Hydrologic Data for Long Valley Caldera, Mono County, California, 1994-96

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CONVERSION FACTORS, ABBREVIATIONS, AND VERTICAL DATUM

Conversion Factors

	Multiply	By	To obtain
	inch (in.)	25.4	millimeter
	foot (ft)	.3048	meter
	mile (mi)	1.609	kilometer
	square foot (ft ²)	.09290	square meter
	cubic foot per second (ft ³ /s)	.02832	cubic meter per second

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$$^{\circ}\text{F} = (1.8 \times ^{\circ}\text{C}) + 32$$

Abbreviations

Specific conductance is given in microsiemens per centimeter at 25 degrees Celsius (μS/cm at 25°C).

Concentrations of chemical constituents in water are given either in milligrams per liter (mg/L) or micrograms per liter (μg/L).

μm = micrometer

mL = milliliter

Vertical Datum

Sea level: In this report, “sea level” refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

Altitude, as used in this report, refers to distance above or below sea level.

Horizontal datum: In this report, latitudes and longitudes are referenced to North American Datum of 1927.

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ABSTRACT

Hydrologic data were collected during 1994–96 as part of the U.S. Geological Survey's long-term Volcanic Hazards Monitoring Program of the Long Valley Caldera, Mono County, California, and the Long Valley Hydrologic Advisory Committee monitoring program. Hydrologic data collected include continuous record of ground-water levels in 4 wells; instantaneous measurements of ground-water levels in 53 wells; continuous record of discharge at 2 surface-water sites and 4 springs; continuous record of stage at 1 thermal pool; instantaneous discharge measurements at 3 surface-water sites; ground-water temperature profiles of 5 thermal wells and 1 nonthermal well; continuous record of water temperature in 3 springs; vent gas temperature at 1 fumarole; and chemical and isotopic analyses of water samples collected at 5 wells, 7 springs, and 5 surface-water sites. Precipitation amounts at 3 sites, and water equivalence of snowpack at 3 sites also are included. The data are presented in graphs or tables.

INTRODUCTION

Long Valley Caldera (fig. 1) is a site of geologically recent volcanism (Bailey, 1989). The high rates of seismicity and crustal deformation recorded in Long Valley Caldera since 1980 probably are related to magmatic intrusions (Rundle and Hill, 1988). The volcanic history and recent crustal unrest have been the motivation for the U.S. Geological Survey and other agencies to monitor a number of geologic and geophysical parameters to assess the potential of volcanic eruption in the near term (Hill and others, 1991).

The volcanic activity has provided heat for a hydrothermal system that underlies the western, southern, and eastern parts of Long Valley Caldera. Ground-water temperatures greater than 200°C have been measured in the western part of the caldera. Flow in the hydrothermal system is from west to east along the hydraulic gradient (Sorey and others, 1991). Thermal springs located in the southern and eastern parts of the caldera are natural discharge points for the hydrothermal system.

The thermal springs provide unique environments for wildlife and plants and are used for recreational bathing by thousands of tourists each year. The largest direct use of geothermal resources in the study area is at the Hot Creek Fish Hatchery (fig. 2), operated by the State of California since 1932. The hatchery uses between 15 and 25 ft³/s of water from low-temperature (15–20°C) thermal springs for raising trout. Use of geothermal resources for electric power generation began in 1985. By 1992, power production totaled about 40 megawatts from three plants located at Casa Diablo (fig. 2), and this production level has continued to date (2000).

A long-term hydrologic monitoring program was started in 1982 as part of the U.S. Geological Survey's Volcanic Hazards Monitoring Program. The purpose of the hydrologic monitoring is to document changes in the hydrologic system that are related to volcanic processes and seismicity. Hydrologic data collected for this purpose include ground-water levels; discharge rates of streams and springs; ground-water temperature profiles; water temperatures of springs; vent gas temperatures of fumaroles; precipitation amounts; and chemical and isotopic analyses of ground water and surface water. The number of data-collection sites and frequency of data collection have varied over the years in response to changes in hydrologic conditions, the level of geologic unrest, fulfilling the needs for baseline records, and funding levels.

Figure 1. Location of Long Valley Caldera study area, Mono County, California.

A second hydrologic monitoring program began in 1988 in cooperation with Mono County, California. The monitoring program was implemented to provide data to the Long Valley Hydrologic Advisory Committee (LVHAC). The LVHAC was formed in 1986 to provide Mono County with advice concerning hydrologic environmental issues related to resource developments within Long Valley Caldera (Farrar and Lyster, 1990). The monitoring program parallels the volcanic hazard monitoring, but is specifically directed at detecting hydrologic changes that are caused by geothermal resource utilization and ground-water pumping for potable water supply for the town of Mammoth Lakes.

The LVHAC has identified three key hydrologic features of concern for the county: Mammoth Creek, the thermal springs at Hot Creek Fish Hatchery, and the thermal springs in Hot Creek Gorge (fig. 1). Hydrologic monitoring carried out by the U.S. Geological Survey for the LVHAC and Mono County is primarily at sites along Mammoth Creek, Hot Creek, and at Hot Creek Fish Hatchery.

Description of Study Area

Long Valley Caldera is in Mono County in eastern California along the steep eastern front of the Sierra Nevada about 20 mi south-southeast of Mono Lake (fig. 1). The caldera is an oval-shaped topographic depression measuring approximately 18 mi from east to west and about 12 mi north to south. The topographic depression formed as the result of a massive volcanic eruption (Bailey, 1989) about 760,000 years ago (Sarna-Wojcicki and Pringle, 1992) and subsequent erosion. All monitoring sites for which data are presented in this report lie within or are proximal to the boundary of the Long Valley Caldera.

The caldera floor has a gentle topographic relief in the eastern part where altitudes range from about 6,800 to 7,200 ft above sea level. The central and western parts are more mountainous with altitudes that range up to about 9,000 ft. Prominent mountains, reaching altitudes of over 13,000 ft, enclose the caldera on the south, west, and north. The southeastern boundary is of lower relief.

The caldera forms a well-defined surface-water drainage basin with a single outlet by way of Owens River in the southeastern part of the area (fig. 2). A number of perennial and intermittent streams drain from the high mountains that border the southern and western sides of the caldera. Fewer streams drain the northern mountains because precipitation amounts are less. These peripheral streams drain toward one of two main east-flowing streams on the caldera floor, Mammoth Creek on the south and Owens River on the north. Lake Crowley is an artificial reservoir formed by the Long Valley Dam across the Owens River. The reservoir receives water from Owens River, Mammoth Creek, and a few streams that drain smaller areas. In addition, the reservoir receives water imported from the Mono Basin located north of Long Valley Caldera. The imported water is transported 11 mi through a tunnel and discharged into the Owens River about 15 mi upstream of Lake Crowley. The reservoir is part of the water-supply system for the City of Los Angeles.

Purpose and Scope

This report provides a compilation of hydrologic data collected in Long Valley Caldera by the U.S. Geological Survey during 1994–96. Data collected for both the volcanic hazards monitoring program and the LVHAC are presented in this report. The data include ground-water levels; discharge measurements; water temperatures in wells, streams, and springs; vent gas temperature; precipitation amounts; and chemical and isotopic analyses of water samples collected at selected sites. Hydrologic records for most of the monitoring sites span many more years than the reporting period; in some cases, 9–14 years of record are presented. In many cases, these multi-year records indicate annual cycles and long-term trends.

Although no interpretations of the data are provided in this report, the data will be useful to researchers who may want to relate hydrologic changes to geodetic and geophysical measurements collected during the study of volcanic and seismic processes active during recent years. The report also provides a summary of hydrologic data relevant to some of the environmental concerns of local, State, and Federal agencies, as well as individuals.

Hydrologic data from the volcanic hazards monitoring program prior to 1994 have been published in reports by Farrar and others (1985, 1987, 1989) and Howle and Farrar (1996). Other significant data compilations include California Department of Water Resources (1967, 1973); Lewis (1974); Willey and others (1974); Mariner and

Willey (1976); and Setmire (1984). In addition, the U.S. Forest Service has published annual reports containing hydrologic data for 1980 through 1985.

Report Format

Each site has been assigned a short alpha or alphanumeric identifier that is used in figures and tables. Table 1 lists all sites, grouped by site type, and provides the U.S. Geological Survey station identifier, station number, latitude, longitude, altitude, and information about the data presented in this report. Data tables and figures are grouped by site type (wells, springs, streams, fumarole, and precipitation gages) and are further subdivided into nonthermal or thermal within the groups for wells and springs. Individual maps show the locations of sites by site type.

The presentation of data differs according to site type and the level of variability of the data over the collection period. In general, each graph is followed by the table of data used to construct the graph. For sites with many years of record and where the variability of data is great, graphs for individual years are provided in addition to the multi-year graphs.

This report is accessible on the Internet at website <http://ca.water.usgs.gov>.

Acknowledgments

The cooperation of many well owners and landowners in allowing access to collect data is greatly appreciated. Thom Heller, U.S. Forest Service, provided the precipitation data for the Mammoth Ranger Station gage. Gary Sisson was especially helpful in providing information and access to some of the Mammoth Community Water District wells. Chris Boone and Dennis Redfern, California Department of Fish and Game, cooperated in many ways that assisted data collection at Hot Creek Fish Hatchery.

METHODS OF DATA COLLECTION

Ground-Water Levels and Temperature Profiles

Ground-water levels were measured three times per year in a network of approximately 53 wells (tables 1 and 12 and fig. 3, at back of report). The actual number of wells varied from year to year because of access conditions and the addition of new wells. The measurements generally were made in April, July, and November. These three months were chosen to provide values reasonably close to actual maximum and minimum water levels and to avoid difficult access conditions in the winter months. Water levels were measured monthly in 13 wells selected from the larger network (table 12).

The water levels were measured using chalked steel tapes or electric sounding devices. Electric sounding devices were used only when conditions in the well bore prevented accurate steel tape measurements. Conditions that required the use of electric sounders were high water temperatures ($>30^{\circ}\text{C}$) at the water surface, which would cause a high evaporation rate as a tape was withdrawn from the well, and wet casings above the water level, which would give false indications of the true water level. The general procedures for making accurate water-level measurements, as discussed in a report by Garber and Koopman (1968), were followed.

The water levels were measured with reference to a convenient measuring point on the well head and then were adjusted to land-surface datum using a constant difference between the measuring point and the land surface at the well. Land-surface altitudes were determined for each well site by spirit leveling from a point of known altitude or approximated from topographic maps (table 1). Altitudes that have a precision of less than 1 ft are from leveling; other altitudes were estimated from topographic maps.

Daily mean values of water levels were computed from data recorded at hourly or shorter intervals. Water levels were recorded by a variety of means (table 1). A mechanical system consisting of a float, tape, and counter weight suspended over a pulley was used for shallow water levels (less than 20 ft). The data were recorded electronically using a shaft-encoder and data logger. For deeper water levels (more than 20 ft), pressure transducers

were used to sense the depth of water above an arbitrary datum. In wells that had water temperatures at the water surface of less than 50°C, submersible transducers were used. The transducers were suspended by weighted cables that held the sensing port at a constant depth. In wells that had water temperatures greater than 50°C, a bubbler system was used with the transducer at the surface. The system consisted of a nitrogen tank, pressure regulator, and tubing. One end of the tubing was set at a fixed depth below land surface, and nitrogen was allowed to bubble out of the tube below the water surface. The back-pressure on this tube was sensed by a transducer and was related to the height of the water column above the tube orifice. The data for all systems that sensed pressure were recorded by a data logger and were converted to water levels in feet below land surface.

Temperature profiles in wells were made using portable logging equipment consisting of a thermistor attached to a cable and a digital meter to display the resistance. Resistance was converted to the equivalent temperature using a polynomial equation derived from calibration measurements performed in a laboratory. The profiles consist of a number of readings made at discrete points, variably spaced depending on the temperature gradient and depth of the well. Temperatures are accurate to 0.1°C or better.

Flow Measurements in Springs and Streams

Measurements of flow from springs and at cross sections in streams were made using current-velocity meters, weirs, and flumes. Procedures used are described in reports by Buchanan and Somers (1969), and Kilpatrick and Schneider (1983).

Daily mean values of flow were computed from stage records and a stage-discharge relation equation (Rantz and others, 1982; Kennedy, 1983, 1984). Stage was measured using a float, tape, and counter weight suspended over a pulley and was recorded on digital punch tape or graphic chart, or was recorded electronically using a shaft-encoder and data logger.

Water and Gas Temperatures

Daily mean values of water temperature in springs and streams, and vent gas temperatures for fumaroles were computed from values recorded at hourly or more frequent intervals. The temperatures were sensed by using either thermistors or platinum resistance devices, and the data were recorded using data loggers. The accuracy of the temperature values is about 0.2°C for the sites at Hot Creek Fish Hatchery. The accuracy of the values for Mammoth Mountain Fumarole (location shown in fig. 44) is about 0.5°C. Water temperatures were measured using the guidelines given in a report by Stevens and others (1975).

At Fish Hatchery Spring AB (FHAB-WEIR) (location shown in figs. 20 and 22), several spring vents discharge subaqueously to a pool about 400 ft long and 10 to 25 ft wide. At this site, the temperature recorded is a flow-weighted average temperature from all the individual vents, and is measured near the weir at the outflow point. This flow-weighted temperature is affected by variations in ambient air and soil temperatures, as well as variations in water temperatures at the spring vents.

Fish Hatchery Spring CD (FHCD) (location shown in figs. 20 and 22) is similar to Fish Hatchery Spring AB, in that several spring vents discharge subaqueously to a collection pool about 700 ft in length. Temperature measurements at FHCD-T were made at the west end of the pool. A thermistor was placed in the subaqueous discharge stream of an individual vent that issues from fractured basalt lining the pool side.

At Fish Hatchery Spring 23 (FH23-T) (location shown in figs. 20 and 22), several springs, both subaqueous and subaerial, discharge to a collection pool. A thermistor was placed in a subaerial vent along the southeast side of the pool.

Temperature of the gas discharged from Mammoth Mountain Fumarole (MMF) (location shown in fig. 44) was measured by placing a sensor in a 1/2-in.-diameter pipe inserted into the side of the vent at a depth of approximately 1 ft below land surface. The discharge point for the main flow of gas shifted a few inches from time to time because of minor slumping of the soil or disruption of the vent by curious visitors. At times, these disruptions of the vents left the temperature sensor a few inches from the main discharge stream. When the sensor was not positioned in the main discharge stream, recorded temperatures deviated from temperatures measured directly in the vent by as much as 2° or 3°C.

Water Equivalence of Snowpack

Daily mean values of water equivalence of snowpack were computed from 15-minute values of pressure transducer output at three sites (locations shown in fig. 47). For each site a standard rating was developed that relates pressure transducer output (millivolts) to snow water content in inches. Field calibration of the rating was performed monthly when access and conditions permitted. Calibration checks were made by coring the snowpack in six predetermined locations adjacent to the snowpillow and comparing an average value (in inches of water) to the standard rating. For a thorough discussion of snow course field methods, equipment, and data reduction, refer to "Snow Survey Sampling Guide, U.S. Department of Agriculture, Soil Conservation Service, Agriculture Handbook No. 169, December 1984."

Water Samples for Chemical and Isotopic Analyses

Water samples from subaerial springs were collected by dipping a polyethylene container into the discharge stream as near the vent as possible. Samples from subaqueous springs and streams were collected using a depth-integrated sampler and equal-width stationing. Well water samples were collected from the discharge pipe while the wells were being pumped.

Aliquots of the samples were used to determine alkalinity, pH, and specific conductance in the field. Aliquots for laboratory analyses were prepared in the field by filtering through 0.45- μ m capsulated filters. Filtered, unacidified water was placed in polyethylene bottles for anion analyses, and filtered water acidified with nitric acid was placed in polyethylene bottles for cation analyses. Water for mercury analysis was placed in flint glass bottles to which 10 mL of nitric acid and potassium dichromate was added. Samples for nitrogen and phosphorous analyses were placed in opaque, brown polyethylene bottles and chilled to 4°C. This procedure was done to inhibit biologic activity. Laboratory methods used for analyses are described by Fishman and Friedman (1989).

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FIGURES 3–52

AND

TABLES 1–59

Tabla 1. Descriptions of data-collection sites, Long Valley Caldera, Mono County, California

[Station identifier: Short alphanumeric code used as reference in figures and tables. USGS station number: Unique numeric code used in U.S. Geological Survey databases. Data types: The types of data shown in this report are denoted by codes (AW—April 1 water equivalence of snowpack, F—miscellaneous discharge measurements, FD—daily discharge, L—miscellaneous ground-water levels, LD—daily ground-water levels computed from values recorded at least hourly, PD—daily precipitation, PM—monthly precipitation (daily values available from U.S. Forest Service), Q—chemical or isotopic analyses, SD—daily gage height, T—miscellaneous temperatures, TD—daily water temperatures, TP—temperature profiles in a well, WD—daily water equivalence of snowpack). Equipment types: The types of equipment used at recording sites to collect data are given by codes (DR—digital recorder, GR—graphic chart recorder, PT—pressure transducer with data logger, SE—shaft encoder with data logger, SP—snowpillow with pressure transducer and data logger, T—thermister with data logger, TB—tipping bucket gage with data logger, W—weir or flume, WB—weighing bucket gage and data logger)]

Station identifier	USGS station No.	Latitude	Longitude	Altitude of land surface (feet above sea level)	Data type	Equipment type	Data on page(s) in this report
Well sites (See fig. 3 for site locations)							
2A	374315118441201	37°43'15"	118°44'12"	6,922	L		42
27R1	374420118515501	37°44'20"	118°51'55"	7,039.18	L		42
28P1	374420118532501	37°44'20"	118°53'25"	7,109.02	L		42
30N2	374420118493301	37°44'20"	118°49'33"	6,913.21	L		42
31P1	374332118491001	37°43'32"	118°49'10"	6,914.01	L		43
31P2	374332118491002	37°43'32"	118°49'10"	6,915.7	L		43
35N1	374327118445901	37°43'27"	118°44'59"	6,914	L		43
36P1	374335118434101	37°43'35"	118°43'41"	6,995	L		43
AP	373737118501701	37°37'37"	118°50'17"	7,093	L		44
CD-2	373847118545802	37°38'47"	118°54'58"	7,316	L		44
CH-1	374045118491001	37°40'45"	118°49'10"	6,969.93	L		44
CH-10	373932118491501	37°39'32"	118°49'15"	7,074.88	L		44
CH-10A	373930118491601	37°39'30"	118°49'16"	7,078.80	L		45
CH-10B	373930118491602	37°39'30"	118°49'16"	7,078.99	L,LD,TP	PT	32–39,45,58
CH-11A	373846119023101	37°38'46"	119°02'31"	9,090	Q		144–146
CH-3	373929118455405	37°39'29"	118°45'54"	6,870	L		45
CH-5	373759118474101	37°37'59"	118°47'41"	6,918	L		46
CH-6	374040118522501	37°40'40"	118°52'25"	7,248.23	L		46
CH-7	374000118483102	37°40'00"	118°48'31"	6,956.89	L,TP		46,58
CHURCH	373707118491701	37°37'07"	118°49'17"	7,035	L		46
CM-2	373906118522301	37°39'06"	118°52'23"	7,077	L,TP		47,59
CR	373816118532001	37°38'16"	118°53'20"	7,161.76	L		47
CT	374511118585801	37°45'11"	118°58'58"	7,520	L		47
CW-1	373850118513601	37°38'50"	118°51'36"	7,084.99	L,TP		47,59
CW-3	373849118513001	37°38'49"	118°51'30"	7,062.20	L,LD	SE	22–29,48
ESN	373818118515001	37°38'18"	118°51'50"	7,085	L,LD	SE	30–31,48
ESO	373818118514502	37°38'18"	118°51'45"	7,090	L		48
HSL-1	373650119011301	37°36'50"	119°01'13"	9,040	Q		144–146

Table 1. Descriptions of data-collection sites, Long Valley Caldera, Mono County, California—Continued

Station identifier	USGS station No.	Latitude	Longitude	Altitude of land surface (feet above sea level)	Data type	Equipment type	Data on page(s) in this report
LAV-1	374051118523301	37°40'51"	118°52'33"	7,200	L		49
LB-1	373634119004801	37°36'34"	119°00'48"	8,970	Q		144–146
LKT	374300118554401	37°43'00"	118°55'44"	7,350	L,LD,PD,TP	PT,SE	15–21,49,60
LV-2	373729118532802	37°37'29"	118°53'28"	7,167.39	L		49
LV-15	373913118551401	37°39'13"	118°55'14"	7,340	L		50
LV-18	373918118481901	37°39'18"	118°48'19"	6,966.00	L		50
LV-19	373754118501701	37°37'54"	118°50'17"	7,090.40	L		50
LV-25	374233118482701	37°42'33"	118°48'27"	6,873.81	L		51
LV-30	374109118484101	37°41'09"	118°48'41"	6,895.62	L		51
LV-44	373917118551402	37°39'17"	118°55'14"	7,340	L		51
LV-45	373914118472201	37°39'14"	118°47'22"	6,985.38	L		51
MMSA-1	373904119021501	37°39'04"	119°02'15"	8,890	Q		144–146
MMSA-2A	373901119012901	37°39'01"	119°01'29"	8,790	Q		144–146
MW-1	373816118523901	37°38'16"	118°52'39"	7,046.43	L		52
MW-2	373841118512902	37°38'41"	118°51'29"	7,057.08	L		52
MW-4	373907118503801	37°39'07"	118°50'38"	7,081.26	L		52
MW-5	373841118512901	37°38'41"	118°51'29"	7,054.12	L		53
MWD 5	373757118591801	37°37'57"	118°59'18"	7,985.28	L		53
MWD M-10	373719118585301	37°37'19"	118°58'53"	7,939.63	L		53
MWD M-11	373705118585601	37°37'05"	118°58'56"	7,968.56	L		53
MWD M-12	373714118585501	37°37'14"	118°58'55"	7,952.92	L		54
MWD M-14	373739118582101	37°37'39"	118°58'21"	7,877.79	L		14,54
PD	373732118490001	37°37'32"	118°49'00"	7,014	L		54
PLV-2	374249118584501	37°42'49"	118°58'45"	7,734	L		55
RDO-8	373924118571201	37°39'24"	118°57'14"	7,788.4	L,TP		55,60
SC-1	373745118554001	37°37'45"	118°55'40"	7,469.84	L		55
SC-2	373745118554002	37°37'45"	118°55'40"	7,470.65	L		14,56
SNARL	373654118495401	37°36'54"	118°49'54"	7,095	L		56
SQ	373742118515703	37°37'42"	118°51'57"	7,102.22	L		56
SS-2	373818118533202	37°38'18"	118°53'32"	7,179.13	L		57
Spring sites (See fig. 20 for site locations)							
FHAB-WEIR	373822118514401	37°38'22"	118°51'44"	7,050	FD,TD,Q	SE,T	65–77,100,144–146,150–151
FHCD-Q	373818118513301	37°38'18"	118°51'33"	7,050	FD,Q	SE,W	78–81,100,144–146,151–153
FHCD-T	373817118514101	37°38'17"	118°51'41"	7,053	TD	T	82–87,100

Table 1. Descriptions of data-collection sites, Long Valley Caldera, Mono County, California—Continued

Station identifier	USGS station No.	Latitude	Longitude	Altitude of land surface (feet above sea level)	Data type	Equipment type	Data on page(s) in this report
FH23-Q	373829118505801	37°38'29"	118°50'56"	7,050	FD	GR,SE,W	88–93,100
FH23-T	373829118505801	37°38'29"	118°50'58"	7,065	TD,Q	T	94–99,100,147–149,153
HBP	373850118513501	37°38'50"	118°51'35"	7,070	SD	PT	101–107
HC-4	373941118494301	37°39'41"	118°49'37"	6,960	Q		153
HC-6L	373915118493701	37°39'15"	118°49'37"	6,960	Q		153–154
LHC-SP	374125118502501	37°41'25"	118°50'25"	7,035	FD	GR,W	62–64
LS	373701118533701	37°37'01"	118°53'37"	7,200	Q		147–149
MCS	373708119040601	37°37'08"	119°04'06"	7,940	Q		147–149
Stream sites (See fig. 39 for site locations)							
HCA	10265147	37°39'27"	118°49'54"	7,035	F,Q		122,154–155
HCF	10265150	37°40'08"	118°49'00"	6,950	FD,Q	GR,SE,W	109–115,155
LHC-SW	10265160	37°41'25"	118°50'31"	6,990	FD	DR,W	116–121
MC395	10265130	37°38'16"	118°54'10"	7,200	F,Q		122,147–149
MCAF	10265143	37°38'37"	118°51'11"	7,052	F,Q		122,147–149
MT	374525118532701	37°45'25"	118°53'27"	7,040	Q ¹		147–149
Fumarole site (See for fig. 44 for site location)							
MMF	373819119014201	37°38'19"	119°01'42"	9,900	TD	T	124–128
Precipitation sites (See fig. 47 for site locations)							
HSL	373646119011401	37°36'46"	119°01'14"	9,040	WD	SP	138–139
LKT-P	374300118554401	37°43'00"	118°55'44"	7,350	PD, WD	WB,SP	130,131–133, 140–141
MRS	none	37°38'52"	118°57'35"	7,800	PM	WB	130,134
OMM	373714118585502	37°37'14"	118°58'55"	7,953.0	PD	TB	130,135–137
MP	none	37°36'42"	119°01'52"	9,500	AW	SP	142

¹Flow data available from Los Angeles Department of Water and Power; location shown in figure 52.

Figure 4. Instantaneous water levels, well MWD M-14, 1988–96, Long Valley Caldera, Mono County, California.

Figure 5. Instantaneous water levels, well SC-2, 1983–96, Long Valley Caldera, Mono County, California.

Figure 6. (A) Daily mean water levels, Lookout Mountain well (LKT), 1987–96, Long Valley Caldera, Mono County, California.

Figure 6. (B) Daily mean water levels, Lookout Mountain well (LKT), 1994–96, Long Valley Caldera, Mono County, California.

Figure 7. (A) Daily mean and instantaneous water levels, Lookout Mountain well (LKT), 1994, Long Valley Caldera, Mono County, California.

Table 2. Daily mean water levels, Lookout Mountain well (LKT), 1994, Long Valley Caldera, California

[Values are in feet below land surface. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	72.66	73.14	73.13	73.07	73.13	73.17	73.27	73.40	73.48	73.69	73.68	73.79
2	72.74	73.04	73.12	73.07	73.12	73.18	73.24	73.41	73.52	73.69	73.59	73.75
3	72.75	73.00	73.09	73.03	73.12	73.18	73.23	73.42	73.57	73.59	73.70	73.74
4	72.72	73.00	73.07	73.03	73.10	73.18	73.24	73.44	73.63	73.58	73.76	73.76
5	72.68	73.05	72.96	73.03	73.05	73.17	73.28	73.47	73.67	73.62	73.75	73.78
6	72.76	72.98	72.96	73.01	73.04	73.13	73.35	73.47	73.65	73.72	73.75	73.83
7	72.82	72.82	73.02	72.99	73.08	73.18	73.33	73.43	73.63	73.80	73.75	73.91
8	72.75	72.89	73.05	72.95	73.12	73.24	73.33	73.41	73.61	73.84	73.80	73.98
9	72.72	73.09	73.05	72.95	73.15	73.26	73.35	73.47	73.60	73.78	73.73	73.96
10	72.80	72.99	73.01	73.06	73.18	73.26	73.36	73.50	73.57	73.72	73.64	73.88
11	72.82	73.05	73.03	73.11	73.17	73.24	73.35	73.47	73.55	73.70	73.72	73.83
12	72.90	73.15	73.16	73.10	73.13	73.22	73.34	73.47	73.58	73.65	73.74	73.79
13	72.86	73.11	73.18	73.05	73.12	73.20	73.33	73.51	73.67	73.63	73.90	73.83
14	72.80	73.03	73.06	73.03	73.11	73.16	73.32	73.52	73.77	73.58	73.93	73.88
15	72.76	73.04	73.01	73.10	73.06	73.17	73.34	73.48	73.79	73.61	73.81	73.93
16	72.79	72.98	72.96	73.13	73.04	73.21	73.37	73.45	73.77	73.75	73.75	73.99
17	72.86	72.78	72.96	73.12	73.04	73.24	73.39	73.46	73.77	73.78	73.72	73.97
18	72.93	72.80	72.93	73.08	73.07	73.25	73.39	73.47	73.79	73.78	73.78	73.92
19	72.94	72.88	72.92	73.06	73.12	73.26	73.38	73.46	73.78	73.79	73.92	73.98
20	73.01	72.91	73.03	73.05	73.14	73.29	73.38	73.44	73.77	73.82	73.88	73.97
21	73.06	72.99	73.05	73.01	73.14	73.31	73.37	73.42	73.78	73.83	73.87	73.96
22	73.02	73.05	72.91	72.99	73.16	73.30	73.37	73.45	73.78	73.79	73.97	73.93
23	72.93	73.06	72.94	72.91	73.21	73.31	73.38	73.49	73.74	73.79	73.93	73.85
24	72.91	73.03	72.94	72.93	73.21	73.30	73.39	73.52	73.73	73.79	73.85	73.81
25	72.93	73.00	72.96	72.95	73.16	73.28	73.40	73.52	73.77	73.78	73.71	73.91
26	73.02	72.98	73.10	73.01	73.13	73.29	73.40	73.51	73.79	73.80	73.71	74.00
27	73.03	73.01	73.16	73.05	73.14	73.31	73.39	73.49	73.77	73.81	73.82	73.96
28	73.09	73.11	73.14	73.11	73.18	73.32	73.37	73.51	73.76	73.75	73.87	73.87
29	73.17	—	73.12	73.15	73.21	—	73.36	73.50	73.68	73.72	73.92	73.90
30	73.16	—	73.11	73.15	73.18	—	73.36	73.47	73.69	73.79	73.89	73.94
31	73.14	—	73.07	—	73.14	—	73.38	73.46	—	73.82	—	73.96
Mean	72.89	73.00	73.04	73.04	73.13	73.24	73.35	73.47	73.69	73.74	73.79	73.89
Max	73.17	73.15	73.18	73.15	73.21	73.32	73.40	73.52	73.79	73.84	73.97	74.00
Min	72.66	72.78	72.91	72.91	73.04	73.13	73.23	73.40	73.48	73.58	73.59	73.74

Figure 7. (B) Daily mean and instantaneous water levels, Lookout Mountain well (LKT), 1995, Long Valley Caldera, Mono County, California.

Table 3. Daily mean water levels, Lookout Mountain well (LKT), 1995, Long Valley Caldera, Mono County, California

[Values are in feet below land surface. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	73.97	74.11	74.04	74.21	74.21	73.68	73.52	73.50	73.42	73.32	73.17	73.11
2	73.94	74.12	74.04	74.26	74.20	73.64	73.53	73.49	73.41	73.34	73.22	73.15
3	73.91	74.14	74.05	74.30	74.21	73.68	73.51	73.46	73.40	73.27	73.24	73.19
4	73.80	74.11	74.09	74.26	74.14	73.69	73.53	73.45	73.40	73.28	73.23	73.19
5	73.80	74.08	74.07	74.20	74.10	73.63	73.55	73.42	73.43	73.28	73.20	73.18
6	73.94	74.02	74.18	74.18	74.09	73.58	73.55	73.43	73.42	73.24	73.21	73.16
7	73.89	73.93	74.24	74.20	74.12	73.53	73.55	73.43	73.37	73.23	73.30	73.15
8	73.96	73.93	74.22	74.21	74.16	73.60	73.54	73.45	73.33	73.27	73.24	73.19
9	73.94	74.04	74.13	74.26	74.19	73.68	73.52	73.42	73.32	73.29	73.13	73.22
10	73.77	74.04	73.91	74.30	74.15	73.72	73.49	73.41	73.36	73.31	73.20	73.21
11	73.82	73.95	73.85	74.29	74.06	73.69	73.46	73.44	73.40	73.26	73.27	73.12
12	73.90	73.91	74.07	74.27	73.96	73.67	73.47	73.49	73.40	73.26	73.26	72.94
13	73.97	73.89	74.19	74.21	73.87	73.62	—	73.48	73.38	73.33	73.27	72.95
14	73.88	73.90	74.22	74.22	73.95	73.54	—	73.46	73.34	73.33	73.22	73.10
15	73.83	74.07	74.18	74.13	73.98	73.43	—	73.45	73.31	73.28	73.18	73.06
16	73.89	74.17	74.16	74.12	73.97	73.45	—	73.44	73.31	73.23	73.20	73.06
17	73.99	74.21	74.21	74.23	74.00	73.57	—	73.45	73.32	73.26	73.24	73.09
18	74.06	74.26	74.23	74.17	74.01	73.59	—	73.49	73.33	73.25	73.20	73.07
19	74.03	74.26	74.20	74.21	73.98	73.57	73.50	73.50	73.33	73.31	73.17	73.11
20	73.96	74.19	74.06	74.22	73.93	73.56	73.51	73.51	73.31	73.29	73.21	73.12
21	73.98	74.12	73.94	74.34	73.87	73.59	73.50	73.53	73.31	73.17	73.18	73.15
22	73.99	74.13	74.00	74.40	73.82	73.63	73.50	73.51	73.29	73.19	73.21	73.13
23	73.93	74.16	73.96	74.38	73.81	73.65	73.51	73.46	73.29	73.21	73.25	73.14
24	73.89	74.14	74.11	74.31	73.77	73.61	73.51	73.43	73.29	73.23	73.25	73.21
25	73.87	74.09	74.20	74.27	73.79	73.57	73.48	73.43	73.24	73.24	73.16	73.25
26	73.99	74.10	74.26	74.25	73.82	73.55	73.50	73.44	73.22	73.25	73.13	73.25
27	74.07	74.11	74.26	74.21	73.81	—	73.53	73.44	73.26	73.21	73.18	73.21
28	74.13	74.09	74.22	74.24	73.81	—	73.53	73.44	73.26	73.17	73.22	73.19
29	74.14	—	74.22	74.23	73.81	—	73.50	73.45	73.31	73.17	73.23	73.20
30	74.13	—	74.25	74.28	73.80	—	73.48	73.44	73.33	73.18	73.17	73.21
31	74.12	—	74.25	—	73.76	—	73.50	73.43	—	73.14	—	73.22
Mean	73.95	74.08	74.13	74.25	73.97	73.60	73.51	73.46	73.34	73.25	73.21	73.15
Max	74.14	74.26	74.26	74.40	74.21	73.72	73.55	73.53	73.43	73.34	73.30	73.25
Min	73.77	73.89	73.85	74.12	73.76	73.43	73.46	73.41	73.22	73.14	73.13	72.94

Figure 7. (C) Daily mean and instantaneous water levels, Lookout Mountain well (LKT), 1996, Long Valley Caldera, Mono County, California.

Table 4. Daily mean water levels, Lookout Mountain well (LKT), 1996, Long Valley Caldera, Mono County, California

[Values are in feet below land surface. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	73.25	73.11	73.40	73.33	73.30	73.06	72.78	72.36	72.06	71.91	71.92	71.73
2	73.24	73.20	73.33	73.39	73.25	73.07	72.73	72.33	72.06	71.97	71.86	71.74
3	73.15	73.29	73.23	73.47	73.23	73.03	72.70	72.29	72.06	71.98	71.81	71.73
4	73.12	73.31	73.13	73.58	73.25	72.96	72.69	72.30	72.03	71.95	71.80	71.77
5	73.19	73.28	73.15	73.61	73.26	72.93	72.69	72.30	72.02	71.96	71.81	71.64
6	73.30	73.28	73.34	73.56	73.22	72.93	72.70	72.33	72.06	72.00	71.88	71.63
7	73.28	73.26	73.37	73.51	73.19	72.91	72.66	72.36	72.08	71.99	71.95	71.75
8	73.22	73.20	73.35	73.51	73.18	72.90	72.62	72.36	72.08	71.96	71.95	71.71
9	73.20	73.16	73.31	73.48	73.20	72.89	72.64	72.35	72.06	71.94	71.89	71.57
10	73.30	73.20	73.29	73.46	73.26	72.87	72.68	72.31	72.07	71.92	71.82	71.56
11	73.32	73.27	73.25	73.50	73.25	72.81	72.68	72.30	72.03	71.88	71.83	71.61
12	73.25	73.27	73.10	73.47	73.18	72.81	72.63	72.31	71.96	71.87	71.86	71.67
13	73.20	73.26	73.10	73.50	73.13	72.83	72.60	72.31	71.92	71.89	71.82	71.73
14	73.21	73.25	73.27	73.54	73.09	72.83	72.57	72.29	71.95	71.91	71.67	71.83
15	73.19	73.23	73.34	73.47	73.04	72.81	72.54	72.26	71.95	71.86	71.60	71.83
16	73.02	73.22	73.34	73.34	73.00	72.81	72.51	72.23	71.98	71.83	71.69	71.77
17	73.07	73.22	73.33	73.34	73.03	72.84	72.52	72.18	72.02	71.88	71.70	71.74
18	73.11	73.17	73.31	73.41	73.00	72.82	72.54	72.15	72.06	71.81	71.75	71.73
19	73.12	73.02	73.30	73.46	73.02	72.80	72.55	72.17	72.05	71.76	71.71	71.72
20	73.19	73.00	73.28	73.40	73.03	72.77	72.55	72.18	72.03	71.85	71.70	71.61
21	73.09	72.99	73.23	73.40	73.02	72.74	72.55	72.19	71.99	71.97	71.65	71.41
22	73.14	73.09	73.14	73.47	73.00	72.78	72.55	72.19	71.96	71.92	71.60	71.39
23	73.23	73.18	73.18	73.49	72.99	72.78	72.53	72.20	71.97	71.83	71.76	71.68
24	73.17	73.05	73.23	73.41	72.97	72.75	72.49	72.19	71.98	71.78	71.82	71.74
25	73.12	73.03	73.26	73.44	72.98	72.70	72.46	72.13	71.97	71.73	71.79	71.64
26	73.20	73.11	73.30	73.41	73.00	72.68	72.45	72.07	71.96	71.85	71.82	71.55
27	73.12	73.17	73.25	73.35	72.96	72.75	72.45	72.09	72.02	71.94	71.83	71.55
28	73.16	73.25	73.17	73.39	72.98	72.82	72.45	72.16	72.02	71.83	71.67	71.65
29	73.18	73.34	73.28	73.39	72.95	72.83	72.46	72.18	71.96	71.74	71.68	71.66
30	73.15	—	73.35	73.34	72.97	72.81	72.41	72.15	71.89	71.67	71.77	71.62
31	73.09	—	73.36	—	73.01	—	72.38	72.10	—	71.80	—	71.66
Mean	73.18	73.19	73.27	73.45	73.09	72.84	72.57	72.24	72.01	71.88	71.78	71.67
Max	73.32	73.34	73.40	73.61	73.30	73.07	72.78	72.36	72.08	72.00	71.95	71.83
Min	73.02	72.99	73.10	73.33	72.95	72.68	72.38	72.07	71.89	71.67	71.60	71.39

Figure 8. (A) Instantaneous water levels, well CW-3, 1988–91, and daily mean water levels, 1992–96, Long Valley Caldera, Mono County, California.

