naples.

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

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

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Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 9	10:50 a.m.	0.20	92	64	Well opened 6-8-54.
Aug. 25	10:40 a.m.	.20	90	64	
Sept. 23	-	.18	81	-	
Oct. 14	12:20 p.m.	.18	81	62	
Nov. 29	12:45 p.m.	.17	76	63	
Dec. 21	12 M	.17	74	62	Well closed after meas.
1955					
Apr. 20	12:30 p.m.	.16	73	63	Well opened 3-22-55.
May 27	11:30 a.m.	.17	75	63	
June 10	9:00 a.m.	.17	75	66	Creek dry.
July 26	11:30 a.m.	.16	72	65	
Aug. 23	11:15 a.m.	.15	65	65	
Sept. 27	10:20 a.m.	.14	62	60	Area recently burned.
Oct. 24	10:30 a.m.	.14	65	63	
Nov. 23	10:40 a.m.	.14	63	61	
Dec. 20	10:20 a.m.	.14	64	62	

SPRING - W. H. WOODS

Location.--Lat. $34^{\circ}29'30''$, long. $119^{\circ}57'50''$.

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

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

Date	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 12	9:30 a.m.	0.0075	3.37	61	
Aug. 17	9:15 a.m.	.0069	3.09	61	
Sept. 15	8:00 a.m.	.0042	1.87	-	
Oct. 13	2:00 p.m.	.0042	1.88	78	
Nov. 12	11:35 a.m.	.0045	2.03	66	
Dec. 9	10:00 a.m.	.0077	3.44	54	
1955					
Jan. 12	2:20 p.m.	.014	6.3	60	
Feb. 9	10:45 a.m.	.015	6.6	53	
Mar. 7	12:50 p.m.	.016	7.1	63	
Apr. 18	9:20 a.m.	.0060	2.70	60	
May 6	9:00 a.m.	.021	9.3	55	
June 8	11:00 a.m.	.0081	3.63	66	
July 20	9:45 a.m.	.0043	1.93	80	
Aug. 22	10:30 a.m.	.0049	2.21	70	
Sept. 26	11:00 a.m.	.0054	2.41	60	
Oct. 20	10:50 a.m.	.0067	3.02	64	
Nov. 22	9:10 a.m.	.0030	1.36	54	
Dec. 12	1:00 p.m.	.0053	2.40	55	
1956					
Jan. 17	1:05 p.m.	.0035	1.58	68	
Feb. 15	11:10 a.m.	.0084	3.75	57	
Mar. 15	12:35 p.m.	.0054	2.45	74	
Apr. 11	1:35 p.m.	.0063	2.83	57	
May 8	8:00 a.m.	.0046	2.08	57	
June 19	7:50 a.m.	.011	4.83	60	

STATION 57.

LAS VARAS CANYON CREEK AT LOWER DOTY DIVERSION

Location.--Lat. $34^{\circ}28'00''$, long. $119^{\circ}58'00''$, 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 12	9:00 a.m.	0.013	6.0	-	
Aug. 12	8:00 a.m.	.0093	4.16	59	
Sept. 15	7:10 a.m.	.0088	3.97	51	
Oct. 13	1:20 p.m.	.0080	3.57	60	
Nov. 12	11:00 a.m.	.0074	3.33	55	
Dec. 9	9:30 a.m.	.025	11	46	
1955					
Jan. 12	2:00 p.m.	.035	16	46	
Feb. 9	10:00 a.m.	.025	11	43	
Mar. 7	12:20 p.m.	.022	10	55	
Apr. 18	8:50 a.m.	.011	5.0	-	
May 6	8:20 a.m.	.021	9.4	53	
June 8	10:10 a.m.	.015	6.8	57	
July 20	9:00 a.m.	.0094	4.22	57	
Aug. 22	9:45 a.m.	.012	5.4	57	
Sept. 26	10:30 a.m.	.021	9.4	56	
Oct. 20	10:15 a.m.	.019	8.6	54	
Nov. 22	8:25 a.m.	.0045	2.02	43	Channel bulldozed.
Dec. 12	12 M.	.0075	3.37	62	
1956					
Jan. 17	12:40 p.m.	.033	15	52	
Feb. 15	10:30 a.m.	.17	76	51	
Mar. 15	12:10 p.m.	.10	45	56	
Apr. 12	1:15 p.m.	.28	126	57	Affected by rain.
May 8	7:30 a.m.	.072	32	55	
June 19	7:10 a.m.	.076	34	60	

GATO CANYON CREEK ABOVE DIVERSIONS

Location.--Lat. $34^{\circ}29'50''$, long. $119^{\circ}58'10''$, 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	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 8	1:00 p.m.	0.035	16	72	
Aug. 12	7:10 a.m.	.030	14	60	
Sept. 13	12:30 p.m.	.0029	1.30	66	
Oct. 15	10:00 a.m.	.00045	.20	62	
Nov. 22	1:45 p.m.	.032	15	56	
Dec. 9	8:05 a.m.	.15	65	51	
1955					
Jan. 12	1:00 p.m.	.27	120	48	
Feb. 8	11:15 a.m.	.16	74	48	
Mar. 28	9:30 a.m.	.16	69	50	
Apr. 18	8:10 a.m.	.061	27	50	
May 6	7:30 a.m.	.72	320	50	
June 8	9:30 a.m.	.13	59	57	
July 20	7:45 a.m.	.027	12	60	
Aug. 18	11:10 a.m.	.0007	.30	63	
Sept. 26	10:00 a.m.	.022	10	60	
Oct. 20	9:25 a.m.	.058	26	58	
Nov. 10	1:15 p.m.	.054	24	60	
Dec. 9	11:20 a.m.	.071	32	54	
1956					
Jan. 18	10:35 a.m.	.74	332	49	New diversion pipe and junction box installed since last visit.
Feb. 15	9:30 a.m.	1.39	622	48	
Mar. 13	11:00 a.m.	.73	328	52	
Apr. 10	10:50 a.m.	.34	153	55	
May 7	2:15 p.m.	1.24	557	61	
June 18	9:00 a.m.	.67	300	58	

LAS YEGUAS CANYON CREEK

Location.--Lat. $34^{\circ}28'20''$, long. $119^{\circ}59'30''$, 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 8	11:20 a.m.	0.022	10	66	New well in use below this site.
Aug. 11	12:40 p.m.	.022	10	61	
Sept. 13	11:15 a.m.	.013	6.0	59	
Oct. 13	12:35 p.m.	.015	6.7	56	
Nov. 22	12:45 p.m.	.029	13	50	
Dec. 8	12:40 p.m.	.051	23	48	
1955					
Jan. 12	11:00 a.m.	.15	69	44	Area above recently burned.
Feb. 8	12:40 p.m.	.14	60	48	
Mar. 7	10:50 a.m.	.13	57	51	
Apr. 12	11:50 a.m.	.094	42	53	
May 5	12:15 p.m.	.10	47	57	
June 8	7:30 a.m.	.12	54	56	
July 12	11:15 a.m.	.045	20	60	
Aug. 18	10:35 a.m.	.030	13	60	
Sept. 26	9:00 a.m.	.057	26	57	
Oct. 14	1:20 p.m.	.058	26	57	
Nov. 10	12:05 p.m.	.060	27	53	
Dec. 12	10:45 a.m.	.083	37	51	
1956					
Jan. 17	11:35 a.m.	.25	112	53	
Feb. 14	12:45 p.m.	.32	143	59	
Mar. 13	9:10 a.m.	.25	112	49	
Apr. 11	10:15 a.m.	.14	65	54	
May 7	1:15 p.m.	.30	135	73	
June 18	7:50 a.m.	.15	68	59	

SPRING - EDWARDS ESTATE

Location.--Lat. $34^{\circ}28'00''$, long. $119^{\circ}59'30''$.

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 8	11:35 a.m.	0.020	9.0	64	
Aug. 11	1:00 p.m.	-	-	-	No meas.; pumping.
Sept. 13	11:45 a.m.	No flow	No flow	-	Irrigating at ranch.
Oct. 13	12:45 p.m.	-	-	-	No meas.; pumping.
Nov. 22	1:00 p.m.	-	-	-	do
Dec. 8	12:30 p.m.	.022	10	62	
1955					
Jan. 12	11:20 a.m.	.020	8.8	62	
Feb. 8	1:00 p.m.	.023	10	63	
Mar. 7	11:05 a.m.	.023	10	62	
Apr. 12	12 M.	-	-	-	No meas.; pumping.
May 5	12:35 p.m.	.027	12	64	
June 8	7:50 a.m.	-	-	-	No meas.; pumping.
July 12	11:30 a.m.	-	-	-	do
Aug. 18	10:50 a.m.	-	-	-	do
Sept. 26	9:15 a.m.	-	-	-	do
Oct. 20	1:30 p.m.	No flow	No flow	-	
Nov. 10	12:30 p.m.	-	-	-	No meas.; pumping.
Dec. 12	11:00 a.m.	.020	9.1	63	
1956					
Jan. 17	11:50 a.m.	-	-	-	Spring damaged; seepage uncontrolled.
Feb. 14	1:00 p.m.	-	-	-	Seepage uncontrolled.
Mar. 13	9:30 a.m.	.014	6.4	62	
Apr. 11	10:20 a.m.	-	-	-	No meas.; pumping.
May 7	1:25 p.m.	.021	9.6	64	
June 18	8:00 a.m.	-	-	-	No meas.; pumping.

LAS YEGUAS CANYON CREEK AT HIGHWAY 101

Location.--Lat. $34^{\circ}27'40''$, long. $120^{\circ}00'00''$, 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.

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

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 8	11:50 a.m.	0.13	58	66	Irrigating above; flow dirty.
Aug. 11	1:20 p.m.	.063	28	65	
Sept. 13	12:05 p.m.	.12	53	60	
Oct. 13	12:15 p.m.	.15	69	58	
Nov. 22	1:20 p.m.	.18	80	55	
Dec. 8	1:50 p.m.	.20	89	53	
1955					
Jan. 12	11:40 a.m.	.26	118	47	Water not clear.
Feb. 8	12:20 p.m.	.29	132	47	
Mar. 7	11:55 a.m.	.31	138	52	
Apr. 12	1:00 p.m.	.076	34	56	
May 5	1:00 p.m.	.24	107	57	
June 8	8:20 a.m.	.23	102	58	Water muddy. Water clear.
July 12	12 M.	.14	65	59	
Aug. 18	10:15 a.m.	.12	53	58	
Sept. 26	9:25 a.m.	.13	57	58	
Oct. 20	8:40 a.m.	.15	67	54	
Nov. 10	12:35 p.m.	.057	26	57	
Dec. 12	11:30 a.m.	.18	81	51	
1956					
Jan. 17	12:05 p.m.	.28	125	53	
Feb. 14	1:15 p.m.	.59	264	-	
Mar. 13	9:50 a.m.	.53	238	54	
Apr. 11	10:40 a.m.	.10	47	59	
May 7	1:40 p.m.	.43	193	75	
June 18	8:15 a.m.	.26	116	61	

STATION 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 8	12 M.	No flow	No flow	-	
Aug. 11	12:10 p.m.	0.0016	0.72	66	
Sept. 13	10:55 a.m.	.0008	.36	-	
Oct. 13	1:00 p.m.	No flow	No flow	-	Pools in channel.
Nov. 22	12:25 p.m.	No flow	No flow	-	Pools.
Dec. 8	1:25 p.m.	No flow	No flow	-	Pools.
1955					
Jan. 14	9:05 a.m.	.00042	.19	40	
Feb. 8	1:20 p.m.	No flow	No flow	-	Pools
Mar. 7	11:25 a.m.	.0025	1.11	53	Used pipe to meas.
Apr. 12	12:30 p.m.	.0013	.58	56	Installed meas. pipe.
May 5	11:50 a.m.	.0030	1.36	57	
June 8	7:10 a.m.	.0030	1.36	57	
July 12	10:40 a.m.	.0013	.58	60	
Sept. 26	8:30 a.m.	.00054	.24	56	
Oct. 14	1:00 p.m.	.00020	.088	58	
Nov. 10	11:40 a.m.	.00011	.050	54	
Dec. 12	10:00 a.m.	.00011	.048	49	
1956					
Jan. 17	11:05 a.m.	.0014	.62	49	
Feb. 14	12:15 p.m.	.024	11	57	
Mar. 13	8:40 a.m.	.011	5.0	46	
Apr. 11	9:50 a.m.	.018	8.1	58	
May 7	1:00 p.m.	.0070	3.12	62	
June 18	7:20 a.m.	.0036	1.63	57	

CAPITAN CREEK ABOVE GILA LAND COMPANY DIVERSION

Location.--Lat. $34^{\circ}29'40''$, long. $120^{\circ}00'20''$, 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 from the concrete diversion dam of Gila Land Company.

Diversion.--No known diversions above station.

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 8	10:00 a.m.	0.15	68	62	
Aug. 11	11:30 a.m.	.18	82	60	
Sept. 13	9:45 a.m.	.14	64	59	
Oct. 13	11:30 a.m.	.10	47	57	
Nov. 22	11:20 a.m.	.14	60	52	
Dec. 8	11:50 a.m.	.36	160	51	
1955					
Jan. 12	9:40 a.m.	.90	405	45	
Feb. 8	2:45 p.m.	.36	161	50	
Mar. 28	8:15 a.m.	.38	172	51	
Apr. 12	11:10 a.m.	.30	134	53	
May 5	11:00 a.m.	.79	355	-	
June 13	8:30 a.m.	.37	157	53	
July 12	10:00 a.m.	.19	86	-	
Aug. 18	9:40 a.m.	.071	32	58	
Oct. 14	12:15 p.m.	.12	53	58	
Nov. 10	10:40 a.m.	.10	45	56	
Dec. 12	8:45 a.m.	.16	72	51	
1956					
Jan. 18	8:55 a.m.	.66	296	47	
Feb. 14	11:35 a.m.	1.00	448	52	
Mar. 12	12:45 p.m.	.81	364	-	
Apr. 11	8:45 a.m.	.31	140	55	
May 7	11:00 a.m.	.88	395	62	
June 12	10:20 a.m.	1.45	650	69	

SPRING - GEORGE M. WILLIAMS ESTATE

Location.--Lat. $34^{\circ}29'10''$, long. $120^{\circ}02'10''$.

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

Description.--Seepage at foot of sandstone cliff.

Date	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 8	7:30 a.m.	0.0022	1.00	63	
Aug. 11	9:00 a.m.	.0025	1.13	61	
Sept. 13	8:00 a.m.	.0017	.75	60	
Oct. 13	9:20 a.m.	.0013	.58	62	
Nov. 22	9:20 a.m.	.00062	.28	54	
Dec. 8	9:50 a.m.	.0011	.48	51	
1955					
Jan. 7	11:35 a.m.	.0016	.70	50	
Feb. 9	9:25 a.m.	.0023	1.03	55	
Mar. 7	8:50 a.m.	.0025	1.13	59	
Apr. 12	10:00 a.m.	.0011	.48	62	
May 5	8:20 a.m.	.0019	.86	57	
June 13	10:10 a.m.	.0022	1.00	59	
July 12	9:00 a.m.	.0021	.94	60	
Aug. 18	8:00 a.m.	.0022	1.00	58	
Sept. 13	1:05 p.m.	.0028	1.24	71	
Oct. 14	10:30 a.m.	.0026	1.15	60	
Nov. 10	9:30 a.m.	.0026	1.15	57	
Dec. 9	10:00 a.m.	.0024	1.07	58	
1956					
Jan. 17	9:45 a.m.	.0030	1.33	53	
Feb. 14	10:25 a.m.	.0027	1.19	-	
Mar. 12	10:05 a.m.	.0035	1.55	-	
Apr. 10	9:15 a.m.	.0025	1.13	56	
May 7	8:30 a.m.	.0025	1.12	58	
June 12	8:25 a.m.	.0024	1.07	62	

CORRAL CREEK

Location.--Lat. $34^{\circ}29'00''$, long. $120^{\circ}02'20''$, 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.

Diversions.--From one spring above station.