Figure 8. (B) Daily mean water levels, well CW-3, 1994–96, Long Valley Caldera, Mono County, California.

Figure 9. (A) Daily mean and instantaneous water levels, well CW-3, 1994, Long Valley Caldera, Mono County, California.

Table 5. Daily mean water levels, well CW-3, 1994, Long Valley Caldera, California

[Values are in feet below land surface. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	10.46	10.33	—	10.59	10.54	10.56	10.63	10.64	—	—	10.61	10.99
2	10.55	10.17	—	10.58	10.54	10.51	10.57	10.60	—	—	10.49	—
3	10.45	10.13	—	10.52	10.55	10.50	10.56	10.59	—	—	10.68	—
4	10.33	10.15	—	10.53	10.51	10.50	10.57	10.61	—	—	10.76	—
5	10.26	10.23	—	10.53	10.45	10.42	10.63	10.63	—	—	10.73	10.96
6	10.42	10.12	—	10.49	10.45	10.39	10.73	10.62	—	—	10.74	10.99
7	10.43	9.92	—	10.47	10.53	10.48	10.70	10.53	—	—	10.76	11.10
8	10.29	10.10	—	10.40	10.56	10.58	10.70	10.51	—	—	10.84	11.21
9	10.27	10.39	—	10.43	10.62	10.58	10.72	10.58	—	—	10.72	11.17
10	10.39	10.22	—	10.60	10.65	10.56	10.73	10.61	—	—	10.62	11.06
11	10.42	10.39	10.54	10.68	10.60	10.52	10.73	10.57	—	—	10.73	—
12	10.53	10.56	10.76	10.64	10.53	10.48	10.70	10.56	—	—	10.75	—
13	10.51	10.49	10.74	10.54	10.53	10.44	10.69	10.62	—	—	11.00	—
14	10.42	10.41	10.59	10.55	10.48	10.38	10.68	10.64	—	—	11.05	11.03
15	10.37	10.42	10.50	10.67	10.38	10.41	10.70	10.60	—	10.48	—	11.10
16	10.45	10.31	10.43	10.68	10.33	10.50	10.74	10.57	10.61	10.70	—	11.18
17	10.51	10.05	10.44	10.66	10.35	10.53	10.76	10.60	10.61	10.74	—	11.14
18	10.41	10.11	10.37	10.60	10.40	10.53	10.72	10.62	10.64	10.68	—	11.07
19	10.33	10.22	10.35	10.58	10.46	10.57	10.69	10.61	—	10.63	11.10	11.16
20	10.38	10.27	10.53	10.54	10.47	10.60	10.69	10.58	—	10.64	11.04	11.14
21	10.38	10.36	10.49	10.45	10.44	10.61	10.67	10.55	—	10.65	11.04	11.13
22	10.25	10.45	10.31	10.41	10.49	10.62	10.66	10.59	—	10.61	11.20	11.08
23	10.08	10.46	10.36	10.28	10.56	10.63	10.67	10.64	—	10.62	11.14	10.94
24	10.02	—	10.33	10.31	10.53	10.59	10.68	10.68	—	10.64	—	10.86
25	10.02	—	10.36	10.30	10.47	10.57	10.70	10.68	—	10.64	—	11.03
26	10.12	—	10.60	10.39	10.43	10.62	10.69	10.65	—	10.71	—	11.13
27	10.12	—	10.68	10.43	10.46	10.68	10.66	10.64	—	10.75	11.05	11.05
28	10.21	—	10.66	10.55	10.55	10.69	10.63	10.67	—	10.66	11.12	10.89
29	10.34	—	10.65	10.60	10.54	10.68	10.61	—	—	10.65	11.20	10.95
30	10.32	—	10.64	10.56	10.49	10.65	10.60	—	—	10.77	11.14	10.98
31	10.33	—	10.59	—	10.51	—	10.63	—	—	10.83	—	11.00
Mean	10.33	10.27	10.52	10.52	10.50	10.55	10.67	10.61	10.62	10.67	10.89	11.05
Max	10.55	10.56	10.76	10.68	10.65	10.69	10.76	10.68	10.64	10.83	11.20	11.21
Min	10.02	9.92	10.31	10.28	10.33	10.38	10.56	10.51	10.61	10.48	10.49	10.86

Figure 9. (B) Daily mean and instantaneous water levels, well CW-3, 1995, Long Valley Caldera, Mono County, California.

Table 6. Daily mean water levels, well CW-3, 1995, Long Valley Caldera, California

[Values are in feet below land surface. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	11.01	10.98	11.09	10.61	10.55	10.54	10.07	9.66	9.45	9.51	9.56	9.76
2	10.94	11.00	11.12	10.71	10.55	10.48	10.07	9.63	9.46	9.56	9.65	9.83
3	10.87	11.03	11.14	10.76	10.57	10.53	10.02	9.59	9.44	9.47	9.68	9.92
4	10.68	10.99	11.20	10.70	10.46	10.54	10.03	9.56	9.44	9.52	9.68	9.97
5	10.69	10.95	11.11	10.58	10.41	10.43	10.04	9.51	9.49	9.55	9.65	9.95
6	10.86	10.86	11.23	10.54	10.44	10.36	10.02	9.51	9.48	9.48	9.70	9.92
7	10.79	10.72	11.28	10.55	10.49	10.28	10.02	9.50	9.42	9.48	9.85	9.90
8	10.86	10.73	11.20	10.55	10.59	10.37	9.99	9.52	9.38	9.57	9.78	9.96
9	10.80	10.89	11.08	10.64	10.66	10.49	9.93	9.45	9.38	9.60	9.63	10.01
10	10.62	10.88	10.84	10.67	10.63	10.53	9.86	9.42	9.44	9.65	9.76	9.98
11	10.71	10.74	10.76	10.65	10.52	10.50	9.80	9.46	9.53	9.57	9.86	9.85
12	10.77	10.67	11.01	10.61	10.43	10.47	9.80	9.52	9.55	9.58	9.83	9.68
13	10.83	10.64	11.12	10.51	10.34	10.40	9.88	9.49	9.53	9.69	9.86	9.74
14	10.68	10.70	11.10	10.53	10.49	10.27	9.88	9.46	9.49	9.71	9.79	9.94
15	10.59	10.96	11.00	10.37	10.57	10.12	9.89	9.44	9.45	9.64	9.76	9.82
16	10.64	11.11	10.91	10.36	10.56	10.16	9.86	9.42	9.47	9.60	9.80	9.81
17	10.76	11.19	10.95	10.49	10.64	10.32	9.85	9.42	9.50	9.64	9.86	9.82
18	10.85	11.29	10.94	10.39	10.69	10.32	9.78	9.50	9.51	9.64	9.81	9.78
19	10.79	11.32	10.85	10.44	10.68	10.28	9.79	9.50	9.48	9.75	9.78	9.81
20	10.66	11.24	10.61	10.44	10.64	10.25	9.79	9.53	9.47	9.73	9.85	9.80
21	10.69	11.16	10.46	10.64	10.58	10.29	9.76	9.56	9.46	9.57	9.80	9.83
22	10.69	11.19	10.50	10.74	10.55	10.35	9.76	9.55	9.43	9.64	9.84	9.81
23	10.61	11.24	10.42	10.72	10.57	10.39	9.77	9.48	9.42	9.67	9.91	9.83
24	10.56	11.21	10.59	10.64	10.52	10.33	9.74	9.44	9.43	9.67	9.92	9.92
25	10.54	11.15	10.69	10.60	10.58	10.26	9.69	9.45	9.35	9.67	9.80	9.99
26	10.71	11.18	10.75	10.57	10.63	10.23	9.70	9.45	9.32	9.69	9.76	9.99
27	10.83	11.20	10.75	10.51	10.64	10.22	9.75	9.46	9.38	9.63	9.84	9.93
28	10.93	11.17	10.67	10.55	10.65	10.18	9.75	9.47	9.37	9.57	9.91	9.91
29	10.96	—	10.67	10.54	10.66	10.15	9.69	9.49	9.47	9.56	9.93	9.92
30	10.97	—	10.69	10.64	10.68	10.10	9.65	9.48	9.50	9.58	9.85	9.93
31	10.98	—	10.70	—	10.64	—	9.67	9.47	—	9.51	—	9.96
Mean	10.77	11.01	10.88	10.57	10.57	10.34	9.85	9.50	9.45	9.60	9.79	9.88
Max	11.01	11.32	11.28	10.76	10.69	10.54	10.07	9.66	9.55	9.75	9.93	10.01
Min	10.54	10.64	10.42	10.36	10.34	10.10	9.65	9.42	9.32	9.47	9.56	9.68

Table 7. Daily mean water levels, well CW-3, 1996, Long Valley Caldera, California

[Values are in feet below land surface. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	9.98	9.46	9.67	9.26	8.82	8.44	7.82	7.58	7.72	8.07	8.56	8.43
2	9.94	9.58	9.58	9.28	8.76	8.48	7.75	7.55	7.73	8.17	8.47	8.45
3	9.77	9.72	9.44	9.31	8.71	8.42	7.72	7.50	7.74	8.19	8.41	8.46
4	9.74	9.76	9.27	9.43	8.75	8.32	7.71	7.54	7.70	8.17	8.40	8.51
5	9.83	9.77	9.22	9.42	8.76	8.28	7.72	7.53	7.71	8.21	8.43	8.34
6	9.98	9.79	9.62	9.31	8.69	8.26	7.73	7.60	7.78	8.29	8.55	8.36
7	9.95	9.77	9.66	9.19	8.64	8.22	7.67	7.67	7.83	8.30	8.66	8.56
8	9.86	9.68	9.62	9.16	8.63	8.19	7.61	7.69	7.86	8.27	8.68	8.48
9	9.82	9.61	9.58	9.08	8.67	8.16	7.64	7.70	7.88	8.27	8.60	8.29
10	9.97	9.67	9.54	9.01	8.76	8.10	7.70	7.68	7.91	8.25	8.53	8.35
11	9.99	9.75	9.48	9.05	8.77	8.01	7.71	7.68	7.88	8.19	8.55	8.46
12	9.87	9.74	9.27	8.96	8.67	7.98	7.66	7.71	7.79	8.19	8.61	8.53
13	9.77	9.73	9.27	9.01	8.59	7.99	7.61	7.73	7.75	8.22	8.55	8.60
14	9.77	9.73	9.51	9.07	8.53	7.97	7.59	7.72	7.81	8.27	8.32	8.76
15	9.71	9.70	9.58	8.95	8.46	7.92	7.56	7.72	7.83	8.20	8.22	8.77
16	9.45	9.68	9.59	8.78	8.41	7.90	7.51	7.71	7.89	8.16	8.36	8.70
17	9.54	9.65	9.56	8.80	8.45	7.92	7.52	7.65	7.97	8.25	8.41	8.66
18	9.56	9.55	9.55	8.90	8.40	7.87	7.57	7.62	8.06	8.14	8.49	8.67
19	9.58	9.37	9.53	8.96	8.40	7.83	7.60	7.66	8.07	8.08	8.41	8.66
20	9.66	9.38	9.50	8.86	8.40	7.77	7.60	7.69	8.07	8.24	8.40	8.49
21	9.50	9.30	9.41	8.86	8.36	7.71	7.62	7.71	8.04	8.42	8.31	8.24
22	9.56	9.43	9.24	8.99	8.34	7.77	7.66	7.73	8.03	8.35	8.26	8.22
23	9.68	9.50	9.30	9.02	8.30	7.75	7.65	7.77	8.06	8.25	8.49	8.63
24	9.58	9.24	9.36	8.91	8.27	7.69	7.61	7.77	8.08	8.19	8.55	8.66
25	9.48	9.19	9.38	8.98	8.28	7.63	7.58	7.70	8.08	8.14	8.50	8.47
26	9.59	9.27	9.45	8.94	8.31	7.60	7.59	7.63	8.09	8.34	8.55	8.31
27	9.47	9.34	9.35	8.87	8.25	7.69	7.60	7.68	8.19	8.47	8.57	8.33
28	9.55	9.44	9.24	8.93	8.28	7.82	7.63	7.80	8.22	8.32	8.32	8.47
29	9.56	9.58	9.41	8.95	8.23	7.85	7.67	7.84	8.14	8.23	8.38	8.49
30	9.52	—	9.48	8.88	8.27	7.83	7.62	7.81	8.06	8.19	8.50	8.45
31	9.43	—	9.43	—	8.35	—	7.59	7.75	—	8.40	—	8.51
Mean	9.70	9.56	9.45	9.04	8.50	7.98	7.64	7.68	7.93	8.24	8.47	8.49
Max	9.99	9.79	9.67	9.43	8.82	8.48	7.82	7.84	8.22	8.47	8.68	8.77
Min	9.43	9.19	9.22	8.78	8.23	7.60	7.51	7.50	7.70	8.07	8.22	8.22

Figure 10. Daily mean and instantaneous water levels, well ESN, 1996, Long Valley Caldera, Mono County, California.

Table 8. Daily mean water levels, well ESN, 1996, Long Valley Caldera, California

[Values are in feet below land surface. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	—	—	—	—	8.38	7.23	6.42	6.16	6.66	7.36	7.65	7.79
2	—	—	—	—	8.30	7.29	6.42	6.15	6.69	7.36	7.68	7.79
3	—	—	—	—	8.19	7.31	6.42	6.15	6.72	7.37	7.69	7.80
4	—	—	—	—	8.08	7.32	6.41	6.16	6.78	7.37	7.70	7.82
5	—	—	—	—	7.97	7.32	6.41	6.17	6.83	7.37	7.70	7.84
6	—	—	—	—	7.88	7.31	6.41	6.20	6.87	7.38	7.71	7.86
7	—	—	—	—	7.80	7.23	6.41	6.21	6.90	7.40	7.71	7.87
8	—	—	—	—	7.72	7.19	6.41	6.23	6.93	7.44	7.71	7.89
9	—	—	—	—	7.63	7.10	6.41	6.24	6.98	7.45	7.71	7.91
10	—	—	—	—	7.58	7.01	6.41	6.25	7.03	7.45	7.71	7.91
11	—	—	—	—	7.55	6.95	6.41	6.26	7.07	7.46	7.72	7.93
12	—	—	—	—	7.52	6.87	6.41	6.27	7.09	7.47	7.73	7.94
13	—	—	—	—	7.51	6.81	6.41	6.28	7.09	7.48	7.73	7.94
14	—	—	—	—	7.51	6.78	6.41	6.29	7.11	7.49	7.73	7.95
15	—	—	—	—	7.50	6.73	6.40	6.31	7.14	7.51	7.75	7.97
16	—	—	—	—	7.47	6.69	6.38	6.32	7.18	7.53	7.77	7.99
17	—	—	—	—	7.43	6.65	6.38	6.34	7.23	7.53	7.77	8.00
18	—	—	—	—	7.33	6.61	6.36	6.37	7.25	7.54	7.77	8.04
19	—	—	—	—	7.27	6.61	6.33	6.39	7.28	7.55	7.78	8.08
20	—	—	—	—	7.25	6.59	6.31	6.41	7.30	7.55	7.78	8.08
21	—	—	—	—	7.23	6.57	6.30	6.43	7.30	7.55	7.79	8.09
22	—	—	—	—	7.22	6.54	6.28	6.45	7.30	7.56	7.78	8.09
23	—	—	—	8.43	7.21	6.52	6.26	6.46	7.32	7.57	7.78	8.09
24	—	—	—	8.44	7.21	6.51	6.24	6.47	7.33	7.58	7.78	8.09
25	—	—	—	8.45	7.21	6.50	6.24	6.48	7.33	7.60	7.78	8.10
26	—	—	—	8.45	7.21	6.47	6.22	6.49	7.33	7.60	7.78	8.11
27	—	—	—	8.43	7.21	6.45	6.20	6.51	7.34	7.61	7.78	8.12
28	—	—	—	8.43	7.21	6.44	6.18	6.53	7.36	7.62	7.78	8.13
29	—	—	—	8.43	7.21	6.44	6.18	6.57	7.36	7.63	7.78	8.15
30	—	—	—	8.42	7.21	6.42	6.17	6.61	7.36	7.63	7.78	8.16
31	—	—	—	—	7.21	—	6.16	6.63	—	7.63	—	8.16
Mean	—	—	—	8.43	7.52	6.82	6.33	6.35	7.12	7.50	7.74	7.99
Max	—	—	—	8.45	8.38	7.32	6.42	6.63	7.36	7.63	7.79	8.16
Min	—	—	—	8.42	7.21	6.42	6.16	6.15	6.66	7.36	7.65	7.79

Figure 11. (A) Daily mean water levels, well CH-10B, 1985-96, Long Valley Caldera, Mono County, California.

Figure 11. (B) Daily mean water levels, well CH-10B, 1994-96, Long Valley Caldera, Mono County, California.

Figure 12. (A) Daily mean and instantaneous water levels, well CH-10B, 1994, Long Valley Caldera, Mono County, California.

Table 9. Daily mean water levels, well CH-10B, 1994, Long Valley Caldera, California

[Values are in feet below land surface. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	74.61	74.30	74.32	74.39	74.64	74.55	74.58	74.68	74.62	74.58	74.54	74.53
2	74.63	74.22	74.32	74.42	74.63	74.52	74.55	74.66	74.61	74.57	74.50	74.50
3	74.58	74.18	74.30	74.42	74.62	74.52	74.54	74.66	74.63	74.53	74.57	74.50
4	74.51	74.18	74.29	74.44	74.60	74.51	74.53	74.67	74.65	74.55	74.59	74.50
5	74.47	74.21	74.23	74.46	74.59	74.48	74.54	74.68	74.66	74.57	74.57	74.49
6	74.55	74.15	74.27	74.46	74.62	74.48	74.58	74.68	74.65	74.62	74.57	74.51
7	74.56	74.06	74.29	74.47	74.66	74.52	74.56	74.64	74.63	74.67	74.57	74.56
8	74.49	74.14	74.33	74.46	74.66	—	74.55	74.65	74.61	74.69	74.59	74.61
9	74.46	74.26	74.35	74.50	74.65	—	74.56	74.68	74.60	74.66	74.52	74.60
10	74.51	74.16	74.32	74.56	74.65	—	74.56	74.70	74.58	74.62	74.50	74.55
11	74.50	74.25	74.38	74.58	74.63	—	74.56	74.68	74.57	74.61	74.52	74.52
12	74.53	74.33	74.46	74.58	74.60	—	74.55	74.68	74.60	74.57	74.52	74.49
13	74.47	74.29	74.46	74.56	74.60	—	74.54	74.70	74.63	74.56	74.62	74.52
14	74.39	74.22	74.38	74.57	74.58	—	74.53	74.70	74.67	74.52	74.64	74.53
15	74.35	74.23	74.36	74.62	74.55	—	74.54	74.68	74.67	74.55	74.56	74.56
16	74.37	74.17	74.31	74.64	74.56	—	74.55	74.65	74.64	74.63	74.52	74.59
17	74.38	74.07	74.32	74.64	74.59	—	74.57	74.66	74.64	74.64	74.49	74.58
18	74.35	74.12	74.28	74.63	74.59	—	74.56	74.66	74.65	74.63	74.55	74.56
19	74.32	74.17	74.29	74.64	74.61	—	74.55	74.65	74.63	74.63	74.62	74.62
20	74.34	74.18	74.36	74.64	74.60	—	74.55	74.63	74.62	74.65	74.59	74.62
21	74.36	74.24	74.34	74.61	74.56	—	74.56	74.62	74.62	74.66	74.58	74.63
22	74.30	74.26	74.29	74.63	74.56	—	74.58	74.64	74.62	74.64	74.66	74.61
23	74.22	74.27	74.31	74.60	74.58	—	74.62	74.65	74.59	74.64	74.63	74.56
24	74.21	74.23	74.29	74.63	74.56	—	74.64	74.66	74.58	74.63	74.57	74.52
25	74.20	74.21	74.30	74.63	74.53	74.56	74.66	74.66	74.60	74.62	74.49	74.59
26	74.22	74.21	74.37	74.65	74.51	74.58	74.66	74.65	74.60	74.64	74.52	74.63
27	74.22	74.23	74.38	74.66	74.52	74.60	74.66	74.64	74.59	74.65	74.57	74.59
28	74.27	74.29	74.38	74.69	74.55	74.61	74.65	74.65	74.59	74.60	74.59	74.53
29	74.31	—	74.37	74.70	74.56	74.60	74.66	74.63	74.55	74.58	74.62	74.55
30	74.28	—	74.35	74.66	74.54	74.59	74.66	74.62	74.56	74.62	74.59	74.55
31	74.29	—	74.37	—	74.56	—	74.67	74.61	—	74.64	—	74.56
Mean	74.40	74.21	74.33	74.57	74.59	74.55	74.58	74.66	74.62	74.61	74.57	74.56
Max	74.63	74.33	74.46	74.70	74.66	74.61	74.67	74.70	74.67	74.69	74.66	74.63
Min	74.20	74.06	74.23	74.39	74.51	74.48	74.53	74.61	74.55	74.52	74.49	74.49

Figure 12. (B) Daily mean and instantaneous water levels, well CH-10B, 1995, Long Valley Caldera, Mono County, California.

Table 10. Daily mean water levels, well CH-10B, 1995, Long Valley Caldera, California

[Values are in feet below land surface. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	74.57	74.58	74.45	74.16	73.88	73.85	73.56	73.30	73.13	73.25	73.35	73.52
2	74.54	74.59	74.44	74.19	73.93	73.82	73.55	73.29	73.14	73.27	73.39	73.57
3	74.52	74.61	74.44	74.21	73.96	73.83	73.52	73.26	73.14	73.23	73.40	73.61
4	74.47	74.59	74.45	74.17	73.93	73.83	73.52	73.24	73.14	73.25	73.40	73.62
5	74.50	74.58	74.42	74.14	73.92	73.78	73.52	73.21	73.17	73.26	73.38	73.62
6	74.57	74.53	74.48	74.14	73.94	73.75	73.51	73.21	73.16	73.23	73.41	73.62
7	74.54	74.47	74.50	74.14	73.97	73.71	73.51	73.19	73.14	73.24	73.51	73.63
8	74.57	74.46	74.47	74.12	74.01	73.76	73.49	73.19	73.12	73.27	73.50	73.67
9	74.54	74.52	74.43	74.14	74.04	73.80	73.47	73.15	73.12	73.30	73.44	73.70
10	74.48	74.50	74.36	74.13	74.03	73.82	73.43	73.13	73.15	73.31	73.51	73.69
11	74.52	74.44	74.34	74.11	73.97	73.80	73.40	73.16	73.18	73.27	73.55	73.65
12	74.54	74.42	74.44	74.08	73.92	73.79	73.39	73.18	73.19	73.30	73.54	73.61
13	74.56	74.40	74.48	74.04	73.88	73.75	73.42	73.15	73.18	73.35	73.55	73.64
14	74.50	74.43	74.46	74.05	73.94	73.69	73.42	73.14	73.17	73.36	73.52	73.72
15	74.47	74.53	74.42	73.97	73.97	73.62	73.43	73.12	73.16	73.32	73.50	73.66
16	74.49	74.58	74.38	73.97	73.96	73.64	73.41	73.13	73.17	73.31	73.52	73.66
17	74.54	74.61	74.40	74.01	73.98	73.70	73.41	73.13	73.18	73.33	73.54	73.67
18	74.58	74.65	74.39	73.95	73.99	73.70	73.38	73.16	73.20	73.33	73.52	73.65
19	74.55	74.66	74.34	73.96	73.98	73.68	73.38	73.16	73.20	73.39	73.51	73.67
20	74.49	74.61	74.25	73.94	73.96	73.66	73.36	73.18	73.20	73.38	73.56	73.67
21	74.50	74.57	74.20	74.03	73.93	73.68	73.35	73.19	73.20	73.30	73.57	73.69
22	74.50	74.57	74.20	74.06	73.91	73.71	73.34	73.18	73.18	73.33	73.58	73.68
23	74.46	74.58	74.17	74.04	73.90	73.73	73.33	73.14	73.18	73.35	73.61	73.69
24	74.44	74.56	74.23	73.99	73.88	73.69	73.31	73.12	73.18	73.35	73.61	73.73
25	74.42	74.53	74.27	73.96	73.89	73.66	73.29	73.12	73.15	73.36	73.54	73.76
26	74.49	74.52	74.29	73.93	73.90	73.64	73.30	73.12	73.15	73.37	73.53	73.76
27	74.54	74.52	74.27	73.88	73.90	73.64	73.32	73.12	73.18	73.35	73.56	73.73
28	74.58	74.49	74.23	73.89	73.90	73.61	73.32	73.13	73.18	73.33	73.58	73.72
29	74.59	—	74.22	73.87	73.90	73.60	73.29	73.13	73.23	73.34	73.59	73.73
30	74.59	—	74.22	73.90	73.91	73.58	73.26	73.13	73.25	73.35	73.55	73.73
31	74.59	—	74.21	—	73.90	—	73.28	73.13	—	73.32	—	73.74
Mean	74.52	74.54	74.35	74.04	73.94	73.72	73.40	73.17	73.17	73.31	73.51	73.67
Max	74.59	74.66	74.50	74.21	74.04	73.85	73.56	73.30	73.25	73.39	73.61	73.76
Min	74.42	74.40	74.17	73.87	73.88	73.58	73.26	73.12	73.12	73.23	73.35	73.52

Figure 12. (C) Daily mean and instantaneous water levels, well CH-10B, 1996, Long Valley Caldera, Mono County, California.

Table 11. Daily mean water levels, well CH-10B, 1996, Long Valley Caldera, California

[Values are in feet below land surface. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	73.76	73.76	73.79	73.56	73.64	73.43	73.04	72.92	72.89	73.09	73.34	73.36
2	73.75	73.80	73.73	73.62	73.62	73.45	73.00	72.90	72.89	73.13	73.29	73.37
3	73.70	73.85	73.67	73.66	73.61	73.42	72.98	72.87	72.89	73.14	73.26	73.37
4	73.70	73.87	73.61	73.73	73.62	73.37	72.97	72.89	72.87	73.13	73.25	73.39
5	73.75	73.87	73.65	73.75	73.63	73.35	72.99	72.89	72.90	73.15	73.26	73.31
6	73.82	73.87	73.78	73.71	73.59	73.33	72.98	72.92	72.93	73.18	73.32	73.33
7	73.80	73.84	73.80	73.67	73.57	73.31	72.95	72.94	72.96	73.18	73.40	73.41
8	73.77	73.79	73.77	73.67	73.56	73.30	72.93	72.95	72.97	73.17	73.43	73.37
9	73.76	73.75	73.75	73.64	73.58	73.29	72.94	72.94	72.97	73.17	73.42	73.27
10	73.84	73.79	73.73	73.63	73.62	73.26	72.97	72.93	72.99	73.16	73.41	73.31
11	73.85	73.83	73.69	73.65	73.62	73.22	72.97	72.94	72.97	73.14	73.43	73.36
12	73.80	73.83	73.60	73.62	73.57	73.20	72.94	72.97	72.93	73.14	73.45	73.39
13	73.77	73.82	73.61	73.64	73.54	73.20	72.91	72.97	72.92	73.15	73.41	73.42
14	73.79	73.81	73.72	73.67	73.50	73.19	72.89	72.96	72.95	73.17	73.31	73.49
15	73.77	73.80	73.74	73.62	73.47	73.17	72.87	72.95	72.95	73.14	73.27	73.49
16	73.67	73.80	73.74	73.57	73.45	73.16	72.86	72.93	72.99	73.13	73.33	73.45
17	73.76	73.78	73.72	73.59	73.46	73.17	72.87	72.90	73.02	73.19	73.36	73.44
18	73.80	73.75	73.70	73.64	73.43	73.14	72.90	72.89	73.06	73.15	73.37	73.44
19	73.84	73.68	73.68	73.66	73.42	73.11	72.90	72.91	73.06	73.13	73.34	73.43
20	73.89	73.70	73.66	73.62	73.42	73.08	72.91	72.92	73.05	73.20	73.33	73.35
21	73.83	73.66	73.61	73.63	73.40	73.06	72.92	72.93	73.03	73.28	73.29	73.26
22	73.88	73.73	73.54	73.71	73.39	73.08	72.93	72.93	73.02	73.24	73.29	73.31
23	73.93	73.74	73.57	73.73	73.38	73.06	72.92	72.95	73.05	73.19	73.39	73.50
24	73.88	73.62	73.58	73.69	73.37	73.02	72.94	72.94	73.10	73.17	73.41	73.52
25	73.86	73.61	73.58	73.73	73.37	72.99	72.95	72.90	73.11	73.15	73.38	73.46
26	73.89	73.64	73.60	73.70	73.38	72.99	72.96	72.86	73.11	73.25	73.40	73.39
27	73.82	73.65	73.54	73.67	73.36	73.03	72.97	72.88	73.14	73.30	73.41	73.40
28	73.86	73.69	73.50	73.70	73.37	73.08	72.98	72.93	73.16	73.22	73.29	73.46
29	73.84	73.75	73.59	73.70	73.34	73.08	72.99	72.94	73.12	73.18	73.34	73.47
30	73.80	—	73.62	73.67	73.36	73.06	72.96	72.93	73.08	73.17	73.39	73.45
31	73.76	—	73.61	—	73.39	—	72.93	72.91	—	73.27	—	73.48
Mean	73.80	73.76	73.66	73.66	73.48	73.19	72.94	72.92	73.00	73.18	73.35	73.40
Max	73.93	73.87	73.80	73.75	73.64	73.45	73.04	72.97	73.16	73.30	73.45	73.52
Min	73.67	73.61	73.50	73.56	73.34	72.99	72.86	72.86	72.87	73.09	73.25	73.26

Figure 13. (B) Changes in water levels between July 1994 to July 1996 in 36 selected wells, Long Valley Caldera, Mono County, California. Data are from wells shown in figure 13a. Data are arranged in classes that span 5 feet of water-level change. Twenty-two wells are in the class that includes water-level increases of between 0.01 and 5.00 feet.

Table 12. Instantaneous ground-water levels in selected wells, 1994–96, Long Valley Caldera, California

[Water levels are in feet below land-surface datum. Readings above land surface indicated by “+”.

M, method of measurement: S, steel tape; V, calibrated electric sounder;

W, status of well: D, dry; F, flowing; N, nearby pumping; O, obstruction; P, pumping; R, recently pumped; T, nearby recently pumped.

Highest and Lowest refer to static water levels; pumping levels (status P) or recently pumped (status R) are not considered]

Date	Water level MW	Date	Water level MW	Date	Water level MW	Date	Water level MW
Site identifier: 2A							
Site number: 374315118441201							
About 13.7 miles northeast of Mammoth Lakes. Drilled livestock well. Diameter 8 inches, depth 32 feet. Altitude of land-surface datum 6,922 feet. Water-level records available 1982–96.							
04-07-94	3.70 S	04-13-95	3.19 S	04-25-96	3.18 S		
07-21-94	4.45 S	07-20-95	4.03 VP	07-18-96	3.92 S		
11-10-94	4.27 S	11-07-95	4.10 S	11-21-96	3.88 S		
Highest	04-25-96	3.18					
Lowest	07-21-94	4.45					
Period of record	Highest	05-20-86	3.08	Lowest	05-30-87	5.59	
Record begins	05-26-82	38 Entries					
Site identifier: 27R1							
Site number: 374420118515501							
About 8.0 miles northeast of Mammoth Lakes and 2.6 miles southeast of Arcularius Ranch. Drilled livestock well. Diameter 6 inches, depth 44.3 feet. Altitude of land-surface datum 7,039.18 feet. Water-level records available 1982–96.							
04-07-94	38.18 S	04-14-95	38.46 V	04-24-96	37.92 V		
07-13-94	40.85 VP	07-20-95	38.18 S	07-17-96	43.04 VR		
11-10-94	38.23 V	11-07-95	37.86 V	11-20-96	37.44 V		
Highest	11-20-96	37.44					
Lowest	04-14-95	38.46					
Period of record	Highest	07-16-85	33.2	Lowest	04-14-95	38.46	
Record begins	11-18-82	42 Entries					
Site identifier: 28P1							
Site number: 374420118532501							
About 7.0 miles northeast of Mammoth Lakes and 1.4 miles southeast of Arcularius Ranch. Drilled livestock well. Diameter 6 inches, depth 125 feet. Altitude of land-surface datum 7,109.02 feet. Water-level records available 1983–96.							
04-07-94	88.42 V	04-14-95	88.73 V	04-24-96	88.10 V		
07-13-94	97.57 VP	07-20-95	88.64 V	07-17-96	86.50 VR		
11-10-94	88.82 V	11-07-95	87.97 V	11-20-96	87.88 V		
Highest	11-20-96	87.88					
Lowest	11-10-94	88.82					
Period of record	Highest	07-25-84	75.28	Lowest	06-03-83	116.55	
Record begins	06-03-83	40 Entries					
Site identifier: 30N2							
Site number: 374420118493301							
About 7.8 miles northeast of Mammoth Lakes and 4.8 miles southeast of Arcularius Ranch. Unused well. Diameter 8 inches, depth measured 31.8 feet in 1992. Altitude of land-surface datum 6,913.21 feet. Water-level records available 1972, 1982–96. Measurements from August 1989 through 1992 water year published as 003S029E19R001M.							
04-07-94	8.90 S	04-13-95	6.25 V	04-24-96	6.08 V		
07-13-94	9.40 V	07-20-95	7.48 S	07-17-96	8.11 V		
11-10-94	9.79 V	11-07-95	9.30 S	11-20-96	9.41 V		
Highest	04-24-96	6.08					
Lowest	11-10-94	9.79					
Period of record	Highest	05-10-86	2.95	Lowest	11-10-94	9.79	
Record begins	05-11-72	45 Entries					

Table 12. Instantaneous ground-water levels in selected wells, 1994–96, Long Valley Caldera—Continued

Date	Water level MW	Date	Water level MW	Date	Water level MW	Date	Water level MW
Site identifier: 31P1							
Site number: 374332118491001							
About 9.4 miles northeast of Mammoth Lakes and 5.4 miles southeast of Arcularius Ranch. Unused water-table well in alluvium of Quaternary age. Diameter 30 inches, depth 7.6 feet. Altitude of land-surface datum 6,914.01 feet. Water-level records available 1966, 1972–73, 1978–96.							
04-07-94	4.25 S	04-13-95	2.15 S	04-24-96	2.57 S		
07-13-94	5.12 S	07-20-95	3.95 S	07-17-96	4.22 S		
11-10-94	5.61 S	11-07-95	4.70 S	11-20-96	4.51 S		
Highest	04-13-95	2.15					
Lowest	11-10-94	5.61					
Period of record	Highest	04-02-84	0.00	Lowest	06-13-66	6.00	
Record begins	06-13-66	53 Entries					
Site identifier: 31P2							
Site number: 374332118491002							
About 9.4 miles northeast of Mammoth Lakes and 5.4 miles southeast of Arcularius Ranch. Livestock well. Diameter 4 inches, depth unknown. Altitude of land-surface datum 6,915.7 feet. Water-level records available 1988–96.							
04-07-94	4.12 S	04-13-95	2.07 S	04-24-96	2.37 S		
07-13-94	5.00 S	07-20-95	3.78 S	11-20-96	4.36 S		
11-10-94	5.50 S	11-07-95	4.55 S				
Highest	04-13-95	2.07					
Lowest	11-10-94	5.50					
Period of record	Highest	04-13-95	2.07	Lowest	07-20-93	9.70	
Record begins	04-28-88	23 Entries					
Site identifier: 35N1							
Site number: 374327118445901							
About 13 miles northeast of Mammoth Lakes. Drilled livestock well. Diameter unknown, depth 75 feet. Altitude of land-surface datum 6,914 feet. Water-level records available 1972, 1984–96.							
04-07-94	1.72 S	04-13-95	0.52 S	04-25-96	0.62 S		
07-21-94	4.52 S	07-20-95	2.95 S	07-18-96	3.43 S		
11-10-94	3.55 S	11-07-95	3.33 S	11-21-96	2.83 S		
Highest	04-13-95	0.52					
Lowest	07-21-94	4.52					
Period of record	Highest	04-13-95	0.52	Lowest	07-21-94	4.52	
Record begins	05-10-72	39 Entries					
Site identifier: 36P1							
Site number: 374335118434101							
About 14.2 miles northeast of Mammoth Lakes. Unused livestock well. Diameter unknown, depth measured 72 feet in 1992. Altitude of land-surface datum 6,995 feet. Water-level records available 1986–96.							
04-07-94	69.25 S	04-13-95	69.30 S	11-07-95	69.24 S		
11-10-94	69.30 S	07-20-95	69.19 S	04-25-96	69.22 S		
Highest	07-20-95	69.19					
Lowest	11-10-94, 04-13-95	69.30					
Period of record	Highest	05-30-87	68.70	Lowest	11-29-86	71.51	
Record begins	05-20-86	28 Entries					

Table 12. Instantaneous ground-water levels in selected wells, 1994–96, Long Valley Caldera—Continued