Date	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 8	7:50 a.m.	0.040	18	63	Light rain.	
Aug. 11	9:15 a.m.	.013	6.0	62		
Sept. 13	9:05 a.m.	.0034	1.54	58		
Oct. 13	9:35 a.m.	.0037	1.67	58		
Nov. 22	9:35 a.m.	.0060	2.68	53		
Dec. 8	10:00 a.m.	.049	22	50		
1955						
Jan. 7	12:25 p.m.	.30	132	45		
Feb. 9	8:30 a.m.	.40	182	50		
Mar. 7	9:10 a.m.	.44	197	-		
Apr. 12	10:15 a.m.	.10	47	56		
May 5	8:00 a.m.	.51	230	55		
June 13	9:50 a.m.	.13	57	-		
July 12	9:20 a.m.	.040	18	60		
Aug. 18	8:10 a.m.	.0064	2.86	56		
Sept. 13	12:55 p.m.	.0037	1.65	61		
Oct. 14	10:45 a.m.	.0090	4.04	57		
Nov. 10	9:35 a.m.	.0070	3.14	55		
Dec. 9	10:20 a.m.	.15	67	55		
1956						
Jan. 17	10:00 a.m.	.62	278	47		
Feb. 14	10:35 a.m.	1.57	703	52		
Mar. 12	10:25 a.m.	.87	390	-		
Apr. 10	9:35 a.m.	.52	233	54		
May 7	8:45 a.m.	.58	260	58		
June 12	8:40 a.m.	.62	278	63		

SPRING - GEORGE M. WILLIAMS ESTATE

Location.--Lat. $34^{\circ}29'20''$, long. $120^{\circ}02'30''$.

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

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

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 8	8:30 a.m.	0.0033	1.46	64	
Aug. 11	9:55 a.m.	.0026	1.18	61	
Sept. 13	8:45 a.m.	.0018	.81	58	
Oct. 13	10:30 a.m.	.0016	.71	57	
Nov. 22	10:05 a.m.	.0020	.90	54	
Dec. 8	10:35 a.m.	.0029	1.28	50	
1955					
Jan. 7	12 M.	.0054	2.40	46	
Feb. 9	8:55 a.m.	.0061	2.72	48	
Mar. 7	9:50 a.m.	.0054	2.40	49	
Apr. 12	9:30 a.m.	.0046	2.06	53	
May 5	8:50 a.m.	.0042	1.88	54	
June 13	10:30 a.m.	.0038	1.70	57	
July 12	8:10 a.m.	.0025	1.13	59	
Aug. 18	8:30 a.m.	.0028	1.27	60	
Sept. 13	12:30 p.m.	.0067	3.00	67	Area recently burned.
Oct. 14	10:15 a.m.	.0074	3.33	62	
Nov. 10	9:20 a.m.	.0067	3.00	53	
Dec. 9	9:40 a.m.	.0067	3.00	54	
1956					
Jan. 17	9:20 a.m.	.073	33	49	
Feb. 14	10:00 a.m.	.046	21	49	
Mar. 12	9:30 a.m.	.019	8.5	-	
Apr. 10	9:00 a.m.	.0035	1.56	54	
May 7	8:00 a.m.	.013	6.0	57	
June 12	8:05 a.m.	.010	4.68	62	

SPRING - COVARRUBIAS ESTATE

Location.--Lat. $34^{\circ}28'20''$, long. $120^{\circ}02'30''$.

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 8	7:05 a.m.	0.032	14	68	
Aug. 11	8:30 a.m.	.0085	3.80	60	
Sept. 13	7:35 a.m.	.015	6.7	-	
Oct. 13	9:00 a.m.	.007	3.14	58	
Nov. 22	9:05 a.m.	.0070	3.13	55.	
Dec. 8	9:25 a.m.	.028	12	54	
1955					
Jan. 7	11:20 a.m.	.16	72	46	
Feb. 9	8:10 a.m.	.39	173	48	
Mar. 7	8:20 a.m.	.46	207	46	
Apr. 12	8:30 a.m.	.13	52	52	
May 5	7:35 a.m.	.42	186	54	
June 13	9:30 a.m.	.11	49	58	
July 12	7:45 a.m.	.028	12	58	
Aug. 18	7:30 a.m.	.007	3.13	56	
Sept. 13	12 M	.010	4.48	60	
Oct. 14	11:25 a.m.	.0040	1.81	58	
Nov. 10	10:00 a.m.	.0067	3.00	54	Channel bulldozed.
Dec. 9	10:45 a.m.	.0084	3.75	56	
1956					
Jan. 17	10:10 a.m.	-	-	-	No meas.; bulldozer working channel.
Feb. 14	9:15 a.m.	1.67	748	51	
Mar. 12	11:15 a.m.	.97	435	-	
Apr. 10	9:55 a.m.	.56	251	56	
May 7	9:10 a.m.	1.05	472	62	
June 12	9:05 a.m.	.79	354	66	

SPRING - ERRO ESTATE

Location.--Lat. $34^{\circ}29'40''$, long. $120^{\circ}03'20''$.

Altitude.--About 430 feet, from topographic map.

Description.--Pool in creek bottom on sandstone beds.

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 8	10:40 a.m.	0.0099	4.41	70	
Aug. 11	8:00 a.m.	.010	4.69	61	
Sept. 13	7:15 a.m.	.0084	3.75	59	
Oct. 13	8:30 a.m.	.0072	3.23	60	
Nov. 22	8:50 a.m.	.0061	2.73	54	
Dec. 8	8:45 a.m.	.0064	2.88	52	
1955					
Jan. 7	11:05 a.m.	.010	4.48	-	
Feb. 8	3:20 p.m.	.021	9.4	53	
Mar. 7	8:00 a.m.	.015	6.7	49	
Apr. 12	8:00 a.m.	.0044	1.96	55	
May 5	7:25 a.m.	.0072	3.23	54	
June 13	11:00 a.m.	.0057	2.56	60	
July 12	7:15 a.m.	.0045	2.02	59	
Aug. 18	7:15 a.m.	.0043	1.93	59	
Sept. 13	11:25 a.m.	.010	4.48	67	
Oct. 14	9:25 a.m.	.0084	3.76	-	
Nov. 10	8:45 a.m.	.017	7.6	62	
Dec. 9	8:30 a.m.	.32	143	53	
1956					
Jan. 17	8:35 a.m.	.067	30	45	
Feb. 14	8:50 a.m.	.22	99	50	
Mar. 12	8:50 a.m.	.10	45	-	
Apr. 10	8:25 a.m.	.094	42	54	
May 7	7:20 a.m.	.082	37	56	
June 12	7:00 a.m.	.051	23	58	

SPRING - GEORGE M. WILLIAMS ESTATE

Location---Lat. 34°28'40", long. 120°03'20".Altitude---About 200 feet, from topographic map.Description---Seepage into uncurbed pool in narrow valley on hillside.

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 8	11:00 a.m.	No flow	No flow	-	
Aug. 11	8:15 a.m.	No flow	No flow	-	
Sept. 13	7:05 a.m.	No flow	No flow	-	
Oct. 13	8:40 a.m.	No flow	No flow	-	
Nov. 22	8:40 a.m.	do	do	-	
Dec. 8	9:00	do	do	-	
1955					
Jan. 7	10:50 a.m.	do	do	-	
Feb. 8	3:30 p.m.	do	do	-	
Mar. 7	7:50 a.m.	do	do	-	
Apr. 12	7:50 a.m.	do	do	-	
May 5	7:15 a.m.	do	do	-	
June 13	10:50 a.m.	do	do	-	
July 12	7:00 a.m.	do	do	-	
Aug. 18	7:00 a.m.	do	do	-	
Sept. 13	11:15 a.m.	do	do	-	Hillside recently burned
Oct. 14	8:50 a.m.	do	do	-	Hillside damp at base.
Nov. 10	8:40 a.m.	do	do	-	Water in pool.
Dec. 9	8:35 a.m.	do	do	-	
1956					
Jan. 17	8:30 a.m.	-	-	-	No meas.; uncontrolled seepage.
Feb. 14	8:45 a.m.	-	-	-	do
Mar. 12	8:45 a.m.	-	-	-	do
Apr. 10	8:30 a.m.	-	-	-	do
May 7	7:10 a.m.	-	-	-	do
June 12	6:55 a.m.	-	-	-	do

SPRING - MRS. FLORENCE BROWN

Location.--Lat. $34^{\circ}31'30''$, long. $120^{\circ}03'20''$.

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 7	10:10 a.m.	0.00096	0.43	-	
Aug. 10	10:20 a.m.	.000049	.022	57	
Sept. 14	11:00 a.m.	.00018	.079	58	
Oct. 12	11:05 a.m.	.00022	.10	57	
N v. 9	12:15 p.m.	.00024	.11	56	
Dec. 7	11:20 a.m.	.00023	.10	53	
1955					
Jan. 6	12:50 p.m.	.00024	.11	47	
Feb. 7	11:00 a.m.	.00021	.094	52	
Mar. 8	11:15 a.m.	.00031	.14	56	
Apr. 5	11:00 a.m.	.00048	.21	62	
May 3	11:00 a.m.	.00074	.33	55	Heavy rain Apr. 30-May 1.
June 21	11:30 a.m.	.00026	.12	60	
July 11	10:30 a.m.	.00084	.38	58	
Aug. 17	10:30 a.m.	.00026	.12	64	
Sept. 12	9:45 a.m.	.00021	.094	61	
Oct. 13	11:15 a.m.	No flow	No flow	-	
Nov. 9	11:30 a.m.	.000027	.012	58	
Dec. 8	11:00 a.m.	No flow	No flow	-	
1956					
Jan. 16	11:15 a.m.	do	do	-	
Feb. 13	11:15 a.m.	do	do	-	
Mar. 16	10:55 a.m.	.00058	.26	56	Spring box cleaned and repaired.
Apr. 24	10:50 a.m.	-	-	-	Pipe plugged; cistern half full.
May 16	10:30 a.m.	-	-	-	Pipe plugged; cistern full.
June 11	10:10 a.m.	-	-	-	Pipe plugged; cistern half full.

SPRING - MRS. FLORENCE BROWN

Location.--Lat. $34^{\circ}31'00''$, long. $120^{\circ}03'30''$.

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 7	11:30 a.m.	-	-	-	Seeps.
Aug. 10	11:35 a.m.	-	-	-	do
Sept. 14	12:05 p.m.	-	-	-	do
Oct. 12	12 M.	No flow	No flow	-	
Nov. 9	1:10 p.m.	-	-	-	Seeps.
Dec. 7	12:35 p.m.	-	-	-	do
1955					
Jan. 6	2:00 p.m.	-	-	-	do
Feb. 7	12 M.	-	-	-	do
Mar. 8	12:15 p.m.	-	-	-	do
Apr. 5	12 M.	-	-	-	do
May 3	12:15 p.m.	-	-	-	do
June 21	12:30 p.m.	-	-	-	do
July 11	11:40 a.m.	-	-	-	do
Aug. 17	11:30 a.m.	-	-	-	do
Sept. 12	11:50 a.m.	-	-	-	do
Oct. 13	1:20 p.m.	No flow	No flow	-	
Nov. 9	12:50 p.m.	do	do	-	
Dec. 8	12:15 p.m.	do	do	-	
1956					
Jan. 16	12:10 p.m.	do	do	-	
Feb. 13	12:15 p.m.	do	do	-	
Mar. 16	9:55 a.m.	-	-	-	Uncontrolled seeps.
Apr. 24	11:45 a.m.	No flow	No flow	-	
May 16	12 M.	do	do	-	
June 11	11:15 a.m.	do	do	-	

SPRING - MRS. FLORENCE BROWN

Location.--Lat. $34^{\circ}30'50''$, long. $120^{\circ}03'40''$.

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

Description.--Drilled hole into sandstone cliff, 25 feet above creek.

Discharge measured at end of 1/2-inch pipe.

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 7	11:50 a.m.	0.017	7.6	62	4½" rain since last visit.
Aug. 10	11:50 a.m.	.024	11	49	
Sept. 14	12:20 p.m.	.017	7.7	64	
Oct. 12	12:15 p.m.	.017	7.8	60	
Nov. 9	1:30 p.m.	.021	9.2	59	
Dec. 7	12:50 p.m.	.018	8.1	55	
1955					
Jan. 6	2:15 p.m.	.031	14	53	Pipelines broken; meas- ured in stream bed. do do do do do Pipelines repaired.
Feb. 7	12:20 p.m.	.035	16	54	
Mar. 8	12:30 p.m.	.027	12	53	
Apr. 5	12:20 p.m.	.021	9.5	57	
May 3	12:30 p.m.	.038	17	56	
June 21	12:50 p.m.	.019	8.7	66	
July 11	11:45 a.m.	.016	7.2	60	
Aug. 17	11:40 a.m.	.015	6.5	64	
Sept. 12	12 M.	.016	7.2	-	
Oct. 13	1:30 p.m.	.011	4.76	-	
Nov. 9	1:00 p.m.	.0080	3.60	62	
Dec. 8	12:20 p.m.	.019	8.6	56	
1956					
Jan. 16	12:15 p.m.	.021	9.4	55	Pipelines broken; meas- ured in stream bed. do do do do Pipelines repaired.
Feb. 13	12:10 p.m.	.018	8.1	61	
Mar. 16	10:05 a.m.	.022	10	56	
Apr. 24	11:55 a.m.	.019	8.7	57	
May 16	11:55 a.m.	.021	9.3	57	
June 11	11:25 a.m.	.042	19	68	

SPRING - WILLIAM FELIZ

Location.--Lat. $34^{\circ}31'30''$, long. $120^{\circ}04'30''$.

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

Description.--Seepage from hole dug into hillside. Spring sealed in December 1950.
Discharge measured at valve in $1\frac{1}{4}$ -inch line to water tank

Date	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 7	11:05 a.m.	0.0020	0.91	65	Area recently burned.	
Aug. 10	10:45 a.m.	.0033	1.49	61		
Sept. 14	11:35 a.m.	.0022	1.00	66		
Oct. 12	11:40 a.m.	.0020	.88	63		
Nov. 9	12:40 p.m.	.0018	.79	61		
Dec. 7	12 M.	.0016	.72	59		
1955						
Jan. 6	1:25 p.m.	.0012	.56	54		
Feb. 7	11:30 a.m.	.0022	.98	60		
Mar. 8	11:45 a.m.	.0025	1.11	52		
Apr. 5	11:30 a.m.	.0024	1.07	62		
May 3	11:30 a.m.	.0021	.92	64		
June 21	12 M.	.0026	1.15	66		
July 11	11:00 a.m.	.0022	1.00	61		
Aug. 17	11:00 a.m.	.0014	.65	68		
Sept. 12	10:10 a.m.	.0022	1.00	67		
Oct. 13	11:55 a.m.	.0024	1.05	61		
Nov. 9	12 M.	.0018	.81	61		
Dec. 8	11:35 a.m.	.0018	.81	61		
1956						
Jan. 16	11:40 a.m.	.0029	1.30	60		
Feb. 13	11:35 a.m.	.0036	1.62	61		
Mar. 16	10:40 a.m.	.0033	1.50	61		
Apr. 24	11:20 a.m.	.0041	1.83	61		
May 16	11:00 a.m.	.0042	1.88	61		
June 11	11:35 a.m.	.017	7.7	62		

CANADA DEL REFUGIO CREEK

Location.--Lat. $34^{\circ}30'30''$, long. $120^{\circ}03'50''$, 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 $2\frac{1}{2}$ -inch line in creek bed, or during extremely low-flow observations can be made by volumetric means at culvert about 100 yards upstream.

Diversions.--Only minor diversions above station.

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 7	12:10 p.m.	0.15	65	64	
Aug. 10	12:10 p.m.	.18	79	61	
Sept. 14	12:40 p.m.	.15	67	63	
Oct. 12	12:40 p.m.	.27	120	60	
Nov. 9	1:40 p.m.	.13	60	55	
Dec. 7	1:15 p.m.	.25	111	53	
1955					
Jan. 7	9:20 a.m.	.27	120	45	
Feb. 7	12:45 p.m.	.39	176	49	
Mar. 8	1:00 p.m.	.37	167	54	
Apr. 5	12:40 p.m.	.22	97	54	
May 3	12:50 p.m.	.33	150	54	
June 21	1:15 p.m.	.17	75	61	
July 11	12:15 p.m.	.12	56	62	
Aug. 17	11:55 a.m.	.12	54	64	
Sept. 12	12:15 p.m.	.10	45	65	
Oct. 13	2:05 p.m.	.22	100	59	
Nov. 9	1:20 p.m.	.19	83	57	
Dec. 8	1:05 p.m.	.21	94	53	
1956					
Jan. 16	12:50 p.m.	.30	136	52	
Feb. 13	12:30 p.m.	.96	430	54	
Mar. 16	9:30 a.m.	.33	150	52	
Apr. 24	12:10 p.m.	.30	136	57	
May 16	12:20 p.m.	.33	148	54	
June 11	12 M.	.30	135	65	

SPRING - C. DAL POZZO & ALEGRIA ESTATE

Location.--Lat. $34^{\circ}30'10''$, long. $120^{\circ}04'00''$.