Date	Water level MW	Date	Water level MW	Date	Water level MW	Date	Water level MW
Site identifier: AP							
Site number: 373737118501701							
About 7 miles southeast of Mammoth Lakes, at the airport. Drilled public-supply well. Diameter 10 inches, depth 70 feet, perforated 52–66 feet. Altitude of land-surface datum 7,093 feet. Water-level records available 1984–96.							
04-07-94	29.96 S	04-13-95	28.20 S	11-10-95	25.78 SR	07-18-96	25.58 SR
11-08-94	30.05 S	07-19-95	25.96 SR	04-25-96	29.22 S	11-19-96	26.43 S
Highest	11-19-96	26.43					
Lowest	11-08-94	30.05					
Period of record	Highest	08-30-86	19.24	Lowest	11-08-94	30.05	
Record begins	10-09-84	37 Entries					
Site identifier: CD-2							
Site number: 373847118545802							
About 2.5 miles east of Mammoth Lakes and 0.1 mile northwest of Casa Diablo Hot Springs. Drilled irrigation well. Diameter 6 inches, depth 75 feet. Altitude of land-surface datum 7,316 feet. Water-level records available 1990–96.							
01-12-94	47.06 S	11-11-94	50.65 S	11-09-95	48.45 S	09-17-96	49.92 S
02-16-94	47.36 S	02-24-95	50.82 S	02-14-96	49.60 S	11-15-96	51.02 S
04-08-94	48.09 S	03-24-95	49.93 S	03-13-96	48.79 S	11-20-96	50.90 S
05-19-94	48.39 S	04-13-95	40.22 S	04-22-96	44.90 S	12-18-96	51.11 S
06-10-94	47.96 S	05-17-95	37.94 S	05-14-96	44.25 S		
07-15-94	47.80 S	06-15-95	41.21 S	06-18-96	45.27 S		
08-11-94	49.88 S	07-19-95	43.90 S	07-19-96	46.76 S		
09-15-94	50.28 S	10-19-95	48.60 S	08-20-96	50.05 S		
Highest	05-17-95	37.94					
Lowest	12-18-96	51.11					
Period of record	Highest	08-29-90	13.94	Lowest	12-18-96	51.11	
Record begins	08-29-90	70 Entries					
Site identifier: CH-1							
Site number: 374045118491001							
About 8.1 miles northeast of Mammoth Lakes and 0.7 mile southwest of Cashbaugh Ranch. Drilled observation well. Diameter 1.25 inches, depth 973 feet, perforated 470–475 feet. Altitude of land-surface datum 6,969.93 feet. Water-level records available 1982–96.							
04-06-94	40.67 S	04-13-95	40.77 V	04-24-96	39.68 V		
07-21-94	40.93 S	07-12-95	39.93 V	07-17-96	39.33 V		
11-10-94	41.11 S	11-07-95	39.90 V	11-20-96	39.45 S		
Highest	07-17-96	39.33					
Lowest	11-10-94	41.11					
Period of record	Highest	08-03-82	33.67	Lowest	10-06-92	41.36	
Record begins	08-03-82	115 Entries					
Site identifier: CH-10							
Site number: 373932118491501							
About 7.8 miles east of Mammoth Lakes and 2 miles north of Whitmore Hot Springs. Drilled observation well. Diameter 1.25 inches, depth 175 feet, perforated 115–120 feet. Altitude of land-surface datum 7,074.88 feet. Water-level records available 1982–96.							
04-07-94	70.22 V	04-19-95	69.68 V	04-25-96	69.48 V		
08-08-94	70.39 V	07-13-95	69.14 V	11-21-96	69.04 V		
11-08-94	70.32 V	11-08-95	69.20 V				
Highest	11-21-96	69.04					
Lowest	08-08-94	70.39					
Period of record	Highest	11-03-83	67.70	Lowest	08-30-87	70.98	
Record begins	08-04-82	41 Entries					

Table 12. Instantaneous ground-water levels in selected wells, 1994–96, Long Valley Caldera—Continued

Date	Water level MW	Date	Water level MW	Date	Water level MW	Date	Water level MW
Site identifier: CH-10A							
Site number: 373930118491601							
About 7.8 miles east of Mammoth Lakes and 2 miles north of Whitmore Hot Springs. Drilled observation well. Diameter 6 inches, depth 110 feet, perforated 90–110 feet. Altitude of land-surface datum 7,078.80 feet. Water-level records available 1983–96.							
04-07-94	74.25 V	04-19-95	73.72 V	02-14-96	73.58 V	11-21-96	73.07 V
08-08-94	74.42 V	07-13-95	73.18 V	04-25-96	73.54 V		
11-08-94	74.35 V	11-08-95	73.25 V	07-19-96	72.70 V		
Highest	07-19-96	72.70					
Lowest	08-08-94	74.42					
Period of record	Highest	09-28-83	69.8	Lowest	08-30-87	74.96	
Record begins	08-10-83	56 Entries					

Site Identifier: CH-10B							
Site Number: 373930118491602							
About 7.8 miles east of Mammoth Lakes and 2 miles north of Whitmore Hot Springs. Drilled observation well. Diameter 4 inches, depth 315 feet, open hole 300–315 feet. Altitude of land-surface datum 7,078.99 feet. Water-level records available 1983–96.							
01-11-94	74.47 V	08-08-94	74.66 V	05-15-95	73.98 V	04-22-96	73.71 V
02-15-94	74.26 V	08-11-94	74.68 V	06-07-95	73.70 V	05-15-96	73.45 V
03-10-94	74.27 V	09-12-94	74.57 V	07-13-95	73.41 V	05-16-96	73.45 V
04-07-94	74.48 V	09-23-94	74.58 V	08-01-95	73.29 V	06-18-96	73.15 V
04-12-94	74.56 V	10-11-94	74.59 V	09-11-95	73.16 V	07-19-96	72.90 V
04-21-94	74.57 V	11-08-94	74.57 V	10-18-95	73.31 V	08-19-96	72.90 V
05-18-94	74.58 V	12-12-94	74.49 V	11-08-95	73.48 V	09-11-96	72.95 V
06-08-94	74.59 V	01-18-95	74.58 V	12-14-95	73.73 V	10-15-96	73.11 V
06-09-94	74.58 V	02-23-95	74.59 V	01-25-96	73.85 V	11-21-96	73.31 V
07-12-94	74.53 V	03-06-95	74.47 V	02-14-96	73.81 V	12-09-96	73.26 V
07-14-94	74.52 V	04-19-95	73.96 V	03-12-96	73.60 V		
Highest	07-19-96, 08-19-96	72.90					
Lowest	08-11-94	74.68					
Period of record	Highest	09-28-83	71.72	Lowest	08-25-87	75.10	
Record begins	08-10-83	176 Entries					

Site identifier: CH-3							
Site number: 373929118455405							
About 11.2 miles east of Mammoth Lakes and 3.2 miles northeast of Whitmore Hot Springs. Drilled observation well. Diameter 1.25 inches, depth 160 feet. Altitude of land-surface datum 6,870 feet. Water-level records available 1982–96.							
04-07-94	5.67 S	04-13-95	4.86 V	04-24-96	4.80 V		
07-22-94	5.88 S	07-19-95	5.30 S	07-18-96	4.90 S		
11-10-94	5.65 S	11-07-95	4.95 V	11-21-96	4.85 V		
Highest	04-24-96	4.80					
Lowest	07-22-94	5.88					
Period of record	Highest	04-24-96	4.80	Lowest	06-02-83	7.73	
Record begins	08-24-82	43 Entries					

Table 12. Instantaneous ground-water levels in selected wells, 1994–96, Long Valley Caldera—Continued

Date	Water level MW	Date	Water level MW	Date	Water level MW	Date	Water level MW
Site identifier: CH-5							
Site number: 373759118474105							
About 9.9 miles east of Mammoth Lakes and 1.6 miles northeast of Whitmore Hot Springs. Drilled observation well. Diameter 1.25 inches, depth 875 feet. Altitude of land-surface datum 6,918 feet. Water-level records available 1982–96.							
04-06-94	44.92 S	04-13-95	44.97 V	04-24-96	44.02 V		
07-22-94	44.98 S	07-14-95	44.35 S	07-18-96	43.29 S		
11-10-94	45.35 S	11-07-95	43.76 V	11-21-96	43.49 V		
Highest	07-18-96	43.29					
Lowest	11-10-94	45.35					
Period of record	Highest	11-12-84	42.40	Lowest	11-20-92	45.96	
Record begins	08-24-82	44 Entries					

Site identifier: CH-6							
Site number: 374040118522501							
About 5.3 miles northeast of Mammoth Lakes in Little Antelope Valley. Drilled observation well. Diameter 1.25 inches, depth 677 feet, perforated 535–539 feet. Altitude of land-surface datum 7,248.23 feet. Water-level records available 1982–96.							
04-06-94	208.66 V	11-09-94	208.73 V	11-07-95	208.20 V	07-19-96	206.70 V
07-13-94	209.01 V	07-14-95	208.41 V	04-24-96	207.40 V	11-21-96	207.04 V
Highest	07-19-96	206.70					
Lowest	07-13-94	209.01					
Period of record	Highest	08-27-86	202.55	Lowest	11-19-91	209.25	
Record begins	08-24-82	50 Entries					

Site identifier: CH-7							
Site number: 374000118483102							
About 8.6 miles northeast of Mammoth Lakes and 1.2 miles south of Cashbaugh Ranch. Drilled observation well. Diameter 1.25 inches, depth 210 feet, perforated 198–203 feet. Obstruction at 72 feet below land surface. Altitude of land-surface datum 6,960 feet. Water-level records available 1982–96. Positive sign indicates water level is above land surface. Levels given when well status is F (flowing) are height of casing in feet above land surface.							
04-06-94	+0.45 SF	02-23-95	+1.75 V	06-28-95	5.68 S	11-07-95	5.93 S
07-12-94	+0.45 SF	03-06-95	+3.65 S	07-13-95	5.68 S	02-14-96	5.25 S
11-10-94	+0.45 SF	04-13-95	+4.35 S	07-18-95	5.72 S	04-24-96	5.09 V
12-12-94	+0.45 SF	04-19-95	+4.35 S	07-20-95	5.75 S	07-18-96	5.85 S
12-15-94	+3.33 V	05-15-95	+7.77 S	08-01-95	5.84 S	11-20-96	5.76 S
01-20-95	1.75 S	05-17-95	+4.32 V	09-12-95	5.95 S		
Highest	05-15-95	+7.77 S					
Lowest	09-12-95	5.95 S					
Period of record	Highest	05-15-95	+7.77 S	Lowest	11-17-82	6.29	
Record begins	08-03-82	64 Entries					

Site identifier: CHURCH							
Site number: 373707118491701							
About 8 miles southeast of Mammoth Lakes and 1 mile southwest of Whitmore Hot Springs. Drilled public supply well. Diameter 6 inches, depth 45.5 feet. Altitude of land-surface datum 7,035 feet. Water-level records available 1989–96.							
04-06-94	7.98 S	04-13-95	5.70 V	04-24-96	5.95 V		
07-15-94	8.57 V	07-14-95	3.17 V	07-18-96	2.53 S		
11-10-94	8.46 V	11-07-95	5.82 V	11-09-96	5.20 V		
Highest	07-18-96	2.53					
Lowest	07-15-94	8.57					
Period of record	Highest	07-18-96	2.53	Lowest	11-19-92	8.58	
Record begins	04-25-89	25 Entries					

Table 12. Instantaneous ground-water levels in selected wells, 1994–96, Long Valley Caldera—Continued

Date	Water level MW	Date	Water level MW	Date	Water level MW	Date	Water level MW
Site identifier: CM-2							
Site number: 373906118522301							
About 4.9 miles east of Mammoth Lakes near Hot Creek Fish Hatchery. Drilled observation well. Diameter 4 inches, depth 152 feet. Altitude of land-surface datum 7,077.0 feet. Water-level records available 1985–96.							
04-06-94	7.42 S	11-08-94	7.61 S	11-09-95	5.06 S	07-19-96	1.86 S
07-21-94	6.90 S	07-12-95	5.21 S	04-23-96	4.64 S	11-21-96	3.88 V
Highest	07-19-96	1.86					
Lowest	11-08-94	7.61					
Period of record	Highest	08-27-86	0.25	Lowest	11-08-94	7.61	
Record begins	04-23-85	49 Entries					
Site identifier: CR							
Site number: 373816118532001							
About 4 miles east of Mammoth Lakes. Drilled domestic well. Diameter 6 inches, depth 80 feet. Altitude of land-surface datum 7,161.76 feet. Water-level records available 1986–95. Site discontinued November 10, 1995.							
07-22-94	25.05 S	11-10-95	17.23 S				
Highest	11-10-95	17.23					
Lowest	07-22-94	25.05					
Period of record	Highest	05-21-86	10.40	Lowest	07-29-88	26.60	
Record begins	05-21-86	17 Entries					
Site identifier: CT							
Site number: 374511118585801							
About 7.5 miles north of Mammoth Lakes at the Caltrans Crestview Maintenance Station. Drilled public supply well. Diameter 10 inches, depth 490 feet. Altitude of land-surface datum 7,520 feet. Water-level records available 1990–96.							
04-07-94	128.90 V	05-17-95	125.75 V	04-24-96	110.83 V		
07-13-94	124.76 V	07-18-95	102.36 V	07-17-96	128.89 V		
11-10-94	130.99 V	11-06-95	106.76 V	11-20-96	109.20 V		
Highest	07-18-95	102.36					
Lowest	11-10-94	130.99					
Period of record	Highest	07-18-95	102.36	Lowest	11-19-92	134.31	
Record begins	08-02-90	22 Entries					
Site identifier: CW-1							
Site number: 373850118513601							
About 5.6 miles east of Mammoth Lakes near Hot Creek Fish Hatchery. Drilled geothermal exploration well. Diameter 18 inches, drilled depth 805 feet, open hole 223–805 feet. Well plugged, abandoned, and buried, October 1997. Altitude of land-surface datum 7,084.99 feet. Water-level records available 1973, 1982–96.							
04-06-94	15.70 V	07-12-95	15.00 V	04-23-96	14.15 V	11-21-96	13.47 V
11-08-94	16.17 V	11-09-95	14.67 V	07-19-96	12.75 V		
Highest	07-19-96	12.75					
Lowest	11-08-94	16.17					
Period of record	Highest	08-13-83	6.77	Lowest	11-08-94	16.17	
Record begins	08-01-73	51 Entries					

Table 12. Instantaneous ground-water levels in selected wells, 1994–96, Long Valley Caldera—Continued

Date	Water level MW	Date	Water level MW	Date	Water level MW	Date	Water level MW
<p style="text-align: center;">Site identifier: CW-3 Site number: 373849118513001 About 5.7 miles east of Mammoth Lakes near Hot Creek Fish Hatchery. Drilled geothermal exploration well. Diameter 13 inches, accessible depth 420 feet, depth of hole 917 feet. Altitude of land-surface datum 7,062.20 feet. Water-level records available 1986–96.</p>							
01-13-94	10.48 S	10-13-94	10.51 S	07-12-95	9.83 S	04-23-96	8.99 S
02-15-94	10.42 S	10-14-94	10.44 S	07-21-95	9.79 S	05-16-96	8.40 S
03-10-94	10.43 V	11-08-94	10.82 S	08-11-95	9.46 S	06-25-96	7.58 V
04-06-94	10.45 V	12-16-94	11.20 S	09-12-95	9.57 V	07-19-96	7.62 S
05-19-94	10.44 V	01-20-95	10.67 S	10-19-95	9.78 V	08-19-96	7.65 S
06-23-94	10.64 V	02-23-95	11.23 V	11-09-95	9.59 V	09-11-96	7.84 S
07-21-94	10.67 V	03-06-95	11.23 S	12-13-95	9.71 V	10-18-96	8.17 S
08-11-94	10.58 V	04-18-95	10.37 S	01-23-96	9.67 S	11-21-96	8.33 S
09-15-94	10.70 V	05-15-95	10.63 S	02-13-96	9.70 V	12-10-96	8.39 S
09-23-94	10.57 S	06-14-95	10.26 S	03-11-96	9.45 S		
Highest	06-25-96	7.58					
Lowest	02-23-95, 03-06-95	11.23					
Period of record	Highest	09-01-86	1.82	Lowest	02-23-95, 03-06-95	11.23	
Record begins	05-10-86	96 Entries					

<p style="text-align: center;">Site identifier: ESN Site number: 373818118515001 About 5.5 miles east of Mammoth Lakes near Hot Creek Fish Hatchery. Drilled institutional well unused after 1980. Diameter 6 inches, depth 74 feet. Altitude of land-surface datum 7,080 feet. Water-level records available 1986–89, 1996.</p>							
04-22-96	8.43 S	06-17-96	6.66 V	08-19-96	6.40 S	11-20-96	7.78 S
04-23-96	8.44 S	06-18-96	6.62 S	09-11-96	7.07 S	12-11-96	7.94 S
05-15-96	7.53 V	07-15-96	6.43 V	09-16-96	7.22 S	12-18-96	8.07 S
05-16-96	7.48 S	07-19-96	6.33 S	10-15-96	7.53 S		
Highest	07-19-96	6.33					
Lowest	04-23-96	8.44					
Period of record	Highest	8-30-86	2.48	Lowest	11-28-88	8.67	
Record begins	08-30-86	28 Entries					

<p style="text-align: center;">Site identifier: ESO Site number: 373818118514502 About 5.5 miles east of Mammoth Lakes near Hot Creek Fish Hatchery. Drilled institutional well, unused after 1980. Diameter 6 inches, depth 44.3 feet. Altitude of land-surface datum 7,090 feet. Water-level records available 1985–96.</p>							
01-11-94	20.27 S	09-13-94	20.58 S	08-01-95	17.43 V	04-22-96	19.56 S
02-15-94	20.49 V	10-13-94	20.58 S	08-15-95	17.30 V	05-14-96	18.97 S
03-09-94	20.45 V	11-08-94	20.63 S	08-24-95	17.38 S	06-17-96	18.29 V
04-07-94	20.54 S	12-15-94	20.68 V	09-12-95	17.69 S	07-15-96	18.10 V
05-16-94	20.30 S	04-17-95	19.78 S	10-17-95	18.53 S	08-19-96	18.15 S
06-09-94	19.94 V	05-17-95	19.58 S	11-09-95	18.80 S	09-16-96	18.71 S
07-12-94	19.80 V	06-15-95	18.68 S	01-25-96	19.55 V	11-20-96	19.11 V
08-09-94	20.30 V	07-13-95	17.79 S	02-14-96	19.62 V	12-11-96	19.19 S
Highest	08-15-95	17.30					
Lowest	12-15-94	20.68					
Period of record	Highest	05-12-86	16.95	Lowest	12-17-92	20.75	
Record begins	07-10-85	92 Entries					

Table 12. Instantaneous ground-water levels in selected wells, 1994–96, Long Valley Caldera—Continued

Date	Water level MW	Date	Water level MW	Date	Water level MW	Date	Water level MW
Site identifier: LAV-1							
Site number: 374051118523301							
About 5.3 miles northeast of Mammoth Lakes in Little Antelope Valley. Observation well. Diameter 30 inches, depth 14 feet. Altitude of land-surface datum 7,200 feet. Water-level records available 1972–73, 1982–96.							
04-06-94	3.34 S	04-20-95	0.30 S	04-24-96	0.43 S		
07-13-94	7.20 V	07-14-95	3.98 S	07-19-96	4.46 S		
11-09-94	9.75 S	11-07-95	5.48 S	11-21-96	0.38 S		
Highest	04-20-95	0.30					
Lowest	11-09-94	9.75					
Period of record	Highest	05-10-86, 08-27-86	+1.35	Lowest	11-09-94	9.75	
Record begins	05-08-72	39 Entries					

Site identifier: LKT							
Site number: 374300118554401							
About 5.2 miles northeast of Mammoth Lakes and 1.3 miles east of Highway 395. Drilled geothermal exploration well. Diameter 6 inches, depth 3,500 feet, open hole 500–3,500 feet. Obstruction in well at 980 feet. Altitude of land-surface datum 7,350 feet. Water-level records available 1984–96.							
01-12-94	72.90 S	09-20-94	73.73 S	06-30-95	73.55 S	04-24-96	73.41 S
01-13-94	72.87 S	10-18-94	73.74 S	07-11-95	73.53 S	05-16-96	72.99 S
02-14-94	73.03 S	11-09-94	73.75 S	07-18-95	73.47 S	06-17-96	72.88 S
03-08-94	73.04 V	12-15-94	73.92 S	08-15-95	73.46 S	07-15-96	72.55 S
04-07-94	73.01 S	01-16-95	73.87 S	08-25-95	73.47 S	07-19-96	72.54 S
05-19-94	73.13 S	02-24-95	74.15 S	09-13-95	73.38 S	08-23-96	72.26 S
06-09-94	73.29 S	03-07-95	74.25 S	10-17-95	73.25 S	09-11-96	72.01 S
06-29-94	73.34 S	04-14-95	74.28 S	11-03-95	73.23 S	10-18-96	71.76 S
06-30-94	73.30 S	05-15-95	74.06 S	12-15-95	73.06 S	11-18-96	71.72 S
07-15-94	73.33 S	06-05-95	73.64 S	01-22-96	73.14 S	12-09-96	71.54 S
08-10-94	73.53 V	06-27-95	73.60 S	02-12-96	73.25 S		
09-12-94	73.53 S	06-27-95	73.56 S	03-12-96	73.11 V		
Highest	12-09-96	71.54					
Lowest	04-14-95	74.28					
Period of record	Highest	01-05-87	57.61	Lowest	04-14-95	74.28	
Record begins	11-12-84	158 Entries					

Site identifier: LV-2							
Site number: 373729118532802							
About 4.5 miles southeast of Mammoth Lakes. Drilled observation well. Diameter 2 inches, drilled depth 44 feet, depth measured 41.5 feet in 1992, perforated 40–42 feet. Altitude of land-surface datum 7,167.39 feet. Water-level records available 1972–73, 1982–96.							
04-07-94	SD	06-15-95	34.22 V	04-25-96	40.77 V	09-17-96	35.62 S
07-15-94	SD	07-19-95	26.05 V	05-16-96	37.10 V	11-19-96	39.51 V
11-08-94	SD	08-15-95	26.60 V	06-04-96	34.24 V		
04-14-95	SD	09-12-95	29.81 V	07-18-96	29.71 V		
05-17-95	41.35 S	11-07-95	36.44 V	08-20-96	32.43 V		
Highest	07-19-95	26.05					
Lowest	04-07-94, 07-15-94, 11-08-94, 04-14-95	>41.5(dry)					
Period of record	Highest	05-26-82	24.07	Lowest	05-17-72	42.65	
Record begins	05-17-72	56 Entries					

Table 12. Instantaneous ground-water levels in selected wells, 1994–96, Long Valley Caldera—Continued

Date	Water level MW	Date	Water level MW	Date	Water level MW	Date	Water level MW
Site identifier: LV-15							
Site number: 373913118551401							
About 2.4 miles northeast of Mammoth Lakes and 0.9 mile north of junction of Highways 395 and 203. Drilled observation well. Diameter 2 inches, depth 57 feet, depth measured 14 feet in 1992, perforated 55–57 feet. Altitude of land-surface datum 7,340 feet. Water-level records available 1982–96.							
04-06-94	SD	11-09-94	SD	11-09-95	SD	07-19-96	SD
07-21-94	SD	07-12-95	SD	04-24-96	SD	11-20-96	SD
Highest	--						
Lowest	--						
Period of record	Highest	08-26-87	0.19	Lowest	1994-96	Dry on all visits	
Record begins	08-04-82	27 Entries					
Site identifier: LV-18							
Site number: 373918118481901							
About 8.8 miles east of Mammoth Lakes and 1.9 miles northeast of Whitmore Hot Springs. Drilled observation well. Diameter 2 inches, depth 71 feet, perforated 69–71 feet. Altitude of land-surface datum 6,966.0 feet. Water-level records available 1972–73, 1982–96.							
04-06-94	19.12 S	04-13-95	17.33 S	04-25-96	17.33 S		
07-22-94	19.38 S	07-14-95	17.34 S	07-18-96	17.38 S		
11-10-94	19.63 S	11-07-95	18.09 S	11-20-96	17.90 S		
Highest	04-13-95, 04-25-96		17.33				
Lowest	11-10-94	19.63					
Period of record	Highest	06-02-83	12.44	Lowest	06-02-72	21.0	
Record begins	06-02-72	48 Entries					
Site identifier: LV-19							
Site number: 373754118501701							
About 7 miles southeast of Mammoth Lakes and 1.4 miles west of Whitmore Hot Springs. Drilled observation well. Diameter 2 inches, depth 98.6 feet, perforated 96.6–98.6 feet. Altitude of land-surface datum 7,090.40 feet. Water-level records available 1972–73, 1986–96.							
01-11-94	37.38 S	10-13-94	39.01 S	07-13-95	35.38 S	03-12-96	36.18 V
02-15-94	37.93 S	11-08-94	39.04 S	07-19-95	35.16 V	04-22-96	36.00 S
03-09-94	38.17 S	12-12-94	39.14 V	08-15-95	34.16 V	05-15-96	35.99 V
04-07-94	38.42 S	01-20-95	39.19 S	09-12-95	33.79 S	07-15-96	34.03 S
05-16-94	38.79 S	02-23-95	39.29 V	10-17-95	34.06 S	08-19-96	33.41 S
06-09-94	38.86 V	03-06-95	39.23 S	11-09-95	34.37 S	09-16-96	33.42 S
07-12-94	38.65 V	04-13-95	38.42 V	12-13-95	35.02 V	11-19-96	34.51 V
08-08-94	38.56 V	05-17-95	36.72 S	01-25-96	35.70 S		
09-12-94	38.70 S	06-15-95	36.30 S	02-13-96	35.98 V		
Highest	08-19-96	33.41					
Lowest	02-23-95	39.29					
Period of record	Highest	11-13-86	33.00	Lowest	12-23-92, 01-13-93	39.35	
Record begins	06-07-72	96 Entries					

Table 12. Instantaneous ground-water levels in selected wells, 1994–96, Long Valley Caldera—Continued

Data	Water level MW	Date	Water level MW	Date	Water level MW	Date	Water level MW
<p>Site identifier: LV-25 Site number: 374233118482701 About 8.9 miles northeast of Mammoth Lakes and 0.8 mile north of Cashbaugh Ranch. Drilled observation well. Diameter 2 inches, depth 18 feet, depth measured 5.45 feet in 1992, perforated 16–18 feet. Altitude of land-surface datum 6,873.81 feet. Water-level records available 1972–73, 1982–96.</p>							
04-07-94	2.58 S	04-13-95	1.17 S	04-24-96	1.59 S		
07-13-94	3.64 S	07-20-95	2.21 S	07-17-96	2.11 S		
11-10-94	SD	11-07-95	4.45 S	11-20-96	SD		
Highest	04-13-95	1.17					
Lowest	11-10-94, 11-20-96		>5.45(dry)				
Period of record	Highest	06-03-83	0.62	Lowest	07-25-72	10.44	
Record begins	07-25-72	47 Entries					
<p>Site identifier: LV-30 Site number: 374109118484101 About 8.9 miles northeast of Mammoth Lakes and 0.1 mile north of Cashbaugh Ranch. Drilled observation well. Diameter 2 inches, depth 9.1 feet, depth measured 5.9 feet in 1991, perforated 7.1–9.1 feet. Altitude of land-surface datum 6,895.62 feet. Water-level records available 1982–95.</p>							
04-07-94	1.16 S	04-13-95	0.58 V	07-20-95	0.48 S	11-07-95	5.50 S
07-13-94	4.19 S						
Highest	07-20-95	0.48					
Lowest	11-07-95	5.50					
Period of record	Highest	06-03-83	0.05	Lowest	07-20-93	5.56	
Record begins	10-20-72	42 Entries					
<p>Site identifier: LV-44 Site number: 373917118551402 About 2.4 miles northeast of Mammoth Lakes and 1 mile north of junction of Highways 395 and 203. Drilled observation well. Diameter 2 inches, depth 79.7 feet, depth measured 55.2 feet in 1992, perforated 77.7–79.7 feet. Altitude of land-surface datum 7,340 feet. Water-level records available 1973–96.</p>							
04-06-94	35.80 S	04-20-95	42.72 V	04-24-96	41.94 V		
07-21-94	37.87 S	07-12-95	38.62 V	07-19-96	39.99 V		
11-09-94	40.28 S	11-09-95	39.51 V	11-19-96	41.09 V		
Highest	04-06-94	35.80					
Lowest	04-20-95	42.72					
Period of record	Highest	05-21-86	+1.00	Lowest	04-20-95	42.72	
Record begins	08-07-73	36 Entries					
<p>Site identifier: LV-45 Site number: 373914118472201 About 9.6 miles east of Mammoth Lakes and 2 miles northeast of Whitmore Hot Springs. Drilled observation well. Diameter 2 inches, depth 96 feet. Altitude of land-surface datum 6,985.38 feet. Water-level records available 1982–96.</p>							
04-06-94	40.15 S	04-13-95	40.23 V	04-24-96	40.22 V		
07-12-94	40.20 V	07-14-95	40.23 V	07-18-96	40.17 S		
11-10-94	40.23 V	11-07-95	40.25 V	11-20-96	40.23 V		
Highest	04-06-94	40.15					
Lowest	11-07-95	40.25					
Period of record	Highest	10-19-85	26.63	Lowest	11-07-95	40.25	
Record begins	05-25-82	44 Entries					

Table 12. Instantaneous ground-water levels in selected wells, 1994–96, Long Valley Caldera—Continued

Date	Water level MW	Date	Water level MW	Date	Water level MW	Date	Water level MW
<p align="center">Site identifier: MW-1 Site number: 373816118523901 About 4.6 miles east of Mammoth Lakes near Hot Creek Fish Hatchery. Drilled observation well. Diameter 6 inches 0–40 feet, 2 inches 40–504 feet, depth 504 feet, perforated 450–504 feet. Well plugged, abandoned, and buried, October 1997. Altitude of land-surface datum 7046.43 feet. Water-level records available 1992–96.</p>							
01-12-94	34.55 S	09-14-94	34.31 V	07-19-95	13.76 V	05-15-96	23.44 V
02-16-94	35.32 S	10-13-94	34.52 V	09-12-95	19.80 S	06-17-96	17.79 V
03-09-94	35.61 S	11-08-94	35.15 V	10-17-95	25.80 S	07-15-96	22.12 V
04-07-94	35.76 S	12-15-94	35.94 V	11-09-95	24.34 S	08-19-96	19.79 S
05-16-94	33.55 S	02-23-95	36.25 V	01-25-96	31.52 V	09-17-96	31.23 S
06-09-94	26.99 V	03-23-95	34.79 S	02-14-96	31.89 V		
07-12-94	29.60 V	05-17-95	31.35 V	03-12-96	31.91 S		
08-10-94	33.96 V	06-15-95	18.93 V	04-22-96	31.51 S		
Highest	07-19-95	13.76					
Lowest	02-23-95	36.25					
Period of record	Highest	07-19-95	13.76	Lowest	01-13-93	39.67	
Record begins	09-16-92	40 Entries					
<p align="center">Site identifier: MW-2 Site number: 373841118512902 About 5.6 miles east of Mammoth Lakes near Hot Creek Fish Hatchery. Drilled observation well. Diameter 5 inches 0–40 feet, 2 inches 40–255 feet, depth 255 feet, perforated 230–255 feet. Well plugged, abandoned, and buried, October 1997. Altitude of land-surface datum 7,057.08 feet. Water-level records available 1987–96.</p>							
04-06-94	1.73 S	11-08-94	1.90 S	11-09-95	+0.10 SF	07-19-96	+0.34 SF
07-21-94	1.75 S	07-12-95	0.17 S	04-23-96	0.77 S	11-21-96	+0.36 SF
Highest	11-21-96	+0.36					
Lowest	11-08-94	1.90					
Period of record	Highest	11-21-96	+0.36	Lowest	11-18-92	2.11	
Record begins	04-19-87	27 Entries					
<p align="center">Site identifier: MW-4 Site number: 373907118503801 About 6.5 miles east of Mammoth Lakes near Hot Creek Gorge. Drilled observation well. Diameter 6 inches 0–80 feet, 2 inches 80–340 feet, depth 340 feet, perforated 320–340 feet. Altitude of land-surface datum 7,081.26 feet. Water-level records available 1986–96.</p>							
04-06-94	49.66 S	11-08-94	50.08 S	11-09-95	49.31 V	07-19-96	47.89 V
07-21-94	50.00 S	07-12-95	49.57 S	04-24-96	48.70 V	11-21-96	48.16 V
Highest	07-19-96	47.89					
Lowest	11-08-94	50.08					
Period of record	Highest	08-12-86	43.60	Lowest	05-13-93	50.20	
Record begins	05-09-86	29 Entries					

Table 12. Instantaneous ground-water levels in selected wells, 1994–96, Long Valley Caldera—Continued

Date	Water level MW	Date	Water level MW	Date	Water level MW	Date	Water level MW
<p>Site identifier: MW-5 Site number: 373841118512901 About 5.6 miles east of Mammoth Lakes near Hot Creek Fish Hatchery. Drilled observation well. Diameter 6 inches 0–50 feet, 2 inches 50–496 feet, depth 496 feet, perforated 460–496 feet. Well plugged, abandoned, and buried, October 1997. Altitude of land-surface datum 7,054.12 feet. Water-level records available 1986–96.</p>							
04-06-94	6.48 S	11-08-94	7.00 S	11-09-95	3.01 S	07-19-96	2.61 S
07-21-94	6.61 S	07-12-95	4.29 S	04-23-96	4.65 S	11-21-96	2.68 V
Highest	07-19-96	2.61					
Lowest	11-08-94	7.00					
Period of record	Highest	09-01-86	0.21	Lowest	11-18-92	7.20	
Record begins	05-10-86	40 Entries					
<p>Site identifier: MWD 5 Site number: 373757118591801 In Old Mammoth near Mammoth Creek. Drilled unused well. Diameter 8 inches, depth 357.5 feet, perforated 59.8–112.7 and 132.7–357.5 feet. Altitude of land-surface datum 7,985.28 feet. Water-level records available 1988–96.</p>							
04-07-94	2.71 S	04-19-95	0.87 V	04-25-96	+1.82 S		
07-22-94	2.51 S	07-19-95	+0.30 S	07-19-96	0.00 S		
11-08-94	3.03 S	11-02-95	0.84 S	11-19-96	0.31 V		
Highest	04-25-96	+1.82					
Lowest	11-08-94	3.03					
Period of record	Highest	04-25-96	+1.82	Lowest	11-19-92	7.10	
Record begins	03-03-88	29 Entries					
<p>Site identifier: MWD M-10 Site number: 373719118585301 About 0.8 mile south of Mammoth Lakes near the Snow Creek development. Drilled observation well. Diameter 4 inches, depth measured 27.2 feet, perforated 7–27 feet. Altitude of land-surface datum 7,939.63 feet. Water-level records available 1988–96.</p>							
04-07-94	VD	07-19-95	26.90 V	05-16-96	23.91 V		
07-22-94	SD	11-02-95	26.71 V	07-19-96	27.00 S		
11-08-94	SD	04-25-96	26.88 V	11-19-96	26.90 V		
Highest	05-16-96	23.91					
Lowest	04-07-94, 07-22-94, 11-08-94	>27.2(dry)					
Period of record	Highest	07-28-88	13.27	Lowest		Dry on several visits	
Record begins	07-28-88	30 Entries					
<p>Site identifier: MWD M-11 Site number: 373705118585601 About 0.9 mile south of Mammoth Lakes near the Snow Creek development. Drilled observation well. Diameter 4 inches, depth 43 feet, perforated 5–43 feet. Altitude of land-surface datum 7,968.56 feet. Water-level records available 1988–96.</p>							
04-07-94	32.31 V	11-08-94	32.48 V	11-02-95	17.68 V	07-19-96	11.22 S
07-22-94	21.50 S	07-19-95	5.19 V	04-25-96	18.93 V	11-19-96	16.52 V
Highest	07-19-95	5.19					
Lowest	11-08-94	32.48					
Period of record	Highest	07-19-93	4.26	Lowest	11-19-92	34.40	
Record begins	07-28-88	31 Entries					

Table 12. Instantaneous ground-water levels in selected wells, 1994–96, Long Valley Caldera—Continued

Date	Water level MW	Date	Water level MW	Date	Water level MW	Date	Water level MW
Site identifier: MWD M-12 Site number: 373714118585501 About 0.9 mile south of Mammoth Lakes near the Snow Creek development. Drilled observation well. Diameter 4 inches, depth measured 26.45 feet in 1991, original depth 27 feet, perforated 7–27 feet. Altitude of land-surface datum 7,952.92 feet. Water-level records available 1988–96.							
04-07-94	26.21 S	07-19-95	2.85 V	01-23-96	24.40 V	11-19-96	12.93 V
07-22-94	SD	09-13-95	13.86 S	04-25-96	22.96 V		
10-17-94	SD	09-13-95	13.85 S	05-16-96	8.90 V		
11-08-94	SD	11-02-95	18.39 V	07-19-96	5.87 S		
Highest	07-19-95	2.85					
Lowest	07-22-94, 10-17-94, 11-08-94	>26.45(dry)					
Period of record	Highest	07-19-95	2.85	Lowest	07-22-94, 10-17-94, 11-08-94	Dry	
Record begins	10-16-88	38 Entries					
Site identifier: MWD M-14 Site number: 373739118582101 About 0.3 mile south of Mammoth Lakes in the Snow Creek development. Drilled observation well. Diameter 4 inches, depth 501 feet, perforated 100–501 feet. Altitude of land-surface datum 7,877.79 feet. Water-level records available 1988–96.							
01-12-94	352.55 V	10-13-94	356.00 V	08-15-95	319.12 V	05-15-96	311.32 V
02-16-94	352.78 V	11-08-94	356.61 V	09-12-95	312.30 V	06-17-96	291.60 V
03-10-94	353.60 V	12-15-94	357.01 V	10-18-95	320.15 V	07-15-96	273.10 V
04-04-94	353.79 V	01-19-95	357.40 V	11-03-95	322.60 V	08-22-96	268.95 V
05-19-94	355.03 V	02-23-95	357.83 V	12-14-95	322.20 V	09-16-96	271.56 V
06-09-94	355.45 V	04-19-95	357.40 V	01-23-96	325.90 V	10-18-96	280.21 V
07-12-94	355.72 V	05-17-95	356.75 V	02-15-96	326.51 V	11-15-96	286.91 V
08-10-94	356.10 V	06-15-95	336.22 V	03-12-96	325.49 V	11-19-96	289.85 V
09-14-94	356.43 V	07-19-95	332.58 V	04-22-96	324.21 V	12-18-96	297.29 V
Highest	08-22-96	268.95					
Lowest	02-23-95	357.83					
Period of record	Highest	10-16-88	237.0	Lowest	04-14-93	360.12	
Record begins	10-16-88	83 Entries					
Site identifier: PD Site number: 373732118490001 About 8.2 miles southeast of Mammoth Lakes at Mono County Probation Department Camp. Drilled institutional well. Diameter 6 inches, depth 150 feet. Altitude of land-surface datum 7,014 feet. Water-level records available 1986–95.							
04-06-94	24.20 S	07-22-94	24.92 SR	04-13-95	22.07 S		
Highest	04-13-95	22.07					
Lowest	04-06-94	24.20					
Period of record	Highest	08-30-86	21.69	Lowest	04-25-89	29.45	
Record begins	05-21-86	26 Entries					