Altitude.--About 420 feet, from topographic map.

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

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 7	12:20 p.m.	0.0028	1.25	66	
Aug. 10	12:25 p.m.	.0035	1.58	62	
Sept. 14	12:50 p.m.	.0030	1.33	63	
Oct. 12	1:00 p.m.	.0035	1.58	60	
Nov. 9	1:50 p.m.	.0028	1.25	56	
Dec. 7	1:25 p.m.	.0051	2.27	55	
1955					
Jan. 7	9 ⁴ 30 a.m.	.0045	2.00	47	
Feb. 7	1:00 p.m.	.0048	2.14	53	
Mar. 8	1:15 p.m.	.0041	1.83	57	
Apr. 5	12:50 p.m.	.0032	1.42	56	
May 3	1:10 p.m.	.0041	1.84	55	
June 21	1:30 p.m.	.0033	1.48	63	
July 11	12:30 p.m.	.0034	1.54	62	
Aug. 17	12:05 p.m.	.0028	1.25	65	
Sept. 12	12:20 p.m.	.0030	1.34	65	
Oct. 13	2:10 p.m.	.0034	1.50	60	
Nov. 9	1:25 p.m.	.0028	1.25	59	
Dec. 8	1:10 p.m.	.016	7.3	56	
1956					
Jan. 16	1:00 p.m.	.00069	.31	54	
Feb. 13	12:35 p.m.	.0041	1.82	56	
Mar. 16	9:25 a.m.	.0016	.70	52	
Apr. 24	12:15 p.m.	.0012	.53	56	
May 16	12:25 p.m.	.00055	.25	64	
June 11	12:05 p.m.	.00012	.056	66	

SPRING - JOHN ALEGRIA

Location.--Lat. $34^{\circ}30'10''$, long. $120^{\circ}03'40''$.

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

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

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 7	12:40 p.m.	0.0029	1.30	76	
Aug. 10	12:55 p.m.	.0024	1.08	69	
Sept. 14	1:10 p.m.	.0024	1.09	70	
Oct. 12	1:25 p.m.	.0026	1.16	67	
Nov. 9	2:00 p.m.	.0025	1.11	66	
Dec. 7	1:50 p.m.	.0027	1.22	63	
1955					
Jan. 7	9:55 a.m.	.0024	1.07	55	
Feb. 7	1:30 p.m.	.0025	1.11	66	
Mar. 8	1:35 p.m.	.0023	1.03	64	
Apr. 5	1:15 p.m.	.0025	1.13	67	
May 3	1:30 p.m.	.0027	1.22	64	
June 13	11:50 a.m.	.0026	1.15	63	
July 11	1:10 p.m.	.0020	.90	70	
Aug. 17	12:25 p.m.	.0018	.80	72	
Sept. 12	12:40 p.m.	.0024	1.07	83	
Oct. 13	2:20 p.m.	.0019	.86	62	
Nov. 9	1:40 p.m.	.0014	.62	65	
Dec. 8	1:35 p.m.	.0021	.94	74	
1956					
Jan. 16	1:10 p.m.	.0051	2.27	68	
Feb. 13	12:40 p.m.	.0022	1.00	-	
Mar. 16	9:15 a.m.	.0031	1.40	64	
Apr. 24	12:25 p.m.	.0028	1.25	66	
May 16	12:40 p.m.	.0032	1.43	68	
June 11	12:35 p.m.	.0018	.81	71	

SPRING - M. F. ERRO

Location.--Lat. $34^{\circ}28'20''$, long. $120^{\circ}04'10''$.

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 7	1:00 p.m.	No flow	No flow	-	Uncontrolled seepage.
Aug. 10	1:10 p.m.	-	-	-	
Sept. 14	1:30 p.m.	No flow	No flow	-	
Oct. 12	1:40 p.m.	No flow	No flow	-	
Nov. 9	2:20 p.m.	No flow	No flow	-	Uncontrolled seepage.
Dec. 7	2:00 p.m.	-	-	-	
1955					
Jan. 7	10:15 a.m.	-	-	-	do
Feb. 7	1:50 p.m.	-	-	-	do
Mar. 8	2:00 p.m.	-	-	-	do
Apr. 5	1:35 p.m.	-	-	-	do
May 3	1:50 p.m.	-	-	-	do
June 13	11:30 a.m.	-	-	-	do
July 11	1:20 p.m.	-	-	-	do
Aug. 17	12:35 p.m.	-	-	-	do
Sept. 12	2:05 p.m.	-	-	-	Uncontrolled seepage; nearby area burned.
Oct. 13	2:25 p.m.	No flow	No flow	-	Channel bulldozed. Includes #89?
Nov. 9	2:00 p.m.	No flow	No flow	-	
Dec. 9	8:55 a.m.	.0017	.75	63	
1956					
Jan. 16	1:30 p.m.	.0017	.77	62	do
Feb. 13	12:55 p.m.	.0022	1.00	64	do
Mar. 16	8:55 a.m.	.0023	1.04	63	do
Apr. 24	12:40 p.m.	.0044	1.97	65	do
May 16	1:00 p.m.	-	-	-	Uncontrolled seepage.
June 11	12:45 p.m.	-	-	-	do

SPRING - M. F. ERRO

Location.--Lat. $34^{\circ}28'20''$, long. $120^{\circ}04'10''$.

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 7	1:05 p.m.	-	-	-	Uncontrolled seepage.
Aug. 10	1:15 p.m.	-	-	-	do
Sept. 14	1:30 p.m.	-	-	-	do
Oct. 12	1:40 p.m.	-	-	-	do
Nov. 9	2:20 p.m.	-	-	-	do
Dec. 7	2:00 p.m.	-	-	-	do
1955					
Jan. 7	10:15 a.m.	-	-	-	do
Feb. 7	2:00 p.m.	-	-	-	do
Mar. 8	2:00 p.m.	-	-	-	do
Apr. 5	1:40 p.m.	-	-	-	do
May 3	1:55 p.m.	-	-	-	do
June 13	11:25 a.m.	-	-	-	do
July 11	1:20 p.m.	-	-	-	do
Aug. 17	12:30 p.m.	-	-	-	do
Sept. 12	2:00 p.m.	-	-	-	Nearby area burned.
Oct. 13	2:25 p.m.	No flow	No flow	-	Ground wet.
Nov. 9	2:00 p.m.	No flow	No flow	-	Includes #88?
Dec. 9	8:55 a.m.	0.0016	0.70	60	
1956					
Jan. 16	1:30 p.m.	.0013	.60	58	do
Feb. 13	12:55 p.m.	.0012	.56	60	do
Mar. 16	8:55 a.m.	.0067	3.00	63	do
Apr. 24	12:40 p.m.	.0070	3.12	65	do
May 16	1:00 p.m.	-	-	-	Uncontrolled seepage.
June 11	12:45 p.m.	-	-	-	do

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 7	1:20 p.m.	0.0074	3.33	67	
Aug. 10	1:30 p.m.	.0062	2.78	66	
Sept. 14	1:40 p.m.	.0079	3.53	64	
Oct. 12	1:50 p.m.	.0065	2.91	63	
Nov. 9	2:30 p.m.	.0073	3.26	62	
Dec. 7	2:10 p.m.	.0040	1.82	59	
1955					
Jan. 7	10:30 a.m.	.0052	2.31	55	
Feb. 7	2:15 p.m.	.0048	2.14	60	
Mar. 8	2:20 p.m.	.0048	2.14	61	
Apr. 5	2:00 p.m.	.0043	1.93	64	
May 3	2:15 p.m.	.0048	2.14	60	
June 13	11:20 a.m.	.0045	2.02	63	
July 11	1:30 p.m.	.0049	2.20	64	
Aug. 17	12:50 p.m.	.0056	2.50	66	
Sept. 12	2:10 p.m.	.0048	2.14	66	
Oct. 13	2:30 p.m.	.0038	1.71	62	
Nov. 9	2:30 p.m.	.0042	1.87	63	Channel bulldozed.
Dec. 8	2:00 p.m.	.0061	2.72	62	
1956					
Jan. 16	1:45 p.m.	.0088	3.95	61	
Feb. 13	1:10 p.m.	.035	16	63	
Mar. 16	8:50 a.m.	.037	17	64	
Apr. 24	12:55 p.m.	.033	15	65	
May 16	1:15 p.m.	.030	13	67	
June 11	1:00 p.m.	.025	11	66	

SPRING - TOM KINEVAN

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

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

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

Date	Time	Discharge		Water level, in feet, below reference point	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 21	9:05 a.m.	No flow	No flow	6.40	Portable pump installed since last visit.
Aug. 11	11:00 a.m.	do	do	3.80	
Oct. 8	9:35 a.m.	do	do	2.26	
Nov. 19	11:05 a.m.	do	do	2.39	
Dec. 9	10:50 a.m.	do	do	4.22	
1955					
Jan. 13	10:50 a.m.	do	do	1.91	Spring crib burned by recent fire.
Feb. 23	12 M.	do	do	1.99	
Mar. 8	10:10 a.m.	do	do	2.00	
Apr. 19	9:50 a.m.	do	do	2.28	
May 10	11:00 a.m.	do	do	1.84	
June 3	8:25 a.m.	do	do	2.22	
July 12	12:20 p.m.	do	do	2.25	
Sept. 16	12:10 p.m.	do	do	4.56	
Oct. 14	9:40 a.m.	do	do	3.98	
Nov. 9	9:15 a.m.	do	do	2.35	
Dec. 9	9:30 a.m.	do	do	2.38	
1956					
Jan. 19	10:20 a.m.	do	do	1.80	
Feb. 14	9:20 a.m.	do	do	1.80	
Mar. 15	9:45 a.m.	do	do	1.93	
Apr. 24	7:50 a.m.	do	do	2.26	
May 22	7:00 a.m.	do	do	2.10	
June 15	8:00 a.m.	do	do	2.13	

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 27	9:10 a.m.	No flow	No flow	-	
Aug. 11	11:10 a.m.	No flow	No flow	-	
Oct. 8	9:40 a.m.	No flow	No flow	-	
Nov. 19	11:10 a.m.	do	do	-	
Dec. 9	11:00 a.m.	do	do	-	Water in spring pit.
1955					
Jan. 13	10:35 a.m.	do	do	-	Flow in creek.
Feb. 23	12:05 p.m.	do	do	-	Water in spring pit.
Mar. 8	9:55 a.m.	do	do	-	Flow in stream.
Apr. 19	9:55 a.m.	do	do	-	Water in spring pit.
May 10	11:05 a.m.	do	do	-	Flow in creek.
June 3	8:30 a.m.	do	do	-	do
July 12	12:25 p.m.	do	do	-	
Sept. 16	12:15 p.m.	do	do	-	Moisture in spring pit.
Oct. 14	9:50 a.m.	do	do	-	Water in spring pit.
Nov. 9	9:30 a.m.	do	do	-	
Dec. 9	9:00 a.m.	do	do	-	Pool in channel.
1956					
Jan. 19	10:00 a.m.	0.00063	0.28	50	
Feb. 14	9:05 a.m.	.0010	.47	47	Pit needs cleaning.
Mar. 15	9:00 a.m.	.00052	.23	42	
Apr. 24	7:25 a.m.	.00096	.43	46	
May 22	6:40 a.m.	.0012	.54	41	Flow in creek.
June 15	7:40 a.m.	.00056	.25	47	

SPRING - MRS. NELL K. REAM

Location.--Lat. $34^{\circ}30'40''$, long. $119^{\circ}50'00''$.

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	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 27	8:55 a.m.	0.011	5.0	59	
Aug. 11	11:20 a.m.	.012	5.4	58	
Oct. 8	9:45 a.m.	.0098	4.41	57	
Nov. 19	11:15 a.m.	.0073	3.26	57	
Dec. 9	11:05 a.m.	.012	5.6	54	
1955					
Jan. 13	11:10 a.m.	.015	6.8	55	
Feb. 23	12:15 p.m.	.014	6.4	55	
Mar. 8	10:25 a.m.	.019	8.6	58	
Apr. 19	10:05 a.m.	.013	6.0	56	
May 10	11:15 a.m.	.019	8.3	56	
June 3	8:40 a.m.	.022	9.7	56	
July 12	12:45 p.m.	.013	5.7	60	
Sept. 16	12:25 p.m.	.0074	3.34	58	
Oct. 13	10:45 a.m.	.017	7.5	57	
Nov. 9	10:00 a.m.	.013	5.7	57	
Dec. 9	10:00 a.m.	.017	5.4	55	
1956					
Jan. 19	10:40 a.m.	.017	7.5	55	
Feb. 14	9:30 a.m.	.020	9.4	53	
Mar. 15	9:30 a.m.	.013	5.9	49	
Apr. 24	8:10 a.m.	.020	8.8	43	
May 22	7:20 a.m.	.024	11	43	
June 15	8:30 a.m.	.015	6.7	51	

SPRING - TOM KINEVAN

Location.--Lat. $34^{\circ}30'40''$, long. $119^{\circ}50'00''$.

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

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

Date	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 27	9:00 a.m.	0.0013	0.60	67	
Aug. 11	10:45 a.m.	.0013	.60	65	
Oct. 8	9:30 a.m.	.0015	.66	63	
Nov. 19	11:00 a.m.	.0020	.88	60	
Dec. 9	10:45 a.m.	.0036	1.61	57	
1955					
Jan. 13	10:55 a.m.	.0073	3.26	58	
Feb. 23	11:55 a.m.	.0052	2.34	59	
Mar. 8	10:10 a.m.	.0051	2.27	60	
Apr. 19	10:00 a.m.	.0035	1.55	58	
May 10	11:10 a.m.	.0077	3.41	60	
June 3	8:35 a.m.	.0048	2.14	60	
July 12	12:50 p.m.	.0021	.93	66	New tank installed.
Sept. 16	12:30 p.m.	.0021	.94	66	
Oct. 14	10:10 a.m.	.0017	.75	60	
Nov. 9	10:20 a.m.	.0013	.60	60	
Dec. 9	9:20 a.m.	.00078	.35	-	
1956					
Jan. 19	10:45 a.m.	.0037	1.67	56	
Feb. 14	9:45 a.m.	.0056	2.50	57	
Mar. 15	9:15 a.m.	.0041	1.84	51	Repairs made, line & tank.
Apr. 24	7:40 a.m.	.0056	2.50	47	
May 22	7:30 a.m.	.0064	2.86	44	
June 15	8:15 a.m.	.0036	1.62	54	

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	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 26	10:20 a.m.	No flow	No flow	-	
Aug. 11	9:30 a.m.	do	do	-	
Oct. 7	7:45 a.m.	do	do	-	
Nov. 19	9:45 a.m.	do	do	-	
Dec. 9	9:25 a.m.	.0015	.68	46	
1955					
Jan. 13	8:50 a.m.	.020	8.8	41	
Feb. 23	8:50 a.m.	.0080	3.58	57	
Mar. 8	8:30 a.m.	.0076	3.41	50	
Apr. 19	8:30 a.m.	.00070	.31	49	
May 10	8:25 a.m.	.028	13	52	
June 2	7:55 a.m.	.0018	.83	49	
July 12	7:45 a.m.	No flow	No flow	-	
Sept. 16	8:10 a.m.	do	do	-	
Oct. 13	8:15 a.m.	do	do	-	Area recently burned. Creek bed dry. Pools full.
Nov. 10	8:10 a.m.	do	do	-	
Dec. 8	8:30 a.m.	do	do	-	
1956					
Jan. 17	8:05 a.m.	.0012	.54	39	
Feb. 27	8:05 a.m.	.017	7.5	42	
Mar. 13	8:25 a.m.	.0027	1.22	46	
Apr. 23	9:00 a.m.	.0063	2.85	44	
May 21	7:50 a.m.	.011	5.00	48	
June 12	8:00 a.m.	.00082	.37	60	

SPRING - MRS. ADELAIDE OVINGTON

Location.--Lat. $34^{\circ}31'10''$, long. $119^{\circ}50'20''$.