Table 12. Instantaneous ground-water levels in selected wells, 1994–96, Long Valley Caldera—Continued

Date	Water level MW	Date	Water level MW	Date	Water level MW	Date	Water level MW
Site identifier: PLV-2							
Site number: 374249118584501							
About 4.7 miles north of Mammoth Lakes and 1.3 miles west of Highway 395. Drilled geothermal exploration well. Diameter 1.25 inches, depth 2,330 feet, perforated 1,845–1,855 feet. Altitude of land-surface datum 7,734 feet. Water-level records available 1984–96.							
05-16-94	442.51 V	11-07-94	444.74 V	07-18-95	445.30 V	07-17-96	427.75
07-13-94	442.82 V	04-20-95	446.55 V	11-06-95	439.30 V		
Highest	07-17-96	427.75					
Lowest	04-20-95	446.55					
Period of record	Highest	08-30-84	398.00	Lowest	04-20-95	446.55	
Record begins	08-30-84	45 Entries					
Site identifier: RDO-8							
Site number: 373924118571201							
About 0.8 mile northeast of Mammoth Lakes and 0.7 mile north of U.S. Forest Service ranger station. Drilled observation well. Diameter 2.38 inches, depth 1,304 feet, original depth of hole 2,346 feet, perforated 1,100–1,110 feet. Altitude of land-surface datum 7,788.4 feet. Water-level records available 1986–96.							
01-13-94	435.82 V	10-13-94	435.97 V	08-15-95	435.72 V	06-17-96	432.82 V
02-14-94	435.00 V	11-09-94	436.23 V	09-12-95	435.80 V	07-15-96	433.48 V
03-08-94	435.20 V	01-20-95	438.77 V	10-18-95	435.10 V	08-19-96	432.11 V
04-13-94	435.65 V	02-23-95	437.35 V	11-03-95	435.02 V	08-22-96	432.00 V
04-21-94	435.72 V	04-20-95	436.45 V	01-25-96	434.30 V	11-19-96	430.12 V
05-19-94	436.20 V	05-17-95	436.05 V	02-14-96	434.35 V		
08-10-94	436.70 V	06-15-95	435.63 V	04-23-96	434.80 V		
09-15-94	436.55 V	07-20-95	435.80 V	05-14-96	435.14 V		
Highest	11-19-96	430.12					
Lowest	01-20-95	438.77					
Period of record	Highest	11-19-96	430.12	Lowest	06-07-89	448.40	
Record begins	10-21-86	124 Entries					
Site identifier: SC-1							
Site number: 373745118554001							
About 2.3 miles southeast of Mammoth Lakes. Drilled observation well. Diameter 2.5 inches, depth of hole 132 feet, open hole 40 to 132 feet. Altitude of land-surface datum 7,469.84 feet. Water-level records available 1982–96.							
01-12-94	118.20 V	11-08-94	120.34 V	09-12-95	99.95 V	07-15-96	99.58 V
02-14-94	119.61 V	12-15-94	118.97 S	10-18-95	108.67 V	08-20-96	106.61 V
03-08-94	120.03 V	01-20-95	120.64 V	11-07-95	110.98 V	09-16-96	109.23 V
04-07-94	119.92 V	02-23-95	121.19 V	12-14-95	113.15 V	10-15-96	111.08 V
05-16-94	117.68 V	03-07-95	121.27 V	01-23-96	114.00 V	11-15-96	111.30 V
06-09-94	114.30 V	04-14-95	113.95 V	02-16-96	114.14 V	11-19-96	111.47 V
07-12-94	115.62 V	05-17-95	111.18 V	04-22-96	111.23 V	12-09-96	110.87 V
08-10-94	117.93 V	06-15-95	99.41 V	05-15-96	107.41 V	12-18-96	110.99 V
09-14-94	119.34 V	07-19-95	81.06 V	06-04-96	96.45 V		
10-13-94	119.85 V	08-15-95	90.29 V	06-17-96	92.38 V		
Highest	07-19-95	81.06					
Lowest	03-07-95	121.27					
Period of record	Highest	07-06-83	69.95	Lowest	03-07-95	121.27	
Record begins	08-05-82	122 Entries					

Table 12. Instantaneous ground-water levels in selected wells, 1994–96, Long Valley Caldera—Continued

Date	Water level MW	Date	Water level MW	Date	Water level MW	Date	Water level MW
Site identifier: SC-2							
Site number: 373745118554002							
About 2.3 miles southeast of Mammoth Lakes. Drilled observation well. Diameter 4 inches, depth of hole 230 feet, open hole 215–230 feet. Altitude of land-surface datum 7,470.65 feet. Water-level records available 1983–96.							
01-12-94	162.61 V	11-08-94	164.81 V	09-12-95	155.68 V	07-15-96	148.89 V
02-14-94	162.83 V	12-15-94	164.86 S	10-18-95	156.37 V	08-20-96	148.55 V
03-08-94	163.05 V	01-20-95	165.28 V	11-07-95	156.99 V	09-16-96	148.58 V
04-07-94	162.98 V	02-23-95	165.61 V	12-14-95	157.10 V	10-15-96	148.55 V
05-16-94	162.58 V	03-07-95	165.47 V	01-23-96	156.58 V	11-15-96	147.96 V
06-09-94	162.31 V	04-14-95	165.25 V	02-16-96	156.11 V	11-19-96	148.12 V
07-12-94	162.81 V	05-17-95	163.90 V	04-22-96	154.60 V	12-09-96	147.31 V
08-10-94	163.48 V	06-15-95	160.51 V	05-14-96	153.09 V	12-18-96	148.39 V
09-14-94	164.07 V	07-19-95	156.44 V	06-04-96	151.37 V		
10-13-94	164.31 V	08-15-95	155.26 V	06-17-96	149.91 V		
Highest	12-09-96	147.31					
Lowest	02-23-95	165.61					
Period of record	Highest	06-21-84	99.66	Lowest	02-23-95	165.61	
Record begins	08-20-83	149 Entries					

Site identifier: SNARL							
Site number: 373654118495401							
About 7.6 miles southeast of Mammoth Lakes at the Sierra Nevada Aquatic Research Laboratory. Drilled institutional well. Diameter 6 inches, depth 70 feet, perforated 34–70 feet. Altitude of land-surface datum 7,095 feet. Water-level records available 1959–96.							
04-06-94	33.69 V	04-13-95	31.06 V	04-24-96	29.11 V		
07-15-94	29.49 V	07-14-95	19.99 V	07-18-96	19.46 SR		
11-10-94	33.16 V	11-07-95	27.00 V	11-19-96	27.46 VR		
Highest	07-18-96	19.46					
Lowest	04-06-94	33.69					
Period of record	Highest	07-18-96	19.46	Lowest	04-06-94	33.69	
Record begins	09-16-59	29 Entries					

Site identifier: SQ							
Site number: 373742118515703							
About 5.6 miles southeast of Mammoth Lakes. Drilled industrial well. Diameter 8 inches, depth 125 feet, perforated 27–125 feet. Altitude of land-surface datum 7,102.22 feet. Water-level records available 1984–96.							
01-11-94	20.75 S	12-13-94	22.17 V	10-17-95	14.78 S	06-17-96	14.31 V
02-15-94	21.46 V	02-23-95	22.13 V	11-07-95	15.68 V	07-15-96	13.65 V
03-09-94	21.32 V	03-23-95	20.96 S	11-09-95	15.68 S	07-18-96	13.52 S
04-07-94	21.65 S	04-13-95	19.92 V	12-14-95	17.39 V	08-19-96	13.40 S
05-16-94	21.23 S	05-17-95	18.65 V	01-25-96	18.31 S	09-16-96	15.52 S
06-09-94	19.94 V	06-15-95	15.72 V	02-14-96	18.56 S	10-18-96	16.43 V
07-12-94	19.60 V	07-13-95	12.29 S	03-12-96	18.59 S	11-15-96	17.07 S
08-08-94	20.87 V	07-19-95	11.65 V	04-22-96	18.40 S	11-19-96	17.15 V
09-12-94	21.68 S	08-01-95	10.94 V	05-14-96	16.65 S	12-18-96	17.76 V
10-13-94	21.81 S	08-15-95	10.43 V	05-16-96	16.61 V		
11-08-94	21.95 S	09-12-95	11.80 S	06-04-96	15.95 V		
Highest	08-15-95	10.43					
Lowest	12-13-94	22.17					
Period of record	Highest	08-15-95	10.43	Lowest	12-16-92	22.34	
Record begins	07-17-84	114 Entries					

Table 12. Instantaneous ground-water levels in selected wells, 1994–96, Long Valley Caldera—Continued

Date	Water level MW	Date	Water level MW	Date	Water level MW	Date	Water level MW
<p style="text-align: center;">Site identifier: SS-2 Site number: 373818118533202 About 3.9 miles east of Mammoth Lakes at former Mono County Sheriff substation. Drilled public-supply well. Diameter 6 inches, depth 100 feet, perforated 34–60 and 80–100 feet. Altitude of land-surface datum 7,179.13 feet. Water-level records available 1978, 1984–96.</p>							
04-07-94	18.78 S	04-13-95	16.90 V	04-24-96	15.81 V		
07-22-94	18.50 V	07-19-95	8.91 V	07-18-96	9.05 S		
11-08-94	18.76 S	11-10-95	13.53 SR	11-20-96	15.32 V		
Highest	07-19-95	8.91					
Lowest	04-07-94	18.78					
Period of record	Highest	07-19-84	6.35	Lowest	11-19-92	21.60	
Record begins	10-17-78	39 Entries

Figure 14. Temperature profile in well CH-7, June 28, 1995, Long Valley Caldera, Mono County, California. Total depth of well is 210 feet. Log ends at 70 feet because of obstruction at 72 feet.

Figure 15. Temperature profile in well CH-10B, January 13, 1994, Long Valley Caldera, Mono County, California.

Figure 16. Temperature profile in well CM-2, January 28, 1994, Long Valley Caldera, Mono County, California.

Figure 17. Temperature profile in well CW-1, January 28, 1994, Long Valley Caldera, Mono County, California.

Figure 18. Temperature profile in Lookout Mountain well (LKT), January 12, 1994, Long Valley Caldera, Mono County, California.

Figure 19. Temperature profile in well RDO-8, April 22, 1994, Long Valley Caldera, Mono County, California (Data provided by R. Jacobson, Sandia National Laboratories, New Mexico).

Figure 20. Location of springs monitored by U.S. Geological Survey, 1994–96, Long Valley Caldera, Mono County, California.

Figure 21. Daily mean discharge, Little Hot Creek Spring (LHC-SP), 1994–95, Long Valley Caldera, Mono County, California. Measurements discontinued October 17, 1995.

Table 13. Daily mean discharge, Little Hot Creek Spring (LHC–SP), 1994, Long Valley Caldera, California

[Values are in cubic feet per second. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.14	0.13
2	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
3	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
4	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
5	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
6	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
7	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
8	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
9	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
10	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
11	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
12	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
14	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
15	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
16	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
17	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
18	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
19	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
20	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
21	.13	.13	.13	.13	.13	.13	.13	.13	.13	.14	.13	.13
22	.13	.13	.13	.13	.13	.13	.13	.13	.13	.14	.13	.13
23	.13	.13	.13	.13	.13	.13	.13	.13	.13	.14	.13	.13
24	.13	.13	.13	.13	.13	.13	.13	.13	.13	.14	.13	.13
25	.13	.13	.13	.13	.13	.13	.13	.13	.13	.14	.13	.13
26	.13	.13	.13	.13	.13	.13	.13	.13	.13	.14	.13	.13
27	.13	.13	.13	.13	.13	.13	.13	.13	.13	.14	.13	.13
28	.13	.13	.13	.13	.13	.13	.13	.13	.13	.14	.13	.13
29	.13	—	.13	.13	.13	.13	.13	.13	.13	.14	.13	.13
30	.13	—	.13	.13	.13	.13	.13	.13	.13	.14	.13	.13
31	.13	—	.13	—	.13	—	.13	.13	—	.14	—	.13
Mean	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
Max	.13	.13	.13	.13	.13	.13	.13	.13	.13	.14	.14	.13
Min	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13

Table 14. Daily mean discharge, Little Hot Creek Spring (LHC-SP), 1995, Long Valley Caldera, California

[Values are in cubic feet per second. —, no data; Max, maximum; Min, minimum. Measurements discontinued after October 17, 1995]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.13	0.14	—	—	0.13	0.12	0.12	0.12	0.12	0.12	—	—
2	.13	.14	—	—	.13	.12	.12	.12	.12	.12	—	—
3	.13	.14	—	—	.13	.12	.12	.12	.12	.12	—	—
4	.13	.14	—	—	.13	.12	.12	.12	.12	.12	—	—
5	.13	.14	—	—	.13	.12	.12	.12	.12	.12	—	—
6	.13	.14	—	—	.13	.12	.12	.12	.12	.12	—	—
7	.13	.14	—	—	.13	.12	.12	.12	.12	.12	—	—
8	.13	.14	—	—	.13	.12	.12	.12	.12	.12	—	—
9	.13	.13	—	—	.13	.12	.12	.12	.12	.12	—	—
10	.13	.13	—	—	.13	.12	.12	.12	.12	.12	—	—
11	.13	.13	—	—	.13	.12	.12	.12	.12	.12	—	—
12	.13	.13	—	—	.13	.12	.12	.12	.12	.12	—	—
13	.13	.13	—	—	.13	.12	.12	.12	.12	.12	—	—
14	.13	.13	—	—	.13	.12	.12	.12	.12	.12	—	—
15	.13	.13	—	—	.13	.12	.12	.12	.12	.12	—	—
16	.13	.13	—	—	.13	.12	.12	.12	.12	.12	—	—
17	.13	—	—	—	.13	.12	.12	.12	.12	.12	—	—
18	.13	—	—	—	.13	.12	.12	.12	.12	—	—	—
19	.13	—	—	0.13	.13	.12	.12	.12	.12	—	—	—
20	.13	—	—	.13	.13	.12	.12	.12	.12	—	—	—
21	.13	—	—	.13	.13	.12	.12	.12	.12	—	—	—
22	.13	—	—	.13	.13	.12	.12	.12	.12	—	—	—
23	.13	—	—	.13	.13	.12	.12	.12	.12	—	—	—
24	.13	—	—	.13	.13	.12	.12	.12	.12	—	—	—
25	.13	—	—	.13	.13	.12	.12	.12	.12	—	—	—
26	.13	—	—	.13	.13	.12	.12	.12	.12	—	—	—
27	.14	—	—	.13	.13	.12	.12	.12	.12	—	—	—
28	.14	—	—	.13	.13	.12	.12	.12	.12	—	—	—
29	.14	—	—	.13	.13	.12	.12	.12	.12	—	—	—
30	.14	—	—	.13	.13	.12	.12	.12	.12	—	—	—
31	.14	—	—	—	.12	—	.12	.12	—	—	—	—
Mean	.13	.13	—	.13	.13	.12	.12	.12	.12	.12	—	—
Max	.14	.14	—	.13	.13	.12	.12	.12	.12	.12	—	—
Min	.13	.13	—	.13	.12	.12	.12	.12	.12	.12	—	—

Figure 22. Location of data-collection sites at Hot Creek Fish Hatchery, Long Valley Caldera, Mono County, California.

Figure 23. Daily mean discharge, Fish Hatchery Spring AB (FHAB-WEIR), 1990–96, Long Valley Caldera, Mono County, California.

Figure 24. (A) Daily mean discharge, Fish Hatchery Spring AB (FHAB-WEIR), 1994, Long Valley Caldera, Mono County, California.

Table 15. Daily mean discharge, Fish Hatchery Spring AB (FHAB–WEIR), 1994, Long Valley Caldera, California

[Values are in cubic feet per second. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.9	3.3	3.0	3.1	3.0	4.5	6.9	4.0	3.2	2.6	2.6	2.2
2	3.9	3.3	3.1	3.1	3.0	4.8	6.9	4.3	3.2	2.6	2.6	2.2
3	3.9	3.3	3.1	3.1	3.0	5.1	7.0	4.4	3.2	2.6	2.6	2.2
4	3.9	3.3	3.2	3.1	3.0	5.4	6.9	4.3	3.2	2.6	2.6	2.2
5	4.0	3.3	3.3	3.1	3.0	5.5	6.8	4.3	3.1	2.6	2.6	2.2
6	4.1	3.3	3.5	3.1	3.0	5.3	6.7	4.2	3.1	2.6	2.6	2.2
7	4.1	3.2	3.5	3.0	3.0	5.1	6.5	4.2	3.1	2.6	2.5	2.2
8	4.1	3.0	3.5	3.0	3.0	5.1	6.4	4.1	3.1	2.6	2.5	2.2
9	4.1	3.1	3.5	3.0	3.0	5.2	6.2	3.9	3.1	2.6	2.5	2.3
10	4.0	3.1	3.5	3.0	3.0	5.2	6.0	3.8	3.1	2.6	2.5	2.3
11	4.0	3.0	3.5	3.1	3.0	5.2	5.9	3.8	3.0	2.7	2.5	2.3
12	3.9	3.0	3.5	3.1	3.0	5.2	5.7	3.7	3.0	2.8	2.5	2.4
13	3.9	3.0	3.5	3.2	3.0	5.4	5.5	3.7	3.0	2.8	2.5	2.4
14	3.9	3.0	3.5	3.1	3.0	5.7	5.4	3.6	2.9	2.8	2.5	2.5
15	3.9	3.0	3.4	3.1	3.5	6.0	5.4	3.6	2.9	2.8	2.5	2.5
16	3.9	3.0	3.4	3.1	3.8	6.2	5.3	3.6	2.9	2.8	2.5	2.4
17	3.9	3.0	3.3	2.9	3.9	6.5	5.2	3.6	2.9	2.8	2.5	2.5
18	3.9	2.9	3.3	3.0	4.2	6.7	5.1	3.6	2.8	2.8	2.4	2.5
19	3.8	2.9	3.3	3.1	4.2	6.8	5.1	3.6	2.8	2.8	2.4	2.5
20	3.7	3.1	3.3	2.9	4.2	6.9	5.1	3.6	2.8	2.8	2.4	2.5
21	3.6	3.0	3.3	2.9	4.2	6.9	5.0	3.6	2.8	2.8	2.4	2.5
22	3.6	2.9	3.3	2.9	4.1	7.0	4.9	3.5	2.8	2.8	2.4	2.5
23	3.6	2.9	3.3	2.9	4.1	7.1	4.8	3.4	2.8	2.8	2.4	2.5
24	3.6	2.9	3.3	3.0	4.1	7.2	4.7	3.4	2.8	2.8	2.4	2.5
25	3.5	2.9	3.3	3.0	4.2	7.2	4.7	3.3	2.8	2.8	2.4	2.5
26	3.5	2.9	3.3	3.0	4.2	7.2	4.4	3.3	2.8	2.7	2.3	2.5
27	3.5	3.1	3.2	3.0	4.1	7.1	4.3	3.3	2.7	2.6	2.3	2.5
28	3.5	3.0	3.2	3.0	4.1	6.9	4.2	3.3	2.6	2.6	2.3	2.5
29	3.5	—	3.2	3.0	4.1	6.9	4.1	3.3	2.6	2.6	2.2	2.5
30	3.4	—	3.1	3.0	4.1	6.9	4.1	3.3	2.6	2.7	2.2	2.6
31	3.4	—	3.1	—	4.1	—	4.1	3.2	—	2.6	—	2.6
Mean	3.79	3.06	3.32	3.03	3.59	6.07	5.46	3.70	2.92	2.70	2.45	2.40
Max	4.1	3.3	3.5	3.2	4.2	7.2	7.0	4.4	3.2	2.8	2.6	2.6
Min	3.4	2.9	3.0	2.9	3.0	4.5	4.1	3.2	2.6	2.6	2.2	2.2

Figure 24. (B) Daily mean discharge, Fish Hatchery Spring AB (FHAB-WEIR), 1995, Long Valley Caldera, Mono County, California.

Table 16. Daily mean discharge, Fish Hatchery Spring AB (FHAB–WEIR), 1995, Long Valley Caldera, California

[Values are in cubic feet per second. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.8	2.8	2.6	4.0	6.1	7.6	11.9	13.7	14.0	11.4	9.3	8.2
2	2.8	2.8	2.6	4.1	6.3	7.7	12.0	13.8	14.1	11.4	9.3	8.1
3	2.8	2.8	2.6	4.1	6.5	8.0	12.1	14.1	14.0	11.3	9.3	8.1
4	2.8	2.7	2.6	4.1	6.5	8.1	12.1	14.1	13.9	11.2	9.2	8.0
5	2.8	2.6	2.6	4.3	6.5	8.3	12.3	14.1	13.9	11.2	9.2	8.0
6	2.8	2.7	2.6	4.3	6.7	8.6	12.4	14.2	13.8	11.1	9.3	8.0
7	2.9	2.7	2.6	4.4	6.7	8.9	12.5	14.1	13.8	11.0	9.3	7.9
8	2.9	2.7	2.5	4.8	6.7	9.0	12.7	14.1	13.7	10.9	9.4	7.9
9	2.9	2.6	2.6	5.0	6.7	9.2	12.7	14.0	13.6	10.8	9.3	7.8
10	2.9	2.6	2.7	5.1	6.6	9.2	12.7	13.7	13.6	10.7	9.4	7.8
11	2.9	2.6	2.8	5.3	6.6	9.2	12.6	13.7	13.4	10.6	9.4	7.8
12	2.9	2.6	2.8	5.5	6.6	9.3	12.6	13.7	13.3	10.5	9.4	7.8
13	3.0	2.7	2.9	5.7	6.7	9.4	12.7	13.8	13.2	10.5	9.4	7.8
14	3.0	2.6	2.9	5.8	6.7	9.7	12.7	13.8	13.1	10.4	9.3	7.7
15	3.0	2.6	3.1	5.9	6.7	9.9	12.9	13.8	13.0	10.3	9.2	7.6
16	3.0	2.5	3.1	6.0	6.7	10.1	13.0	14.0	12.9	10.3	9.3	7.6
17	2.9	2.5	3.2	6.0	6.8	10.3	13.0	14.2	12.7	10.3	9.3	7.6
18	2.9	2.5	3.2	5.9	6.9	10.5	13.0	14.2	12.6	10.3	9.2	7.6
19	2.9	2.5	3.4	6.0	6.9	10.4	13.0	14.2	12.5	10.1	9.2	7.6
20	2.9	2.5	3.5	6.0	6.8	10.4	13.1	14.2	12.5	10.0	9.2	7.5
21	2.8	2.5	3.7	6.0	6.8	10.5	13.2	14.2	12.4	9.9	9.2	7.4
22	2.8	2.5	3.8	6.0	7.1	10.7	13.2	14.2	12.3	9.9	9.0	7.4
23	2.8	2.6	3.8	6.0	7.3	10.9	13.3	14.2	12.2	9.9	8.9	7.3
24	2.8	2.6	3.8	6.0	7.4	11.1	13.4	14.2	12.1	9.9	8.9	7.3
25	2.8	2.6	3.8	6.0	7.4	11.2	13.4	14.3	12.1	9.9	8.8	7.3
26	2.8	2.6	3.8	6.1	7.4	11.3	13.4	14.3	12.0	9.7	8.8	7.2
27	2.8	2.6	3.8	6.1	7.6	11.4	13.4	14.4	12.0	9.7	8.6	7.2
28	2.8	2.6	3.9	6.1	7.6	11.6	13.5	14.4	11.9	9.5	8.4	7.2
29	2.8	—	3.9	6.1	7.5	11.6	13.6	14.2	11.7	9.4	8.3	7.2
30	2.8	—	3.9	6.1	7.5	11.8	13.5	14.3	11.5	9.4	8.2	7.2
31	2.8	—	3.9	—	7.5	—	13.6	14.1	—	9.4	—	7.2
Mean	2.86	2.61	3.19	5.43	6.90	9.86	12.9	14.1	12.9	10.4	9.10	7.62
Max	3.0	2.8	3.9	6.1	7.6	11.8	13.6	14.4	14.1	11.4	9.4	8.2
Min	2.8	2.5	2.5	4.0	6.1	7.6	11.9	13.7	11.5	9.4	8.2	7.2

Figure 24. (C) Daily mean discharge, Fish Hatchery Spring AB (FHAB-WEIR), 1996, Long Valley Caldera, Mono County, California.

Table 17. Daily mean discharge, Fish Hatchery Spring AB (FHAB–WEIR), 1996, Long Valley Caldera, California

[Values are in cubic feet per second. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	7.2	6.7	6.7	7.0	7.1	10.0	11.0	11.6	10.7	9.8	8.2	7.7
2	7.1	6.7	6.7	7.2	7.3	9.9	11.1	11.5	10.6	9.9	8.2	7.7
3	7.1	6.6	6.8	7.2	7.5	9.6	11.2	11.5	10.5	9.9	8.2	7.8
4	7.2	6.5	6.8	7.2	7.8	9.3	11.1	11.4	10.4	9.9	8.3	7.8
5	7.2	6.7	6.8	7.2	8.0	9.2	11.1	11.1	10.4	9.9	8.5	7.6
6	7.2	6.9	6.7	7.2	8.2	9.3	11.1	10.8	10.5	9.8	8.4	7.5
7	7.2	6.9	6.7	7.2	8.4	9.5	11.1	10.7	10.4	9.8	8.4	7.4
8	7.2	6.9	6.7	7.1	8.6	9.6	11.1	10.6	10.3	9.8	8.2	7.4
9	7.2	6.9	6.7	7.0	8.8	9.7	11.1	10.6	10.2	9.5	8.2	7.4
10	7.2	6.9	6.7	7.0	9.0	9.9	11.0	10.5	10.3	9.5	8.2	7.4
11	7.2	6.9	6.8	7.0	9.0	10.1	11.0	10.5	10.3	9.5	8.2	7.3
12	7.2	6.9	6.9	6.9	9.2	10.0	11.0	10.5	10.2	9.6	8.2	7.2
13	7.2	6.9	6.8	6.9	9.2	10.1	11.0	10.5	10.2	9.6	8.2	7.2
14	7.2	6.9	6.9	6.9	9.2	10.3	11.0	10.5	10.1	9.7	8.0	7.2
15	7.1	6.9	6.8	6.9	9.2	10.3	10.9	10.4	10.2	9.5	7.8	7.2
16	7.1	6.9	6.8	6.9	9.4	10.3	11.1	10.3	10.2	9.1	7.8	7.2
17	7.1	6.9	6.9	6.9	9.6	10.4	11.2	10.3	10.1	8.6	7.8	7.2
18	7.1	6.9	6.9	6.9	9.8	10.4	11.3	10.3	9.9	8.6	7.8	7.2
19	7.1	6.9	6.9	6.9	10.0	10.5	11.3	10.3	9.9	8.5	7.8	7.2
20	7.1	6.9	6.9	6.9	10.1	10.5	11.4	10.5	9.9	8.6	7.7	7.2
21	7.1	6.9	7.0	6.9	10.3	10.6	11.4	10.5	9.9	8.7	7.8	7.2
22	7.1	6.9	6.9	6.9	10.3	10.7	11.4	10.6	9.9	8.7	7.8	7.1
23	7.1	6.9	6.9	6.9	10.1	10.7	11.4	10.6	9.9	8.6	7.8	7.1
24	7.1	6.9	6.9	6.9	10.2	10.8	11.4	10.5	9.7	8.3	7.8	7.1
25	7.0	6.9	6.9	6.9	10.2	10.9	11.4	10.6	9.7	8.3	7.8	7.1
26	7.0	6.8	6.9	6.9	10.3	10.9	11.4	10.6	9.7	8.3	7.8	7.1
27	7.0	6.9	6.9	6.9	10.3	11.0	11.4	10.6	9.7	8.2	7.8	7.1
28	6.9	6.8	6.9	6.9	10.3	11.0	11.5	10.6	9.7	8.2	7.7	7.0
29	6.9	6.8	6.9	6.9	10.1	11.0	11.5	10.6	9.7	8.2	7.7	7.0
30	6.9	—	6.9	7.0	10.1	11.0	11.6	10.6	9.8	8.2	7.7	7.0
31	6.8	—	7.0	—	10.1	—	11.5	10.5	—	8.2	—	7.0
Mean	7.10	6.84	6.84	6.98	9.28	10.2	11.2	10.7	10.1	9.06	7.99	7.28
Max	7.2	6.9	7.0	7.2	10.3	11.0	11.6	11.6	10.7	9.9	8.5	7.8
Min	6.8	6.5	6.7	6.9	7.1	9.2	10.9	10.3	9.7	8.2	7.7	7.0

Figure 25. Daily mean water temperature, Fish Hatchery Spring AB (FHAB-WEIR), October 1992 to December 1996, Long Valley Caldera, Mono County, California.

Figure 26. (A) Daily mean water temperature, Fish Hatchery Spring AB (FHAB-WEIR), 1994, Long Valley Caldera, Mono County, California.

Table 18. Daily mean water temperature, Fish Hatchery Spring AB (FHAB–WEIR), 1994, Long Valley Caldera, California

[Values are in degrees Celsius. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	17.8	17.6	17.8	17.9	17.8	17.8	17.5	18.1	18.1	18.2	17.9	17.9
2	17.9	17.6	17.8	17.7	17.8	17.8	17.6	17.9	18.1	18.2	17.9	18.0
3	17.9	17.7	17.8	17.7	17.8	17.7	17.6	17.9	18.1	18.2	17.8	18.0
4	17.8	17.7	17.7	17.8	17.8	17.6	17.6	17.9	18.1	18.0	17.9	18.0
5	17.6	17.7	17.7	17.7	17.7	17.6	17.6	17.9	18.1	18.1	18.1	18.0
6	17.7	17.7	17.6	17.6	17.6	17.5	17.6	17.8	18.2	18.1	18.0	17.9
7	17.7	17.5	17.7	17.7	17.6	17.6	17.6	17.9	18.2	18.2	18.0	17.9
8	17.7	17.7	17.7	17.6	17.7	17.6	17.7	17.9	18.2	18.2	18.0	17.9
9	17.7	17.7	17.7	17.6	17.9	17.7	17.7	18.0	18.1	18.2	17.8	17.9
10	17.7	17.4	17.6	17.7	17.9	17.7	17.7	18.0	18.1	18.2	17.9	17.8
11	17.7	17.5	17.3	17.8	17.9	17.7	17.7	18.0	18.1	18.2	17.9	18.0
12	17.7	17.6	17.6	17.7	17.9	17.6	17.8	18.0	18.0	18.0	17.9	17.8
13	17.8	17.6	17.8	17.8	17.9	17.6	17.9	18.0	18.0	18.0	17.9	17.8
14	17.8	17.7	17.8	17.9	17.9	17.6	17.9	18.1	18.2	18.0	17.9	17.7
15	17.8	17.7	17.7	17.9	17.6	17.5	17.9	18.1	18.2	17.9	17.8	17.7
16	17.8	17.7	17.4	17.8	17.5	17.5	17.9	18.1	18.2	18.0	17.8	17.8
17	17.8	17.4	17.6	17.9	17.5	17.6	17.9	18.0	18.2	18.1	17.7	17.8
18	17.8	17.5	17.6	17.9	17.5	17.6	17.9	18.0	18.2	18.1	17.8	17.7
19	17.8	17.5	17.4	17.9	17.6	17.5	18.0	18.1	18.1	18.1	17.9	17.7
20	17.8	17.5	17.6	17.8	17.7	17.5	18.0	18.1	18.2	18.1	17.9	17.7
21	17.7	17.5	17.6	17.8	17.7	17.5	18.0	18.0	18.2	18.1	17.9	17.8
22	17.8	17.6	17.1	17.7	17.7	17.5	18.0	18.1	18.2	18.1	17.9	17.8
23	17.7	17.6	17.5	17.5	17.7	17.5	17.9	18.1	18.1	18.1	18.0	17.8
24	17.6	17.7	17.4	17.5	17.8	17.5	18.0	18.0	17.9	18.1	17.9	17.7
25	17.6	17.8	17.4	17.5	17.7	17.5	18.0	18.1	18.2	18.1	17.7	17.7
26	17.7	17.7	17.7	17.5	17.7	17.5	18.0	18.2	18.2	18.1	17.4	17.8
27	17.7	17.7	17.8	17.4	17.8	17.5	18.0	18.1	18.2	18.1	17.6	17.8
28	17.6	17.8	17.7	17.6	17.8	17.5	18.0	18.2	18.1	18.1	17.9	17.7
29	17.7	—	17.8	17.7	17.8	17.5	18.0	18.2	18.2	18.0	17.9	17.7
30	17.7	—	17.8	17.7	17.7	17.5	18.0	18.2	18.2	18.1	17.9	17.6
31	17.7	—	17.8	—	17.8	—	18.1	18.1	—	18.1	—	17.7
Mean	17.7	17.6	17.6	17.7	17.7	17.6	17.8	18.0	18.1	18.1	17.9	17.8
Max	17.9	17.8	17.8	17.9	17.9	17.8	18.1	18.2	18.2	18.2	18.1	18.0
Min	17.6	17.4	17.1	17.4	17.5	17.5	17.5	17.8	17.9	17.9	17.4	17.6

Figure 26. (B) Daily mean water temperature, Fish Hatchery Spring AB (FHAB-WEIR), 1995, Long Valley Caldera, Mono County, California.

Table 19. Daily mean water temperature, Fish Hatchery Spring AB (FHAB–WEIR), 1995, Long Valley Caldera, California

[Values are in degrees Celsius. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	17.6	17.5	17.5	17.1	16.6	16.6	16.2	16.3	16.3	16.6	17.1	17.4
2	17.5	17.5	17.5	17.2	16.7	16.7	16.2	16.3	16.4	16.7	17.0	17.4
3	17.6	17.4	17.2	17.2	16.7	16.7	16.2	16.4	16.4	16.7	17.1	17.4
4	17.3	17.4	17.4	17.2	16.6	16.7	16.3	16.4	16.4	16.7	17.0	17.4
5	17.3	17.4	17.3	17.2	16.5	16.5	16.2	16.4	16.3	16.7	17.0	17.4
6	17.4	17.4	17.4	17.0	16.5	16.3	16.2	16.4	16.3	16.7	17.1	17.5
7	17.4	17.4	17.4	17.1	16.6	16.3	16.3	16.3	16.3	16.7	17.2	17.5
8	17.5	17.5	17.4	16.6	16.7	16.4	16.2	16.4	16.3	16.7	17.2	17.5
9	17.6	17.5	17.1	16.9	16.7	16.4	16.3	16.4	16.3	16.8	17.2	17.5
10	17.0	17.4	16.5	17.1	16.7	16.4	16.2	16.3	16.4	16.8	17.2	17.5
11	17.4	17.3	17.1	17.1	16.6	16.4	16.2	16.3	16.4	16.8	17.2	17.5
12	17.5	17.2	17.4	16.9	16.4	16.4	16.2	16.3	16.4	16.8	17.3	17.3
13	17.4	16.7	17.4	16.6	16.6	16.4	16.2	16.3	16.4	16.8	17.3	17.5
14	17.4	17.2	17.3	16.9	16.6	16.3	16.3	16.4	16.4	16.8	17.2	17.4
15	17.3	17.3	17.4	16.8	16.6	16.2	16.3	16.3	16.4	16.8	17.2	17.3
16	17.3	17.3	17.3	16.8	16.6	16.2	16.3	16.3	16.4	16.9	17.3	17.4
17	17.3	17.4	17.4	16.8	16.7	16.2	16.2	16.3	16.4	16.9	17.3	17.4
18	17.4	17.5	17.2	16.7	16.7	16.3	16.3	16.3	16.5	16.9	17.3	17.5
19	17.3	17.5	17.3	16.8	16.7	16.3	16.3	16.4	16.5	17.0	17.3	17.5
20	17.5	17.5	16.8	16.6	16.7	16.2	16.3	16.3	16.5	16.9	17.3	17.4
21	17.4	17.4	16.8	16.8	16.6	16.2	16.3	16.4	16.5	16.9	17.3	17.4
22	17.4	17.5	17.0	16.8	16.6	16.3	16.3	16.4	16.5	16.9	17.3	17.4
23	17.4	17.5	16.9	16.8	16.6	16.3	16.3	16.4	16.6	17.0	17.3	17.5
24	17.4	17.5	17.0	16.8	16.6	16.3	16.3	16.4	16.6	16.9	17.4	17.4
25	17.5	17.5	17.1	16.7	16.6	16.2	16.3	16.3	16.6	17.0	17.3	17.4
26	17.3	17.5	17.1	16.7	16.7	16.2	16.3	16.3	16.6	17.0	17.3	17.4
27	17.4	17.6	17.2	16.6	16.6	16.2	16.3	16.3	16.6	17.0	17.3	17.5
28	17.4	17.5	17.2	16.7	16.7	16.2	16.3	16.3	16.6	17.1	17.4	17.5
29	17.4	—	17.2	16.5	16.7	16.2	16.4	16.3	16.6	17.1	17.4	17.5
30	17.4	—	17.2	16.6	16.7	16.2	16.3	16.3	16.6	17.1	17.4	17.6
31	17.5	—	17.2	—	16.8	—	16.3	16.3	—	17.1	—	17.6
Mean	17.4	17.4	17.2	16.9	16.6	16.3	16.3	16.3	16.4	16.9	17.2	17.4
Max	17.6	17.6	17.5	17.2	16.8	16.7	16.4	16.4	16.6	17.1	17.4	17.6
Min	17.0	16.7	16.5	16.5	16.4	16.2	16.2	16.3	16.3	16.6	17.0	17.3

Figure 26. (C) Daily mean water temperature, Fish Hatchery Spring AB (FHAB-WEIR), 1996, Long Valley Caldera, Mono County, California.