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 27	8:40 a.m.	0.0098	4.37	62	
Aug. 11	11:30 a.m.	.013	5.7	59	
Oct. 8	10:00 a.m.	.013	5.8	57	
Nov. 19	11:25 a.m.	.012	5.6	56	
Dec. 8	12:30 p.m.	.010	4.68	54	
1955					
Jan. 13	11:30 a.m.	.012	5.4	52	
Feb. 23	12:35 p.m.	.0066	2.94	53	
Mar. 8	10:40 a.m.	.011	4.84	57	
Apr. 19	10:15 a.m.	.013	5.8	54	
May 10	12 M	.013	6.0	56	
June 3	9:30 a.m.	.019	8.3	57	
July 12	1:00 p.m.	.0052	2.34	61	
Sept. 16	12:45 p.m.	.013	6.0	59	Grass burned in area.
Oct. 14	9:15 a.m.	.0091	4.10	56	
Nov. 9	8:30 a.m.	.015	6.9	57	
Dec. 9	8:35 a.m.	.013	6.0	54	
1956					
Jan. 19	9:30 a.m.	.013	6.0	52	
Feb. 14	8:45 a.m.	.011	5.00	52	
Mar. 15	8:45 a.m.	.0026	1.18	46	Pipe plugged?
Apr. 23	8:10 a.m.	.0044	2.00	44	
May 21	7:10 a.m.	.0079	3.53	45	
June 15	7:20 a.m.	.016	7.3	52	

COLD SPRING CANYON CREEK AT HIGHWAY 150

Location.--Lat. $34^{\circ}31'20''$, long. $119^{\circ}50'20''$, 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	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 22	1:30 p.m.	0.032	14	56	
Aug. 2	12:05 p.m.	.037	16	52	
Sept. 5	2:20 p.m.	.029	13	54	
Oct. 13	2:25 p.m.	.025	11	54	
Nov. 10	2:00 p.m.	.025	11	50	
Dec. 8	2:30 p.m.	.049	22	48	
1955					
Jan. 5	3:00 p.m.	.059	26	44	
Feb. 17	2:30 p.m.	.12	54	48	
Mar. 17	2:20 p.m.	.11	50	44	
Apr. 13	2:00 p.m.	.048	22	48	
May 11	2:10 p.m.	.17	78	-	
June 8	2:00 p.m.	.053	24	50	
July 13	12:25 p.m.	.030	13	50	
Aug. 11	2:00 p.m.	.026	12	56	
Sept. 21	2:30 p.m.	.022	9.9	48	Area recently burned.
Oct. 26	2:45 p.m.	.046	21	42	
Nov. 15	2:25 p.m.	.044	20	46	
Dec. 12	2:30 p.m.	.038	17	46	
1956					
Jan. 12	2:50 p.m.	.12	52	-	
Feb. 10	11:05 a.m.	.20	90	46	
Mar. 8	3:00 p.m.	.12	54	46	
Apr. 5	3:00 p.m.	.072	32	48	
May 13	2:30 p.m.	.16	70	46	
June 7	2:25 p.m.	.068	30	52	

SPRING - U. S. FOREST SERVICE

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

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

Description.---Seeps in alluvium on hillside.

Date	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 26	10:10 a.m.	No flow	No flow	-	
Aug. 11	9:40 a.m.	do	do	-	
Oct. 7	7:55 a.m.	do	do	-	
Nov. 19	9:55 a.m.	do	do	-	
Dec. 9	9:45 a.m.	do	do	-	
1955					
Jan. 13	9:05 a.m.	do	do	-	Ground dry.
Feb. 23	8:15 a.m.	do	do	-	
Mar. 8	8:45 a.m.	do	do	-	
Apr. 19	8:40 a.m.	do	do	-	
May 10	8:35 a.m.	do	do	-	
June 2	8:10 a.m.	do	do	-	
July 12	7:55 a.m.	do	do	-	
Sept. 16	8:25 a.m.	do	do	-	Area recently burned.
Oct. 13	8:30 a.m.	do	do	-	
Nov. 10	8:30 a.m.	do	do	-	
Dec. 8	8:50 a.m.	do	do	-	Channel dry.
1956					
Jan. 17	8:25 a.m.	do	do	-	
Feb. 27	8:20 a.m.	do	do	-	
Mar. 13	9:15 a.m.	do	do	-	
Apr. 23	9:15 a.m.	do	do	-	
May 21	8:05 a.m.	do	do	-	Channel dry.
June 12	8:50 a.m.	do	do	-	

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

Location.--Lat. $34^{\circ}30'40''$, long. $119^{\circ}52'20''$.

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

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

Date	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 26	10:35 a.m.	0.0062	2.78	61	Area recently burned.	
Aug. 11	9:50 a.m.	.0070	3.12	58		
Oct. 7	8:00 a.m.	.0049	2.20	56		
Nov. 19	10:10 a.m.	.0053	2.40	55		
Dec. 9	9:50 a.m.	.0054	2.42	52		
1955						
Jan. 13	9:20 a.m.	.0084	3.75	49		
Feb. 23	8:25 a.m.	.0068	3.06	49		
Mar. 8	8:55 a.m.	.0092	4.13	52		
Apr. 19	8:55 a.m.	.0047	2.11	53		
May 10	8:45 a.m.	.011	5.2	55		
June 2	8:20 a.m.	.0095	4.26	54		
July 12	8:05 a.m.	.0073	3.26	57		
Sept. 16	8:40 a.m.	.0058	2.58	56		
Oct. 13	9:00 a.m.	.0048	2.14	57		
Nov. 10	9:00 a.m.	.0039	1.76	55		
Dec. 8	9:10 a.m.	.0048	2.14	52		
1956						
Jan. 17	8:50 a.m.	.016	7.3	46		
Feb. 27	8:45 a.m.	.090	40	45		
Mar. 13	9:00 a.m.	.059	26	45		
Apr. 23	9:40 a.m.	.096	43	44		
May 21	8:20 a.m.	.14	62	43		
June 12	8:30 a.m.	.056	25	50		

STATION 101
AND 102.

SPRING - IRVING WILLS

Location.--Lat. $34^{\circ}31'40''$, long. $119^{\circ}51'30''$.

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

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

Date	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 27	8:00 a.m.	No flow	No flow	-	Trickle in spring.
Aug. 11	8:30 a.m.	do	do	-	
Oct. 8	11:05 a.m.	do	do	-	
Nov. 19	11:55 a.m.	do	do	-	
Dec. 9	12:30 p.m.	-	-	-	
1955					
Jan. 12	11:50 a.m.	0.032	14	50	Area recently burned, line broken.
Feb. 23	11:30 a.m.	.036	16	48	
Mar. 8	11:30 a.m.	.036	16	58	
Apr. 19	11:00 a.m.	No flow	No flow	-	
May 12	10:10 a.m.	.042	19	59	
June 3	10:30 a.m.	No flow	No flow	-	
July 12	1:40 p.m.	do	do	-	
Sept. 16	1:30 p.m.	do	do	-	
Oct. 14	8:40 a.m.	do	do	-	
Nov. 9	7:30 a.m.	do	do	-	
Dec. 9	8:00 a.m.	do	do	-	
1956					
Jan. 19	8:40 a.m.	.022	9.7	47	Meas. in stream bed.
Feb. 14	8:15 a.m.	.22	104	55	
Mar. 15	8:15 a.m.	.14	64	41	
Apr. 23	7:30 a.m.	.42	188	42	
May 20	6:40 a.m.	.95	426	48	Meas. in creek.
June 15	6:30 a.m.	.33	150	54	Meas. in creek bed.

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

Location.--Lat. $34^{\circ}31'50''$, long. $119^{\circ}51'50''$.

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 27	8:05 a.m.	0.0012	0.56	62	
Aug. 11	8:25 a.m.	.0013	.60	61	
Oct. 8	11:00 a.m.	.0013	.57	62	
Nov. 19	12 M	.0013	.58	60	
Dec. 9	12:35 p.m.	.0013	.60	59	
1955					
Jan. 12	12 M	.0028	1.25	57	
Feb. 23	11:45 a.m.	.0038	1.70	56	
Mar. 8	12 M	.0036	1.61	59	
Apr. 19	10:55 a.m.	.0017	.77	58	
May 12	-	.0028	1.25	58	
June 3	11:00 a.m.	.0024	1.06	60	
July 12	1:30 p.m.	.0013	.60	59	
Sept. 16	1:40 p.m.	.0011	.50	-	
Oct. 14	8:25 a.m.	.00070	.31	58	
Nov. 9	7:40 a.m.	.00042	.19	56	
Dec. 9	8:15 a.m.	.00073	.33	53	
1956					
Jan. 19	8:10 a.m.	.0035	1.58	56	
Feb. 14	8:00 a.m.	.0056	2.50	56	
Mar. 15	8:00 a.m.	.0030	1.33	53	
Apr. 23	7:20 a.m.	.0048	2.14	46	
May 21	6:30 a.m.	.0067	3.00	49	
June 15	6:30 a.m.	.0051	2.30	55	

UNNAMED CREEK TRIBUTARY TO LOS LAURELES CANYON CREEK

Location.--Lat. $34^{\circ}32'10''$, long. $119^{\circ}51'30''$, 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	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 22	1:30 p.m.	No flow	No flow	-	Area recently burhed.	
Aug. 20	11:30 a.m.	do	do	-		
Sept. 15	1:50 p.m.	do	do	-		
Oct. 13	2:00 p.m.	do	do	-		
Nov. 10	1:30 p.m.	do	do	-		
Dec. 8	2:15 p.m.	do	do	-		
1955						
Jan. 5	2:40 p.m.	do	do	-		
Feb. 17	2:00 p.m.	0.036	16	50		
Mar. 17	1:50 p.m.	.084	38	50		
Apr. 13	1:35 p.m.	No flow	No flow	-		
May 11	1:35 p.m.	.10	45	60		
June 8	1:30 p.m.	No flow	No flow	-		
July 13	2:00 p.m.	do	do	-		
Aug. 11	1:30 p.m.	do	do	-		
Sept. 21	2:10 p.m.	do	do	-		
Oct. 26	2:20 p.m.	do	do	-		
Nov. 15	2:05 p.m.	do	do	-		
Dec. 12	2:10 p.m.	do	do	-		
1956						
Jan. 12	2:20 p.m.	.20	89	52		
Feb. 8	2:10 p.m.	1.24	555	50		
Mar. 8	2:25 p.m.	.40	180	56		
Apr. 5	2:30 p.m.	.10	47	-		
May 3	2:00 p.m.	1.08	486	62		
June 7	1:50 p.m.	.74	330	68		

SPRING - A. DOWLING

Location.--Lat. $34^{\circ}32'20''$, long. $119^{\circ}51'50''$.

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 pipeline to storage tank.

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 22	11:30 a.m.	No flow	No flow	-	
Aug. 20	10:10 a.m.	0.00068	0.31	60	
Sept. 15	12:25 p.m.	No flow	No flow	-	
Oct. 13	12:30 p.m.	do	do	-	
Nov. 10	12:10 p.m.	.00041	.19	62	
Dec. 8	12:40 p.m.	.0014	.63	52	
1955					
Jan. 5	1:15 p.m.	.00058	.26	46	
Feb. 17	12:30 p.m.	.0018	.79	52	
Mar. 17	12:30 p.m.	.0010	.47	54	
Apr. 13	12:05 p.m.	.0011	.48	67	
May 11	11:50 a.m.	.00049	.22	66	
June 8	11:45 a.m.	.0021	.94	66	Part flow from #106.
July 13	12:20 p.m.	.0021	.94	70	
Aug. 11	11:45 a.m.	.00058	.26	m74	
Sept. 21	1:50 p.m.	.0013	.60	52	Area recently burned.
Oct. 26	12:45 p.m.	No flow	No flow	-	
Nov. 15	12:30 p.m.	do	do	-	
Dec. 12	12:30 p.m.	-	-	-	40 drops per minute.
1956					
Jan. 12	1:00 p.m.	No flow	No flow	-	
Feb. 10	9:45 a.m.	do	do	-	
Mar. 8	1:00 p.m.	do	do	-	
Apr. 5	1:00 p.m.	do	do	-	
May 3	12:30 p.m.	do	do	-	
June 7	12:30 p.m.	do	do	-	

STATION 106.

SPRING - A. DOWLING

Location.--Lat. $34^{\circ}32'20''$, long. $119^{\circ}52'00''$.

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 22	1:00 p.m.	0.0016	0.71	72	
Aug. 20	11:00 a.m.	.0022	1.00	60	
Sept. 15	1:30 p.m.	.0020	.88	66	
Oct. 13	1:30 p.m.	.0020	.88	70	
Nov. 10	1:10 p.m.	.0010	.47	60	
Dec. 8	1:50 p.m.	.0017	.75	52	
1955					
Jan. 5	2:20 p.m.	.00022	.010	42	Line plugged?
Feb. 17	1:30 p.m.	.0015	.65	54	
Mar. 17	1:30 p.m.	.0021	.94	52	
Apr. 13	1:15 p.m.	.0028	1.25	60	
May 11	1:05 p.m.	.0048	2.14	58	
June 8	1:00 p.m.	.0030	1.36	62	
July 13	1:40 p.m.	.0019	.83	64	
Aug. 11	1:00 p.m.	.0017	.75	58	
Oct. 26	1:50 p.m.	.0016	.72	46	Area recently burned; pipe broken.
Nov. 15	1:40 p.m.	.00095	.43	-	
Dec. 12	1:45 p.m.	.0022	1.00	52	New cover on spring box.
1956					
Jan. 12	2:00 p.m.	.0048	2.14	56	Pipe repaired.
Feb. 10	10:50 a.m.	.0067	3.00	52	
Mar. 8	2:00 p.m.	.0033	1.50	-	
Apr. 5	2:00 p.m.	.0022	1.00	-	
May 3	1:30 p.m.	.0037	1.67	65	
June 7	1:30 p.m.	.0019	.83	60	

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	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 22	11:55 a.m.	0.00098	0.44	68	Area recently burned.	
Aug. 20	10:20 a.m.	.00086	.39	58		
Sept. 15	12:50 p.m.	.00074	.33	58		
Oct. 13	12:55 p.m.	.00067	.30	60		
Nov. 10	12:30 p.m.	.00064	.29	58		
Dec. 8	1:10 p.m.	.0012	.56	56		
1955						
Jan. 5	1:45 p.m.	.0010	.46	56		
Feb. 17	12:50 p.m.	.0022	1.00	56		
Mar. 17	12:50 p.m.	.0042	1.88	56		
Apr. 13	12:30 p.m.	.0019	.83	58		
May 11	12:20 p.m.	.0022	1.00	-		
June 8	12:10 p.m.	.0015	.68	56		
July 13	12:40 p.m.	.0011	.50	58		
Aug. 11	12:15 p.m.	.00084	.38	56		
Sept. 21	1:00 p.m.	.0028	1.25	52		
Oct. 26	1:05 p.m.	.00078	.35	48		
Nov. 15	12:50 p.m.	.00084	.38	54		
Dec. 12	12:50 p.m.	.0010	.47	54		
1956						
Jan. 12	1:20 p.m.	.0067	3.00	58		
Feb. 10	10:05 a.m.	.011	5.0	56		
Mar. 8	1:20 p.m.	.0033	1.50	50		
Apr. 5	1:20 p.m.	.0024	1.07	58		
May 3	12:50 p.m.	.0056	2.50	58		
June 7	12:50 p.m.	.0026	1.15	58		

SPRING - A. DOWLING

Location.--Lat. $34^{\circ}32'20''$, long. $119^{\circ}52'05''$.

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

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

Date	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 22	12:25 p.m.	0.00049	0.22	57	Area recently burned.	
Aug. 20	10:40 a.m.	.00044	.20	54		
Sept. 15	1:05 p.m.	.00046	.21	58		
Oct. 13	1:10 p.m.	.00042	.19	56		
Nov. 10	12:50 p.m.	.00014	.062	54		
Dec. 8	1:30 p.m.	.00019	.086	50		
1955						
Jan. 5	2:00 p.m.	.00021	.094	46		
Feb. 17	1:10 p.m.	.00036	.16	52		
Mar. 17	1:10 p.m.	.00070	.31	48		
Apr. 13	12:50 p.m.	.00027	.12	50		
May 11	12:40 p.m.	.00067	.30	50		
June 8	12:30 p.m.	.00025	.11	52		
July 13	1:05 p.m.	.00016	.071	52		
Aug. 11	12:30 p.m.	.00012	.052	54		
Sept. 21	1:20 p.m.	.00013	.058	50		
Oct. 26	1:30 p.m.	.00015	.068	46		
Nov. 15	1:15 p.m.	.00016	.072	48		
Dec. 12	1:15 p.m.	.00016	.073	48		
1956						
Jan. 12	1:35 p.m.	.00063	.28	52		
Feb. 10	10:25 a.m.	.00085	.38	52		
Mar. 8	1:40 p.m.	.00038	.17	50		
Apr. 5	1:40 p.m.	.00028	.12	-		
May 3	1:10 p.m.	.00064	.29	54		
June 7	1:10 p.m.	.00039	.18	56		

HOT SPRINGS CREEK AT MOUTH NEAR SANTA BARBARA

Location.--Lat. $34^{\circ}32'40''$, long. $119^{\circ}52'50''$, 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 $1\frac{1}{2}$ miner's inches above, reported by manager of Murphy Ranch.

Previous measurements.--1935 to 1946.

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 22	10:30 a.m.	0.028	13	62	
Aug. 20	2:00 p.m.	No flow	No flow	-	
Sept. 15	12:05 p.m.	do	do	-	
Oct. 13	11:50 a.m.	do	do	-	
Nov. 10	11:30 a.m.	do	do	-	
Dec. 8	12:05 p.m.	.092	41	50	
1955					
Jan. 5	12:45 a.m.	.079	35	46	
Feb. 17	11:40 a.m.	.16	71	50	
Mar. 17	11:30 a.m.	.13	58	48	
Apr. 13	11:30 a.m.	.050	22	52	
May 11	11:00 a.m.	.051	23	54	
June 18	11:05 a.m.	.025	11	56	
July 13	11:30 a.m.	.011	5.0	56	
Aug. 11	11:00 a.m.	No flow	No flow	-	
Sept. 21	11:15 a.m.	.011	5.1	56	Area recently burned.
Oct. 26	12:05 p.m.	.022	9.9	50	
Nov. 15	11:35 a.m.	.037	17	52	
Dec. 12	11:45 a.m.	.029	13	48	
1956					
Jan. 12	12:05 p.m.	.10	47	50	
Feb. 9	2:15 p.m.	.11	49	50	
Mar. 8	12:15 p.m.	.058	26	51	
Apr. 5	12:05 p.m.	.035	16	56	
May 3	11:45 a.m.	.057	26	60	
June 7	11:30 a.m.	.039	17	65	

HOT SPRINGS CREEK ABOVE DIVERSION

Location.---Lat. $34^{\circ}32'30''$, long. $119^{\circ}52'50''$, 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 22	10:00 a.m.	0.094	42	58	Pipe removed for winter.
Aug. 20	1:30 p.m.	.086	38	60	
Sept. 15	11:30 a.m.	.076	34	60	
Oct. 13	11:30 a.m.	.082	37	56	
Nov. 10	11:00 a.m.	.074	33	54	
Dec. 8	11:30 a.m.	.067	30	46	
1955					
Jan. 5	12:05 p.m.	.065	29	42	Pipe not replaced.
Feb. 17	10:25 a.m.	.12	53	52	
Mar. 17	11:00 a.m.	.084	39	43	
Apr. 13	10:50 a.m.	.048	22	50	
May 11	10:30 a.m.	.068	30	52	
June 8	10:30 a.m.	.042	19	54	Area recently burned.
July 13	10:45 a.m.	.038	17	52	
Aug. 11	10:30 a.m.	.034	15	56	
Sept. 21	10:45 a.m.	.047	21	54	
Oct. 26	11:30 a.m.	.045	20	46	
Nov. 15	11:00 a.m.	.041	18	46	
Dec. 12	10:30 a.m.	.044	20	46	
1956					
Jan. 12	10:50 a.m.	.061	27	48	
Feb. 9	1:00 p.m.	.077	35	46	
Mar. 8	11:00 a.m.	.049	22	54	
Apr. 5	10:50 a.m.	.043	19	50	
May 3	10:15 a.m.	.029	13	54	
June 7	10:15 a.m.	.036	16	58	

HOT SPRINGS CREEK AT SOURCE

Location.--Lat. $34^{\circ}32'10''$, long. $119^{\circ}52'55''$, 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 $1\frac{1}{2}$ -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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 20	8:10 a.m.	0.066	29	112	
Aug. 20	1:00 p.m.	.041	19	106	
Sept. 15	10:30 a.m.	.033	15	105	
Oct. 13	10:45 a.m.	.013	6.0	-	
Nov. 10	10:30 a.m.	.0089	4.00	106	
Dec. 8	11:00 a.m.	.0012	.54	105	
1955					
Jan. 5	11:30 a.m.	No flow	No flow	-	0.13 cfs at 250 feet downstream.
Feb. 17	11:00 a.m.	.0033	1.48	80	300 feet downstream.
Mar. 17	10:30 a.m.	No flow	No flow	-	
Apr. 13	10:25 a.m.	do	do	-	
May 11	10:00 a.m.	do	do	-	
June 8	10:00 a.m.	do	do	-	
July 13	10:00 a.m.	do	do	-	
Aug. 11	10:00 a.m.	do	do	-	
Sept. 21	10:15 a.m.	do	do	-	Area recently burned.
Oct. 26	11:00 a.m.	do	do	-	
Nov. 15	10:30 a.m.	do	do	-	
Dec. 12	11:00 a.m.	do	do	-	
1956					
Jan. 12	11:30 a.m.	do	do	-	
Feb. 9	1:45 p.m.	do	do	-	
Mar. 8	11:45 a.m.	do	do	-	
Apr. 5	11:30 a.m.	do	do	-	
May 3	11:00 a.m.	do	do	-	
June 7	11:00 a.m.	do	do	-	

UNNAMED CREEK TRIBUTARY TO SANTA YNEZ RIVER

Location.--Lat. $34^{\circ}33'10''$, long. $119^{\circ}54'40''$, 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	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 22	9:45 a.m.	No flow	No flow	-	Area recently burned.	
Aug. 20	9:30 a.m.	do	do	-		
Sept. 15	9:50 a.m.	do	do	-		
Oct. 13	10:15 a.m.	do	do	-		
Nov. 10	10:00 a.m.	do	do	-		
Dec. 8	10:30 a.m.	do	do	-		
1955						
Jan. 5	11:00 a.m.	do	do	-		
Feb. 17	10:00 a.m.	do	do	-		
Mar. 17	10:00 a.m.	0.029	13	45		
Apr. 13	10:00 a.m.	No flow	No flow	-		
May 11	9:15 a.m.	.20	88	52		
June 8	9:30 a.m.	No flow	No flow	-		
July 13	9:30 a.m.	do	do	-		
Aug. 11	9:30 a.m.	do	do	-		
Sept. 21	9:45 a.m.	do	do	-		
Oct. 26	10:30 a.m.	No flow	No flow	-		
Nov. 15	10:00 a.m.	do	do	-		
Dec. 12	10:00 a.m.	do	do	-		
1956						
Jan. 12	10:15 a.m.	.26	116	47		
Feb. 8	1:30 p.m.	.53	238	-		
Mar. 8	10:00 a.m.	.71	319	46		
Apr. 5	10:00 a.m.	.22	98	52		
May 3	9:10 a.m.	1.24	555	52		
June 7	9:15 a.m.	.73	327	58		

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	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 23	11:00 a.m.	0.0012	0.54	58	
Aug. 31	10:10 a.m.	No flow	No flow	-	Pools.
Sept. 17	10:45 a.m.	do	do	-	do
Oct. 14	11:10 a.m.	do	do	-	Ground damp.
Nov. 12	11:15 a.m.	do	do	-	Pool.
Dec. 9	12:05 p.m.	do	do	-	Pools.
1955					
Jan. 6	11:10 a.m.	.0015	.65	42	
Feb. 18	10:50 a.m.	.0080	3.60	48	
Mar. 18	11:20 a.m.	.020	9.0	45	
Apr. 14	10:45 a.m.	.0069	3.10	48	
May 12	10:20 a.m.	.011	5.0	50	
June 10	10:30 a.m.	.0085	3.84	48	Spring box cleaned.
July 14	10:40 a.m.	.0030	1.36	50	
Aug. 12	10:00 a.m.	No flow	No flow	-	Pools.
Sept. 22	10:40 a.m.	do	do	-	Pool; area recently burned.
Oct. 27	11:15 a.m.	do	do	-	Pool.
Nov. 22	11:00 a.m.	.00012	.054	42	
Dec. 13	11:35 a.m.	No flow	No flow	-	Pool.
1956					
Jan. 13	12:05 p.m.	.048	22	48	
Feb. 9	11:05 a.m.	.16	72	44	
Mar. 9	11:15 a.m.	.075	34	46	
Apr. 6	11:05 a.m.	.050	22	50	
May 4	10:10 a.m.	.12	55	54	
June 8	10:40 a.m.	.086	39	56	

SPRING - T. M. STORKE

Location.--Lat. $34^{\circ}33'00''$, long. $119^{\circ}56'10''$.

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 23	10:45 a.m.	0.0013	0.58	72	
Aug. 31	9:50 a.m.	.00084	.38	74	
Sept. 17	10:30 a.m.	.00084	.38	62	
Oct. 14	10:50 a.m.	.00079	.36	68	
Nov. 12	11:00 a.m.	.00086	.38	56	
Dec. 9	11:55 a.m.	.00095	.43	57	
1955					
Jan. 6	10:50 a.m.	.00098	.44	52	
Feb. 18	10:30 a.m.	.0014	.62	54	
Mar. 18	11:00 a.m.	.0018	.79	60	
Apr. 14	10:15 a.m.	.0017	.75	60	
May 12	10:00 a.m.	.0022	1.00	62	
June 10	10:10 a.m.	.0020	.88	62	Spring cleaned since last visit.
July 14	10:20 a.m.	.0012	.56	64	
Aug. 12	9:45 a.m.	.00084	.37	60	
Sept. 22	10:30 a.m.	.00080	.36	60	Area recently burned.
Oct. 27	11:00 a.m.	.00095	.43	52	
Nov. 22	10:40 a.m.	.00096	.43	56	
Dec. 13	11:20 a.m.	.00086	.38	60	
1956					
Jan. 13	11:45 a.m.	.0013	.60	57	
Feb. 9	10:50 a.m.	.0013	.62	58	
Mar. 9	10:50 a.m.	.0012	.54	60	
Apr. 6	10:45 a.m.	.0012	.54	66	
May 4	9:50 a.m.	.0042	1.87	62	Spring cleaned since last visit.
June 8	10:10 a.m.	.0042	1.88	67	

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 23	10:00 a.m.	0.0045	2.00	56	
Aug. 31	9:15 a.m.	.0030	1.36	56	
Sept. 17	9:35 a.m.	.0048	2.14	50	
Oct. 14	10:10 a.m.	.0028	1.24	53	
Nov. 12	10:00 a.m.	.0039	1.72	52	
Dec. 9	11:00 a.m.	.011	5.1	48	
1955					
Jan. 6	10:10 a.m.	.011	4.73	42	
Feb. 18	9:45 a.m.	.013	6.0	48	
Mar. 18	10:15 a.m.	.016	7.2	44	
Apr. 14	9:40 a.m.	.0082	3.68	47	
May 12	9:10 a.m.	.021	9.5	50	
June 10	9:05 a.m.	.0084	3.75	50	
July 14	9:35 a.m.	.0043	1.92	50	
Aug. 12	9:00 a.m.	.0030	1.36	52	
Sept. 22	9:45 a.m.	.0037	1.67	50	Area recently burned; some new line installed since fire.
Oct. 27	10:15 a.m.	.0039	1.76	40	
Nov. 22	10:00 a.m.	.0043	1.92	44	
Dec. 13	10:40 a.m.	.0051	2.31	46	
1956					
Jan. 13	11:00 a.m.	.057	26	48	Diversion weir & pipe line washed out.
Feb. 9	10:10 a.m.	.13	60	49	No repairs since fire.
Mar. 9	10:15 a.m.	.10	45		
Apr. 6	10:00 a.m.	.080	36	52	
May 4	9:00 a.m.	.13	60	54	
June 8	9:20 a.m.	.16	72		

SPRING - DAVID GRAY, JR.

Location.--Lat. $34^{\circ}32'40''$, long. $119^{\circ}56'40''$.

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

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

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 23	8:15 a.m.	0.0024	1.07	76	
Aug. 31	7:30 a.m.	.0019	.83	78	
Sept. 17	8:00 a.m.	.0015	.65	66	
Oct. 14	8:30 a.m.	.0013	.60	76	
Nov. 12	8:45 a.m.	.0017	.75	54	
Dec. 9	9:30 a.m.	.0020	.88	54	
1955					
Jan. 6	8:30 a.m.	.0022	1.00	34	
Feb. 18	8:30 a.m.	.0024	1.07	48	
Mar. 18	8:45 a.m.	.0020	.88	56	
Apr. 14	8:15 a.m.	.0019	.86	52	
May 12	7:25 a.m.	.0021	.94	64	
June 10	7:30 a.m.	.0018	.79	58	
July 14	8:00 a.m.	.0014	.65	74	
Aug. 12	7:45 a.m.	.0012	.56	58	
Sept. 22	8:15 a.m.	.00098	.44	46	Area recently burned; pipe line broken; cribbing burned.
Oct. 27	8:30 a.m.	.0010	.46	42	
Nov. 22	8:30 a.m.	.0010	.46	45	
Dec. 13	9:00 a.m.	.00098	.44	46	
1956					
Jan. 13	9:45 a.m.	.0011	.50	50	Spring unrepaired. Some unmeasured seepage.
Feb. 9	8:45 a.m.	.0017	.75		
Mar. 9	9:15 a.m.	.0067	3.00	52	
Apr. 6	9:00 a.m.	.0042	1.88	54	
May 4	8:00 a.m.	.0084	3.75	54	
June 8	8:20 a.m.	.0084	3.75	56	

SPRING - T. M. STORKE

Location.--Lat. $34^{\circ}33'20''$, long. $119^{\circ}55'40''$.

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

Description.--Three wood-curbed seeps in alluvium capping terrace. Discharge measured as inflow to galvanized corrugated storage tank. Only combined flow of springs 124 and 125 measured after June 15, 1953.

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 23	11:45 a.m.	0.0048	2.14	64	Line partially plugged.
Aug. 31	10:45 a.m.	.0045	2.00	66	
Sept. 17	11:45 a.m.	.0042	1.88	58	
Oct. 14	11:45 a.m.	.0042	1.88	66	
Nov. 12	11:45 a.m.	.0041	1.87	56	
Dec. 9	1:10 p.m.	.0042	1.88	56	
1955					
Jan. 6	12:10 p.m.	.0048	2.14	48	Spring box cleaned since last visit.
Feb. 18	11:45 a.m.	.0021	.94	48	
Mar. 18	12:05 p.m.	.0015	.65	52	
Apr. 14	11:45 a.m.	.0010	.45	50	
May 12	11:30 a.m.	.00037	.17	52	
June 10	11:30 a.m.	.0048	2.14	58	
July 14	11:40 a.m.	.0042	1.88	58	Area recently burned.
Aug. 12	12:05 p.m.	.0037	1.67	56	
Sept. 22	11:45 a.m.	.0037	1.67	52	
Oct. 27	12:15 p.m.	.0033	1.50	48	
Nov. 22	11:30 a.m.	.0042	1.88	50	
Dec. 13	12:15 p.m.	.0048	2.14	56	
1956					
Jan. 13	1:10 p.m.	.0017	.75	54	Some unmeasured seepage.
Feb. 9	12:05 p.m.	.0056	2.50	50	
Mar. 9	12:10 p.m.	.0055	2.50	52	
Apr. 6	11:45 a.m.	.0042	1.88	54	
May 4	11:05 a.m.	.0083	3.75	56	
June 8	11:30 a.m.	.0084	3.75	58	

UNNAMED TRIBUTARY TO SANTA YNEZ RIVER ABOVE GRAY DIVERSION

Location.--Lat. $34^{\circ}32'40''$, long. $119^{\circ}56'50''$, 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	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 23	9:00 a.m.	0.0022	1.00	62	Unmeasurable seepage around spring. Channel dry.
Aug. 31	8:15 a.m.	No flow	No flow		
Sept. 17	8:35 a.m.	No flow	No flow		
Oct. 14	8:45 a.m.	No flow	No flow		
Nov. 12	9:15 a.m.	No flow	No flow		
Dec. 9	10:05 a.m.	No flow	No flow		
1955					
Jan. 6	9:15 a.m.	No flow	No flow		Channel dry. Area recently burned. Spring box & channel dry. Channel dry.
Feb. 18	8:45 a.m.	.0022	1.00	42	
Mar. 18	9:00 a.m.	.0039	1.76	42	
Apr. 14	8:30 a.m.	.0030	1.36	48	
May 12	7:45 a.m.	.0056	2.50	52	
June 10	8:05 a.m.	.0022	1.00	52	
July 14	8:35 a.m.	No flow	No flow		
Aug. 12	8:00 a.m.	No flow	No flow		
Sept. 22	9:00 a.m.	No flow	No flow		
Oct. 27	9:15 a.m.	No flow	No flow		
Nov. 22	9:15 a.m.	No flow	No flow		
Dec. 13	9:45 a.m.	No flow	No flow		
1956					
Jan. 13	10:05 a.m.	.061	27	52	
Feb. 9	9:10 a.m.	.21	96	52	
Mar. 9	8:35 a.m.	.11	48	48	
Apr. 6	8:00 a.m.	.084	38	54	
May 4	7:15 a.m.	.11	51	54	
June 8	7:25 a.m.	.28	128	55	

SPRING - DAVID GRAY, JR.