Table 20. Daily mean water temperature, Fish Hatchery Spring AB (FHAB–WEIR), 1996, Long Valley Caldera, California

[Values are in degrees Celsius. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	17.5	17.6	17.4	17.2	17.2	16.9	16.7	16.6	16.7	16.9	17.1	17.0
2	17.6	17.6	17.5	17.3	17.2	16.9	16.7	16.6	16.7	17.0	17.1	17.0
3	17.4	17.6	17.5	17.3	17.1	17.0	16.7	16.5	16.7	17.0	17.1	17.1
4	17.6	17.6	17.0	17.3	17.2	17.0	16.7	16.6	16.7	17.0	17.1	17.1
5	17.6	17.6	16.5	17.3	17.1	17.0	16.7	16.6	16.7	17.0	17.0	16.9
6	17.7	17.6	17.3	17.4	17.1	17.0	16.8	16.6	16.7	17.0	17.1	16.9
7	17.6	17.7	17.5	17.3	17.1	17.0	16.8	16.6	16.8	17.1	17.1	17.1
8	17.7	17.6	17.5	17.3	17.1	17.0	16.7	16.6	16.8	17.1	17.1	17.1
9	17.6	17.6	17.5	17.3	17.1	17.0	16.7	16.6	16.8	17.1	17.1	17.0
10	17.7	17.6	17.4	17.2	17.1	17.0	16.7	16.5	16.8	17.1	17.1	17.0
11	17.7	17.6	17.3	17.2	17.1	17.0	16.7	16.6	16.8	17.1	17.2	17.0
12	17.6	17.6	17.3	17.1	17.0	17.0	16.7	16.5	16.8	17.1	17.1	17.0
13	17.6	17.6	17.3	17.3	17.0	17.0	16.7	16.6	16.7	17.1	17.1	17.0
14	17.6	17.6	17.3	17.3	17.0	17.0	16.6	16.6	16.8	17.1	17.1	16.9
15	17.5	17.6	17.4	17.2	16.9	16.9	16.6	16.6	16.8	17.1	17.1	16.9
16	17.4	17.6	17.3	17.1	16.9	16.9	16.6	16.6	16.8	17.1	17.1	17.0
17	17.5	17.5	17.4	17.2	16.9	16.9	16.6	16.6	16.8	17.1	17.1	17.0
18	17.5	17.5	17.4	17.1	16.8	16.9	16.6	16.6	16.9	17.0	17.2	17.1
19	17.4	17.3	17.4	17.1	16.9	16.9	16.6	16.6	16.9	17.0	17.1	17.1
20	17.6	16.7	17.4	17.1	16.9	16.9	16.6	16.6	16.9	17.0	17.2	17.1
21	17.5	17.2	17.3	17.2	16.8	16.8	16.6	16.6	16.9	17.0	17.2	17.0
22	17.5	17.2	17.1	17.2	16.8	16.8	16.6	16.7	16.9	17.1	17.1	16.5
23	17.5	17.3	17.1	17.2	16.7	16.8	16.6	16.6	17.0	17.2	17.2	16.5
24	17.3	17.1	17.2	17.1	16.8	16.7	16.6	16.6	16.9	17.1	17.2	16.9
25	17.2	17.3	17.1	17.3	16.8	16.7	16.6	16.7	16.9	17.0	17.1	17.1
26	17.5	17.3	17.2	17.2	16.9	16.6	16.6	16.6	16.9	17.0	17.1	17.2
27	17.2	17.3	17.2	17.3	16.8	16.7	16.6	16.7	17.0	17.1	17.1	17.1
28	17.5	17.3	17.0	17.2	16.8	16.7	16.6	16.7	17.0	17.1	16.9	17.2
29	17.5	17.4	17.3	17.3	16.8	16.7	16.5	16.7	17.0	17.0	17.0	17.1
30	17.6	—	17.3	17.3	16.8	16.7	16.5	16.7	17.0	17.0	17.1	17.2
31	17.6	—	17.3	—	16.9	—	16.5	16.7	—	17.1	—	17.2
Mean	17.5	17.5	17.3	17.2	17.0	16.9	16.6	16.6	16.8	17.1	17.1	17.0
Max	17.7	17.7	17.5	17.4	17.2	17.0	16.8	16.7	17.0	17.2	17.2	17.2
Min	17.2	16.7	16.5	17.1	16.7	16.6	16.5	16.5	16.7	16.9	16.9	16.5

Figure 27. Daily mean discharge, Fish Hatchery Spring CD (FHCD-Q), 1995–96, Long Valley Caldera, Mono County, California.

Figure 28. (A) Daily mean discharge, Fish Hatchery Spring CD (FHCD-Q), 1995, Long Valley Caldera, Mono County, California.

Table 21. Daily mean discharge, Fish Hatchery Spring CD (FHCD-Q), 1995, Long Valley Caldera, California

[Values are in cubic feet per second. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	5.7	5.7	5.7	6.4	7.4	9.0	10.3	11.2	11.4	10.7	9.0	8.8
2	5.8	5.7	5.7	6.4	7.5	8.8	10.3	11.2	11.5	10.7	9.0	8.8
3	6.0	5.7	5.7	6.4	7.6	8.8	10.4	11.2	11.6	10.7	9.0	8.8
4	6.0	5.7	5.7	6.3	7.6	9.0	10.5	11.2	11.6	10.7	9.1	8.8
5	5.9	5.7	5.7	6.2	7.7	8.8	10.5	11.2	11.6	10.7	9.2	8.8
6	5.9	5.7	5.7	6.4	7.7	8.8	10.5	11.2	11.5	10.7	9.2	8.8
7	5.9	5.7	5.7	6.4	7.7	8.9	10.9	11.4	11.4	10.7	9.2	8.8
8	5.9	5.7	5.7	6.6	7.7	9.0	11.0	11.4	11.4	10.6	9.1	8.8
9	5.9	5.7	5.9	6.7	7.7	9.0	11.2	11.3	11.4	10.5	9.3	8.8
10	5.9	5.7	6.1	6.7	7.7	9.2	11.2	11.4	11.4	10.3	9.3	8.8
11	5.9	5.7	6.0	6.7	7.8	9.2	10.9	11.4	11.3	10.1	9.2	8.8
12	5.9	5.7	5.9	6.8	8.1	9.2	10.7	11.4	11.2	10.1	9.2	8.9
13	5.8	5.8	5.9	6.9	8.1	9.2	10.8	11.4	11.2	10.1	9.2	8.8
14	5.7	5.6	5.9	6.9	8.1	9.2	10.9	11.4	11.2	10.1	9.3	8.7
15	5.7	5.6	5.9	6.9	8.2	9.4	10.9	11.4	11.0	10.0	9.4	8.6
16	5.7	5.6	6.0	7.0	8.0	9.4	10.9	11.4	10.9	9.9	9.4	8.5
17	5.7	5.5	6.2	7.1	7.9	9.4	11.1	11.4	10.9	9.9	9.4	8.5
18	5.8	5.5	6.2	7.1	7.9	9.6	11.2	11.4	10.9	10.0	9.4	8.5
19	5.7	5.5	6.2	7.0	7.9	9.6	11.2	11.4	10.9	10.0	9.4	8.5
20	5.7	5.6	6.3	7.1	8.0	9.6	11.3	11.4	10.7	10.1	9.4	8.5
21	5.7	5.7	6.4	7.1	8.1	9.6	11.4	11.4	10.7	10.1	9.4	8.5
22	5.7	5.7	6.4	7.1	8.1	9.6	11.4	11.4	10.7	10.1	9.4	8.5
23	5.7	5.7	6.4	7.1	8.1	9.8	11.5	11.4	10.7	10.0	9.4	8.5
24	5.7	5.6	6.4	7.2	8.1	10.0	11.6	11.4	10.7	9.9	9.4	8.5
25	5.7	5.7	6.4	7.3	8.2	10.1	11.7	11.4	10.8	10.0	9.4	8.5
26	5.7	5.7	6.4	7.3	8.3	10.1	11.8	11.4	10.9	9.6	9.4	8.5
27	5.7	5.7	6.4	7.3	8.3	10.1	11.8	11.4	10.8	9.6	9.2	8.5
28	5.7	5.7	6.4	7.3	8.5	10.3	11.6	11.4	10.5	9.6	8.9	8.5
29	5.7	—	6.4	7.4	8.5	10.2	11.8	11.4	10.5	9.6	8.8	8.5
30	5.7	—	6.4	7.3	8.7	10.2	11.8	11.4	10.6	9.3	8.8	8.3
31	5.7	—	6.4	—	8.9	—	11.5	11.4	—	9.0	—	8.3
Mean	5.78	5.66	6.08	6.88	8.00	9.44	11.1	11.4	11.1	10.1	9.23	8.63
Max	6.0	5.8	6.4	7.4	8.9	10.3	11.8	11.4	11.6	10.7	9.4	8.9
Min	5.7	5.5	5.7	6.2	7.4	8.8	10.3	11.2	10.5	9.0	8.8	8.3

Figure 28. (B) Daily mean discharge, Fish Hatchery Spring CD (FHCD-Q), 1996, Long Valley Caldera, Mono County, California.

Table 22. Daily mean discharge, Fish Hatchery Spring CD (FHCD-Q), 1996, Long Valley Caldera, California

[Values are in cubic feet per second. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	8.3	7.9	7.5	8.1	7.9	9.4	9.9	10.1	10.5	9.6	8.9	8.6
2	8.3	7.9	7.5	8.0	8.1	9.3	9.8	10.2	10.5	9.8	8.8	8.6
3	8.3	7.9	7.5	8.0	8.1	9.2	9.6	10.1	10.5	9.8	8.8	8.6
4	8.4	8.0	7.6	7.9	8.2	9.2	9.6	10.3	10.5	9.8	8.8	8.6
5	8.5	8.0	7.7	7.9	8.3	9.2	9.6	10.5	10.4	9.7	8.7	8.7
6	8.3	8.2	7.5	7.9	8.3	9.2	9.6	10.3	10.4	9.8	8.6	8.7
7	8.3	8.1	7.6	7.9	8.5	9.2	9.5	10.2	10.3	9.6	8.6	8.5
8	8.3	8.1	7.5	7.9	8.7	9.4	9.6	10.2	10.2	9.6	8.6	8.6
9	8.3	8.2	7.5	7.9	8.8	9.4	9.6	10.4	10.1	9.6	8.7	8.6
10	8.3	8.1	7.5	7.9	8.8	9.4	9.6	10.5	10.1	9.6	8.9	8.5
11	8.3	8.1	7.5	7.9	8.8	9.6	9.6	10.7	10.1	9.5	8.8	8.3
12	8.3	8.1	7.6	7.9	8.8	9.7	9.5	10.7	10.1	9.4	8.8	8.2
13	8.3	8.1	7.9	7.9	8.9	9.8	9.4	10.6	9.9	9.4	8.8	8.1
14	8.3	8.1	7.9	7.9	8.9	9.8	9.4	10.7	9.8	9.4	8.7	8.1
15	8.3	8.1	7.9	7.9	8.8	9.8	9.5	10.7	9.9	9.3	8.5	8.1
16	8.3	8.1	7.9	7.8	8.9	9.9	9.7	10.7	9.8	8.7	8.5	8.1
17	8.3	8.1	8.1	7.7	9.0	10.1	9.8	10.7	9.7	8.5	8.7	8.1
18	8.3	7.9	8.3	7.7	9.0	10.1	9.8	10.7	9.4	8.5	8.6	8.1
19	8.3	7.9	8.2	7.6	9.1	10.1	9.8	10.7	9.4	8.5	8.6	8.1
20	8.3	7.9	8.1	7.5	9.2	10.1	9.8	10.5	9.4	8.5	8.7	8.1
21	8.2	7.8	8.1	7.7	9.2	10.1	9.9	10.4	9.4	8.7	8.7	8.1
22	8.1	7.8	8.1	7.8	9.2	10.1	9.9	10.4	9.4	8.8	8.8	8.2
23	8.1	7.8	8.1	7.8	9.4	10.1	10.1	10.4	9.4	8.8	8.6	8.1
24	8.1	7.8	8.1	7.9	9.4	10.1	10.1	10.5	9.4	8.8	8.5	8.1
25	8.2	7.7	8.1	7.9	9.4	10.1	10.1	10.5	9.4	8.8	8.5	8.1
26	8.1	7.8	8.2	7.9	9.4	10.1	10.1	10.4	9.4	8.8	8.5	8.1
27	8.0	7.6	8.1	7.9	9.4	10.1	10.1	10.3	9.4	8.8	8.5	8.1
28	7.9	7.5	8.1	7.9	9.4	10.1	10.1	10.3	9.4	8.8	8.6	8.1
29	7.9	7.5	8.0	7.9	9.4	10.1	10.1	10.3	9.4	8.8	8.5	8.1
30	7.9	—	8.0	7.9	9.4	10.0	10.1	10.3	9.4	8.8	8.5	8.2
31	7.9	—	8.1	—	9.4	—	10.2	10.3	—	9.0	—	8.1
Mean	8.22	7.93	7.86	7.86	8.91	9.76	9.79	10.4	9.83	9.15	8.66	8.28
Max	8.5	8.2	8.3	8.1	9.4	10.1	10.2	10.7	10.5	9.8	8.9	8.7
Min	7.9	7.5	7.5	7.5	7.9	9.2	9.4	10.1	9.4	8.5	8.5	8.1

Figure 29. Daily mean water temperature, Fish Hatchery Spring CD (FHCD-T), 1988–96, Long Valley Caldera, Mono County, California.

Figure 30. (A) Daily mean water temperature, Fish Hatchery Spring CD (FHCD-T), 1994, Long Valley Caldera, Mono County, California.

Table 23. Daily mean water temperature, Fish Hatchery Spring CD (FHCD-T), 1994, Long Valley Caldera, California

[Values are in degrees Celsius. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	16.0	16.2	16.3	16.3	16.2	15.8	15.7	16.2	16.5	16.7	16.7	16.8
2	16.0	16.2	16.3	16.3	16.2	15.8	15.7	16.2	16.5	16.7	16.7	16.8
3	16.0	16.2	16.3	16.3	16.2	15.7	15.7	16.2	16.5	16.7	16.7	16.8
4	16.0	16.2	16.3	16.3	16.2	15.7	15.7	16.2	16.5	16.7	16.7	16.8
5	16.0	16.2	16.3	16.3	16.2	15.7	15.7	16.2	16.5	16.7	16.7	16.8
6	16.0	16.2	16.3	16.3	16.2	15.7	15.7	16.2	16.6	16.7	16.7	16.8
7	16.0	16.2	16.3	16.3	16.2	15.7	15.7	16.2	16.6	16.7	16.8	16.8
8	16.0	16.2	16.3	16.3	16.2	15.7	15.7	16.2	16.6	16.7	16.8	16.8
9	16.0	16.3	16.3	16.3	16.2	15.7	15.7	16.3	16.6	16.7	16.8	16.8
10	16.0	16.3	16.3	16.3	16.2	15.7	15.7	16.3	16.6	16.7	16.8	16.8
11	16.0	16.3	16.3	16.3	16.2	15.7	15.7	16.3	16.6	16.7	16.8	16.8
12	16.0	16.3	16.3	16.3	16.2	15.7	15.7	16.3	16.6	16.8	16.8	16.8
13	16.0	16.3	16.3	16.3	16.2	15.7	15.7	16.3	16.6	16.8	16.8	16.8
14	16.0	16.3	16.3	16.3	16.2	15.7	15.7	16.3	16.6	16.8	16.8	16.8
15	16.0	16.3	16.3	16.3	16.1	15.7	15.8	16.3	16.6	16.8	16.8	16.8
16	16.0	16.3	16.3	16.3	16.1	15.7	15.8	16.4	16.6	16.8	16.8	16.8
17	16.0	16.3	16.3	16.3	16.1	15.7	15.8	16.4	16.7	16.8	16.8	16.8
18	16.0	16.3	16.3	16.3	16.1	15.7	15.8	16.4	16.7	16.8	16.8	16.8
19	16.1	16.3	16.3	16.3	16.0	15.7	15.8	16.4	16.7	16.8	16.8	16.8
20	16.1	16.3	16.3	16.3	16.0	15.7	15.9	16.4	16.7	16.8	16.8	16.8
21	16.1	16.3	16.3	16.3	16.0	15.6	15.9	16.4	16.7	16.8	16.8	16.8
22	16.1	16.3	16.3	16.3	16.0	15.6	15.9	16.4	16.7	16.8	16.8	16.8
23	16.1	16.3	16.3	16.3	16.0	15.6	15.9	16.4	16.7	16.8	16.8	16.8
24	16.1	16.3	16.3	16.3	15.9	15.6	16.0	16.4	16.7	16.8	16.8	16.8
25	16.1	16.3	16.3	16.2	15.9	15.6	16.0	16.4	16.7	16.8	16.8	16.8
26	16.1	16.3	16.3	16.2	15.9	15.6	16.0	16.5	16.7	16.8	16.8	16.8
27	16.1	16.3	16.3	16.2	15.9	15.6	16.0	16.5	16.7	16.8	16.8	16.8
28	16.1	16.3	16.3	16.2	15.9	15.6	16.1	16.5	16.7	16.8	16.8	16.8
29	16.1	—	16.3	16.2	15.8	15.6	16.1	16.5	16.7	16.8	16.8	16.8
30	16.2	—	16.3	16.2	15.8	15.7	16.1	16.5	16.7	16.8	16.8	16.8
31	16.2	—	16.3	—	15.8	—	16.1	16.5	—	16.7	—	16.8
Mean	16.0	16.3	16.3	16.3	16.1	15.7	15.8	16.3	16.6	16.8	16.8	16.8
Max	16.2	16.3	16.3	16.3	16.2	15.8	16.1	16.5	16.7	16.8	16.8	16.8
Min	16.0	16.2	16.3	16.2	15.8	15.6	15.7	16.2	16.5	16.7	16.7	16.8

Figure 30. (B) Daily mean water temperature, Fish Hatchery Spring CD (FHCD-T), 1995, Long Valley Caldera, Mono County, California.

Table 24. Daily mean water temperature, Fish Hatchery Spring CD (FHCD-T), 1995, Long Valley Caldera, California

[Values are in degrees Celsius. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	16.8	16.6	16.5	15.9	15.5	15.5	15.1	14.6	14.6	14.8	15.4	15.7
2	16.8	16.6	16.5	15.9	15.5	15.6	15.1	14.6	14.6	14.9	15.4	15.7
3	16.8	16.6	16.5	15.9	15.5	15.6	15.1	14.6	14.6	14.9	15.3	15.7
4	16.8	16.6	16.5	15.9	15.5	15.6	15.0	14.6	14.6	14.9	15.4	15.7
5	16.7	16.6	16.5	15.9	15.5	15.6	15.0	14.6	14.6	14.9	15.4	15.7
6	16.7	16.6	16.5	15.8	15.5	15.6	15.0	14.6	14.6	14.9	15.4	15.7
7	16.7	16.6	16.5	15.8	15.5	15.6	15.0	14.6	14.6	14.9	15.4	15.7
8	16.7	16.6	16.5	15.8	15.5	15.6	14.9	14.6	14.6	14.9	15.5	15.7
9	16.7	16.6	16.5	15.8	15.5	15.6	14.9	14.6	14.6	14.9	15.5	15.7
10	16.7	16.6	16.5	15.7	15.5	15.6	14.9	14.6	14.6	15.0	15.5	15.7
11	16.7	16.6	16.5	15.7	15.5	15.6	14.8	14.6	14.7	15.0	15.5	15.7
12	16.7	16.6	16.4	15.7	15.5	15.6	14.8	14.6	14.7	15.0	15.5	15.7
13	16.7	16.6	16.4	15.7	15.5	15.6	14.8	14.6	14.7	15.0	15.5	15.7
14	16.7	16.6	16.4	15.7	15.5	15.6	14.8	14.6	14.7	15.0	15.5	15.7
15	16.7	16.6	16.4	15.6	15.5	15.5	14.8	14.6	14.7	15.0	15.4	15.7
16	16.7	16.6	16.3	15.6	15.5	15.5	14.7	14.6	14.7	15.1	15.4	15.7
17	16.7	16.6	16.3	15.6	15.5	15.5	14.7	14.6	14.7	15.1	15.4	15.7
18	16.6	16.6	16.3	15.6	15.5	15.5	14.7	14.6	14.7	15.1	15.5	15.7
19	16.6	16.6	16.3	15.6	15.5	15.4	14.7	14.6	14.7	15.1	15.5	15.7
20	16.6	16.6	16.2	15.6	15.5	15.4	14.7	14.6	14.7	15.1	15.5	15.7
21	16.6	16.6	16.2	15.6	15.5	15.4	14.7	14.6	14.7	15.1	15.5	15.7
22	16.6	16.6	16.2	15.6	15.5	15.4	14.7	14.6	14.8	15.2	15.6	15.7
23	16.6	16.6	16.1	15.6	15.5	15.3	14.7	14.6	14.8	15.2	15.6	15.7
24	16.6	16.6	16.1	15.5	15.5	15.3	14.7	14.6	14.8	15.2	15.6	15.7
25	16.6	16.5	16.1	15.5	15.5	15.3	14.7	14.6	14.8	15.2	15.6	15.7
26	16.6	16.5	16.1	15.5	15.5	15.3	14.7	14.6	14.8	15.2	15.6	15.7
27	16.6	16.5	16.0	15.5	15.5	15.2	14.7	14.6	14.8	15.2	15.6	15.7
28	16.6	16.5	16.0	15.5	15.5	15.2	14.7	14.6	14.8	15.2	15.6	15.7
29	16.6	—	16.0	15.5	15.5	15.2	14.7	14.6	14.8	15.2	15.7	15.7
30	16.6	—	16.0	15.5	15.5	15.1	14.7	14.6	14.8	15.4	15.7	15.7
31	16.6	—	16.0	—	15.5	—	14.7	14.6	—	15.5	—	15.7
Mean	16.7	16.6	16.3	15.7	15.5	15.5	14.8	14.6	14.7	15.1	15.5	15.7
Max	16.8	16.6	16.5	15.9	15.5	15.6	15.1	14.6	14.8	15.5	15.7	15.7
Min	16.6	16.5	16.0	15.5	15.5	15.1	14.7	14.6	14.6	14.8	15.3	15.7

Figure 30. (C) Daily mean water temperature, Fish Hatchery Spring CD (FHCD-T), 1996, Long Valley Caldera, Mono County, California.

Table 25. Daily mean water temperature, Fish Hatchery Spring CD (FHCD-T), 1996, Long Valley Caldera, California

[Values are in degrees Celsius. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	15.7	15.7	15.7	15.6	15.4	15.3	14.7	14.6	14.6	15.1	15.3	15.5
2	15.7	15.7	15.7	15.6	15.4	15.3	14.8	14.6	14.6	15.2	15.3	15.5
3	15.7	15.7	15.7	15.6	15.4	15.3	14.7	14.6	14.7	15.2	15.4	15.5
4	15.7	15.7	15.7	15.5	15.4	15.4	14.7	14.6	14.7	15.2	15.4	15.5
5	15.7	15.7	15.7	15.5	15.4	15.4	14.6	14.6	14.7	15.2	15.4	15.5
6	15.7	15.7	15.7	15.5	15.4	15.4	14.7	14.6	14.7	15.2	15.4	15.5
7	15.7	15.7	15.7	15.5	15.4	15.3	14.7	14.6	14.8	15.2	15.4	15.5
8	15.7	15.7	15.7	15.5	15.4	15.2	14.7	14.6	14.8	15.2	15.4	15.5
9	15.7	15.7	15.7	15.6	15.4	15.2	14.7	14.6	14.9	15.2	15.4	15.5
10	15.7	15.7	15.7	15.6	15.4	15.2	14.7	14.5	14.9	15.2	15.5	15.5
11	15.7	15.7	15.7	15.6	15.4	15.2	14.7	14.5	14.9	15.2	15.5	15.5
12	15.7	15.7	15.7	15.5	15.4	15.1	14.7	14.5	14.9	15.2	15.5	15.5
13	15.7	15.7	15.6	15.5	15.4	15.2	14.6	14.5	14.9	15.1	15.5	15.5
14	15.7	15.7	15.6	15.5	15.4	15.2	14.7	14.5	14.9	15.2	15.5	15.5
15	15.7	15.7	15.6	15.5	15.4	15.2	14.7	14.5	14.9	15.2	15.5	15.5
16	15.7	15.7	15.6	15.5	15.4	15.2	14.7	14.5	14.9	15.2	15.5	15.5
17	15.7	15.7	15.6	15.5	15.4	15.0	14.7	14.5	14.9	15.2	15.5	15.5
18	15.7	15.7	15.6	15.5	15.4	15.0	14.7	14.5	15.0	15.2	15.5	15.5
19	15.7	15.7	15.6	15.5	15.4	15.0	14.7	14.5	15.1	15.2	15.5	15.5
20	15.7	15.7	15.6	15.5	15.4	15.0	14.7	14.5	15.1	15.2	15.5	15.5
21	15.7	15.7	15.6	15.5	15.3	14.9	14.7	14.5	15.1	15.2	15.5	15.5
22	15.7	15.7	15.6	15.5	15.3	14.8	14.6	14.6	15.1	15.2	15.5	15.5
23	15.7	15.7	15.6	15.5	15.3	14.8	14.6	14.5	15.1	15.3	15.5	15.5
24	15.7	15.7	15.6	15.5	15.3	14.8	14.6	14.6	15.1	15.3	15.5	15.5
25	15.7	15.7	15.6	15.5	15.3	14.9	14.6	14.6	15.1	15.3	15.5	15.5
26	15.7	15.7	15.6	15.5	15.3	14.9	14.6	14.6	15.1	15.3	15.5	15.5
27	15.7	15.7	15.6	15.4	15.3	14.9	14.6	14.6	15.1	15.3	15.5	15.5
28	15.7	15.7	15.6	15.4	15.3	14.8	14.6	14.5	15.1	15.3	15.5	15.5
29	15.7	15.7	15.6	15.4	15.3	14.7	14.5	14.5	15.2	15.3	15.5	15.5
30	15.7	—	15.6	15.4	15.3	14.7	14.6	14.6	15.2	15.3	15.5	15.5
31	15.7	—	15.6	—	15.3	—	14.6	14.6	—	15.3	—	15.5
Mean	15.7	15.7	15.6	15.5	15.4	15.1	14.7	14.6	14.9	15.2	15.5	15.5
Max	15.7	15.7	15.7	15.6	15.4	15.4	14.8	14.6	15.2	15.3	15.5	15.5
Min	15.7	15.7	15.6	15.4	15.3	14.7	14.5	14.5	14.6	15.1	15.3	15.5

Figure 31. Daily mean discharge, Fish Hatchery Spring 23 (FH23-Q), 1987–96, Long Valley Caldera, Mono County, California.

Figure 32. (A) Daily mean discharge, Fish Hatchery Spring 23 (FH23-Q), 1994, Long Valley Caldera, Mono County, California.

Table 26. Daily mean discharge, Fish Hatchery Spring 23 (FH23-Q), 1994, Long Valley Caldera, California

[Values are in cubic feet per second. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.9	3.0	3.3	3.0	4.0	4.1	4.1	3.8	3.9	4.0	3.1	3.0
2	2.9	3.0	3.3	3.1	4.0	4.1	4.1	3.7	4.0	4.0	3.1	3.0
3	3.0	3.0	3.3	3.0	4.0	4.1	4.1	3.7	4.0	4.0	3.0	3.0
4	3.0	3.0	3.3	3.0	4.1	4.1	4.1	3.7	4.0	4.0	3.1	3.0
5	3.0	2.9	3.3	3.1	4.1	4.0	4.1	3.7	4.0	4.0	3.0	3.0
6	2.9	2.9	3.4	3.0	4.1	4.0	4.1	3.7	4.0	4.0	3.0	3.0
7	2.9	3.0	3.4	3.0	4.2	4.0	4.1	3.7	4.0	4.1	3.0	3.0
8	2.9	3.1	3.4	3.0	4.1	4.0	4.1	3.7	4.0	4.1	3.0	3.0
9	2.9	3.0	3.3	3.0	4.0	4.1	4.1	3.8	4.0	4.0	3.6	3.1
10	2.9	3.1	3.2	3.0	4.0	4.1	4.1	3.9	4.0	4.0	3.2	3.1
11	2.9	3.0	3.2	3.0	4.0	4.1	4.1	3.9	4.0	4.1	2.9	3.0
12	2.9	3.0	3.2	3.0	4.0	4.1	4.1	3.9	4.0	4.1	3.0	3.0
13	2.9	3.0	3.2	3.0	4.1	4.1	4.1	3.9	4.0	4.1	3.0	3.0
14	2.9	3.0	3.1	3.1	4.1	4.1	4.1	3.9	4.0	4.1	3.0	3.0
15	2.9	3.1	3.2	3.0	4.1	4.1	4.1	3.9	4.0	4.1	3.0	3.2
16	2.9	3.2	3.2	3.0	4.0	4.1	4.1	3.9	3.9	4.1	3.0	3.3
17	2.9	3.1	3.1	3.0	4.1	4.1	4.1	3.9	3.9	4.1	3.1	3.3
18	3.0	3.1	3.1	3.0	4.1	4.1	4.1	3.9	3.9	4.1	3.1	3.3
19	3.0	3.1	3.1	3.0	4.1	4.1	4.1	4.0	3.9	4.0	3.0	3.3
20	3.0	3.1	3.1	3.1	4.1	4.1	4.0	3.9	3.9	3.7	3.0	3.2
21	3.0	3.2	3.1	3.0	4.1	4.1	3.9	3.9	3.9	3.0	3.0	3.3
22	3.0	3.2	3.1	3.0	4.1	4.1	3.9	3.9	3.9	2.9	3.0	3.3
23	3.1	3.2	3.1	3.0	4.2	4.1	3.9	3.9	3.9	3.0	3.0	3.3
24	3.1	3.2	3.1	3.0	4.2	4.1	3.9	3.9	3.9	3.0	3.0	3.1
25	3.1	3.2	3.1	3.2	4.2	4.1	3.9	3.9	3.9	3.0	3.1	3.1
26	3.1	3.2	3.1	3.6	4.2	4.1	3.9	3.9	3.8	3.0	3.1	3.1
27	3.1	3.3	3.1	3.7	4.1	4.1	3.9	4.0	3.8	3.0	3.1	3.1
28	3.1	3.3	3.0	3.8	4.2	4.1	3.8	4.0	3.4	3.0	3.0	3.1
29	3.0	—	3.0	3.9	4.2	4.1	3.8	4.0	3.3	3.0	3.1	3.1
30	3.0	—	3.0	3.9	4.2	4.1	3.8	4.0	3.8	3.0	3.0	3.1
31	3.0	—	3.0	—	4.1	—	3.8	4.0	—	3.0	—	3.1
Mean	2.97	3.09	3.17	3.15	4.10	4.09	4.01	3.87	3.90	3.66	3.05	3.11
Max	3.1	3.3	3.4	3.9	4.2	4.1	4.1	4.0	4.0	4.1	3.6	3.3
Min	2.9	2.9	3.0	3.0	4.0	4.0	3.8	3.7	3.3	2.9	2.9	3.0

Figure 32. (B) Daily mean discharge, Fish Hatchery Spring 23 (FH23-Q), 1995, Long Valley Caldera, Mono County, California.

Table 27. Daily mean discharge, Fish Hatchery Spring 23 (FH23-Q), 1995, Long Valley Caldera, California

[Values are in cubic feet per second. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.1	3.1	2.9	2.8	3.2	3.4	3.8	4.2	4.0	4.0	3.9	3.7
2	3.1	3.0	3.0	2.9	3.2	3.4	3.8	4.2	4.1	4.0	3.8	3.7
3	3.1	3.0	3.1	2.8	3.2	3.4	3.9	4.1	4.2	4.0	3.7	3.7
4	3.2	3.0	3.0	2.9	3.2	3.4	3.9	4.1	4.1	4.0	3.7	3.8
5	3.2	3.0	3.1	2.9	3.2	3.5	3.9	4.1	4.2	4.0	3.7	3.7
6	3.1	3.0	3.1	3.0	3.1	3.5	3.9	4.1	4.2	4.0	3.7	3.7
7	3.2	3.0	3.1	3.0	3.2	3.5	3.9	4.1	4.2	4.0	3.7	3.7
8	3.2	3.0	3.1	3.1	3.2	3.5	3.9	4.1	4.2	4.0	3.6	3.7
9	3.2	3.0	3.3	3.1	3.2	3.5	3.9	4.2	4.2	3.9	3.5	3.7
10	3.2	3.0	3.3	3.1	3.2	3.5	3.9	4.1	4.2	3.9	3.5	3.8
11	3.1	3.0	3.3	3.1	3.3	3.6	4.0	4.1	4.2	3.9	3.5	3.8
12	3.1	3.1	3.3	3.2	3.3	3.6	4.1	4.1	4.2	3.9	3.5	3.9
13	3.1	3.1	3.3	3.3	3.3	3.6	4.1	4.1	4.2	3.9	3.5	3.8
14	3.1	3.1	3.3	3.3	3.3	3.6	4.1	4.1	4.2	3.9	3.5	3.8
15	3.0	3.1	3.3	3.3	3.3	3.5	4.1	4.2	4.2	3.9	3.5	3.8
16	3.0	3.0	3.3	3.3	3.3	3.5	4.1	4.2	4.1	3.9	3.6	3.8
17	3.0	3.0	3.3	3.4	3.0	3.6	4.1	4.1	4.1	3.9	3.6	3.8
18	3.0	3.0	3.3	3.3	3.0	3.6	4.1	4.0	4.1	3.9	3.5	3.8
19	3.0	3.0	3.4	3.3	3.0	3.6	4.0	3.9	4.1	3.9	3.5	3.8
20	3.0	3.0	3.5	3.2	3.0	3.6	4.0	3.9	4.0	3.9	3.5	3.8
21	3.0	3.0	3.5	3.2	3.1	3.6	4.0	3.9	4.1	4.0	3.6	3.7
22	3.0	3.0	3.4	3.1	3.1	3.6	4.0	4.0	4.0	4.0	3.6	3.8
23	3.0	3.0	3.3	3.1	3.1	3.6	4.1	4.0	4.0	3.9	3.6	3.7
24	3.0	3.0	3.2	3.1	3.1	3.6	4.1	4.0	4.0	3.9	3.6	3.7
25	3.0	3.0	3.1	3.1	3.1	3.6	4.1	4.0	4.0	3.9	3.6	3.7
26	3.0	3.0	3.0	3.2	3.1	3.6	4.0	4.0	4.0	3.9	3.6	3.7
27	3.0	3.0	3.0	3.2	3.1	3.6	4.1	4.0	4.0	3.9	3.7	3.7
28	3.0	3.0	3.0	3.2	3.1	3.7	4.1	4.0	4.0	3.9	3.7	3.7
29	3.0	—	2.9	3.2	3.1	3.8	4.1	4.0	4.0	3.9	3.7	3.7
30	3.1	—	2.9	3.2	3.2	3.8	4.1	4.0	4.0	3.9	3.7	3.7
31	3.0	—	2.9	—	3.3	—	4.2	4.0	—	3.9	—	3.7
Mean	3.07	3.02	3.18	3.13	3.16	3.56	4.01	4.06	4.10	3.93	3.61	3.75
Max	3.2	3.1	3.5	3.4	3.3	3.8	4.2	4.2	4.2	4.0	3.9	3.9
Min	3.0	3.0	2.9	2.8	3.0	3.4	3.8	3.9	4.0	3.9	3.5	3.7

Figure 32. (C) Daily mean discharge, Fish Hatchery Spring 23 (FH23-Q), 1996, Long Valley Caldera, Mono County, California.

Table 28. Daily mean discharge, Fish Hatchery Spring 23 (FH23-Q), 1996, Long Valley Caldera, California

[Values are in cubic feet per second. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.7	3.8	3.8	3.6	3.3	3.6	3.8	4.2	4.1	4.1	3.5	3.5
2	3.7	3.7	3.7	3.5	3.3	3.7	3.8	4.2	4.1	4.1	3.5	3.5
3	3.6	3.7	3.7	3.4	3.3	3.7	3.8	4.3	4.0	4.1	3.6	3.5
4	3.6	3.8	3.8	3.4	3.4	3.7	3.8	4.3	4.1	4.1	3.6	3.5
5	3.5	3.9	3.8	3.4	3.4	3.6	3.8	4.3	4.1	4.1	3.6	3.5
6	3.6	3.8	3.7	3.4	3.4	3.6	3.7	4.3	4.0	4.1	3.6	3.5
7	3.5	3.8	3.7	3.4	3.4	3.6	3.7	4.3	4.0	4.1	3.6	3.5
8	3.5	3.8	3.7	3.4	3.4	3.6	3.9	4.3	4.0	4.1	3.6	3.5
9	3.5	3.8	3.7	3.4	3.5	3.7	4.0	4.3	4.0	4.0	3.6	3.5
10	3.5	3.8	3.8	3.4	3.5	3.8	3.8	4.3	4.0	4.0	3.6	3.4
11	3.5	3.8	3.8	3.3	3.5	3.9	4.0	4.3	4.0	3.9	3.6	3.4
12	3.5	3.8	3.8	3.3	3.5	3.8	3.9	4.2	4.0	3.9	3.5	3.4
13	3.5	3.9	3.7	3.3	3.5	4.0	3.8	4.2	4.1	3.9	3.5	3.4
14	3.5	3.9	3.7	3.3	3.5	4.0	3.7	4.3	4.1	3.9	3.5	3.4
15	3.5	3.9	3.6	3.3	3.6	4.1	3.7	4.4	4.1	3.9	3.6	3.4
16	3.6	3.9	3.6	3.3	3.5	4.1	3.7	4.3	4.2	3.8	3.7	3.3
17	3.7	3.9	3.6	3.3	3.5	4.1	3.9	4.3	4.2	3.8	3.7	3.4
18	3.7	3.9	3.6	3.2	3.5	4.0	3.9	4.3	4.1	3.8	3.6	3.4
19	3.6	3.9	3.6	3.1	3.5	3.8	3.9	4.4	4.2	3.8	3.7	3.2
20	3.6	3.9	3.7	3.0	3.5	3.8	3.9	4.3	4.2	3.8	3.7	3.2
21	3.6	3.9	3.7	3.0	3.4	3.7	3.9	4.2	4.1	3.7	3.7	3.2
22	3.6	3.9	3.7	3.0	3.5	3.8	4.0	4.2	4.1	3.6	3.7	3.5
23	3.6	3.9	3.7	3.2	3.5	3.7	4.1	4.2	4.1	3.5	3.6	3.5
24	3.7	3.9	3.7	3.3	3.6	3.8	4.1	4.2	4.1	3.5	3.6	3.4
25	3.6	3.9	3.6	3.3	3.5	3.8	4.1	4.3	4.1	3.5	3.5	3.4
26	3.6	3.9	3.6	3.3	3.5	3.8	4.1	4.2	4.1	3.5	3.5	3.4
27	3.7	3.8	3.6	3.3	3.5	3.9	4.1	4.2	4.1	3.4	3.5	3.2
28	3.6	3.8	3.6	3.3	3.5	3.7	4.1	4.2	4.1	3.4	3.5	3.2
29	3.6	3.7	3.6	3.3	3.5	3.7	4.1	4.2	4.1	3.4	3.5	3.2
30	3.7	—	3.6	3.3	3.5	3.8	4.2	4.2	4.1	3.5	3.5	3.2
31	3.8	—	3.6	—	3.6	—	4.3	4.1	—	3.5	—	3.2
Mean	3.60	3.84	3.68	3.30	3.47	3.80	3.92	4.26	4.09	3.80	3.58	3.38
Max	3.8	3.9	3.8	3.6	3.6	4.1	4.3	4.4	4.2	4.1	3.7	3.5
Min	3.5	3.7	3.6	3.0	3.3	3.6	3.7	4.1	4.0	3.4	3.5	3.2

Figure 33. Daily mean water temperature, Fish Hatchery Spring 23 (FH23-T), 1988–96, Long Valley Caldera, Mono County, California.