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

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

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

Date	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 23	8:45 a.m.	0.00051	0.23	56	Area recently burned.	
Aug. 31	7:50 a.m.	.00048	.21	56		
Sept. 17	8:20 a.m.	.00044	.20	54		
Oct. 14	9:05 a.m.	.00037	.17	56		
Nov. 12	9:00 a.m.	.00034	.15			
Dec. 9	9:50 a.m.	.00035	.16	54		
1955						
Jan. 6	8:50 a.m.	.00042	.19	52		
Feb. 18	9:00 a.m.	.00060	.27	52		
Mar. 18	9:20 a.m.	.00056	.25	52		
Apr. 14	8:45 a.m.	.00056	.25			
May 12	8:10 a.m.	.00058	.26	50		
June 10	7:50 a.m.	.00058	.26	50		
July 14	8:20 a.m.	.00051	.23	50		
Aug. 12	8:15 a.m.	.00038	.17	50		
Sept. 22	8:45 a.m.	.00032	.14	50		
Oct. 27	9:00 a.m.	.00029	.13	47		
Nov. 22	9:00 a.m.	.00029	.13	52		
Dec. 13	9:30 a.m.	.00027	.12	50		
1956						
Jan. 13	10:20 a.m.	.0011	.50	54		
Feb. 9	9:25 a.m.	.0013	.60	56		
Mar. 9	8:50 a.m.	.00088	.39	54		
Apr. 6	8:20 a.m.	.00084	.38	57		
May 4	7:30 a.m.	.0011	.50	54		
June 8	7:45 a.m.	.0011	.48	55		

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

Location.--Lat. $34^{\circ}34'00''$, long. $119^{\circ}56'00''$, at Highway 150 crossing about 0.4 mile above junction with the Santa Ynez River.

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

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

Diversion.--Several diversions above.

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 19	1:35 p.m.	0.025	11	72	
Aug. 17	12:30 p.m.	.022	9.9	66	
Sept. 13	12:10 p.m.	.022	9.7	62	
Oct. 11	1:05 p.m.	.022	9.9	62	
Nov. 8	12:45 p.m.	.025	11	56	
Dec. 6	1:35 p.m.	.028	13	52	
1955					
Jan. 3	1:25 p.m.	.028	13	48	
Feb. 14	1:25 p.m.	.025	11	56	
Mar. 14	1:45 p.m.	.027	12	62	
Apr. 11	1:05 p.m.	.022	9.9	62	
May 9	12:15 p.m.	.024	11	58	
June 6	1:35 p.m.	.026	12	62	
July 11	12:35 p.m.	.023	10	56	
Aug. 8	12:55 p.m.	.021	9.4	60	
Sept. 20	12:35 p.m.	.024	11	52	
Oct. 24	1:35 p.m.	.020	9.0	50	
Nov. 9	1:25 p.m.	.028	13	52	
Dec. 8	1:20 p.m.	.026	12	50	
1956					
Jan. 13	8:15 a.m.	.024	11	48	
Feb. 7	1:55 p.m.	.032	14	54	
Mar. 6	2:15 p.m.	.026	12	54	
Apr. 3	2:10 p.m.	.026	11	64	
May 1	1:15 p.m.	.019	8.5	72	
June 4	1:30 p.m.	.0096	4.30	70	

SEEPAGE FROM NORTH PORTAL OF TECOLOTE TUNNEL

Location.--Lat. $34^{\circ}34'00''$, long. $119^{\circ}55'50''$, 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 23	6:55 a.m.	0.51	230	73	
Aug. 17	1:10 p.m.	.52	231	72	
Sept. 13	12:40 p.m.	.39	176	72	
Oct. 11	1:40 p.m.	.37	166	72	
Nov. 8	1:15 p.m.	.41	186	70	
Dec. 6	2:10 p.m.	.44	196	70	
1955					
Jan. 3	2:10 p.m.	.34	151	70	
14	11:10 a.m.	No flow	No flow		"Hole through" made Jan. 10, 1955: all flow thru' S. Portal.
Mar. 14	2:15 p.m.	.43	192	70	"Hole through" bulk- headed.
Apr. 4	11:40 a.m.	1.00	449		2' Parshall flume being installed at inlet tower to tunnel.
11	1:40 p.m.	3.11	1,400	72	
May 9	1:00 p.m.	2.84	1,280	70	
June 6	2:10 p.m.	3.12	1,400	70	
July 11	1:15 p.m.	3.78	1,700	70	
Aug. 8	12:55 p.m.	3.41	1,530	80	Partial bulkhead at midpart of tunnel.
Sept. 20	1:15 p.m.	7.2	3,250	90	
Oct. 24	2:10 p.m.	9.1	4,070	90	
Nov. 9	2:10 p.m.	9.1	4,090	97	
Dec. 8	1:45 p.m.	10	4,560		
1956					
Jan. 13	8:40 a.m.	8.8	3,930	98	
Feb. 7	-	No flow	No flow		Gates closed.

TEQUEPIS CREEK ABOVE BOY SCOUT CAMP DIVERSION

Location.--Lat. $34^{\circ}32'20''$, long. $119^{\circ}57'30''$, 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	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 22	7:05 a.m.	0.035	16	54	Area recently burned.	
Aug. 20	7:05 a.m.	.022	9.9	54		
Sept. 15	7:05 a.m.	.019	8.4	54		
Oct. 13	8:05 a.m.	.019	8.4	54		
Nov. 10	8:05 a.m.	.022	9.9	52		
Dec. 8	8:05 a.m.	.051	23	50		
1955						
Jan. 5	8:35 a.m.	.028	13	48		
Feb. 17	8:05 a.m.	.091	41	48		
Mar. 17	8:05 a.m.	.062	28	45		
Apr. 13	8:05 a.m.	.051	23	48		
May 11	7:25 a.m.	.12	53	46		
June 8	7:05 a.m.	.037	17	48		
July 13	7:05 a.m.	.030	13	46		
Aug. 11	7:15 a.m.	.012	5.4	50		
Sept. 21	7:35 a.m.	.022	9.7	48		
Oct. 26	8:25 a.m.	.024	11	44		
Nov. 15	8:05 a.m.	.032	14	50		
Dec. 12	8:05 a.m.	.030	14	48		
1956						
Jan. 12	8:10 a.m.	.28	124	48	Some new pipe line installed since last visit.	
Feb. 10	8:10 a.m.	.72	323	46		
Mar. 8	8:10 a.m.	.90	402	46		
Apr. 5	8:10 a.m.	.77	345	48		
May 3	7:10 a.m.	1.28	574	52		
June 7	7:10 a.m.	1.07	480	52		

SPRING - F. F. LEADBETTER

Location.--Lat. $34^{\circ}33'00''$, long. $119^{\circ}57'40''$.

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

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

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 22	8:15 a.m.	0.0057	2.57	56	
Aug. 20	8:15 a.m.	.0053	2.37	54	
Sept. 15	8:15 a.m.	.0047	2.09	56	
Oct. 13	9:10 a.m.	.0039	1.74	56	
Nov. 10	9:00 a.m.	.0037	1.65	56	
Dec. 8	9:30 a.m.	.0035	1.59	52	
1955					
Jan. 5	10:00 a.m.	.0077	3.46	52	
Feb. 17	9:00 a.m.	.0045	2.00	54	
Mar. 17	9:00 a.m.	.0042	1.88	53	
Apr. 13	9:00 a.m.	.0041	1.85	56	
May 11	8:10 a.m.	.0057	2.57	54	
June 8	8:00 a.m.	.0053	2.40	52	
July 13	8:00 a.m.	.0039	1.76	52	
Aug. 11	8:15 a.m.	.0028	1.25	54	
Sept. 21	8:30 a.m.	.0028	1.25	50	Area recently burned; lid on spring box burned.
Oct. 26	9:25 a.m.	.0028	1.25	46	New pipe line installed.
Nov. 15	9:00 a.m.	.0040	1.79	47	Installing new spring box; some uncontrolled seep- age; flow disrupted; poor measurement.
Dec. 12	9:00 a.m.	.0048	2.14	52	Work not completed on spring.
1956					
Jan. 12	9:00 a.m.	.080	36	54	
Feb. 10	8:45 a.m.	.10	45	54	
Mar. 8	9:00 a.m.	.094	42	52	
Apr. 5	9:00 a.m.	.080	36	54	
May 3	8:15 a.m.	.090	41	54	Flow in canyon to right of spring 36.0 gpm.
June 7	8:10 a.m.	.13	60	56	All flow in one line.

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 22	8:30 a.m.	0.0084	3.76	60	
Aug. 20	8:30 a.m.	.0080	3.60	66	
Sept. 15	8:30 a.m.	.0080	3.60	58	
Oct. 13	9:25 a.m.	.0077	3.46	60	
Nov. 10	9:15 a.m.	.0077	3.46	58	
Dec. 8	9:45 a.m.	.0077	3.47	54	
1955					
Jan. 5	9:45 a.m.	.0038	1.72	54	
Feb. 17	9:15 a.m.	.0077	3.46	56	
Mar. 17	9:15 a.m.	.0079	3.54	52	
Apr. 13	9:15 a.m.	.0079	3.53	56	
May 11	8:25 a.m.	.0082	3.68	56	
June 8	8:15 a.m.	.0084	3.75	56	*
July 13	8:15 a.m.	.0080	3.60	56	
Aug. 11	8:30 a.m.	.0077	3.46	57	
Sept. 21	8:50 a.m.	-	-		Pipe line leaking; area recently burned. No meas
Oct. 26	9:40 a.m.	.0087	3.92	48	Pipe line repaired since last visit.
Nov. 15	9:15 a.m.	.0089	4.00	52	
Dec. 12	9:15 a.m.	.0085	3.84	54	New pipe line being installed.
1956					
Jan. 12	9:15 a.m.	.0091	4.08	56	
Feb. 10	9:00 a.m.	.0096	4.30	43	
Mar. 8	9:15 a.m.	.0089	4.00	60	
Apr. 5	9:15 a.m.	.0089	4.00	58	
May 3	8:30 a.m.	.012	5.6	54	
June 7	8:30 a.m.	.012	5.4	64	New pipe line installed.

* Installing new pipe line and tanks.

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

Location.--Lat. $34^{\circ}33'10''$, long. $119^{\circ}57'30''$.

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 22	9:00 a.m.	0.0033	1.50	57	
Aug. 20	9:00 a.m.	.0028	1.25	56	
Sept. 15	8:45 a.m.	.0024	1.07	58	
Oct. 13	9:40 a.m.	.0020	.88	58	
Nov. 10	9:30 a.m.	.0018	.79	56	
Dec. 8	10:00 a.m.	.0024	1.07	56	
1955					
Jan. 5	10:15 a.m.	.0028	1.25	56	
Feb. 17	9:30 a.m.	.0062	2.77	58	
Mar. 17	9:30 a.m.	.0067	3.00	54	
Apr. 13	9:35 a.m.	.0047	2.12	56	
May 11	8:45 a.m.	.0059	2.64	56	
June 8	8:40 a.m.	.0068	3.05	52	
July 13	8:30 a.m.	.0034	1.52	52	
Aug. 11	8:50 a.m.	.0024	1.07	52	
Sept. 21	9:15 a.m.	.0018	.79	52	Area recently burned.
Oct. 26	10:00 a.m.	.0017	.75	48	
Nov. 15	9:30 a.m.	.0017	.75	52	
Dec. 12	9:30 a.m.	.0020	.88	52	
1956					
Jan. 12	9:30 a.m.	.0076	3.40	56	
Feb. 10	9:15 a.m.	.011	4.90	46	
Mar. 8	9:30 a.m.	.011	5.0	56	
Apr. 5	9:30 a.m.	.0067	3.00	58	
May 3	8:50 a.m.	.015	6.7	54	
June 7	8:50 a.m.	.010	4.50	66	

TEQUEPIS CANYON CREEK AT HIGHWAY 150

Location.--Lat. $34^{\circ}34'20''$, long. $119^{\circ}57'00''$, at road crossing of Highway 150.

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

Description.--Measuring site in stream channel above bridge.

Diversion.--Several above.

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 19	1:00 p.m.	No flow	No flow	-	
Aug. 17	12:05 p.m.	do	do	-	
Sept. 13	11:55 a.m.	do	do	-	
Oct. 11	12:40 p.m.	do	do	-	
Nov. 8	12:30 p.m.	do	do	-	
Dec. 6	1:15 p.m.	do	do	-	
1955					
Jan. 3	1:00 p.m.	do	do	-	
Feb. 14	1:00 p.m.	do	do	-	
Mar. 14	1:20 p.m.	do	do	-	
Apr. 11	12:45 p.m.	do	do	-	
May 9	11:45 a.m.	do	do	-	
June 6	1:00 p.m.	do	do	-	Channel dry.
July 11	12:10 p.m.	do	do	-	
Aug. 8	12:25 p.m.	do	do	-	
Sept. 20	12:05 p.m.	do	do	-	Area recently burned.
Oct. 24	1:00 p.m.	do	do	-	
Nov. 9	12:50 p.m.	do	do	-	
Dec. 8	1:00 p.m.	do	do	-	
1956					
Jan. 13	7:40 a.m.	0.50	224	45	
Feb. 7	1:15 p.m.	2.06	925	50	
Mar. 6	1:30 p.m.	1.46	655	-	
Apr. 3	1:30 p.m.	.90	402	57	
May 1	12:30 p.m.	2.02	906	60	
June 4	12:20 p.m.	1.65	741	64	

SPRING - J. V. CRAWFORD

Location.--Lat. $34^{\circ}33'50''$, long. $119^{\circ}58'20''$.

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

Description.--Pool in sandstone bed of side canyon.

Date	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 21	11:45 a.m.	0.0011	0.50	56	Area recently burned.	
Aug. 19	11:45 a.m.	.0011	.50	56		
Sept. 14	11:30 a.m.	.0010	.46	56		
Oct. 12	1:10 p.m.	.0011	.50	56		
Nov. 9	1:00 p.m.	.0013	.58	56		
Dec. 7	1:30 p.m.	.0012	.52	52		
1955						
Jan. 4	1:25 p.m.	.00080	.36	48		
Feb. 15	12:50 p.m.	.0017	.75	52		
Mar. 15	1:40 p.m.	.0016	.72	54		
Apr. 12	1:20 p.m.	.0015	.65	52		
May 10	12:05 p.m.	.0022	1.00	54		
June 7	1:05 p.m.	.0013	.60	54		
July 12	12:30 p.m.	.0011	.50	52		
Aug. 9	1:05 p.m.	.0010	.47	54		
Sept. 19	12:15 p.m.	.0012	.54	52		
Oct. 25	1:05 p.m.	.0013	.60	48		
Nov. 10	1:20 p.m.	.0013	.60	56		
Dec. 9	1:40 p.m.	.0015	.68	50		
1956						
Jan. 19	2:20 p.m.	.0042	1.88	-		
Feb. 8	1:10 p.m.	.0084	3.76	46		
Mar. 7	1:45 p.m.	.0048	2.14	46		
Apr. 4	1:30 p.m.	.0030	1.36	50		
May 2	12:45 p.m.	.0067	3.00	54		
June 5	1:05 p.m.	.0037	1.67	63		

SPRING - CROWN ELEVEN RANCH

Location.--Lat. $34^{\circ}34'00''$, long. $119^{\circ}58'10''$.

Altitude.--About 990 feet, from topographic map.

Description.--Two connected curbed seeps on alluvial slope. Discharge at outlet of 1-inch pipe leading to watering trough.

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 21	11:00 a.m.	0.0053	2.40	66	
Aug. 19	11:00 a.m.	.0041	1.86	65	
Sept. 14	10:45 a.m.	.0030	1.36	58	
Oct. 12	12:30 p.m.	.0027	1.22	65	
Nov. 9	12:15 p.m.	.00093	.42	64	
Dec. 7	12:45 p.m.	.0032	1.44	60	
1955					
Jan. 4	12:45 p.m.	.0010	.47	60	Some uncontrolled seepage. Area recently burned.
Feb. 15	12:05 p.m.	.0045	2.00	64	
Mar. 15	1:00 p.m.	.0062	2.77	64	
Apr. 12	12:45 p.m.	.0065	2.90	63	
May 10	11:30 a.m.	.0084	3.75	62	
June 7	12:30 p.m.	.0073	3.27	62	
July 12	11:45 a.m.	.0057	2.57	62	
Aug. 9	12:20 p.m.	.0037	1.66	62	
Sept. 19	12:35 p.m.	.0024	1.07	60	
Oct. 25	12:15 p.m.	.0022	1.00	56	
Nov. 10	12:40 p.m.	.0033	1.50	64	
Dec. 9	1:00 p.m.	.0026	1.15	60	
1956					
Jan. 11	2:00 p.m.	.0042	1.88	58	
Feb. 8	12:50 p.m.	.0057	2.58	64	
Mar. 7	1:15 p.m.	.0072	3.21	64	
Apr. 4	1:20 p.m.	.0085	3.82	64	
May 2	12:15 p.m.	.0089	4.00	64	
June 5	12:40 p.m.	.0080	3.60	64	

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 pipeline.

Date	Time	Discharge		Temper- ature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 21	11:15 a.m.	0.014	6.4	68	Area recently burned;; spring bulldozed.	
Aug. 19	11:15 a.m.	.011	5.1	68		
Sept. 14	11:00 a.m.	.012	5.3	68		
Oct. 12	12:45 p.m.	.010	4.50	68		
Nov. 9	12:30 p.m.	.0085	3.83	68		
Dec. 7	1:00 p.m.	.0076	3.40	66		
1955						
Jan. 4	1:00 p.m.	.0073	3.27	66		
Feb. 11	12:20 p.m.	.0085	3.84	68		
Mar. 15	1:15 p.m.	.011	4.87	68		
Apr. 12	1:00 p.m.	.010	4.50	68		
May 10	11:45 a.m.	.010	4.50	64		
June 7	12:45 p.m.	.013	6.0	-		
July 12	12:05 p.m.	.012	5.5	66		
Aug. 9	12:35 p.m.	.0089	4.00	62		
Sept. 19	11:15 a.m.	.0022	1.00	65		
Oct, 25	12:40 p.m.	.0024	1.07	56		
Nov. 10	1:00 p.m.	.0033	1.50	64		
Dec. 9	1:20 p.m.	.0048	2.15	63		
1956						
Jan. 11	2:35 p.m.	.0019	.83	-		
Feb. 8	12:35 p.m.	.0037	1.67	66		
Mar. 7	1:00 p.m.	.0048	2.14	66		
Apr. 4	12:45 p.m.	.0048	2.14	74		
May 2	11:55 a.m.	.0050	2.25	70		
June 5	12:15 p.m.	.0056	2.50	70		

STATION 137.

UNNAMED CREEK, TRIBUTARY TO SANTA YNEZ RIVER AT HARVEY RANCH

Location.--Lat. $34^{\circ}34'00''$, long. $119^{\circ}58'10''$, 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	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 21	12:20 p.m.	0.036	16	62	Area recently burned.	
Aug. 19	12:05 p.m.	.030	13	60		
Sept. 14	12:05 p.m.	.025	11	58		
Oct. 12	1:30 p.m.	.024	11	58		
Nov. 9	1:30 p.m.	.029	13	-		
Dec. 7	2:00 p.m.	.026	12	54		
1955						
Jan. 4	1:55 p.m.	.027	12	50		
Feb. 15	1:30 p.m.	.036	16	56		
Mar. 15	2:00 p.m.	.026	12	54		
Apr. 12	1:10 p.m.	.040	18	-		
May 10	12:25 p.m.	.056	25	-		
June 7	12:20 p.m.	.053	24	-		
July 12	1:10 p.m.	.037	17	56		
Aug. 9	1:45 p.m.	.026	12	60		
Sept. 19	1:00 p.m.	.021	9.2	56		
Oct. 25	1:30 p.m.	.036	16	51		
Nov. 10	1:45 p.m.	.030	14	58		
Dec. 9	2:10 p.m.	.026	12	54		
1956						
Jan. 11	1:30 p.m.	.062	28	47		
Feb. 8	12:15 p.m.	.072	32	50		
Mar. 7	12:30 p.m.	.065	29	50		
Apr. 4	12:15 p.m.	.065	29	54		
May 2	11:30 a.m.	.10	47	56		
June 5	11:45 a.m.	.077	35	60		

STATION 138.

SPRING - UNNAMED TRIBUTARY TO SANTA YNEZ RIVER AT HIGHWAY 150

Location.--Lat. $34^{\circ}34'50''$, long. $119^{\circ}58'20''$, 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 19	12:30 p.m.	0.011	4.76	66	
Aug. 17	11:40 a.m.	.013	5.8	56	
Sept. 13	11:30 a.m.	.0082	3.68	62	
Oct. 11	12:15 p.m.	.011	4.93	58	
Nov. 8	12:05 p.m.	.0088	3.95	58	
Dec. 6	12:50 p.m.	.0097	4.46	58	
1955					
Jan. 2	12:30 p.m.	.016	7.0	56	
Feb. 14	12:20 p.m.	.0093	4.17	56	
Mar. 14	12:50 p.m.	.0056	2.52	58	
Apr. 11	12:30 p.m.	.019	8.7	58	
May 9	11:20 a.m.	.010	4.53	58	
June 6	12:30 p.m.	.0049	2.20	58	
July 11	11:40 a.m.	.011	4.94	58	
Aug. 8	12:05 p.m.	.0067	3.00	58	
Sept. 20	11:35 a.m.	.0049	2.20	56	
Oct. 4	12:40 p.m.	.0067	3.00	52	
Nov. 9	12:30 p.m.	.0089	4.00	58	
Dec. 8	12:45 p.m.	.0077	3.47	65	
1956					
Jan. 11	1:00 p.m.	.0069	3.12	52	
Feb. 7	12:50 p.m.	.0081	3.64	54	
Mar. 6	1:00 p.m.	.0067	3.00	57	
Apr. 3	12:50 p.m.	.0056	2.50	56	
May 1	12:10 p.m.	.0067	3.00	58	
June 4	11:55 a.m.	.0056	2.50	58	

SPRING - J. V. CRAWFORD

Location.--Lat. $34^{\circ}32'50''$, long. $119^{\circ}58'50''$.

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	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 21	9:20 a.m.	0.062	28	56	Area recently burned.	
Aug. 19	9:30 a.m.	.055	25	54		
Sept. 14	9:05 a.m.	.056	25	54		
Oct. 12	10:30 a.m.	.041	18	56		
Nov. 9	10:30 a.m.	.063	28	52		
Dec. 7	10:40 a.m.	.078	35	50		
1955						
Jan. 4	10:45 a.m.	.093	42	46		
Feb. 15	10:30 a.m.	.076	34	48		
Mar. 15	10:00 a.m.	.078	35	46		
Apr. 12	10:15 a.m.	.055	25	48		
May 10	9:45 a.m.	.15	66	48		
June 7	10:00 a.m.	.070	31	52		
July 12	9:45 a.m.	.053	24	50		
Aug. 9	10:10 a.m.	.029	13	56		
Sept. 19	9:30 a.m.	.067	30	50		
Oct. 25	10:30 a.m.	.028	13	46		
Nov. 10	10:45 a.m.	.023	10	52		
Dec. 9	11:15 a.m.	.059	26	48		
1956						
Jan. 11	11:15 a.m.	.39	175	47		
Feb. 8	11:00 a.m.	.88	395	52		
Mar. 7	10:45 a.m.	.58	262	50		
Apr. 4	10:20 a.m.	.34	152	52		
May 2	9:45 a.m.	.54	243	54		
June 5	9:50 a.m.	.54	242	54		

SPRING - J. V. CRAWFORD

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

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

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

Date	Time	Discharge		Temper- ature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 21	10:00 a.m.	0.00019	0.085	59	Some pools. Area recently burned.	
Aug. 19	10:00 a.m.	.00086	.39	54		
Sept. 14	9:45 a.m.	.0011	.50	54		
Oct. 12	11:00 a.m.	.00068	.31	56		
Nov. 9	11:15 a.m.	.00062	.28	52		
Dec. 7	11:30 a.m.	.0013	.60	50		
1955						
Jan. 4	11:30 a.m.	.0014	.63	46		
Feb. 15	11:00 a.m.	.0010	.47	52		
Mar. 15	10:30 a.m.	.0013	.60	46		
Apr. 12	11:05 a.m.	.00067	.30	52		
May 10	10:15 a.m.	.00051	.23	52		
June 7	10:50 a.m.	.00051	.23	56		
July 12	10:30 a.m.	.00056	.25	52		
Aug. 9	10:45 a.m.	No flow	No flow	-		
Sept. 19	10:15 a.m.	.00084	.38	50		
Oct. 25	11:10 a.m.	.00095	.43	46		
Nov. 10	11:20 a.m.	.00041	.18	58		
Dec. 9	11:55 a.m.	.00098	.44	48		
1956						
Jan. 11	12 M.	.0014	.62	47		
Feb. 8	11:45 a.m.	.0012	.54	48		
Mar. 7	11:30 a.m.	.00062	.28	46		
Apr. 4	11:00 a.m.	No flow	No flow	-		
May 2	10:15 a.m.	do	do	-		
June 5	10:30 a.m.	do	do	-		

HILTON CANYON CREEK AT HIGHWAY 150

Location.--Lat. $34^{\circ}35'10''$, long. $119^{\circ}59'10''$, at Highway 150.

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

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

Diversions.--Several diversions above station.

Date	Time	Discharge		Temper- ature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 19	11:05 a.m.	No flow	No flow	-	Area recently burned.	
Aug. 17	11:20 a.m.	do	do	-		
Sept. 13	11:00 a.m.	do	do	-		
Oct. 11	11:30 a.m.	do	do	-		
Nov. 8	11:45 a.m.	do	do	-		
Dec. 6	12:30 p.m.	do	do	-		
1955						
Jan. 3	12:10 p.m.	do	do	-		
Feb. 14	12:05 p.m.	do	do	-		
Mar. 14	12:30 p.m.	do	do	-		
Apr. 11	11:30 a.m.	do	do	-		
May 9	11:00 a.m.	do	do	-		
June 6	11:55 a.m.	do	do	-		
July 11	11:15 a.m.	do	do	-		
Aug. 8	11:50 a.m.	do	do	-		
Sept. 20	11:15 a.m.	do	do	-		
Oct. 25	12:15 p.m.	do	do	-		
Nov. 9	12:05 p.m.	do	do	-		
Dec. 8	12:15 p.m.	do	do	-		
1956						
Jan. 11	10:30 a.m.	0.28	124	50		
Feb. 7	12:30 p.m.	.68	306	46		
Mar. 6	12:30 p.m.	.27	120	48		
Apr. 3	12:15 p.m.	.057	26	56		
May 1	11:30 a.m.	.64	286	56		
June 4	11:15 a.m.	.58	262	58		

SPRING - J. V. CRAWFORD

Location.--Lat. $34^{\circ}34'40''$, long. $119^{\circ}59'20''$.

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 19	10:30 a.m.	0.00090	0.41	65	
Aug. 17	10:30 a.m.	.0010	.46	62	
Sept. 13	10:20 a.m.	.00067	.30	62	
Oct. 11	11:00 a.m.	.00076	.34	62	
Nov. 8	11:00 a.m.	.00088	.40	62	
Dec. 6	11:45 a.m.	.00081	.37	58	
1955					
Jan. 3	11:30 a.m.	.00084	.38	48	
Feb. 14	11:15 a.m.	.00074	.33	60	
Mar. 14	11:45 a.m.	.00074	.33	58	
Apr. 11	11:00 a.m.	.00074	.33	62	
May 9	10:15 a.m.	.00073	.33	58	
June 6	10:50 a.m.	.00068	.31	62	
July 11	10:15 a.m.	.00067	.30	58	
Aug. 8	10:45 a.m.	.00064	.29	60	
Sept. 20	10:15 a.m.	.00064	.29	56	
Oct. 24	11:20 a.m.	.00062	.28	56	
Nov. 9	11:00 a.m.	.00064	.29	60	
Dec. 8	11:30 a.m.	.00064	.29	56	
1956					
Jan. 10	12:30 p.m.	.00063	.28	54	
Feb. 7	12:05 p.m.	.00060	.27	58	
Mar. 6	11:30 a.m.	.00051	.23	56	
Apr. 3	11:30 a.m.	.00056	.25	60	
May 1	10:30 a.m.	.00056	.25	60	
June 4	10:15 a.m.	.00055	.25	60	

WON'S CREEK AT G. WALSKA FISH POND

Location--Lat. $34^{\circ}32'20''$, long. $120^{\circ}00'30''$, 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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 7	8:25 a.m.	0.083	37	56	
Aug. 10	7:40 a.m.	.074	34	55	
Sept. 14	8:40 a.m.	.074	33	54	
Oct. 12	9:15 a.m.	.066	30	53	
Nov. 9	10:20 a.m.	.066	30	50	
Dec. 7	9:30 a.m.	.087	39	48	
1955					
Jan. 6	9:50 a.m.	.078	35	42	
Feb. 7	9:20 a.m.	.088	39	43	
Mar. 8	9:30 a.m.	.10	47	47	
Apr. 5	9:35 a.m.	.080	36	45	
May 3	9:30 a.m.	.17	76	48	
June 21	10:00 a.m.	.074	33	55	
July 11	8:15 a.m.	.073	33	54	
Aug. 17	8:30 a.m.	.050	23	57	
Sept. 12	9:00 a.m.	.037	17	57	
Oct. 13	9:40 a.m.	.034	15	55	
Nov. 9	9:40 a.m.	.037	17	50	
Dec. 8	9:30 a.m.	.056	25	47	
1956					
Jan. 16	9:35 a.m.	.17	74	50	
Feb. 13	9:45 a.m.	.32	146	50	
Mar. 16	12:55 p.m.	.25	111	51	
Apr. 24	8:55 a.m.	.23	102	51	
May 16	8:25 a.m.	.091	41	53	
June 11	8:00 a.m.	.26	117	55	

SPRING - MADAME GANNA WALSKA

Location.--Lat. $34^{\circ}32'10''$, long. $120^{\circ}00'50''$.

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

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

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 7	8:00 a.m.	0.0090	4.00	55	
Aug. 10	7:20 a.m.	.0054	2.44	54	
Sept. 14	8:20 a.m.	.0062	2.78	54	
Oct. 12	8:45 a.m.	.0044	1.99	52	
Nov. 9	10:00 a.m.	.0040	1.80	48	
Dec. 7	9:55 a.m.	.0052	2.31	46	
1955					
Jan. 6	9:30 a.m.	.0080	3.57	41	
Feb. 7	9:00 a.m.	.014	6.1	43	
Mar. 8	9:00 a.m.	.013	6.0	46	
Apr. 5	9:15 a.m.	.0094	4.22	44	
May 3	9:10 a.m.	.022	10	47	
June 21	9:30 a.m.	.0084	3.75	-	
July 11	7:45 a.m.	.0056	2.50	53	
Aug. 17	8:00 a.m.	.0030	1.36	56	
Sept. 12	8:15 a.m.	.0017	.75	57	
Oct. 13	9:20 a.m.	.0013	.59	55	
Nov. 9	9:20 a.m.	.0017	.76	48	
Dec. 8	9:15 a.m.	.0039	1.76	46	
1956					
Jan. 16	9:55 a.m.	.027	12	49	
Feb. 13	9:30 a.m.	.067	30	50	
Mar. 16	12:40 p.m.	.067	30	52	
Apr. 24	8:40 a.m.	.065	29	52	
May 16	8:05 a.m.	.13	58	54	
June 11	7:45 a.m.	.095	42	54	

SPRING - J. V. CRAWFORD

Location.--Lat. $34^{\circ}33'30''$, long. $120^{\circ}01'10''$.