Figure 34. (A) Daily mean water temperature, Fish Hatchery Spring 23 (FH23-T), 1994, Long Valley Caldera, Mono County, California.

Table 29. Daily mean water temperature, Fish Hatchery Spring 23 (FH23-T), 1994, Long Valley Caldera, California

[Values are in degrees Celsius. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	11.5	11.4	11.3	11.2	—	—	—	11.3	—	11.4	11.6	11.6
2	11.5	11.4	11.3	11.2	—	—	—	11.3	—	11.4	11.6	11.6
3	11.5	11.4	11.3	11.2	—	—	—	11.3	—	11.3	11.6	11.6
4	11.5	11.4	11.3	11.2	—	—	—	11.3	—	11.3	11.6	11.6
5	11.5	11.4	11.3	11.2	—	—	—	11.3	—	11.3	11.6	11.6
6	11.5	11.4	11.3	11.2	—	—	—	11.3	—	11.3	11.6	11.6
7	11.5	11.4	11.3	11.2	—	—	—	11.3	—	—	11.6	11.6
8	11.5	11.4	11.3	11.2	—	—	—	11.3	—	—	11.6	11.6
9	11.5	11.4	11.3	11.2	—	—	—	11.3	—	—	11.6	11.6
10	11.5	11.4	11.3	11.2	—	—	—	11.3	—	—	11.6	11.6
11	11.5	11.4	11.3	11.2	—	—	—	—	—	—	11.6	11.6
12	11.5	11.3	11.3	11.2	—	—	—	—	—	—	11.6	11.6
13	11.5	11.3	11.3	11.2	—	—	—	—	—	—	11.6	11.6
14	11.5	11.4	11.3	11.2	—	—	—	—	—	—	11.6	11.6
15	11.4	11.4	11.3	11.2	—	—	11.2	—	—	—	11.6	11.6
16	11.4	11.3	11.3	11.2	—	—	11.2	—	—	—	11.6	11.6
17	11.4	11.3	11.3	11.2	—	—	11.2	—	—	—	11.6	11.6
18	11.4	11.3	11.3	11.2	—	—	11.2	—	—	—	11.6	11.6
19	11.4	11.3	11.2	11.2	—	—	11.3	—	—	—	11.6	11.6
20	11.4	11.3	11.2	11.2	—	—	11.3	—	—	—	11.6	11.6
21	11.4	11.3	11.2	11.2	—	—	11.3	—	—	—	11.6	11.6
22	11.4	11.3	11.2	11.1	—	—	11.3	—	—	—	11.6	11.6
23	11.4	11.3	11.2	11.1	—	—	11.3	—	—	11.4	11.6	11.6
24	11.4	11.3	11.2	11.1	—	—	11.3	—	—	11.5	11.6	11.6
25	11.4	11.3	11.2	11.1	—	—	11.3	—	11.3	11.5	11.6	11.6
26	11.4	11.3	11.2	—	—	—	11.3	—	11.3	11.5	11.6	11.6
27	11.4	11.3	11.2	—	—	—	11.3	—	11.3	11.5	11.6	11.6
28	11.4	11.3	11.2	—	—	—	11.3	—	11.4	11.6	11.6	11.6
29	11.4	—	11.2	—	—	—	11.3	—	11.4	11.6	11.6	11.6
30	11.4	—	11.2	—	—	—	11.3	—	11.4	11.6	11.6	11.6
31	11.4	—	11.2	—	—	—	11.3	—	—	11.6	—	11.5
Mean	11.4	11.3	11.3	11.2	—	—	11.3	11.3	11.3	11.5	11.6	11.6
Max	11.5	11.4	11.3	11.2	—	—	11.3	11.3	11.4	11.6	11.6	11.6
Min	11.4	11.3	11.2	11.1	—	—	11.2	11.3	11.3	11.3	11.6	11.5

Figure 34. (B) Daily mean water temperature, Fish Hatchery Spring 23 (FH23-T), 1995, Long Valley Caldera, Mono County, California.

Table 30. Daily mean water temperature, Fish Hatchery Spring 23 (FH23-T), 1995, Long Valley Caldera, California

[Values are in degrees Celsius. —, no data; Max, maximum; Min, minimum]

Day	Jan	Fab	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	11.5	11.4	11.2	11.2	11.0	11.0	11.0	11.1	11.3	11.4	11.4	11.4
2	11.5	11.4	11.2	11.2	11.0	11.0	11.0	11.1	11.3	11.4	11.4	11.4
3	11.5	11.4	11.2	11.1	11.0	11.0	11.0	11.1	11.3	11.4	11.4	11.4
4	11.5	11.4	11.1	11.1	11.0	11.0	11.0	11.1	11.3	11.4	11.4	11.4
5	11.5	11.4	11.2	11.1	11.0	11.0	11.0	11.1	11.3	11.4	11.4	11.4
6	11.5	11.4	11.2	11.1	11.0	11.0	11.0	11.1	11.3	11.4	11.5	11.4
7	11.5	11.4	11.2	11.1	11.0	11.0	11.0	11.1	11.3	11.4	11.4	11.4
8	11.5	11.4	11.2	11.1	11.0	11.1	11.0	11.2	11.3	11.4	11.5	11.4
9	11.5	11.4	11.2	11.1	11.0	11.0	11.0	11.2	11.3	11.4	11.5	11.4
10	11.5	11.4	11.2	11.1	11.0	11.0	11.0	11.2	11.3	11.4	11.5	11.4
11	11.5	11.4	11.2	11.1	11.0	11.0	11.0	11.2	11.3	11.4	11.5	11.4
12	11.5	11.3	11.2	11.1	11.0	11.0	11.0	11.2	11.3	11.4	11.5	11.4
13	11.5	11.3	11.2	11.1	10.9	11.0	11.0	11.2	11.3	11.4	11.5	11.4
14	11.5	11.3	11.2	11.1	10.9	11.0	11.0	11.2	11.4	11.4	11.5	11.4
15	11.4	11.3	11.2	11.1	10.9	11.0	11.0	11.2	11.4	11.4	11.5	11.4
16	11.4	11.3	11.2	11.1	10.9	11.0	11.0	11.2	11.4	11.4	11.5	11.4
17	11.4	11.3	11.2	11.0	10.9	11.0	11.0	11.2	11.4	11.4	11.5	11.4
18	11.4	11.3	11.2	11.0	11.0	11.0	11.0	11.2	11.4	11.4	11.5	11.4
19	11.4	11.3	11.2	11.0	11.0	11.0	11.0	11.2	11.4	11.4	11.5	11.4
20	11.4	11.3	11.2	11.0	11.0	11.0	11.0	11.2	11.4	11.4	11.5	11.4
21	11.4	11.3	11.2	11.0	11.0	11.0	11.0	11.2	11.4	11.4	11.5	11.4
22	11.4	11.3	11.2	11.0	11.0	11.0	11.0	11.2	11.4	11.4	11.5	11.4
23	11.4	11.3	11.2	11.0	11.0	11.0	11.1	11.2	11.4	11.4	11.5	11.4
24	11.4	11.3	11.2	11.0	10.9	11.0	11.1	11.3	11.4	11.4	11.5	11.4
25	11.4	11.3	11.2	11.0	10.9	11.0	11.1	11.3	11.4	11.4	11.5	11.4
26	11.4	11.3	11.2	11.0	11.0	11.0	11.1	11.3	11.4	11.4	11.5	11.4
27	11.4	11.3	11.2	11.0	11.0	11.0	11.1	11.3	11.4	11.4	11.4	11.4
28	11.4	11.3	11.2	11.0	11.0	11.0	11.1	11.3	11.4	11.4	11.4	11.4
29	11.4	—	11.2	11.0	11.0	11.0	11.1	11.3	11.4	11.4	11.4	11.4
30	11.4	—	11.2	11.0	11.0	11.0	11.1	11.3	11.4	11.4	11.5	11.4
31	11.4	—	11.2	—	11.0	—	11.1	11.3	—	11.4	—	11.4
Mean	11.4	11.3	11.2	11.1	11.0	11.0	11.0	11.2	11.4	11.4	11.5	11.4
Max	11.5	11.4	11.2	11.2	11.0	11.1	11.1	11.3	11.4	11.4	11.5	11.4
Min	11.4	11.3	11.1	11.0	10.9	11.0	11.0	11.1	11.3	11.4	11.4	11.4

Figure 34. (C) Daily mean water temperature, Fish Hatchery Spring 23 (FH23-T), 1996, Long Valley Caldera, Mono County, California.

Table 31. Daily mean water temperature, Fish Hatchery Spring 23 (FH23-T), 1996, Long Valley Caldera, California

[Values are in degrees Celsius. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	11.4	11.3	11.2	11.1	11.0	11.0	11.1	11.2	11.3	—	—	—
2	11.4	11.3	11.2	11.1	11.0	11.0	11.1	11.2	11.3	—	—	—
3	11.4	11.3	11.2	11.1	11.0	11.0	11.1	11.2	11.3	—	—	—
4	11.4	11.3	11.2	11.1	11.0	11.0	11.1	11.2	11.3	—	—	—
5	11.4	11.3	11.2	11.1	11.0	11.0	11.1	11.2	11.3	—	—	—
6	11.4	11.3	11.2	11.1	11.0	11.0	11.1	11.3	11.3	—	—	—
7	11.4	11.3	11.2	11.1	11.0	11.0	11.1	11.3	11.4	—	—	—
8	11.4	11.3	11.2	11.1	11.0	11.0	11.1	11.3	11.4	—	—	—
9	11.4	11.3	11.2	11.1	11.0	11.0	11.1	11.3	11.4	—	—	—
10	11.4	11.3	11.2	11.1	11.0	11.0	11.1	11.3	11.4	—	—	—
11	11.4	11.3	11.2	11.1	11.0	11.1	11.1	11.3	11.4	—	—	—
12	11.4	11.3	11.2	11.1	11.0	11.1	11.1	11.3	11.4	—	—	—
13	11.4	11.3	11.2	11.1	11.0	11.1	11.1	11.3	11.4	—	—	—
14	11.4	11.3	11.2	11.1	11.0	11.1	11.1	11.3	11.4	—	—	—
15	11.4	11.3	11.2	11.1	11.0	11.1	11.2	11.3	11.4	—	—	—
16	11.4	11.3	11.2	11.1	11.0	11.1	11.2	11.3	11.4	—	—	—
17	11.4	11.3	11.2	11.1	11.0	11.1	11.2	11.3	11.4	—	—	—
18	11.4	11.3	11.2	11.1	11.0	11.1	11.2	11.3	11.4	—	—	—
19	11.4	11.3	11.2	11.0	11.0	11.1	11.2	11.3	11.4	—	—	—
20	11.4	11.3	11.2	11.0	11.0	11.1	11.2	11.3	11.4	—	—	11.4
21	11.4	11.3	11.2	11.0	11.0	11.1	11.2	11.3	11.4	—	—	11.4
22	11.3	11.3	11.1	11.0	11.0	11.1	11.2	11.3	11.4	—	—	11.4
23	11.3	11.3	11.2	11.0	11.0	11.1	11.2	11.3	11.4	—	—	11.4
24	11.3	11.3	11.1	11.0	11.0	11.1	11.2	11.3	11.4	—	—	11.4
25	11.3	11.3	11.1	11.0	11.0	11.1	11.2	11.3	11.4	—	—	11.4
26	11.3	11.2	11.1	11.0	11.0	11.1	11.2	11.3	11.4	—	—	11.4
27	11.3	11.2	11.1	11.0	11.0	11.1	11.2	11.3	11.4	—	—	11.4
28	11.3	11.2	11.1	11.0	11.0	11.1	11.2	11.3	11.4	—	—	11.4
29	11.3	11.2	11.1	11.0	11.0	11.1	11.2	11.3	—	—	—	11.4
30	11.3	—	11.1	11.0	11.0	11.1	11.2	11.3	—	—	—	11.4
31	11.3	—	11.1	—	11.0	—	11.2	11.3	—	—	—	11.4
Mean	11.4	11.3	11.2	11.1	11.0	11.1	11.2	11.3	11.4	—	—	11.4
Max	11.4	11.3	11.2	11.1	11.0	11.1	11.2	11.3	11.4	—	—	11.4
Min	11.3	11.2	11.1	11.0	11.0	11.0	11.1	11.2	11.3	—	—	11.4

Figure 35. Daily mean discharge, Fish Hatchery Springs AB, CD, and 23 (FHAB-WEIR, FHCD-Q, and FH23-Q), 1995–96, Long Valley Caldera, Mono County, California.

Figure 36. Monthly mean water temperature, Fish Hatchery Springs AB, CD, and 23 (FHAB, FHCD-T, and FH23-T), 1988–96, Long Valley Caldera, Mono County, California.

Figure 37. Daily mean and instantaneous measured gage heights, Hot Bubbling Pool (HBP), 1989–96, Long Valley Caldera, Mono County, California.

Figure 38. (A) Daily mean and instantaneous measured gage heights, Hot Bubbling Pool (HBP), 1994, Long Valley Caldera, Mono County, California.

Table 32. Daily mean gage height, Hot Bubbling Pool (HBP), 1994, Long Valley Caldera, California

[Values are in feet relative to an arbitrary datum. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	—	—	—	—	-3.05	-3.03	-3.14	-3.18	-3.16	-3.07	-3.18	-3.39
2	—	—	—	—	-3.06	-3.02	-3.13	-3.13	-3.19	-3.08	-3.14	-3.34
3	—	—	—	—	-3.07	-3.01	-3.11	-3.10	-3.20	-2.97	-3.24	-3.34
4	—	—	—	—	-3.04	-3.02	-3.10	-3.13	-3.23	-2.93	-3.27	-3.35
5	—	—	—	—	-2.99	-2.94	-3.16	-3.15	-3.26	-3.00	-3.26	-3.36
6	—	—	—	—	-2.99	-2.97	-3.21	-3.14	-3.22	-3.10	-3.27	-3.46
7	—	—	—	-3.09	-3.03	-2.99	-3.21	-3.07	-3.16	-3.19	-3.28	-3.54
8	—	—	—	-3.05	-3.06	-3.07	-3.21	-3.04	-3.11	-3.24	-3.33	-3.60
9	—	—	—	-3.04	-3.10	-3.06	-3.25	-3.10	-3.07	-3.18	-3.27	-3.56
10	—	—	—	-3.12	-3.12	-3.06	-3.26	-3.12	-3.04	-3.13	-3.20	-3.48
11	—	—	—	-3.18	-3.10	-3.03	-3.25	-3.08	-3.02	-3.13	-3.25	-3.40
12	—	—	—	-3.17	-3.05	-3.00	-3.23	-3.09	-2.99	-3.09	-3.30	-3.34
13	—	—	—	-3.09	-3.02	-2.98	-3.22	-3.13	-3.04	-3.06	-3.46	-3.41
14	—	—	—	-3.06	-2.99	-2.98	-3.21	-3.15	-3.14	-3.00	-3.50	-3.45
15	—	—	—	-3.17	-2.98	-2.99	-3.23	-3.13	-3.14	-3.03	-3.39	-3.51
16	—	—	—	-3.19	-2.94	-3.03	-3.27	-3.10	-3.11	-3.22	-3.37	-3.57
17	—	—	—	-3.16	-2.90	-3.05	-3.28	-3.14	-3.12	-3.24	-3.37	-3.54
18	—	—	—	-3.11	-2.93	-3.04	-3.24	-3.15	-3.15	-3.17	-3.41	-3.51
19	—	—	—	-3.09	-2.98	-3.06	-3.21	-3.15	-3.13	-3.13	-3.54	-3.54
20	—	—	—	-3.06	-2.98	-3.10	-3.20	-3.12	-3.11	-3.15	-3.48	-3.53
21	—	—	—	-3.04	-2.97	-3.11	-3.22	-3.10	-3.14	-3.15	-3.47	-3.52
22	—	—	—	-2.99	-2.99	-3.12	-3.21	-3.12	-3.14	-3.11	-3.60	-3.49
23	—	—	—	-2.92	-3.05	-3.14	-3.22	-3.17	-3.11	-3.13	-3.54	-3.36
24	—	—	—	-2.94	-3.03	-3.11	-3.22	-3.21	-3.10	-3.14	-3.48	-3.31
25	—	—	—	-2.90	-2.97	-3.10	-3.23	-3.21	-3.15	-3.15	-3.34	-3.45
26	—	—	—	-2.92	-2.96	-3.13	-3.22	-3.19	-3.15	-3.20	-3.38	-3.52
27	—	—	—	-2.95	-3.00	-3.17	-3.19	-3.20	-3.14	-3.24	-3.48	-3.44
28	—	—	—	-3.06	-3.05	-3.19	-3.17	-3.21	-3.13	-3.19	-3.50	-3.35
29	—	—	—	-3.11	-3.05	-3.18	-3.14	-3.16	-3.05	-3.17	-3.57	-3.38
30	—	—	—	-3.09	-3.00	-3.17	-3.15	-3.15	-3.04	-3.26	-3.50	-3.39
31	—	—	—	—	-3.04	—	-3.18	-3.14	—	-3.31	—	-3.41
Mean	—	—	—	-3.06	-3.02	-3.06	-3.20	-3.14	-3.12	-3.13	-3.38	-3.45
Max	—	—	—	-2.90	-2.90	-2.94	-3.10	-3.04	-2.99	-2.93	-3.14	-3.31
Min	—	—	—	-3.19	-3.12	-3.19	-3.28	-3.21	-3.26	-3.31	-3.60	-3.60

Figure 38. (B) Daily mean and instantaneous measured gage heights, Hot Bubbling Pool (HBP), 1995, Long Valley Caldera, Mono County, California.

Table 33. Daily mean gage height, Hot Bubbling Pool (HBP), 1995, Long Valley Caldera, California

[Values are in feet relative to an arbitrary datum. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	-3.42	-3.35	—	—	—	—	—	-2.04	-1.92	-2.02	-2.07	—
2	-3.36	-3.37	—	—	—	—	—	-2.02	-1.90	-2.05	-2.15	—
3	-3.30	-3.39	—	—	—	—	—	-1.99	-1.89	-2.02	-2.17	—
4	-3.15	-3.36	—	—	—	—	—	-1.98	-1.93	-2.02	-2.18	—
5	-3.20	-3.32	—	—	—	—	—	-1.95	-1.95	-2.04	-2.18	—
6	-3.31	-3.24	—	—	—	—	—	-1.95	-1.95	-2.01	-2.20	—
7	-3.25	-3.14	—	—	—	—	—	-1.95	-1.91	-1.99	-2.32	—
8	-3.32	-3.14	—	—	—	—	—	-1.95	-1.87	-2.07	-2.30	—
9	-3.25	-3.28	—	—	—	—	—	-1.91	-1.87	-2.08	—	—
10	-3.13	-3.27	—	—	—	—	—	-1.91	-1.90	-2.12	—	—
11	-3.17	-3.20	—	—	—	—	—	-1.96	-1.96	-2.07	—	—
12	-3.22	-3.18	—	—	—	—	—	-1.99	-1.97	-2.08	—	—
13	-3.31	-3.17	—	—	—	—	—	-1.98	-1.95	-2.17	—	-2.21
14	-3.13	-3.16	—	—	—	—	—	-1.92	-1.93	-2.19	—	-2.37
15	-3.07	-3.36	—	—	—	—	—	-1.94	-1.92	-2.15	—	-2.31
16	-3.08	-3.49	—	—	—	—	—	-1.91	-1.92	-2.08	—	-2.26
17	-3.19	-3.55	—	—	—	—	—	-1.95	-1.92	-2.12	—	-2.27
18	-3.27	-3.63	—	—	—	—	—	-1.95	-1.95	-2.12	—	-2.22
19	-3.20	—	—	—	—	—	—	-1.95	-1.98	-2.21	—	-2.25
20	-3.09	—	—	—	—	—	—	-2.00	-1.97	-2.21	—	-2.26
21	-3.12	—	—	—	—	—	—	-1.99	-1.97	-2.13	—	-2.29
22	-3.12	—	—	—	—	—	-2.15	-1.98	-1.96	-2.11	—	-2.28
23	-3.04	—	—	—	—	—	-2.14	-1.96	-1.97	-2.12	—	-2.29
24	-2.98	—	—	—	—	—	-2.11	-1.92	-1.96	-2.14	—	-2.37
25	-2.97	—	—	—	—	—	-2.08	-1.92	-1.90	-2.15	—	-2.43
26	-3.18	—	—	—	—	—	-2.10	-1.93	-1.87	-2.15	—	-2.42
27	-3.24	—	—	—	—	—	-2.11	-1.95	-1.92	-2.11	—	-2.39
28	-3.33	—	—	—	—	—	-2.12	-1.95	-1.99	-2.06	—	-2.41
29	-3.35	—	—	—	—	—	-2.10	-1.96	-1.99	-2.06	—	-2.38
30	-3.36	—	—	—	—	—	-2.05	-1.95	-2.01	-2.09	—	-2.41
31	-3.36	—	—	—	—	—	-2.06	-1.94	—	-2.06	—	-2.40
Mean	-3.21	-3.31	—	—	—	—	-2.10	-1.96	-1.94	-2.10	-2.20	-2.33
Max	-2.97	-3.14	—	—	—	—	-2.05	-1.91	-1.87	-1.99	-2.07	-2.21
Min	-3.42	-3.63	—	—	—	—	-2.15	-2.04	-2.01	-2.21	-2.32	-2.43

Figure 38. (C) Daily mean and instantaneous measured gage heights, Hot Bubbling Pool (HBP), 1996, Long Valley Caldera, Mono County, California.

Table 34. Daily mean gage height, Hot Bubbling Pool (HBP), 1996, Long Valley Caldera, California

[Values are in feet relative to an arbitrary datum. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	-2.42	-2.07	-2.14	-1.84	-1.40	-1.06	-0.57	-0.46	-0.56	-0.81	-1.19	-1.20
2	-2.37	-2.19	-2.05	-1.82	-1.39	-1.10	-.53	-.45	-.58	-.86	-1.11	-1.14
3	-2.38	-2.28	-1.94	-1.82	-1.40	-1.03	-.54	-.45	-.58	-.87	-1.06	-1.12
4	-2.28	-2.35	-1.93	-1.91	-1.35	-.97	-.56	-.36	-.56	-.88	-1.11	-1.17
5	-2.34	-2.31	-2.12	-1.90	-1.36	-.92	-.48	-.44	-.58	-.90	-1.11	-1.25
6	-2.43	-2.30	-2.12	-1.79	-1.30	-.91	-.50	-.41	-.60	-.97	-1.18	-1.29
7	-2.40	-2.27	-2.12	-1.70	-1.34	-.91	-.48	-.46	-.64	-.96	-1.25	-1.22
8	-2.33	-2.19	-2.09	-1.71	-1.30	-.87	-.43	-.47	-.65	-.92	-1.25	-1.18
9	-2.36	-2.12	-2.04	-1.66	-1.26	-.82	-.47	-.50	-.67	-.93	-1.19	-1.10
10	-2.45	-2.16	-2.06	-1.66	-1.32	-.81	-.48	-.45	-.70	-.90	-1.14	-1.09
11	-2.45	-2.24	-2.01	-1.66	-1.30	-.69	-.46	-.46	-.71	-.88	-1.16	-1.20
12	-2.34	-2.22	-1.81	-1.67	-1.26	-.71	-.42	-.49	-.65	-.90	-1.21	-1.26
13	-2.26	-2.21	-1.81	-1.56	-1.22	-.71	-.38	-.49	-.67	-.90	-1.18	-1.33
14	-2.29	-2.18	-2.01	-1.60	-1.19	-.68	-.35	-.50	-.60	-.93	-1.15	-1.36
15	-2.29	-2.17	-2.06	-1.53	-1.19	-.66	-.39	-.50	-.64	-.90	-1.09	-1.35
16	-2.14	-2.15	-2.07	-1.39	-1.14	-.65	-.45	-.50	-.66	-1.05	-1.05	-1.28
17	-2.16	-2.16	-2.04	-1.43	-1.21	-.71	-.40	-.49	-.71	-.96	-1.17	-1.30
18	-2.19	-2.09	-2.03	-1.54	-1.22	-.64	-.44	-.48	-.77	-.98	-1.17	-1.29
19	-2.27	-1.95	-2.01	-1.55	-1.21	-.59	-.39	-.53	-.81	-1.01	-1.10	-1.26
20	-2.22	-1.97	-1.99	-1.50	-1.08	-.60	-.38	-.54	-.78	-.96	-1.06	-1.23
21	-2.13	-1.95	-1.91	-1.43	-1.10	-.59	-.43	-.52	-.79	-1.10	-.99	-1.05
22	-2.16	-2.04	-1.93	-1.55	-1.07	-.50	-.43	-.56	-.83	-1.03	-.94	-1.25
23	-2.26	-2.03	-1.87	-1.55	-1.04	-.55	-.40	-.57	-.83	-.94	-1.09	-1.37
24	-2.29	-1.91	-1.93	-1.60	-.96	-.54	-.37	-.54	-.83	-1.04	-1.18	-1.26
25	-2.34	-1.81	-1.96	-1.53	-.93	-.49	-.39	-.51	-.80	-1.01	-1.12	-1.10
26	-2.24	-1.85	-1.94	-1.52	-.98	-.46	-.38	-.50	-.79	-1.06	-1.17	-1.00
27	-2.21	-1.88	-1.91	-1.42	-.93	-.50	-.42	-.54	-.87	-1.14	-1.17	-1.08
28	-2.21	-1.96	-1.91	-1.50	-.98	-.56	-.43	-.58	-.90	-1.05	-1.04	-1.12
29	-2.26	-2.08	-1.92	-1.48	-.96	-.56	-.44	-.61	-.84	-1.01	-1.05	-1.21
30	-2.14	—	-1.98	-1.42	-.98	-.57	-.42	-.58	-.82	-1.02	-1.13	-1.10
31	-2.04	—	-1.95	—	-1.00	—	-.42	-.58	—	-1.10	—	-1.14
Mean	-2.28	-2.11	-1.99	-1.61	-1.17	-.71	-.44	-.50	-.71	-.97	-1.13	-1.20
Max	-2.04	-1.81	-1.81	-1.39	-.93	-.46	-.35	-.36	-.56	-.81	-.94	-1.00
Min	-2.45	-2.35	-2.14	-1.91	-1.40	-1.10	-.57	-.61	-.90	-1.14	-1.25	-1.37

Figure 39. Location of streamflow sites monitored by U.S. Geological Survey, 1994–96, Long Valley Caldera, Mono County, California.

Figure 40. Daily mean discharge, Hot Creek Flume (HCF), 1987–96, Long Valley Caldera, Mono County, California.

Figure 41. (A) Daily mean discharge, Hot Creek Flume (HCF), 1994, Long Valley Caldera, Mono County, California.

Table 35. Daily mean discharge, Hot Creek Flume (HCF), 1994, Long Valley Caldera, California

[Values are in cubic feet per second. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	39	36	40	36	39	77	43	38	34	32	33	33
2	39	36	40	37	39	78	44	38	34	31	34	33
3	40	37	42	38	39	68	46	37	34	31	34	34
4	40	37	42	37	40	63	46	37	34	33	33	34
5	41	37	43	37	41	66	46	37	34	35	35	34
6	39	37	41	37	47	66	45	37	34	33	38	34
7	39	38	41	37	48	64	45	37	34	33	35	33
8	40	38	39	37	45	63	44	37	33	33	34	33
9	39	38	39	37	44	58	44	37	33	32	34	33
10	38	38	38	36	45	60	42	37	32	32	34	34
11	40	37	38	36	48	66	42	37	32	31	31	34
12	38	37	37	36	48	62	41	36	33	31	32	34
13	39	38	37	36	49	56	41	36	33	32	32	34
14	39	38	37	37	50	55	41	36	33	32	31	34
15	39	38	38	37	58	53	40	36	33	32	31	34
16	40	38	37	37	65	53	40	35	32	32	31	34
17	40	38	37	37	69	54	40	35	32	32	31	34
18	38	37	37	37	66	49	40	35	32	32	30	35
19	39	38	37	38	58	46	40	35	32	32	31	34
20	39	38	35	39	54	45	39	35	33	32	32	34
21	39	38	35	38	48	47	39	35	32	31	32	34
22	38	39	36	39	44	46	40	35	32	31	32	34
23	39	39	34	38	44	44	40	35	32	31	32	34
24	37	39	35	38	44	44	39	35	32	31	31	34
25	38	39	36	39	45	43	39	34	31	31	31	34
26	38	39	37	39	46	43	38	34	31	32	30	35
27	38	39	36	41	51	43	37	34	31	31	31	35
28	38	39	36	42	51	43	37	33	31	31	32	35
29	36	—	36	41	56	42	37	34	33	31	33	35
30	37	—	36	40	63	42	38	34	32	31	33	34
31	36	—	37	—	65	—	38	34	—	32	—	34
Mean	38.7	37.9	37.7	37.8	50.0	54.6	41.0	35.6	32.6	31.8	32.4	34.0
Max	41	39	43	42	69	78	46	38	34	35	38	35
Min	36	36	34	36	39	42	37	33	31	31	30	33

Figure 41. (B) Daily mean discharge, Hot Creek Flume (HCF), 1995, Long Valley Caldera, Mono County, California.

Table 36. Daily mean discharge, Hot Creek Flume (HCF), 1995, Long Valley Caldera, California

[Values are in cubic feet per second. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	34	38	38	46	93	108	247	178	104	76	59	55
2	34	38	38	48	82	132	241	170	108	75	59	55
3	35	38	38	49	71	142	244	162	109	74	58	55
4	34	37	37	51	69	146	238	166	114	73	58	56
5	34	37	40	53	67	155	236	162	113	73	58	56
6	34	37	39	55	63	167	245	160	111	72	58	56
7	35	37	38	62	61	164	261	165	107	71	57	55
8	35	37	38	58	61	143	263	159	102	71	58	55
9	36	37	48	52	64	125	267	149	100	70	58	55
10	37	36	50	54	66	116	283	135	99	69	57	55
11	35	36	43	59	70	119	280	129	100	69	57	58
12	35	36	41	60	71	125	254	131	97	69	57	93
13	35	34	41	57	69	151	222	135	94	67	56	82
14	36	35	43	52	61	179	198	134	93	67	57	72
15	36	36	45	51	55	194	185	128	91	67	60	65
16	36	37	45	50	56	190	179	121	90	67	59	64
17	36	37	45	50	56	169	191	115	88	67	59	57
18	36	36	51	50	62	142	193	119	87	66	59	58
19	36	36	58	50	62	131	190	129	87	66	59	57
20	37	37	61	49	70	128	191	129	85	66	59	54
21	37	37	53	49	75	126	192	125	83	65	58	51
22	37	37	47	48	80	129	195	115	83	65	57	50
23	37	37	46	48	87	135	198	135	82	65	57	52
24	37	38	43	49	103	152	190	145	82	66	57	52
25	38	38	44	51	105	176	177	125	81	66	57	52
26	37	38	44	53	92	202	165	117	81	65	57	51
27	38	38	45	54	95	214	159	117	79	64	56	52
28	37	38	45	55	91	225	170	116	77	63	57	52
29	37	—	44	61	89	244	185	112	77	62	56	53
30	37	—	44	88	96	255	201	104	77	61	55	56
31	38	—	45	—	102	—	197	101	—	60	—	56
Mean	36.0	36.9	44.4	53.7	75.6	159	214	135	92.7	67.6	57.6	57.7
Max	38	38	61	88	105	255	283	178	114	76	60	93
Min	34	34	37	46	55	108	159	101	77	60	55	50

Figure 41. (C) Daily mean discharge, Hot Creek Flume (HCF), 1996, Long Valley Caldera, Mono County, California.

Table 37. Daily mean discharge, Hot Creek Flume (HCF), 1996, Long Valley Caldera, California

[Values are in cubic feet per second. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	54	52	51	54	87	115	104	79	68	54	53	57
2	54	52	51	58	78	111	105	78	67	55	53	53
3	55	51	51	55	72	119	109	77	66	54	54	52
4	55	59	50	54	71	146	119	77	66	54	54	53
5	53	88	42	54	71	169	124	77	66	54	53	58
6	52	72	44	55	73	179	115	75	65	53	52	58
7	52	64	49	56	77	176	111	75	64	53	53	56
8	51	59	52	57	88	176	110	75	64	53	54	56
9	52	57	54	59	95	183	109	74	64	53	53	56
10	53	56	56	59	101	191	110	74	63	53	53	57
11	53	55	57	58	99	188	114	74	62	53	53	60
12	53	54	55	59	100	172	115	75	62	52	52	72
13	53	53	54	59	104	151	122	75	63	52	51	67
14	53	52	53	60	117	144	118	76	62	52	51	58
15	53	51	52	61	132	154	111	76	61	52	51	51
16	53	52	53	65	205	162	92	76	61	52	50	55
17	53	52	55	66	230	158	87	75	61	52	61	54
18	53	51	59	66	227	142	88	73	59	52	73	52
19	53	53	59	62	192	131	88	72	58	53	67	52
20	54	49	62	60	152	129	83	71	57	52	66	51
21	54	51	62	59	133	133	82	70	57	52	67	51
22	51	48	59	59	120	143	81	70	56	53	86	45
23	51	51	54	60	115	130	81	69	56	53	70	42
24	50	51	52	62	103	124	82	69	56	53	65	43
25	46	53	52	65	96	116	83	69	56	52	61	44
26	50	52	51	68	92	118	82	67	56	52	59	45
27	52	52	51	68	91	116	82	67	55	52	55	47
28	49	51	52	59	91	101	84	66	55	51	56	46
29	51	51	50	63	89	95	83	70	55	52	57	49
30	53	—	53	71	94	99	83	68	55	51	53	54
31	53	—	52	—	109	—	81	67	—	53	—	57
Mean	52.3	54.9	53.1	60.4	113	142	98.0	72.8	60.5	52.6	57.9	53.3
Max	55	88	62	71	230	191	124	79	68	55	86	72
Min	46	48	42	54	71	95	81	66	55	51	50	42

Figure 42. Daily mean discharge, Little Hot Creek downstream from Little Hot Creek Spring (LHC-SW), 1990–95, Long Valley Caldera, Mono County, California.

Figure 43. (A) Daily mean discharge, Little Hot Creek downstream from Little Hot Creek Spring (LHC-SW), 1994, Long Valley Caldera, Mono County, California.

Table 38. Daily mean discharge, Little Hot Creek downstream from Little Hot Creek Spring (LHC–SW), 1994, Long Valley Caldera, California
[Values are in cubic feet per second. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.38	0.36	0.34	0.34	0.36	0.36	0.36	0.36	0.37	0.36	0.36	0.36
2	.38	.36	.34	.35	.36	.35	.36	.36	.37	.36	.36	.36
3	.38	.36	.34	.35	.36	.35	.36	.36	.37	.36	.36	.36
4	.38	.36	.34	.35	.36	.36	.36	.36	.37	.38	.36	.36
5	.38	.36	.35	.35	.36	.36	.36	.36	.37	.38	.36	.36
6	.38	.36	.36	.35	.36	.36	.36	.36	.37	.36	.36	.36
7	.38	.38	.35	.35	.36	.36	.36	.36	.37	.36	.36	.36
8	.38	.36	.35	.36	.36	.36	.36	.37	.37	.36	.36	.36
9	.39	.36	.36	.36	.36	.36	.37	.37	.37	.36	.36	.37
10	.38	.36	.35	.35	.36	.36	.36	.37	.38	.36	.36	.38
11	.38	.35	.36	.36	.36	.36	.37	.37	.38	.36	.36	.38
12	.38	.34	.35	.36	.36	.36	.37	.37	.38	.36	.36	.38
13	.38	.34	.36	.36	.36	.37	.37	.37	.38	.36	.36	.38
14	.38	.34	.36	.36	.37	.37	.37	.37	.38	.36	.36	.36
15	.38	.34	.36	.36	.37	.37	.37	.37	.38	.36	.36	.35
16	.38	.34	.36	.36	.37	.37	.37	.37	.38	.36	.36	.35
17	.38	.36	.34	.35	.38	.37	.37	.37	.38	.36	.36	.35
18	.40	.35	.34	.36	.38	.37	.37	.38	.38	.36	.36	.36
19	.39	.35	.34	.36	.38	.37	.37	.38	.38	.36	.36	.36
20	.38	.35	.34	.36	.37	.37	.37	.38	.38	.36	.36	.36
21	.38	.34	.34	.36	.37	.37	.37	.38	.38	.36	.36	.36
22	.37	.34	.35	.36	.37	.37	.37	.38	.38	.36	.36	.36
23	.38	.34	.34	.36	.37	.37	.37	.38	.38	.36	.36	.36
24	.38	.34	.34	.36	.37	.37	.37	.38	.38	.36	.36	.36
25	.38	.34	.36	.36	.37	.37	.37	.38	.38	.36	.37	.36
26	.38	.34	.34	.36	.37	.37	.37	.39	.38	.36	.37	.36
27	.38	.34	.34	.36	.37	.38	.37	.39	.38	.35	.36	.36
28	.37	.34	.34	.36	.37	.38	.37	.39	.41	.36	.36	.36
29	.37	—	.34	.36	.37	.37	.38	.39	.38	.36	.36	.36
30	.37	—	.34	.36	.38	.36	.36	.39	.36	.36	.36	.36
31	.36	—	.34	—	.38	—	.35	.37	—	.36	—	.36
Mean	.38	.35	.35	.36	.37	.37	.37	.37	.38	.36	.36	.36
Max	.40	.38	.36	.36	.38	.38	.38	.39	.41	.38	.37	.38
Min	.36	.34	.34	.34	.36	.35	.35	.36	.36	.35	.36	.35

Figure 43. (B) Daily mean discharge, Little Hot Creek downstream from Little Hot Creek Spring (LHC-SW), 1995, Long Valley Caldera, Mono County, California.