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

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

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 21	8:00 a.m.	0.00088	0.40	56	
Aug. 19	8:20 a.m.	.00068	.31	54	
Sept. 14	8:15 a.m.	.00062	.28	54	
Oct. 12	9:00 a.m.	.00051	.23	54	
Nov. 9	9:25 a.m.	.00039	.17	52	
Dec. 7	9:15 a.m.	.00053	.24	50	
1955					
Jan. 4	9:15 a.m.	.00078	.35	48	
Feb. 15	9:20 a.m.	.00080	.36	52	
Mar. 15	9:05 a.m.	.00093	.42	46	
Apr. 12	9:15 a.m.	.00074	.33	52	
May 10	8:30 a.m.	.00088	.40	52	
June 7	8:25 a.m.	.00084	.38	52	
July 12	8:30 a.m.	.00074	.33	50	
Aug. 9	8:00 a.m.	.00051	.23	52	
Sept. 19	8:00 a.m.	.00032	.14	48	
Oct. 25	9:00 a.m.	.00020	.088	44	
Nov. 10	9:15 a.m.	.00029	.13	56	
Dec. 9	9:25 a.m.	.00034	.15	48	
1956					
Jan. 11	9:40 a.m.	.0012	.52	47	
Feb. 8	9:25 a.m.	.00030	.14	40	
Mar. 7	9:20 a.m.	.00027	.12	36	
Apr. 4	9:30 a.m.	.00040	.18	42	
May 2	8:25 a.m.	.00063	.28	50	
June 5	8:40 a.m.	.00041	.18	52	

SPRING - J. V. CRAWFORD

Location.--Lat. $34^{\circ}33'20''$, long. $120^{\circ}01'20''$.

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

Description.--Seepage into uncurbed pool on hillside.

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 21	7:45 a.m.	0.0017	0.75	57	
Aug. 19	7:55 a.m.	.0018	.79	56	
Sept. 14	8:00 a.m.	.0022	1.00	54	
Oct. 12	8:45 a.m.	.0022	1.00	56	
Nov. 9	9:05 a.m.	.0021	.94	56	
Dec. 7	9:00 a.m.	.0024	1.07	53	
1955					
Jan. 4	9:00 a.m.	.0022	1.00	52	
Feb. 15	9:05 a.m.	.0022	1.00	54	
Mar. 15	8:55 a.m.	.0022	1.00	52	
Apr. 12	9:00 a.m.	.0022	1.00	54	
May 10	8:15 a.m.	.0022	1.00	52	
June 7	8:05 a.m.	.0018	.79	52	
July 12	8:10 a.m.	.0019	.86	50	
Aug. 9	7:45 a.m.	.0020	.88	52	
Sept. 19	7:45 a.m.	.0021	.94	50	
Oct. 25	8:45 a.m.	.0019	.83	48	
Nov. 10	9:00 a.m.	.0021	.94	56	
Dec. 9	9:05 a.m.	.0022	1.00	52	
1956					
Jan. 11	9:20 a.m.	.0024	1.07	49	
Feb. 8	9:05 a.m.	.0026	1.15	54	
Mar. 7	9:05 a.m.	.0028	1.25	54	
Apr. 4	9:15 a.m.	.0022	1.00	54	
May 2	8:05 a.m.	.0022	1.00	54	
June 5	8:20 a.m.	.0022	1.00	54	

STATION 148.

SPRING - J. V. CRAWFORD

Location.--Lat. $34^{\circ}33'20''$, long. $120^{\circ}01'30''$.Altitude.--About 1,700 feet, from topographic map.Description.--Seepage into uncurbed pool from alluvium on hillside.

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 21	7:30 a.m.	0.0015	0.65	58	
Aug. 19	7:35 a.m.	.0012	.56	54	
Sept. 14	7:45 a.m.	.0028	1.25	54	
Oct. 12	8:30 a.m.	.0028	1.25	56	
Nov. 9	8:45 a.m.	.0026	1.15	56	
Dec. 7	8:45 a.m.	.0028	1.25	54	
1955					
Jan. 4	8:45 a.m.	.0030	1.36	54	
Feb. 15	8:00 a.m.	.0033	1.50	54	
Mar. 15	8:35 a.m.	.0033	1.50	52	
Apr. 12	8:45 a.m.	.0033	1.50	54	
May 10	7:50 a.m.	.0035	1.58	52	
June 7	7:40 a.m.	.0033	1.50	52	
July 12	7:50 a.m.	.0030	1.36	50	
Aug. 9	7:30 a.m.	.0028	1.25	52	
Sept. 19	7:30 a.m.	.0024	1.07	50	
Oct. 25	8:30 a.m.	.0029	1.30	48	
Nov. 10	8:45 a.m.	.0020	.88	56	
Dec. 9	8:45 a.m.	.0028	1.25	52	
1956					
Jan. 11	9:00 a.m.	.0035	1.58	50	
Feb. 8	8:50 a.m.	.0037	1.67	54	
Mar. 7	8:50 a.m.	.0035	1.58	54	
Apr. 4	8:55 a.m.	.0037	1.67	56	
May 2	7:45 a.m.	.0033	1.50	54	
June 5	8:00 a.m.	.0034	1.50	56	

SPRING - J. V. CRAWFORD

Location.--Lat. $34^{\circ}33'40''$, long. $120^{\circ}01'40''$.

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

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

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 21	7:00 a.m.	0.00034	0.15	57	
Aug. 19	7:00 a.m.	.00037	.17	54	
Sept. 14	7:15 a.m.	.00037	.17	52	
Oct. 12	9:30 a.m.	.00028	.12	52	
Nov. 9	8:15 a.m.	.00038	.17	50	
Dec. 7	8:15 a.m.	.00074	.33	46	
1955					
Jan. 4	8:15 a.m.	.0010	.46	38	
Feb. 15	8:20 a.m.	.0015	.68	44	
Mar. 15	8:05 a.m.	.0016	.72	40	
Apr. 12	8:15 a.m.	.0017	.75	42	
May 10	7:20 a.m.	.0018	.79	46	
June 7	7:15 a.m.	.00067	.30	50	
July 12	7:15 a.m.	.00062	.28	46	
Aug. 9	7:00 a.m.	.00035	.16	56	
Sept. 19	8:30 a.m.	.00024	.11	46	
Oct. 25	8:00 a.m.	.00029	.13	42	
Nov. 10	8:15 a.m.	.00027	.12	52	
Dec. 9	10:00 a.m.	.00074	.33	46	
1956					
Jan. 11	8:20 a.m.	.0056	2.50	43	
Feb. 8	8:00 a.m.	.011	5.1	44	
Mar. 7	8:20 a.m.	.0056	2.50	42	
Apr. 4	8:20 a.m.	.0037	1.67	46	
May 2	7:15 a.m.	.0066	3.00	50	
June 5	7:20 a.m.	.0042	1.88	48	

SAN LUCAS CREEK BELOW SPRING #149

Location.--Lat. $34^{\circ}33'50''$, long. $120^{\circ}01'40''$, at wood-cribbed spring No. 149 about 1.7 miles south of Highway 150.

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

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

Diversions.--Spring #149 diversion above for stock.

Date	Time	Discharge		Temper- ature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 21	6:40 a.m.	No flow	No flow	-	
Aug. 19	6:45 a.m.	do	do	-	
Sept. 14	7:00 a.m.	do	do	-	
Oct. 12	7:45 a.m.	do	do	-	
Nov. 9	8:00 a.m.	do	do	-	
Dec. 7	8:00 a.m.	do	do	-	
1955					
Jan. 4	8:10 a.m.	do	do	-	
Feb. 15	8:00 a.m.	0.014	6.2	48	
Mar. 15	7:45 a.m.	.023	10	46	
Apr. 12	8:00 a.m.	No flow	No flow	-	
May 10	7:00 a.m.	.022	10	48	
June 7	7:00 a.m.	No flow	No flow	-	
July 12	7:00 a.m.	do	do	-	
Aug. 9	6:45 a.m.	do	do	-	
Sept. 19	7:00 a.m.	do	do	-	
Oct. 25	7:45 a.m.	do	do	-	
Nov. 10	8:00 a.m.	do	do	-	
Dec. 9	8:00 a.m.	do	do	-	
1956					
Jan. 17	8:00 a.m.	.070	31	43	
Feb. 8	8:15 a.m.	.15	68	44	
Mar. 7	8:00 a.m.	.051	23	46	
Apr. 4	8:00 a.m.	.013	6.0	48	
May 2	6:50 a.m.	.043	19	50	
June 5	7:00 a.m.	No flow	No flow	-	

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	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 19	7:00 a.m.	0.0058	2.61	62	Some uncontrolled seepage.
Aug. 17	7:00 a.m.	.0056	2.50	60	do
Sept. 13	7:00 a.m.	.0049	2.20	60	
Oct. 11	7:50 a.m.	.0055	2.46	60	Some uncontrolled seepage.
Nov. 8	8:00 a.m.	.0057	2.58	60	do
Dec. 6	8:00 a.m.	.027	12	58	do
1955					
Jan. 3	8:00 a.m.	.018	8.2	60	do
Feb. 14	7:45 a.m.	.036	16	60	do
Mar. 14	8:00 a.m.	.036	16	60	
Apr. 11	8:00 a.m.	.033	15	60	Some uncontrolled seepage.
May 9	7:00 a.m.	.016	7.2	58	
June 6	7:00 a.m.	.015	6.7	58	
July 11	6:45 a.m.	.0073	3.27	56	
Aug. 8	7:00 a.m.	.033	15	56	Some uncontrolled seepage.
Sept. 20	7:00 a.m.	.0065	2.90	56	
Oct. 24	7:50 a.m.	.0060	2.68	54	Some uncontrolled seepage.
Nov. 9	7:50 a.m.	.0047	2.12	58	do
Dec. 8	8:00 a.m.	.031	14	56	do
1956					
Jan. 10	8:25 a.m.	.031	14	56	do
Feb. 7	8:00 a.m.	.044	20	62	
Mar. 6	8:00 a.m.	.049	22	60	
Apr. 3	8:00 a.m.	.043	19	62	
May 1	7:00 a.m.	.046	21	61	
June 4	6:40 a.m.	.041	18	62	

SPRING - RANCHO 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 drinks from pools.

Date	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 19	9:10 a.m.	0.0017	0.75	64	Area recently burned.	
Aug. 17	8:50 a.m.	.0014	.63	56		
Sept. 13	9:00 a.m.	.0013	.58	56		
Oct. 11	9:45 a.m.	.0011	.50	58		
Nov. 8	9:45 a.m.	.0015	.68	56		
Dec. 6	10:30 a.m.	.0024	1.07	-		
1955						
Jan. 3	10:00 a.m.	.0026	1.15	42		
Feb. 14	10:00 a.m.	.0029	1.28	56		
Mar. 14	10:30 a.m.	.0026	1.17	52		
Apr. 11	10:00 a.m.	.0022	.97	52		
May 9	9:00 a.m.	.0021	.94	52		
June 6	9:00 a.m.	.0022	1.00	56		
July 11	9:00 a.m.	.0011	.50	52		
Aug. 8	8:45 a.m.	.0013	.60	56		
Sept. 20	8:45 a.m.	.0011	.50	-		
Oct. 24	9:45 a.m.	.0021	.94	50		
Nov. 9	9:30 a.m.	.0011	.50	-		
Dec. 8	10:00 a.m.	.0013	.60	46		
1956						
Jan. 10	10:30 a.m.	.0019	.83	46		
Feb. 7	10:30 a.m.	.0022	1.00	50		
Mar. 6	10:10 a.m.	.0020	.88	46		
Apr. 3	10:10 a.m.	.0017	.75	52		
May 1	9:10 a.m.	.0019	.83	54		
June 4	8:40 a.m.	.0012	.56	54		

SPRING - RANCHO JUAN Y LOLITA

Location.--Lat. $34^{\circ}33'40''$, long. $120^{\circ}04'20''$.

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

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

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 19	8:15 a.m.	0.00025	0.11	62	
Aug. 17	8:15 a.m.	.00032	.14	56	
Sept. 13	8:20 a.m.	.00036	.16	56	
Oct. 11	9:00 a.m.	.00026	.12	56	
Nov. 8	9:15 a.m.	.00029	.13	56	
Dec. 6	9:55 a.m.	.00031	.14	54	
1955					
Jan. 3	9:20 a.m.	.00035	.16	42	
Feb. 14	9:20 a.m.	.00052	.23	52	
Mar. 14	10:00 a.m.	.00048	.21	54	
Apr. 11	9:25 a.m.	.00032	.14	54	
May 9	8:20 a.m.	.00071	.32	52	
June 6	8:25 a.m.	.00013	.060	56	
July 11	8:15 a.m.	.000047	.021	52	
Aug. 8	8:15 a.m.	No flow	No flow	-	
Sept. 20	8:15 a.m.	do	do	-	Area recently burned. No meas.; uncontrolled seepage.
Oct. 24	9:05 a.m.	-	-	-	
Nov. 9	8:50 a.m.	No flow	No flow	-	
Dec. 8	9:20 a.m.	do	do	-	
1956					
Jan. 10	10:00 a.m.	.00056	.25	52	
Feb. 7	9:50 a.m.	.0018	.83	58	
Mar. 6	9:30 a.m.	.0020	.88	50	
Apr. 3	9:30 a.m.	.0014	.62	54	
May 1	8:30 a.m.	.0013	.60	54	
June 4	8:00 a.m.	.00060	.27	54	

STATION 155.

SPRING - U. S. FOREST SERVICE

Location.--Lat. 34°32'10", long. 120°03'50".Altitude.--About 2,040 feet, from topographic map.Description.--Concrete-curbed spring, 7 feet deep. Discharge measured at road crossing, 170 feet downstream.

Date	Time	Discharge		Temperature °F	Remarks
		Cubic feet per second	Gallons per minute		
1954					
July 7	6:25 a.m.	No flow	No flow	-	
Aug. 10	6:05 a.m.	do	do	-	
Sept. 14	7:00 a.m.	do	do	-	
Oct. 12	7:10 a.m.	do	do	-	
Nov. 9	8:40 a.m.	do	do	-	
Dec. 7	7:35 a.m.	do	do	-	
1955					
Jan. 6	8:10 a.m.	do	do	-	
Feb. 7	7:30 a.m.	0.035	16	38	
Mar. 8	7:35 a.m.	.051	23	45	
Apr. 5	7:50 a.m.	No flow	No flow	-	
May 3	6:30 a.m.	.28	126	46	
June 21	7:30 a.m.	No flow	No flow	-	
July 11	6:20 a.m.	do	do	-	
Aug. 17	6:30 a.m.	do	do	-	
Sept. 12	6:45 a.m.	do	do	-	
Oct. 13	8:00 a.m.	do	do	-	
Nov. 9	8:05 a.m.	do	do	-	
Dec. 8	8:10 a.m.	do	do	-	
1956					
Jan. 16	8:10 a.m.	.0033	1.46	47	
Feb. 13	8:20 a.m.	.051	23	-	
Mar. 16	2:30 p.m.	.032	14	52	
Apr. 24	7:50 a.m.	.033	15	51	
May 16	6:55 a.m.	.089	40	52	
June 11	6:40 a.m.	.019	8.3	54	

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.

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

Date	Time	Discharge		Temperature °F	Remarks	
		Cubic feet per second	Gallons per minute			
1954						
July 19	8:00 a.m.	No flow	No flow	-	Area recently burned.	
Aug. 17	8:00 a.m.	do	do	-		
Sept. 13	8:00 a.m.	do	do	-		
Oct. 11	8:40 a.m.	do	do	-		
Nov. 8	9:00 a.m.	do	do	-		
Dec. 6	9:30 a.m.	0.024	11	45		
1955						
Jan. 3	9:00 a.m.	.040	18	36		
Feb. 14	9:00 a.m.	.10	45	46		
Mar. 14	9:30 a.m.	.36	159	46		
Apr. 11	9:00 a.m.	.032	14	46		
May 9	8:00 a.m.	.29	130	48		
June 6	8:00 a.m.	.022	9.7	52		
July 11	8:00 a.m.	No flow	No flow	-		
Aug. 8	8:00 a.m.	do	do	-		
Sept. 20	8:00 a.m.	do	do	-		
Oct. 24	8:45 a.m.	do	do	-		
Nov. 9	8:30 a.m.	do	do	-		
Dec. 8	9:00 a.m.	do	do	-		
1956						
Jan. 10	9:30 a.m.	.60	268	43		
Feb. 7	9:15 a.m.	1.69	758	45		
Mar. 6	9:00 a.m.	.74	331	44		
Apr. 3	9:00 a.m.	.18	82	48		
May 1	8:00 a.m.	1.28	573	50		
June 4	7:40 a.m.	.16	74	54		

Map showing location of
discharge observations in
the Tecolote Tunnel Area
of Santa Barbara County,
California, July 1954 to June 1956

● Active
○ Discontinued
(see text)

Scale 1:50,000

— Road
— Burn of
Sept. 1955