Table 39. Daily mean discharge, Little Hot Creek downstream from Little Hot Creek Spring (LHC–SW), 1995, Long Valley Caldera, California
[Values are in cubic feet per second. —, no data; Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.36	0.33	0.36	0.41	0.37	0.36	0.34	0.35	0.36	0.36	0.36	0.38
2	.36	.33	.36	.43	.36	.36	.34	.33	.36	.34	.36	.38
3	.36	.33	.35	.44	.36	.36	.34	.34	.36	.34	.36	.38
4	.36	.33	.35	.45	.36	.36	.34	.34	.35	.34	.36	.38
5	.36	.33	.36	.45	.37	.36	.34	.34	.36	.34	.36	.38
6	.36	.34	.35	.49	.36	.37	.34	.34	.36	.35	.36	.38
7	.37	.34	.34	.50	.36	.38	.34	.34	.36	.36	.36	.38
8	.36	.34	.35	.46	.36	.37	.34	.34	.36	.36	.36	.38
9	.36	.34	.39	.44	.36	.36	.34	.34	.36	.36	.36	.38
10	.39	.34	.44	.45	.36	.36	.34	.34	.36	.36	.36	.38
11	.36	.34	.42	.50	.36	.36	.34	.34	.34	.36	.36	.39
12	.36	.34	.39	.49	.36	.36	.34	.34	.34	.36	.36	.43
13	.36	.34	.39	.47	.36	.36	.34	.35	.35	.36	.36	.41
14	.36	.36	.39	.45	.36	.37	.34	.35	.35	.36	.36	.39
15	.37	.34	.40	.44	.36	.36	.34	.35	.35	.36	.36	.38
16	.36	.34	.40	.44	.36	.36	.34	.35	.35	.36	.36	.38
17	.34	.34	.41	.42	.36	.35	.34	.35	.35	.36	.36	.38
18	.34	.34	.44	.43	.36	.34	.34	.35	.36	.36	.36	.38
19	.32	.34	.46	.42	.36	.35	.34	.35	.35	.36	.37	.38
20	.33	.34	.50	.36	.36	.34	.34	.36	.36	.36	.36	.38
21	.34	.34	.49	.35	.36	.34	.34	.35	.36	.36	.37	.38
22	.33	.34	.44	.36	.36	.34	.34	.35	.36	.36	.38	.38
23	.34	.34	.43	.36	.36	.33	.34	.35	.36	.36	.37	.38
24	.34	.34	.41	.36	.36	.33	.35	.35	.36	.36	.38	.38
25	.34	.35	.40	.36	.36	.34	.35	.35	.36	.36	.37	.38
26	.32	.36	.39	.36	.36	.34	.35	.35	.36	.36	.37	.38
27	.32	.36	.39	.36	.36	.34	.35	.35	.36	.36	.38	.38
28	.32	.36	.39	.36	.36	.34	.35	.35	.36	.37	.38	.38
29	.32	—	.40	.37	.36	.34	.35	.35	.36	.37	.38	.38
30	.32	—	.40	.36	.36	.34	.35	.35	.36	.36	.38	.38
31	.33	—	.40	—	.36	—	.35	.35	—	.37	—	.38
Mean	.35	.34	.40	.42	.36	.35	.34	.35	.36	.36	.37	.38
Max	.39	.36	.50	.50	.37	.38	.35	.36	.36	.37	.38	.43
Min	.32	.33	.34	.35	.36	.33	.34	.33	.34	.34	.36	.38

Figure 43. (C) Daily mean discharge, Little Hot Creek downstream from Little Hot Creek Spring (LHC-SW), 1996, Long Valley Caldera, Mono County, California.

Table 40. Daily mean discharge, Little Hot Creek downstream from Little Hot Creek Spring (LHC–SW), 1996, Long Valley Caldera, California

[Values are in cubic feet per second. —, no data; *, measurements discontinued. Max, maximum; Min, minimum]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.38	0.41	—	—	—	—	—	—	—	—	—	—
2	.38	.40	—	—	—	—	—	—	—	—	—	—
3	.38	.41	—	—	—	—	—	—	—	—	—	—
4	.38	.44	—	—	—	—	—	—	—	—	—	—
5	.38	.45	—	—	—	—	—	—	—	—	—	—
6	.38	.41	—	—	—	—	—	—	—	—	—	—
7	.38	.41	—	—	—	—	—	—	—	—	—	—
8	.38	.40	—	—	—	—	—	—	—	—	—	—
9	.38	.40	—	—	—	—	—	—	—	—	—	—
10	.38	.40	—	—	—	—	—	—	—	—	—	—
11	.38	.42	—	—	—	—	—	—	—	—	—	—
12	.39	.42	—	—	—	—	—	—	—	—	—	—
13	.39	.40	—	—	—	—	—	—	—	—	—	—
14	.39	*	—	—	—	—	—	—	—	—	—	—
15	.39	—	—	—	—	—	—	—	—	—	—	—
16	.42	—	—	—	—	—	—	—	—	—	—	—
17	.40	—	—	—	—	—	—	—	—	—	—	—
18	.40	—	—	—	—	—	—	—	—	—	—	—
19	.40	—	—	—	—	—	—	—	—	—	—	—
20	.40	—	—	—	—	—	—	—	—	—	—	—
21	.41	—	—	—	—	—	—	—	—	—	—	—
22	.40	—	—	—	—	—	—	—	—	—	—	—
23	.40	—	—	—	—	—	—	—	—	—	—	—
24	.40	—	—	—	—	—	—	—	—	—	—	—
25	.40	—	—	—	—	—	—	—	—	—	—	—
26	.40	—	—	—	—	—	—	—	—	—	—	—
27	.41	—	—	—	—	—	—	—	—	—	—	—
28	.40	—	—	—	—	—	—	—	—	—	—	—
29	.40	—	—	—	—	—	—	—	—	—	—	—
30	.41	—	—	—	—	—	—	—	—	—	—	—
31	.42	—	—	—	—	—	—	—	—	—	—	—
Mean	.39	.41	—	—	—	—	—	—	—	—	—	—
Max	.42	.45	—	—	—	—	—	—	—	—	—	—
Min	.38	.40	—	—	—	—	—	—	—	—	—	—

Table 41. Instantaneous discharge measurements, Mammoth Creek at Highway 395 (MC395), 1994–96, Long Valley Caldera, California

[Discharge is in cubic feet per second]

Date	Discharge
01-10-94	5.19
04-12-94	7.37
07-11-94	10.1
10-19-94	5.81
03-22-95	8.10
04-17-95	10.7
10-16-95	18.7
01-24-96	9.88
04-23-96	17.8
07-16-96	49.3
10-16-96	9.82

Table 42. Instantaneous discharge measurements, Mammoth Creek upstream of Hot Creek Fish Hatchery (MCAF), 1994–96, Long Valley Caldera, California

[Discharge is in cubic feet per second]

Date	Discharge
01-10-94	3.30
04-12-94	5.53
07-11-94	6.74
10-19-94	3.18
01-17-95	8.94
04-18-95	13.7
10-16-95	19.4
01-24-96	9.62
04-23-96	17.4
07-16-96	38.5
10-16-96	7.11

Table 43. Instantaneous discharge measurements and gage heights, Hot Creek upstream of Gorge Geyser (HCA), 1994–96, Long Valley Caldera, California

[Discharge is in cubic feet per second]

Date	Gage height	Discharge
01-12-94	0.75	29.7
02-15-94	.66	29.4
03-10-94	.65	29.9
04-13-94	.75	26.7
05-18-94	1.08	59.9
06-21-94	.99	43.2
07-13-94	.98	35.8
08-09-94	.97	30.8
09-14-94	.87	29.3
10-20-94	.78	28.8
01-18-95	.62	28.4
04-19-95	.76	41.2
07-12-95	1.55	231
10-17-95	.91	54.9
01-25-96	.72	29.5
04-24-96	1.09	47.3
07-17-96	1.12	73.8
10-17-96	.85	39.4

Figure 44. Location of Mammoth Mountain Fumarole (MMF), Long Valley Caldera, Mono County, California.

Figure 45. Daily mean vent gas temperature, Mammoth Mountain Fumarole (MMF), 1991–95, Long Valley Caldera, Mono County, California.

Figure 46. (A) Daily mean vent gas temperature, Mammoth Mountain Fumarole (MMF), 1994, Long Valley Caldera, Mono County, California.

Table 44. Daily mean vent gas temperature, Mammoth Mountain Fumarole (MMF), 1994, Long Valley Caldera, California

[Values are in degrees Celsius. —, no data; Max, maximum; Min, minimum. See fig. 44 for location of site MMF]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	83.5	83.4	83.0	83.3	83.1	81.1	79.1	82.0	82.0	—	—	—
2	83.6	83.3	83.0	83.3	83.1	80.7	79.4	82.0	82.0	—	—	—
3	83.5	83.2	83.0	83.2	83.1	80.3	79.7	82.0	82.0	—	—	—
4	83.4	83.2	83.0	83.2	83.1	79.8	79.9	82.0	82.0	—	—	—
5	83.2	83.3	82.8	83.3	82.9	79.5	80.1	82.1	82.1	—	—	—
6	83.3	83.2	82.8	83.2	82.9	79.1	80.3	82.1	82.1	—	—	—
7	83.3	82.9	82.9	83.1	83.0	79.0	80.5	82.1	82.1	—	—	—
8	83.2	82.9	82.9	83.0	83.0	78.9	80.7	82.1	82.0	—	—	—
9	83.1	83.3	83.0	83.0	83.1	78.7	80.8	82.1	82.0	—	—	—
10	83.3	83.1	82.9	83.2	83.1	78.4	80.9	82.2	81.9	—	—	—
11	83.3	83.1	82.9	83.4	83.1	78.1	81.0	82.2	81.8	—	—	—
12	83.5	83.3	83.0	83.4	82.9	77.9	81.1	82.3	81.7	—	—	—
13	83.5	83.3	83.1	83.4	82.8	77.6	81.2	82.3	81.7	—	—	—
14	83.4	83.2	83.0	83.3	82.7	77.2	81.3	82.4	81.7	—	—	—
15	83.3	83.2	83.0	83.4	82.4	77.0	81.4	82.4	81.8	—	—	—
16	83.4	83.1	82.9	83.4	82.2	76.6	81.5	82.3	81.8	—	—	—
17	83.4	82.7	82.8	83.4	82.2	76.4	81.5	82.3	81.8	—	—	—
18	83.4	82.7	82.7	83.3	82.3	76.4	81.6	82.3	81.8	—	—	—
19	83.3	82.8	82.6	83.3	82.4	76.5	81.6	82.3	81.8	—	—	—
20	83.4	82.8	82.8	83.2	82.7	76.6	81.7	82.3	81.7	—	—	—
21	83.4	82.9	82.9	83.1	82.9	76.7	81.7	82.2	81.6	—	—	—
22	83.3	83.0	82.6	83.1	82.9	76.7	81.7	82.1	—	—	—	—
23	83.1	83.0	82.6	82.9	83.0	76.8	81.8	82.1	—	—	—	—
24	83.0	83.0	82.7	82.7	83.0	76.9	81.8	82.2	—	—	—	—
25	82.9	83.0	82.8	82.7	82.9	77.1	81.9	82.2	—	—	—	—
26	83.0	82.9	83.1	82.8	82.7	77.3	81.9	82.2	—	—	—	—
27	83.0	82.9	83.3	82.9	82.5	77.6	81.9	82.2	—	—	—	—
28	83.1	83.0	83.3	83.0	82.3	78.0	81.9	82.2	—	—	—	—
29	83.3	—	83.3	83.1	82.1	78.5	81.9	82.2	—	—	—	—
30	83.4	—	83.3	83.1	81.8	78.8	81.9	82.1	—	—	—	—
31	83.4	—	83.3	—	81.3	—	82.0	82.1	—	—	—	—
Mean	83.3	83.1	82.9	83.2	82.7	78.0	81.2	82.2	81.9	—	—	—
Max	83.6	83.4	83.3	83.4	83.1	81.1	82.0	82.4	82.1	—	—	—
Min	82.9	82.7	82.6	82.7	81.3	76.4	79.1	82.0	81.6	—	—	—

Figure 46. (B) Daily mean vent gas temperature, Mammoth Mountain Fumarole (MMF), 1995–96, Long Valley Caldera, Mono County, California.

Table 45. Daily mean vent gas temperature, Mammoth Mountain Fumarole (MMF), 1995, Long Valley Caldera, California

[Values are in degrees Celsius. —, no data; Max, maximum; Min, minimum. See fig. 44 for location of site MMF]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	—	83.9	—	—	—	—	76.2	74.0	77.1	82.3	82.9	82.7
2	—	83.9	—	—	—	—	75.8	73.9	77.4	82.4	83.0	82.7
3	—	84.0	—	—	—	—	75.4	73.8	77.6	82.4	83.0	82.8
4	—	83.9	—	—	—	—	75.0	73.8	77.9	82.5	83.0	82.7
5	—	83.9	—	—	—	—	74.6	73.7	78.1	82.5	83.0	82.7
6	—	83.9	—	—	—	—	74.2	73.4	78.1	82.5	83.0	82.7
7	—	83.8	—	—	—	—	73.7	73.2	78.2	82.6	83.0	82.7
8	—	83.7	—	—	—	—	73.2	73.1	78.4	82.6	83.0	82.7
9	—	83.8	—	—	—	—	72.6	73.2	78.8	82.7	82.9	82.7
10	—	83.8	—	—	—	—	72.1	73.3	79.1	82.7	82.9	82.7
11	—	83.7	—	—	—	—	71.7	73.4	79.4	82.7	83.0	82.6
12	—	83.6	—	—	—	—	74.4	73.6	79.7	82.7	83.0	82.4
13	—	83.5	—	—	—	—	76.6	73.9	80.0	82.8	83.0	82.4
14	—	83.6	—	—	—	—	76.7	74.2	80.3	82.8	83.0	82.4
15	—	83.7	—	—	—	—	76.8	74.4	80.6	82.8	83.0	82.3
16	—	83.8	—	—	—	—	76.7	74.6	80.8	82.8	83.0	82.3
17	—	83.8	—	—	—	—	76.5	74.7	81.0	—	83.0	82.3
18	—	83.8	—	—	—	—	76.2	74.7	81.2	—	83.0	82.3
19	—	83.8	—	—	—	—	76.0	74.8	81.3	—	82.9	82.3
20	84.0	83.8	—	—	—	—	75.9	75.0	81.5	—	82.9	82.3
21	84.1	83.7	—	—	—	—	75.8	75.2	81.6	—	82.9	82.3
22	84.1	83.7	—	—	—	—	75.6	75.4	81.7	—	82.9	82.3
23	84.0	83.8	—	—	—	—	75.4	75.4	81.8	82.9	83.0	82.2
24	84.0	—	—	—	—	—	75.3	75.4	81.9	82.9	83.0	82.2
25	83.9	—	—	—	—	—	75.3	75.4	81.9	82.9	82.9	82.3
26	83.9	—	—	—	—	—	75.3	75.5	82.0	83.0	82.8	82.3
27	83.9	—	—	—	—	—	75.3	75.6	82.1	83.0	82.8	82.2
28	84.0	—	—	—	—	77.5	75.2	75.8	82.2	82.9	82.9	82.2
29	83.9	—	—	—	—	77.0	75.0	76.1	82.2	82.9	82.9	82.1
30	83.9	—	—	—	—	76.6	74.5	76.4	82.3	82.9	82.8	82.1
31	83.9	—	—	—	—	—	74.1	76.7	—	82.9	—	82.1
Mean	84.0	83.8	—	—	—	77.0	75.1	74.6	80.2	82.7	82.9	82.4
Max	84.1	84.0	—	—	—	77.5	76.8	76.7	82.3	83.0	83.0	82.8
Min	83.9	83.5	—	—	—	76.6	71.7	73.1	77.1	82.3	82.8	82.1

Table 46. Daily mean vent gas temperature, Mammoth Mountain Fumarole (MMF), 1996, Long Valley Caldera, California

[Values are in degrees Celsius. —, no data; Max, maximum; Min, minimum. See fig. 44 for location of site MMF]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	82.1	—	—	—	—	—	—	—	—	—	—	—
2	82.1	—	—	—	—	—	—	—	—	—	—	—
3	82.0	—	—	—	—	—	—	—	—	—	—	—
4	81.9	—	—	—	—	—	—	—	—	—	—	—
5	81.9	—	—	—	—	—	—	—	—	—	—	—
6	82.0	—	—	—	—	—	—	—	—	—	—	—
7	81.9	—	—	—	—	—	—	—	—	—	—	—
8	81.9	—	—	—	—	—	—	—	—	—	—	—
9	81.8	—	—	—	—	—	—	—	—	—	—	—
10	81.8	—	—	—	—	—	—	—	—	—	—	—
11	81.8	—	—	—	—	—	—	—	—	—	—	—
12	81.8	—	—	—	—	—	—	—	—	—	—	—
13	81.7	—	—	—	—	—	—	—	—	—	—	—
14	81.7	—	—	—	—	—	—	—	—	—	—	—
15	81.5	—	—	—	—	—	—	—	—	—	—	—
16	81.3	—	—	—	—	—	—	—	—	—	—	—
17	81.2	—	—	—	—	—	—	—	—	—	—	—
18	81.2	—	—	—	—	—	—	—	—	—	—	—
19	81.1	—	—	—	—	—	—	—	—	—	—	—
20	81.1	—	—	—	—	—	—	—	—	—	—	—
21	81.0	—	—	—	—	—	—	—	—	—	—	—
22	81.0	—	—	—	—	—	—	—	—	—	—	—
23	81.1	—	—	—	—	—	—	—	—	—	—	—
24	80.9	—	—	—	—	—	—	—	—	—	—	—
25	80.8	—	—	—	—	—	—	—	—	—	—	—
26	—	—	—	—	—	—	—	—	—	—	—	—
27	—	—	—	—	—	—	—	—	—	—	—	—
28	—	—	—	—	—	—	—	—	—	—	—	—
29	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—
31	—	—	—	—	—	—	—	—	—	—	—	—
Mean	81.5	—	—	—	—	—	—	—	—	—	—	—
Max	82.1	—	—	—	—	—	—	—	—	—	—	—
Min	80.8	—	—	—	—	—	—	—	—	—	—	—

Figure 47. Location of precipitation gages and snowpillow sites, Long Valley Caldera, Mono County, California.

Figure 48. Annual precipitation at Lookout Mountain (LKT-P), Mammoth Ranger Station (MRS), and Old Mammoth Meadow (OMM), July 1, 1994, to June 30, 1996, Long Valley Caldera, Mono County, California.

Table 47. Daily precipitation, Lookout Mountain gage (LKT-P), 1994, Long Valley Caldera, California

[Values are in inches. —, no data]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.08	0.04	0.00	0.00	0.00	0.04	0.00	0.04
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.04	.00	.00	.00	.04	.00	.00	.00	.00	.00	.00	.00
4	.00	.04	.00	.04	.00	.00	.00	.00	.00	.19	.00	.04
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.62	.00	.04
6	.00	.00	.00	.00	.08	.00	.00	.00	.00	.35	.00	.00
7	.00	.66	.04	.04	.19	.00	.00	.00	.00	.08	.00	.00
8	.00	.19	—	.00	.08	.00	.00	.00	.00	.04	.12	.00
9	.00	.04	—	.04	.16	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	—	.00	.00	.00	.00	.00	.00	.00	.23	.00
11	.00	.08	—	.12	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	—	.00	.00	.00	.00	.00	.00	.00	.00	.19
13	.04	.00	—	.00	.00	.00	.00	.00	.00	.00	.00	.12
14	.00	—	—	.00	.00	.00	.00	.00	.00	.00	.00	.04
15	.00	—	—	.04	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	—	—	.00	.00	.00	.00	.00	.00	.00	.04	.04
17	.00	—	—	.00	.00	.00	.00	.00	.00	.04	.04	.00
18	.00	—	—	.00	.43	.00	.00	.00	.00	.00	.04	.00
19	.00	—	.00	.00	.00	.00	.00	.00	.00	.00	.08	.00
20	.00	—	.00	.00	.00	.00	.00	.00	—	.00	.00	.04
21	.00	—	.00	.00	.04	.00	.00	.00	—	.04	.00	.00
22	.00	—	.04	.00	.04	.00	.00	.00	.00	.00	.00	.00
23	.04	—	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	—	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00
25	.08	.00	.19	.00	.00	.00	.00	.00	.00	.00	.55	.12
26	.00	.00	.16	.00	.00	.00	.00	.00	.00	.00	.55	.04
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00
28	.19	.00	.00	.08	.00	.00	.00	.00	.00	.00	.00	.00
29	.08	—	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08
30	.00	—	.00	.00	.19	.00	.00	.00	.12	.00	.00	.00
31	.00	—	.00	—	.23	—	.00	.00	—	.00	—	.00
Total	0.47	1.01 ¹	0.43 ¹	0.36	1.56	0.04	0.00	0.00	0.12 ¹	1.40	1.73	0.79
Calendar year total	7.91 ¹											

¹Incomplete record.

Table 48. Daily precipitation, Lookout Mountain gage (LKT-P), 1995, Long Valley Caldera, California

[Values are in inches. —, no data]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.47	0.00	—	—	—	—	—	0.00
2	.00	.00	.00	.00	.04	.04	—	—	—	—	—	.00
3	.04	.00	.35	.00	.00	.00	—	—	—	—	—	.00
4	.78	.00	.00	.00	.00	.00	—	—	—	—	—	.00
5	.16	.00	.00	.00	.04	.00	—	—	—	—	—	.00
6	.27	.00	.00	.00	.04	.16	—	—	—	—	—	.00
7	.66	.04	.00	.00	.04	.04	—	—	—	—	0.00	.00
8	.19	.00	.00	.00	.00	.04	—	—	—	—	.00	.00
9	.12	.00	2.1	.00	.00	.00	—	—	—	—	.00	.00
10	2.1	.00	1.9	.00	.00	.00	—	—	—	—	.00	.00
11	.31	.00	1.6	.00	.00	.00	—	—	—	—	.00	1.03
12	.12	.04	.00	.00	.00	.00	—	—	—	—	.00	2.17
13	.00	.27	.00	.00	.08	.00	—	—	—	—	.00	.71
14	.55	.27	.00	.08	.08	.00	—	—	—	—	.00	.58
15	.12	.08	.04	.00	.23	.35	—	—	—	—	.00	—
16	.04	.00	.00	.00	.04	.04	—	—	—	—	.00	—
17	.00	.00	.00	.00	.00	.00	—	—	—	—	.00	—
18	.00	.00	.04	.00	.00	.00	—	—	—	—	.00	—
19	.00	.00	.04	.00	.00	.00	—	—	—	—	.00	—
20	.00	.00	.94	.00	.00	.00	—	—	—	—	.00	—
21	.04	.00	.78	.04	.00	.00	—	—	—	—	.00	—
22	.12	.00	.58	.00	.16	.00	—	—	—	—	.00	—
23	.35	.00	.58	.00	.27	.00	—	—	—	—	.00	—
24	.31	.00	.12	.00	.19	.00	—	—	—	—	.00	—
25	.23	.00	.04	.00	.04	.19	—	—	—	—	.00	—
26	.04	.00	.08	.00	.04	.00	—	—	—	—	.00	—
27	.00	.00	.00	.00	.00	—	—	—	—	—	.00	—
28	.00	.00	.00	.00	.00	—	—	—	—	—	.00	—
29	.00	—	.00	.43	.00	—	—	—	—	—	.00	—
30	.00	—	.00	.00	.00	—	—	—	—	—	.00	—
31	.00	—	.00	—	.00	—	—	—	—	—	—	—
Total	6.55	0.70	9.19	0.55	1.76	0.86 ¹	—	—	—	—	0.00 ¹	4.49 ¹
Calendar year total	24.1 ¹											

¹Incomplete record.

Table 49. Daily precipitation, Lookout Mountain gage (LKT-P), 1996, Long Valley Caldera, California

[Values are in inches. —, no data]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	—	0.02	—	0.36	0.00	0.00	0.00	0.06	0.00	0.00	0.03	0.00
2	—	.00	—	.10	.00	.00	.04	.00	.00	.00	.28	.01
3	—	.00	—	.00	.00	.00	.00	.00	.00	.00	.40	.01
4	—	1.14	—	.00	.00	.00	.00	.00	.00	.00	.01	.00
5	—	.58	—	.00	.00	.00	.00	.00	.00	.00	.00	.45
6	—	.00	—	.00	.00	.00	.00	.00	.00	.00	.01	.15
7	—	.00	—	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	—	.00	—	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	—	.00	0.96	.00	.00	.00	.00	.00	.00	.00	.00	.32
10	—	.00	.00	.06	.00	.00	.00	.00	.00	.00	.00	1.00
11	—	.00	.24	.00	.00	.00	.05	.00	.00	.00	.00	.52
12	—	—	.42	.00	.00	.00	.26	.00	.00	.00	.00	.02
13	—	—	.14	.00	.00	.00	.08	.00	.00	.00	.00	.00
14	—	—	.00	.00	.00	.00	.31	.00	.00	.00	.00	.00
15	—	—	.02	.00	.40	.00	.00	.00	.00	.00	.00	.00
16	—	—	.00	.81	.58	.00	.00	.00	.00	.00	.00	.00
17	—	—	.00	.31	—	—	.00	.00	.00	.00	1.82	.00
18	—	—	.00	1.74	—	.00	.00	.00	.00	.14	.00	.00
19	—	—	.00	.00	—	.00	.00	.00	.00	.00	.21	.00
20	—	3.04	.00	.00	—	.00	.00	.00	.00	.00	.00	.00
21	—	—	.00	.00	—	.00	.00	.00	.00	.00	1.51	1.53
22	—	—	.00	.00	.00	.00	.00	.00	.00	.00	.24	.97
23	—	—	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
24	0.14	—	.00	.00	.03	.00	.00	.00	.00	.04	.02	.00
25	.14	—	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	—	.00	.00	.01	.00	.00	.00	.00	.00	.00	.12
27	.65	—	.00	.00	.03	.00	.00	.00	.00	.00	.00	.26
28	.00	—	.00	.00	.00	.00	.00	.00	.00	.03	.05	.00
29	.00	—	.00	.00	.00	.00	.00	.00	.00	.00	.07	.48
30	.00	—	.00	.00	.00	.00	.00	.00	.00	.03	.02	.10
31	.18	—	.00	—	.08	—	.00	.00	—	.00	—	.00
Total	1.11 ¹	4.78 ¹	1.78 ¹	3.38	1.13 ¹	0.00 ¹	0.74	0.06	0.00	0.24	4.67	5.95
Calendar year total	23.84 ¹											

¹Incomplete record.

Table 50. Monthly precipitation, Mammoth Ranger Station gage (MRS), 1994–96, Long Valley Caldera, California

[Data provided by Thom Heller, U.S. Forest Service. Values are in inches]

Month	1994	1995	1996
January	0.48	10.40	4.33
February	5.17	1.40	10.09
March	1.03	11.79	2.67
April	.96	.85	2.54
May	1.84	3.27	2.85
June	.00	1.71	.05
July	.03	.00	.78
August	.00	.30	.18
September	1.20	.16	.00
October	1.23	.15	2.18
November	6.09	.00	4.77
December	.99	4.71	10.22
Total	19.02	34.74	40.66

Table 51. Daily precipitation, Old Mammoth Meadow gage (OMM), 1994, Long Valley Caldera, California

[Values are in inches. —, no data]

Day	Jan	Fab	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	—	—	—	—	—	—	—	—	—	—	0.02	0.00
2	—	—	—	—	—	—	—	—	—	—	.12	.01
3	—	—	—	—	—	—	—	—	—	—	.11	.11
4	—	—	—	—	—	—	—	—	—	—	.03	.02
5	—	—	—	—	—	—	—	—	—	—	1.20	.06
6	—	—	—	—	—	—	—	—	—	—	.14	.00
7	—	—	—	—	—	—	—	—	—	—	.11	.04
8	—	—	—	—	—	—	—	—	—	—	.06	.00
9	—	—	—	—	—	—	—	—	—	—	.06	.00
10	—	—	—	—	—	—	—	—	—	—	.42	.01
11	—	—	—	—	—	—	—	—	—	—	.02	.00
12	—	—	—	—	—	—	—	—	—	—	.01	.54
13	—	—	—	—	—	—	—	—	—	—	.01	.15
14	—	—	—	—	—	—	—	—	—	—	.00	.03
15	—	—	—	—	—	—	—	—	—	—	.05	.02
16	—	—	—	—	—	—	—	—	—	—	.04	.00
17	—	—	—	—	—	—	—	—	—	—	.40	.00
18	—	—	—	—	—	—	—	—	—	—	.13	.00
19	—	—	—	—	—	—	—	—	—	—	.02	.00
20	—	—	—	—	—	—	—	—	—	—	.00	.00
21	—	—	—	—	—	—	—	—	—	(¹)	.01	.00
22	—	—	—	—	—	—	—	—	—	0.00	.00	.00
23	—	—	—	—	—	—	—	—	—	.00	.00	.00
24	—	—	—	—	—	—	—	—	—	.00	.03	.31
25	—	—	—	—	—	—	—	—	—	.00	1.16	.11
26	—	—	—	—	—	—	—	—	—	.00	.35	.00
27	—	—	—	—	—	—	—	—	—	.00	.01	.01
28	—	—	—	—	—	—	—	—	—	.00	.00	.15
29	—	—	—	—	—	—	—	—	—	.00	.00	.01
30	—	—	—	—	—	—	—	—	—	.00	.00	.01
31	—	—	—	—	—	—	—	—	—	.00	—	.00
Totals	—	—	—	—	—	—	—	—	—	0.00 ²	4.51	1.59

Calendar year total 6.10²¹Record begins October 21, 1994.²Incomplete record.

Table 52. Daily precipitation, Old Mammoth Meadow gage (OMM), 1995, Long Valley Caldera, California

[Values are in inches. —, no data]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	—	0.00	—	—	—	—	—	—	—	—	0.04
2	.03	—	.00	—	—	—	—	—	—	—	0.00	.00
3	.31	—	.58	—	—	—	—	—	—	—	.00	.00
4	1.68	—	.00	—	—	—	—	—	—	—	.00	.00
5	.33	—	.00	—	—	—	—	—	—	—	.00	.08
6	.43	—	.00	—	—	—	—	—	—	—	.00	.04
7	.64	—	.00	—	—	—	—	—	—	—	.00	.00
8	.31	—	—	—	—	—	—	—	—	—	.00	.00
9	.37	—	—	—	—	—	—	—	—	—	.00	.00
10	2.71	—	—	—	—	—	—	—	—	—	.00	.00
11	.21	—	—	—	—	—	—	—	—	—	.00	2.22
12	.00	—	—	—	—	—	—	—	—	—	.00	3.28
13	.00	—	—	—	—	—	—	—	—	—	.00	1.52
14	.02	—	—	—	—	—	—	—	—	—	.00	.12
15	—	—	—	—	—	—	—	—	—	—	.00	.04
16	—	—	—	—	—	—	—	—	—	—	.00	.00
17	—	—	—	—	—	—	—	—	—	—	.00	.00
18	—	—	—	—	—	—	—	—	—	—	.00	.00
19	.00	—	—	—	—	—	—	—	—	—	.00	.00
20	.00	—	—	—	—	—	—	—	—	—	.00	.00
21	.02	—	—	—	—	—	—	—	—	—	.00	.00
22	.42	0.00	—	—	—	—	—	—	—	—	.00	.23
23	1.03	.00	—	—	—	—	—	—	—	—	.00	.12
24	1.33	.00	—	—	—	—	—	—	—	—	.00	.00
25	3.93	.00	—	—	—	—	—	—	—	—	.00	.04
26	.44	.00	—	—	—	—	—	—	—	—	.00	.04
27	.08	.00	—	—	—	—	—	—	—	—	.00	.00
28	.06	.00	—	—	—	—	—	—	—	—	.00	.00
29	.27	—	—	—	—	—	—	—	—	—	.00	.00
30	.00	—	—	—	—	—	—	—	—	—	.00	.04
31	.00	—	—	—	—	—	—	—	—	—	—	.00
Total	14.62 ¹	0.00 ¹	0.58 ¹	—	—	—	—	—	—	—	0.00 ¹	7.81
Calendar year total 23.01 ¹												

¹Incomplete record.

Table 53. Daily precipitation, Old Mammoth Meadow gage (OMM), 1996, Long Valley Caldera, California

[Values are in inches. —, no data]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.04	0.00	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.08
2	.00	.00	.00	.04	.00	.00	.00	.00	.00	.00	.04	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	2.57	.74	.00	.00	.00	.00	.00	.00	.00	.04	.04
5	.00	1.25	.86	.00	.00	.00	.00	.00	.00	.00	.00	1.87
6	.00	.00	.08	.00	.00	.00	.00	.00	.04	.00	.00	.16
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.74
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.30
11	.00	.00	.43	.00	.00	.00	.04	.00	.00	.00	.00	1.21
12	.00	.00	.78	.00	.00	.00	.04	.00	.00	.00	.00	.04
13	.00	.00	.19	.04	.00	.00	.04	.00	.00	.00	.00	.04
14	.04	.00	.04	.00	.00	.00	.00	.00	.04	.00	.04	.00
15	.00	.00	.00	.00	1.48	.00	.00	.00	.00	.00	.00	.00
16	1.56	.04	.00	1.75	1.52	.00	.00	.00	.00	.00	.12	.00
17	.08	.04	.00	.82	1.09	.00	.00	.00	.04	.00	3.82	.00
18	.55	.04	.00	.23	.16	.00	.00	.00	.00	.78	.08	.00
19	.43	2.61	.00	.04	.00	.00	.00	.00	.00	.23	.55	.00
20	.04	1.29	.00	.00	.00	.00	.00	.00	.00	.00	.08	.00
21	.58	.47	.00	.00	.00	.00	.00	.00	.00	.00	1.91	1.68
22	.00	.55	.00	.00	.04	.00	.00	.00	.00	.00	1.01	1.79
23	.04	.08	.04	.00	.12	.00	.00	.00	.00	.00	.00	.16
24	.31	.31	.00	.00	.08	.00	.00	.00	.00	.00	.00	.00
25	.35	.47	.00	.00	.00	.00	.00	.00	.00	.08	.04	.00
26	.00	.23	.00	.00	.00	.12	.00	.00	.00	.04	.00	.47
27	.70	.00	.00	.00	.00	.04	.23	.00	.00	.00	.00	.55
28	.04	.08	.62	.00	.00	.00	.04	.00	.00	.12	.00	.00
29	.04	.00	.12	.00	.00	.00	.04	.00	.00	1.17	.04	1.21
30	.00	—	.00	.00	.00	.00	.04	.00	.00	.66	.04	.39
31	.55	—	.00	—	.00	—	.00	.00	—	.04	—	.04
Total	5.31	10.11	3.90	3.74	4.49	.16	.47	.00	.12	3.12	7.85	12.81
Calendar year total 52.08

Figure 49. (A) Daily mean water equivalence of snowpack, Horseshoe Lake snowpillow site (HSL), 1995–96, near Mammoth Lakes, Mono County, California.

Figure 49. (B) Daily mean water equivalence of snowpack, Horseshoe Lake snowpillow site (HSL), 1996–97, near Mammoth Lakes, Mono County, California.

Table 54. Daily mean water equivalence of snowpack, Horseshoe Lake snowpillow (HSL), December 1995 to May 1996, Long Valley Caldera, California

[Values are in inches of water. —, no data; Max, maximum; Min, minimum]

Day	Dec	Jan	Feb	Mar	Apr	May
1	—	14.24	23.59	35.15	41.53	43.07
2	—	14.35	23.59	34.99	42.45	41.94
3	—	14.32	23.59	34.91	42.35	40.89
4	—	14.21	24.36	35.55	42.19	39.92
5	—	14.23	25.56	37.06	42.06	39.01
6	6.91	14.22	26.08	37.50	42.37	38.11
7	7.02	14.20	26.28	37.50	42.76	37.22
8	7.02	14.18	26.39	37.42	43.24	36.36
9	7.02	14.17	26.37	37.50	44.53	35.43
10	7.02	14.17	26.35	37.50	44.17	34.53
11	7.98	14.23	26.25	37.98	43.78	33.56
12	10.76	14.23	26.24	39.06	44.04	32.49
13	12.35	14.21	26.24	39.85	43.60	31.36
14	13.88	14.21	26.13	40.10	44.08	29.94
15	13.93	14.17	26.03	40.16	45.41	28.61
16	13.93	15.21	26.51	40.32	47.31	28.42
17	13.93	16.66	26.32	40.36	49.57	—
18	13.93	17.12	26.00	40.46	50.45	—
19	13.93	18.40	27.67	40.57	50.04	—
20	13.93	18.65	31.12	40.56	49.58	—
21	13.93	19.34	32.39	40.33	49.16	—
22	13.97	19.65	33.84	40.27	49.05	—
23	14.31	19.67	33.97	39.94	49.49	—
24	14.41	19.98	34.03	39.83	49.09	—
25	14.41	21.23	34.81	39.72	48.35	—
26	14.41	21.37	34.91	39.69	47.40	—
27	14.40	21.95	34.97	39.77	46.58	—
28	14.17	22.76	34.94	40.62	45.72	—
29	14.26	22.85	35.03	40.88	44.87	—
30	14.41	22.88	—	40.89	44.08	—
31	14.32	23.33	—	41.12	—	—
Mean	12.33	17.24	28.61	38.95	45.64	35.68
Max	14.41	23.33	35.03	41.12	50.45	43.07
Min	6.91	14.17	23.59	34.91	41.53	28.42

Table 55. Daily mean water equivalence of snowpack, Horseshoe Lake snowpillow (HSL), November 1996 to May 1997, Long Valley Caldera, California

[Values are in inches of water. —, no data; Max, maximum; Min, minimum]

Day	Nov	Dec	Jan	Feb	Mar	Apr	May
1	—	4.72	—	—	—	39.54	26.17
2	—	5.46	—	—	—	39.28	25.40
3	—	5.93	—	—	—	39.26	24.61
4	—	6.06	—	—	—	39.09	23.64
5	—	6.64	—	—	—	39.07	22.59
6	—	7.45	—	—	—	38.98	21.50
7	—	7.43	—	—	—	39.04	20.45
8	—	7.44	—	—	—	39.32	19.41
9	—	7.91	—	—	—	39.39	18.42
10	—	10.08	—	—	—	39.44	17.43
11	—	13.19	—	—	—	39.45	16.30
12	—	—	—	—	—	39.59	15.15
13	—	—	—	—	—	40.11	13.86
14	—	—	—	—	—	40.67	12.32
15	—	—	—	—	—	40.12	10.71
16	—	—	—	—	—	39.39	—
17	—	—	—	—	—	38.50	—
18	—	—	—	—	47.20	37.50	—
19	—	—	—	—	46.91	36.55	—
20	—	—	—	—	46.50	35.36	—
21	—	—	—	—	45.76	34.16	—
22	—	—	—	—	45.00	33.13	—
23	—	—	—	—	44.38	32.24	—
24	—	—	—	—	43.17	31.62	—
25	—	—	—	—	41.77	31.27	—
26	—	—	—	—	41.01	30.72	—
27	—	—	—	—	40.49	29.66	—
28	—	—	—	—	39.89	28.60	—
29	—	—	—	—	39.36	27.81	—
30	4.19	—	—	—	39.22	26.99	—
31	—	—	—	—	39.51	—	—
Mean		¹ 7.48	—	—	¹ 42.87	36.19	¹ 19.20
Max		¹ 13.19	—	—	¹ 47.20	40.67	¹ 26.17
Min		¹ 4.72	—	—	¹ 39.22	26.99	¹ 10.71

¹Incomplete record.

Figure 50. (A) Daily mean water equivalence of snowpack, Lookout Mountain (LKT-P), 1994-95, Long Valley Caldera, Mono County, California.

Figure 50. (B) Daily mean water equivalence of snowpack, Lookout Mountain (LKT-P), 1995-96, Long Valley Caldera, Mono County, California. Gaps in record December 1995 to April 1996 are due to equipment problems.

Table 56. Daily mean water equivalence of snowpack, Lookout Mountain snowpillow (LKT-P), November 1994 to May 1995, Long Valley Caldera, California

[Values are in inches of water. —, no data; Max, maximum; Min, minimum]

Day	Nov	Dec	Jan	Feb	Mar	Apr	May
1	—	3.06	2.52	11.62	12.85	18.11	3.23
2	—	2.89	2.58	11.82	13.02	17.50	2.30
3	—	2.38	2.50	11.10	13.30	16.64	1.74
4	—	3.06	2.88	11.46	13.28	16.29	1.17
5	—	3.61	3.84	12.09	13.28	16.48	1.17
6	—	2.83	3.97	12.17	12.22	17.42	1.14
7	—	3.41	4.77	12.72	12.78	16.38	1.14
8	—	2.97	5.07	12.38	12.11	15.48	1.00
9	—	2.18	5.29	12.44	12.31	14.97	1.02
10	—	1.84	6.95	12.15	15.27	14.63	1.03
11	—	2.18	8.11	10.85	17.97	14.26	1.04
12	—	1.94	8.29	11.40	18.06	13.91	1.08
13	—	2.52	8.62	11.12	18.68	13.60	1.11
14	—	2.40	8.82	11.66	17.85	13.60	1.15
15	—	2.88	9.82	11.50	17.04	12.95	1.27
16	—	3.27	10.55	11.36	15.83	12.73	—
17	—	4.33	10.11	12.33	15.45	13.11	—
18	—	3.35	11.08	13.36	14.79	13.25	—
19	—	3.45	10.92	12.50	14.61	13.17	—
20	—	3.47	10.83	11.46	14.46	13.08	—
21	—	3.17	9.65	11.52	15.44	13.02	—
22	—	2.61	9.53	11.54	15.69	12.59	—
23	—	3.02	9.89	11.40	17.04	11.34	—
24	—	3.25	10.40	11.46	17.35	10.85	—
25	1.06	3.15	10.78	11.27	17.96	9.91	—
26	1.77	3.94	10.89	11.34	18.25	8.97	—
27	1.82	3.33	10.94	12.35	19.45	8.02	—
28	1.67	3.20	11.78	13.31	18.68	6.95	—
29	2.12	3.37	11.81	—	18.07	5.77	—
30	2.39	3.90	11.29	—	18.61	4.34	—
31	—	2.64	11.29	—	18.25	—	—
Mean	1.80	3.02	8.25	11.85	15.80	12.98	1.37
Max	2.39	4.33	11.81	13.36	19.45	18.11	3.23
Min	1.06	1.84	2.50	10.85	12.11	4.34	1.00

Table 57. Daily mean water equivalence of snowpack, Lookout Mountain snowpillow (LKT-P), December 1995 to April 1996, Long Valley Caldera, California

[Values are in inches of water. —, no data; Max, maximum; Min, minimum]

Day	Dec	Jan	Feb	Mar	Apr
1	—	—	3.82	—	5.13
2	—	—	4.01	—	5.14
3	—	—	3.83	—	4.85
4	—	—	4.12	—	4.36
5	—	—	4.26	—	4.00
6	—	—	4.09	—	3.68
7	—	—	4.03	—	3.11
8	—	—	3.70	—	—
9	—	—	4.42	—	—
10	—	—	4.04	9.33	—
11	—	—	4.45	9.60	—
12	—	—	—	9.26	—
13	—	—	—	8.58	—
14	—	—	—	8.59	—
15	—	—	—	8.02	—
16	—	—	—	8.13	—
17	—	2.68	—	8.25	—
18	—	2.74	—	7.92	—
19	—	—	—	7.75	—
20	—	—	—	7.47	—
21	—	—	—	7.21	—
22	—	—	—	7.39	—
23	3.15	3.62	—	7.61	—
24	—	3.82	—	7.36	—
25	—	4.46	—	7.41	—
26	—	3.96	—	7.03	—
27	—	4.51	—	6.50	—
28	2.86	4.15	—	6.65	—
29	3.05	3.73	—	6.45	—
30	2.93	3.98	—	6.15	—
31	2.55	3.76	—	5.70	—
Mean	¹ 2.91	¹ 3.76	¹ 4.07	¹ 7.65	¹ 4.32
Max	¹ 3.15	¹ 4.51	¹ 4.45	¹ 9.60	¹ 5.14
Min	¹ 2.55	¹ 2.68	¹ 3.70	¹ 5.70	¹ 3.11

¹Incomplete record.

Figure 51. April 1 water equivalence of snowpack, Mammoth Pass Snow Course 205 (MP), 1981–96, near Mammoth Lakes, Mono County, California. Data from California Department of Water Resources.

Figure 52. Location of water-quality sampling sites, Long Valley Caldera, Mono County, California.

Table 58. Chemical and isotopic analyses of water samples collected at selected well, spring, and stream sites, 1994–96, Long Valley Caldera, California

[°C, degrees Celsius; $\mu\text{S}/\text{cm}$, microsiemens per centimeter at 25°C; ANC is acid-neutralizing capacity, done in the field by incremental titration; mg/L, milligrams per liter; $\mu\text{g}/\text{L}$, micrograms per liter; ratio per mil, parts per thousand difference from Standard Mean Ocean Water; —, no data; <, less than. Temperature, specific conductance, pH, and ANC measured in the field; other values are from laboratory analyses]

Station identifier	Date	Temperature, water (°C)	Specific conductance ($\mu\text{S}/\text{cm}$)	pH water whole field (standard units)	ANC water unfiltered (mg/L as CaCO_3)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Nitrogen, ammonia, dissolved (mg/L as NH_3)	Nitrogen, nitrite, dissolved (mg/L as NO_2)
Well sites									
CH-11A	07-18-96	4.5	163	5.1	80	0.2	0.9	0.020	0.010
HSL-1	07-18-96	10.0	147	5.3	73	>.1	.1	.020	.010
LB-1	10-17-95	6.0	158	7.0	82	.5	<.1	—	—
	07-18-96	5.0	189	7.0	98	.6	<.1	.030	<.010
MMSA-1	11-03-95	4.5	276	5.7	91	<.1	19.0	<.015	.010
MMSA-2A	11-02-95	5.5	256	5.6	112	<.1	4.7	<.015	<.010
Spring sites									
FHAB-WEIR	01-11-94	17.6	254	7.3	97	9.4	.3	.010	<.010
	04-12-94	18.0	264	7.2	107	10	.3	.020	<.010
	07-12-94	17.8	232	7.3	90	9.9	.3	<.010	<.010
	10-19-94	—	—	—	—	12	.3	<.015	<.010
	10-19-94	18.0	267	7.2	101	11	.3	<.015	<.010
	01-17-95	17.8	291	7.2	114	10	.3	<.015	<.010
	04-18-95	17.0	287	7.2	115	11	.3	<.015	<.010
	06-20-95	16.3	217	7.3	—	8.2	.3	.020	<.010
	07-11-95	16.2	212	7.2	85	7.1	.4	.020	<.010
	07-11-95	—	—	—	—	7.1	.3	<.015	<.010
	01-24-96	17.5	243	7.2	108	5.6	.3	<.015	<.010
	07-16-96	16.7	224	7.2	94	4.7	.3	.030	<.010
	01-11-94	15.5	242	7.5	102	4.6	.3	.010	<.010
	04-13-94	16.0	247	7.4	111	5.3	.3	.030	<.010
	07-12-94	16.5	250	7.3	109	5.2	.3	<.010	<.010
FHCD-Q	10-19-94	15.5	251	7.2	109	5.1	.3	<.015	<.010
	01-17-95	—	—	—	—	5.2	.3	<.015	<.010
	01-17-95	15.0	258	7.3	109	—	—	<.015	<.010
	04-18-95	15.0	249	7.3	108	5.2	.3	<.015	<.010
	04-18-95	15.0	250	7.3	109	5.2	.3	<.015	<.010
	07-11-95	15.7	223	7.3	98	3.8	.3	.020	<.010
	01-24-96	14.5	234	7.3	107	3.8	.3	<.015	<.010
	07-16-96	15.5	232	7.3	—	2.9	.3	.040	.010

Table 58. Chemical and isotopic analyses of water samples collected at selected well, spring, and stream sites, 1994–96, Long Valley Caldera, California —Continued

Station identifier	Date	Nitrogen NO ₂ + NO ₃ , dissolved (mg/L as NO ₃)	Phospho- rus ortho, dissolved (mg/L as PO ₄)	Sulfate, dissolved (mg/L)	Calcium, dissolved (mg/L)	Magne- sium, dissolved (mg/L)	Sodium, dissolved (mg/L)	Potas- sium, dissolved (mg/L)	Silica, dissolved (mg/L)	Boron, dissolved (μg/L)
Well sites (continued)										
CH11A	07-18-96	0.17	0.12	2.3	13	8.9	6.0	3.7	37	4.2
HSL-1	07-18-96	.11	.04	.30	11	6.4	6.2	6.7	55	12
LB-1	10-17-95	—	—	.8	17	4.9	7.3	4.4	32	<10
	07-18-96	.09	.05	.8	20	5.8	8.5	5.3	33	6.7
MMSA-1	11-03-95	3.40	.02	2.6	15	11	17	8.5	43	20
MMSA-2A	11-02-95	2.40	.17	2.2	12	7.3	30	3.7	50	20
Spring sites (continued)										
FHAB-WEIR	01-11-94	.25	.11	13	12	8.8	26	5.8	60	430
	04-12-94	.28	.13	13	12	8.6	25	5.3	56	470
	07-12-94	.21	.12	11	10	7.7	23	5.9	56	510
	10-19-94	.25	.14	12	13	9.1	28	6.0	59	540
	10-19-94	.25	.14	13	13	9.2	28	6.0	60	530
	01-17-95	.26	.15	12	14	10	28	6.0	61	490
	04-18-95	.69	.15	11	14	10	27	5.9	59	520
	06-20-95	.52	.12	9.4	10	7.5	22	4.9	59	410
	07-11-95	.49	.14	9.1	9.4	7.2	21	4.5	58	360
	07-11-95	.49	.14	9.1	9.4	7.3	21	4.8	59	360
	01-24-96	.29	.13	9.5	13	10	24	5.5	57	270
	07-16-96	.33	.16	10	11	8.3	22	5.1	58	277
	01-11-94	.29	.15	11	12	9.3	24	5.2	56	240
	04-13-94	.28	.16	11	12	9.4	23	5.2	56	260
FHCD-Q	07-12-94	.24	.16	11	12	9.5	24	5.5	55	270
	10-19-94	.27	.17	10	13	9.6	25	5.3	57	260
	01-17-95	.26	.17	11	13	10	24	5.1	58	260
	04-18-95	.43	.17	9.5	13	9.4	23	5.1	56	250
	04-18-95	.42	.17	9.4	13	9.3	23	5.1	56	250
	07-11-95	.39	.15	10	11	8.5	21	4.7	55	200
	01-24-96	.26	.14	8.8	13	10	21	4.8	54	190
	07-16-96	.25	.17	10	12	9.1	21	4.8	55	176

Table 58. Chemical and isotopic analyses of water samples collected at selected well, spring, and stream sites, 1994–96, Long Valley Caldera, California—Continued

Station identifier	Date	Arsenic, dissolved (µg/L)	Lithium, dissolved (µg/L)	Mercury, dissolved (µg/L)	Iron, dissolved (µg/L)	Manganese, dissolved (µg/L)	Solids, residue at 180 °C, dissolved (mg/L)	H-2/H-1 stable isotope ratio per mil	O-18/O-16 stable isotope ratio per mil
Well sites (continued)									
CH11A	07-18-96	<1	—	—	19	91	98	—	-14.58
HSL-1	07-18-96	<1	—	—	35	46	100	—	-14.04
LB-1	10-17-95	<1	<10	<0.1	<3	<1	98	—	-14.9
	07-18-96	<1	—	—	<3	<1	114	—	-14.65
MMSA-1	11-03-95	<1	70	—	7	180	184	—	-14.86
MMSA-2A	11-02-95	<1	150	—	5	6	176	—	-15.09
Spring sites (continued)									
FHAB-WEIR	01-11-94	44	100	<.1	7	<1	200	—	—
	04-12-94	44	90	<.1	3	1	200	—	—
	07-12-94	43	90	<.1	4	<1	164	—	—
	10-19-94	52	100	<.1	<3	<1	192	—	—
	10-19-94	52	100	<.1	<3	<1	192	—	—
	01-17-95	45	110	<.1	<3	<1	208	—	—
	04-18-95	46	100	<.1	12	<1	214	—	—
	06-20-95	42	90	—	11	<1	166	—	—
	07-11-95	43	80	<.1	13	<1	164	—	—
	07-11-95	48	80	<.1	11	<1	164	—	—
	01-24-96	39	100	<.1	<3	<1	178	—	—
	07-16-96	36	76	.1	<3	<1	150	—	—
	01-11-94	50	80	<.1	<3	<1	184	—	—
	04-13-94	48	80	<.1	5	<1	186	—	—
	07-12-94	45	80	<.1	<3	<1	168	—	—
FHCD-Q	10-19-94	55	80	<.1	<3	<1	180	—	—
	01-17-95	—	—	—	—	—	—	—	—
	04-18-95	48	80	<.1	7	1	186	—	—
	04-18-95	49	80	<.1	5	1	186	—	—
	07-11-95	45	70	<.1	6	<1	168	—	—
	01-24-96	43	80	<.1	3	1	172	—	—
	07-16-96	37	68	<.1	5	1	150	—	—

Table 58. Chemical and isotopic analyses of water samples collected at selected well, spring, and stream sites, 1994–96, Long Valley Caldera, California—Continued

Station identifier	Date	Temperature, water (°C)	Specific conductance (µS/cm)	pH water whole field (standard units)	ANC water unfiltered (mg/L as CaCO ₃)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Nitrogen, ammonia, dissolved (mg/L as NH ₃)	Nitrogen, nitrite, dissolved (mg/L as NO ₂)
Spring sites (continued)									
FH23-T	01-11-94	11.5	219	7.3	83	0.2	7.5	<0.010	<0.010
	04-12-94	11.2	216	7.3	87	.2	8.3	.020	<.010
	07-12-94	11.0	221	7.3	88	.2	7.4	<.010	<.010
	01-18-95	10.1	224	7.3	85	.2	8.3	<.015	<.010
	04-18-95	11.0	236	7.1	91	.2	10.0	<.015	<.010
	07-11-95	11.0	237	7.1	94	.2	8.7	.020	<.010
	01-24-96	11.5	220	7.2	91	.2	6.8	<.015	<.010
	07-16-96	11.0	223	7.3	78	.2	7.0	.060	.010
LS	07-28-95	11.5	115	8.7	39	.3	.1	.020	<.010
MCS	07-14-94	8.0	265	5.7	128	.3	.1	<.010	<.010
Stream sites									
MC 395	01-10-94	.1	126	8.0	60	.4	<.1	.010	<.010
	04-12-94	2.0	148	8.2	75	.4	.1	.030	<.010
	07-11-94	18.0	86	8.2	40	.3	<.1	<.010	<.010
	10-19-94	2.0	133	8.0	64	.3	.1	<.015	<.010
	01-17-95	.1	130	7.8	60	.5	<.1	<.015	<.010
	04-17-95	.5	148	8.1	71	.7	.1	<.015	<.010
	07-10-95	12.0	36	7.5	17	—	—	<.015	<.010
	10-16-95	7.5	93	7.9	43	.2	.1	<.015	<.010
	01-24-96	.5	120	8.0	59	.3	.2	<.015	<.010
	04-23-96	3.0	128	7.9	61	.4	.1	<.015	<.010
	07-16-96	12.5	51	7.9	24	.1	<.1	.050	<.010
	10-16-96	6.0	129	8.2	61	.3	.1	.020	.010
	01-10-94	5.5	175	8.2	73	4.9	.2	.010	<.010
	04-12-94	5.5	170	8.0	77	3.3	.2	.030	<.010
MCAF	07-11-94	25.0	101	8.5	45	1.6	.1	<.010	<.010
	10-19-94	5.5	168	8.1	73	4.2	.2	<.015	<.010
	01-17-95	.1	166	7.7	66	5.0	.1	.020	<.010
	04-18-95	.5	186	7.9	81	4.4	.2	<.015	<.010
	10-16-95	14.5	127	8.2	55	2.2	.1	<.015	<.010
	10-16-95	—	—	—	—	2.3	<.1	<.015	<.010
	01-24-96	.5	150	8.0	70	2.7	.2	<.015	<.010
	04-23-96	13.0	141	8.0	65	1.4	.1	<.015	<.010
	07-16-96	18.0	86	7.8	38	1.4	.2	.030	<.010
	10-16-96	11.0	154	8.2	68	3.2	.2	.020	.020
	01-10-94	5.5	175	8.2	73	4.9	.2	.010	<.010
	04-12-94	5.5	170	8.0	77	3.3	.2	.030	<.010
	07-11-94	25.0	101	8.5	45	1.6	.1	<.010	<.010
	10-19-94	5.5	168	8.1	73	4.2	.2	<.015	<.010
	01-17-95	.1	166	7.7	66	5.0	.1	.020	<.010
MT	02-18-96	11.9	414	7.8	—	.4	6.7	—	—

Table 58. Chemical and isotopic analyses of water samples collected at selected well, spring, and stream sites, 1994–96, Long Valley Caldera, California—Continued

Station identifier	Date	Nitrogen NO ₂ + NO ₃ , dissolved (mg/L as NO ₃)	Phospho- rus ortho, dissolved (mg/L as PO ₄)	Sulfate, dissolved (mg/L)	Calcium, dissolved (mg/L)	Magne- sium, dissolved (mg/L)	Sodium, dissolved (mg/L)	Potas- sium, dissolved (mg/L)	Silica, dissolved (mg/L)	Boron, dissolved (µg/L)
Spring sites (continued)										
FH23-T	01-11-94	0.30	0.09	12	18	6.2	16	4.1	38	110
	04-12-94	.34	.09	12	18	6.1	16	3.7	38	120
	07-12-94	.25	.09	11	18	6.1	16	4.1	38	130
	01-18-95	.32	.11	11	18	6.1	17	3.6	40	120
	04-18-95	.43	.11	10	19	6.4	17	3.9	39	120
	07-11-95	.60	.10	11	20	6.7	17	3.9	40	120
	01-24-96	.35	.10	9.8	18	6.6	16	3.8	39	110
	07-16-96	.46	.12	12	18	6.4	18	3.9	42	113
	07-16-96	—	—	11	18	6.6	17	3.7	40	120
LS	07-28-95	.13	.01	15	16	.57	5.7	1.2	21	10
MCS	07-14-94	<.05	.13	9.2	14	13	15	8.6	65	20
Stream sites (continued)										
MC 395	01-10-94	.08	.04	5.0	11	5.0	8.9	2.1	25	<10
	04-12-94	<.05	.04	6.0	12	6.1	10	2.3	27	<10
	07-11-94	<.05	.02	3.5	8.1	2.7	5.1	1.4	9.6	<10
	10-19-94	<.05	.03	4.1	11	4.8	9.0	2.0	17	10
	01-17-95	.06	.03	4.9	11	4.5	8.4	2.2	22	20
	04-17-95	.06	.04	5.8	12	5.5	10	2.2	27	10
	07-10-95	<.05	.01	—	—	—	—	—	—	—
	10-16-95	<.05	.03	2.9	7.4	3.3	5.0	1.4	16	<10
	01-24-96	.06	.03	3.8	10	4.9	7.8	1.9	24	<10
	04-23-96	<.05	.03	5.5	11	4.7	7.8	1.9	25	<10
	07-16-96	.08	.03	2.4	5.5	1.4	2.9	.70	10	6.9
	10-16-96	<.05	.04	4.2	11	5.0	8.3	2.3	19	13
	01-10-94	<.05	.04	7.8	12	5.9	16	3.6	37	210
	04-12-94	<.05	.04	7.6	11	5.8	13	3.0	32	140
	07-11-94	<.05	.03	4.4	8.2	2.9	7.3	2.2	14	80
	10-19-94	<.05	.03	6.5	11	5.3	15	3.3	29	210
MCAF	01-17-95	.06	.04	8.1	12	5.0	14	3.3	28	170
	04-18-95	<.05	.05	8.3	13	6.3	15	3.2	32	170
	10-16-95	<.05	.03	4.0	8.2	4.2	8.8	2.3	23	100
	10-16-95	<.05	.03	3.9	8.4	4.4	9.0	2.3	24	100
	01-24-96	<.05	.03	4.7	11	5.7	12	2.7	29	110
	04-23-96	<.05	.04	6.0	11	4.9	9.6	2.4	27	60
	07-16-96	.07	.03	2.9	7.2	2.6	6.7	1.4	18	82
	10-16-96	<.05	.04	5.9	10	5.1	13	3.2	30	164
	02-18-96	—	—	6.3	41	17	22	3.1	54	290

Table 58. Chemical and isotopic analyses of water samples collected at selected well, spring, and stream sites, 1994–96, Long Valley Caldera, California—Continued

Station identifier	Date	Arsenic, dissolved (µg/L)	Lithium, dissolved (µg/L)	Mercury, dissolved (µg/L)	Iron, dissolved (µg/L)	Manganese, dissolved (µg/L)	Solids, residue at 180 °C dissolved (mg/L)	H-2/H-1 stable isotope ratio per mil	O-18/O-16 stable isotope ratio per mil
Spring sites (continued)									
FH23-T	01-11-94	15	50	<0.1	<3	<1	152	—	—
	04-12-94	21	40	<.1	9	<1	148	—	—
	07-12-94	23	50	<.1	<3	<1	132	—	—
	01-18-95	25	40	<.1	<3	<1	152	—	—
	04-18-95	19	40	<.1	<3	<1	168	—	—
	07-11-95	23	50	<.1	<3	<1	158	—	—
	01-24-96	21	40	<.1	<3	<1	154	—	—
	07-16-96	24	43	<.1	<3	<1	140	—	—
	07-16-96	24	—	—	<3	<1	158	—	—
LS	07-28-95	4	<10	—	<3	<1	82	-127.0	-16.79
MCS	07-14-94	1	50	<0.1	5	3	182	—	—
Stream sites (continued)									
MC 395	01-10-94	3	40	<.1	18	<1	88	—	—
	04-12-94	3	30	<.1	21	2	108	—	—
	07-11-94	3	20	<.1	29	4	54	—	—
	10-19-94	3	20	<.1	35	4	88	—	—
	01-17-95	2	20	<.1	27	1	88	—	—
	04-17-95	3	30	<.1	20	3	104	—	—
	10-16-95	3	10	<.1	24	4	54	—	—
	01-24-96	4	20	—	30	1	82	—	—
	04-23-96	9	24	<.1	41	4	80	—	—
	07-16-96	2	6	<.1	45	5	20	—	—
	10-16-96	3	23	<.1	32	11	86	—	—
	07-16-96	2	6	<.1	45	5	20	—	—
MCAF	01-10-94	15	60	<.1	100	110	142	—	—
	04-12-94	17	50	<.1	82	100	124	—	—
	07-11-94	16	30	<.1	64	84	72	—	—
	10-19-94	23	50	<.1	67	74	102	—	—
	01-17-95	18	50	<.1	100	97	110	—	—
	04-18-95	18	60	<.1	100	160	134	—	—
	10-16-95	16	40	<.1	65	42	78	—	—
	10-16-95	17	40	<.1	69	43	86	—	—
	01-24-96	17	50	—	71	110	102	—	—
	04-23-96	<1	33	<.1	54	54	90	—	—
	07-16-96	13	25	<.1	80	47	50	—	—
	10-16-96	20	45	<.1	61	82	114	—	—
	07-16-96	13	25	<.1	80	47	50	—	—
	10-16-96	20	45	<.1	61	82	114	—	—
MT	02-18-96	3	98	—	7	240	254	-110.	-15.14

Table 59. Partial chemical analyses of water samples collected at selected spring and stream sites, 1994–96, Long Valley Caldera, California

[°C, degrees Celsius; $\mu\text{S}/\text{cm}$, microsiemens per centimeter at 25°C; mg/L, milligrams per liter; $\mu\text{g}/\text{L}$, micrograms per liter; —, no data. Where two analyses are given for same date, the second analysis was performed at a U.S. Geological Survey laboratory in Menlo Park, Calif., under direction of W. Evans, Chemist, and E. Colvard, Hydrologist. All other analyses shown were done by U.S. Geological Survey Central Laboratory in Arvada, Colo.]

Station identifier	Date	Temperature water (°C)	Specific conductance ($\mu\text{S}/\text{cm}$)	Chloride, dissolved (mg/L)	Boron, dissolved ($\mu\text{g}/\text{L}$)
Spring sites					
FHAB-WEIR	01-11-94	17.6	254	9.4	430
	01-11-94	—	—	9.2	—
	02-16-94	17.8	255	9.5	480
	02-16-94	—	—	9.9	—
	03-09-94	17.7	259	10	480
	03-09-94	—	—	9.7	—
	04-12-94	18.0	264	10	470
	04-12-94	—	—	10	—
	05-17-94	17.6	271	12	570
	05-17-94	—	—	11	—
	06-21-94	17.7	215	9.6	470
	06-21-94	—	—	9.7	—
	07-12-94	17.8	232	9.9	510
	07-12-94	—	—	10	—
	08-09-94	18.0	257	10	540
	08-09-94	—	—	11	—
	09-13-94	18.0	263	11	510
	09-13-94	—	—	11	—
	10-19-94	—	—	12	540
	10-19-94	18.0	267	11	530
	10-19-94	—	—	12	—
	11-10-94	18.0	276	11	560
	11-10-94	—	—	12	—
	12-15-94	17.7	279	11	540
	12-15-94	—	—	11	—
	01-17-95	17.8	291	10	490
	01-17-95	—	—	11	520
	02-22-95	17.5	299	11	520
	02-22-95	—	—	12	540
	03-22-95	17.2	282	9.8	460
	03-22-95	—	—	10	500
	04-18-95	17.0	287	11	520
	04-18-95	—	—	12	480
	05-16-95	17.2	283	9.9	440
	05-16-95	—	—	10	490
	06-13-95	16.0	251	9.0	430
	06-13-95	—	—	9.0	470
	06-20-95	16.3	217	8.2	410
	07-11-95	16.2	212	7.1	360
	07-11-95	—	—	6.8	380

Table 59. Partial chemical analyses of water samples collected at selected spring and stream sites, 1994–96, Long Valley Caldera, California—Continued

Station identifier	Date	Temperature water (°C)	Specific conductance (µS/cm)	Chloride, dissolved (mg/L)	Boron, dissolved (µg/L)
FHAB-WEIR (cont.)	07-11-95	—	—	7.1	360
	07-11-95	—	—	6.7	380
	07-27-95	16.5	213	—	—
	08-10-95	16.4	220	5.3	270
	08-10-95	—	—	5.2	290
	09-11-95	16.4	223	4.3	280
	09-11-95	—	—	4.8	250
	10-17-95	16.9	230	4.4	260
	10-17-95	—	—	5.2	260
	11-08-95	17.2	238	4.8	280
	11-08-95	—	—	5.3	280
	12-12-95	17.3	241	5.3	290
	12-12-95	—	—	5.6	260
	01-24-96	17.5	243	5.6	270
	01-24-96	—	—	5.9	310
	02-13-96	17.6	252	5.8	300
	02-13-96	—	—	6.3	320
	03-12-96	17.4	258	6.1	290
	03-12-96	—	—	5.6	320
	04-23-96	17.5	256	6.2	330
	04-23-96	—	—	6.3	320
	05-15-96	17.0	231	6.9	350
	05-15-96	—	—	6.9	330
	06-18-96	17.0	219	5.9	318
	06-18-96	—	—	6.2	340
	07-16-96	16.7	224	4.7	277
	08-20-96	16.6	220	4.2	247
	09-17-96	16.8	234	4.0	226
	10-16-96	17.2	240	4.8	247
	11-14-96	17.1	268	5.4	292
	12-19-96	17.4	260	5.4	286
FHCD-Q	01-11-94	15.5	242	4.6	240
	01-11-94	—	—	4.2	—
	02-16-94	15.5	242	5.0	250
	02-16-94	—	—	5.2	—
	03-09-94	15.8	247	5.8	280
	03-09-94	—	—	5.9	—
	04-13-94	16.0	247	5.3	260
	04-13-94	—	—	5.0	—
	05-17-94	15.5	255	5.3	290
	05-17-94	—	—	5.2	—
	06-21-94	16.0	253	6.6	330
	06-21-94	—	—	7.5	—

Table 59. Partial chemical analyses of water samples collected at selected spring and stream sites, 1994–96, Long Valley Caldera, California—Continued

Station identifier	Date	Temperature water (°C)	Specific conductance (µS/cm)	Chloride, dissolved (mg/L)	Boron, dissolved (µg/L)
FHCD-Q (cont.)	07-12-94	16.5	250	5.2	270
	07-12-94	—	—	5.3	—
	08-10-94	15.8	251	4.7	250
	08-10-94	—	—	4.9	—
	09-13-94	17.0	254	5.0	270
	09-13-94	—	—	5.3	—
	10-19-94	15.5	251	5.1	260
	10-19-94	—	—	5.4	—
	11-10-94	15.5	257	5.4	290
	11-10-94	—	—	5.7	—
	12-15-94	16.0	255	5.2	290
	12-15-94	—	—	5.7	—
	01-17-95	—	—	5.2	260
	01-17-95	15.0	258	—	—
	01-17-95	—	—	5.7	270
	02-22-95	16.5	264	5.1	260
	02-22-95	—	—	5.9	270
	03-22-95	16.2	246	5.1	250
	03-22-95	—	—	5.4	260
	04-18-95	15.0	249	5.2	250
	04-18-95	—	—	5.5	230
	04-18-95	15.0	250	5.2	250
	04-18-95	—	—	5.5	240
	05-16-95	15.8	249	5.1	210
	05-16-95	—	—	5.2	240
	06-13-95	16.9	246	4.9	240
	06-13-95	—	—	4.9	250
	07-11-95	15.7	223	3.8	200
	07-11-95	—	—	3.5	220
	07-27-95	15.5	203	—	—
	08-10-95	16.0	206	2.5	140
	08-10-95	—	—	3.2	150
	09-11-95	14.4	216	2.5	140
	09-11-95	—	—	3.0	250
	10-17-95	14.5	225	3.0	230
	10-17-95	—	—	2.9	170
	11-08-95	16.0	236	3.0	190
	11-08-95	—	—	3.0	180
	12-12-95	14.0	239	4.4	220
	12-12-95	—	—	4.8	190
	01-24-96	14.5	234	3.8	190
	01-24-96	—	—	3.9	200
	02-13-96	15.1	243	3.7	190

Table 59. Partial chemical analyses of water samples collected at selected spring and stream sites, 1994–96, Long Valley Caldera, California—Continued

Station identifier	Date	Temperature water (°C)	Specific conductance (µS/cm)	Chloride, dissolved (mg/L)	Boron, dissolved (µg/L)
FHCD-Q (cont.)	02-13-96	—	—	3.7	210
	03-12-96	14.5	246	4.1	210
	03-12-96	—	—	4.4	220
	04-23-96	15.3	248	4.4	230
	04-23-96	—	—	4.7	220
	05-14-96	16.0	253	4.6	240
	05-14-96	—	—	5.0	220
	06-18-96	16.5	246	3.4	200
	06-18-96	—	—	3.7	200
	07-16-96	15.5	232	2.9	176
	08-20-96	15.0	226	2.5	153
	09-17-96	15.0	229	3.1	155
	10-16-96	15.0	228	3.3	167
	11-14-96	14.7	255	3.4	197
	12-19-96	14.5	243	3.3	190
FH23-T	01-11-94	11.5	219	7.5	110
	01-11-94	—	—	7.5	—
	04-12-94	11.2	216	8.3	120
	04-12-94	—	—	8.1	—
	07-12-94	11.0	221	7.4	130
	07-12-94	—	—	7.4	—
	01-18-95	10.1	224	8.3	120
	01-18-95	—	—	8.8	120
	04-18-95	11.0	236	10	120
	04-18-95	—	—	11	110
	07-11-95	11.0	237	8.7	120
	07-11-95	—	—	8.6	130
	07-27-95	11.5	236	—	—
	01-24-96	11.5	220	6.8	110
	01-24-96	—	—	6.9	110
	07-16-96	11.0	223	7.0	113
HC-4	01-12-94	93.4	1,563	180	8,000
	01-12-94	—	—	180	—
	04-13-94	94.0	1,558	190	8,800
	04-13-94	—	—	192	—
HC6L	03-10-94	—	1,762	210	10,000
	03-10-94	—	—	216	—
	04-13-94	94.3	1,711	210	9,900
	04-13-94	—	—	215	—
	07-13-94	94.4	1,790	210	10,000
	07-13-94	—	—	220	—
	10-19-94	90.6	1,780	210	10,000
	10-19-94	—	—	220	—

Table 59. Partial chemical analyses of water samples collected at selected spring and stream sites, 1994–96, Long Valley Caldera, California—Continued

Station identifier	Date	Temperature water (°C)	Specific conductance (µS/cm)	Chloride, dissolved (mg/L)	Boron, dissolved (µg/L)
HC6L (cont.)	01-18-95	94.2	1,780	220	10,000
	01-18-95	—	—	210	10,000
	04-19-95	94.5	1,763	220	—
	07-12-95	94.2	1,810	—	—
	07-12-95	—	—	220	—
	10-17-95	95.2	1,720	210	10,000
	10-17-95	—	—	220	10,000
	01-25-96	94.5	1,680	210	10,000
	01-25-96	—	—	220	10,000
	04-24-96	94.5	1,775	230	10,000
	04-24-96	—	—	220	10,000
	07-17-96	93.4	1,793	—	—
	10-17-96	94.1	1,845	210	9,490
	Stream sites				
HCA	01-12-94	10.5	231	6.6	260
	01-12-94	—	—	6.5	—
	02-15-94	11.0	227	6.6	240
	02-15-94	—	—	6.8	—
	03-10-94	9.0	237	7.7	280
	03-10-94	—	—	7.5	—
	04-13-94	11.5	233	7.8	250
	04-13-94	—	—	7.2	—
	05-18-94	10.0	149	4.0	150
	05-18-94	—	—	3.7	—
	06-21-94	19.5	190	5.8	240
	06-21-94	—	—	6.2	—
	07-13-94	19.0	208	5.7	250
	07-13-94	—	—	5.7	—
	08-09-94	18.5	219	5.9	240
	08-09-94	—	—	6.0	—
	09-14-94	10.5	230	6.6	240
	09-14-94	—	—	6.8	—
	10-20-94	8.0	233	6.9	270
	10-20-94	—	—	7.2	—
	01-18-95	9.5	232	8.0	270
	01-18-95	—	—	8.3	270
	04-19-95	10.0	256	9.4	310
	04-19-95	—	—	9.9	270
	07-12-95	10.0	93	1.7	80
	07-12-95	—	—	1.8	80
	10-17-95	15.0	202	4.7	160
	10-17-95	—	—	4.7	180
	01-25-96	5.0	245	6.2	240
	01-25-96	—	—	6.7	290

Table 59. Partial chemical analyses of water samples collected at selected spring and stream sites, 1994–96, Long Valley Caldera, California—Continued

Station identifier	Date	Temperature water (°C)	Specific conductance (µS/cm)	Chloride, dissolved (mg/L)	Boron, dissolved (µg/L)
HCA (cont.)	04-24-96	10.0	204	4.6	170
	04-24-96	—	—	4.8	170
	07-17-96	14.0	160	3.3	154
	10-17-96	15.0	219	5.4	195
HCF	01-12-94	26.0	577	50	2,400
	01-12-94	—	—	53	—
	02-15-94	30.0	559	51	2,400
	02-15-94	—	—	52	—
	03-10-94	31.0	572	53	2,500
	03-10-94	—	—	53	—
	04-13-94	31.5	595	53	2,400
	04-13-94	—	—	56	—
	05-18-94	22.5	362	29	1,400
	05-18-94	—	—	30	—
	06-21-94	34.0	469	40	1,900
	06-21-94	—	—	42	—
	07-13-94	31.0	538	47	2,300
	07-13-94	—	—	47	—
	08-09-94	34.0	583	54	2,600
	08-09-94	—	—	53	—
	09-14-94	35.0	615	55	2,600
	09-14-94	—	—	59	—
	10-20-94	31.0	619	59	2,700
	10-20-94	—	—	60	—
	01-18-95	28.5	608	56	2,500
	01-18-95	—	—	57	2,500
	04-19-95	28.0	514	42	2,000
	04-19-95	—	—	45	1,800
	07-12-95	16.0	152	8.9	390
	07-12-95	—	—	8.5	420
	10-17-95	27.5	411	30	1,400
	10-17-95	—	—	31	1,400
	01-25-96	24.5	568	50	2,100
	01-25-96	—	—	50	2,400
	04-24-96	24.2	443	37	1,700
	04-24-96	—	—	35	1,600
	07-17-96	24.5	333	23	1,120
	10-17-96	30.0	508	40	1,840