

*Prepared in cooperation with the*  
**SWEETWATER AUTHORITY**

# **Water- and Air-Quality Monitoring of the Sweetwater Reservoir Watershed, San Diego County, California— Phase One Results, Continued, 2001–2003**



Data Series Report 347

**U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY**



# **Water- and Air-Quality Monitoring of Sweetwater Reservoir Watershed, San Diego County, California—Phase One Results Continued, 2001–2003**

By Gregory O. Mendez, William T. Foreman, Andrew Morita, and  
Michael S. Majewski

Prepared in cooperation with the Sweetwater Authority

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## Abbreviations and Acronyms

|                   |   |
|-------------------|---|
| cm                | centimeter  |
| g                 | gram  |
| gm <sup>-3</sup>  | gram per cubic meter  |
| hm <sup>3</sup>   | cubic hectometer  |
| L                 | liter   |
| L/min             | liter per minute  |
| m <sup>3</sup>    | cubic meter   |
| mg                | milligram   |
| mL                | milliliter  |
| mm                | millimeter  |
| µg/m <sup>3</sup> | microgram per cubic meter,  |
| µm                | micrometer  |
| ng                | nanogram  |
| ng/m <sup>3</sup> | nanogram per cubic meter  |
|                   |   |
| Al                | aluminum  |
| AIC               | anthropogenic indicator compounds                                       |
| GC/MS-SIM         | gas chromatography/mass spectrometry in selected-ion monitoring mode    |
| GFF               | glass-fiber filter  |
| LC/MS-SIM         | liquid chromatography/mass spectrometry in selected-ion monitoring mode |
| LFDD              | low-flow diversion dam  |
| NWIS              | National Water Inventory System   |
| NWQL              | National Water Quality Laboratory                                       |
| P&T GC/MS         | purge and trap capillary-column gas chromatography/mass spectrometry    |
| PAH               | polycyclic aromatic hydrocarbons  |
| ppbv              | parts per billion by volume   |
| PSE               | pressurized solvent extraction  |
| PUF               | polyurethane foam   |
| SPE               | solid-phase extraction  |
| TSP               | total suspended particle  |
| SIM               | selected-ion monitoring   |
| SOC               | semivolatile organic compounds  |
| USEPA             | U.S. Environmental Protection Agency                                    |
| VOC               | volatile organic compounds  |

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

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

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

# Water- and Air-Quality Monitoring of Sweetwater Reservoir Watershed, San Diego County, California—Phase One Results Continued, 2001–2003

By Gregory O. Mendez, William T. Foreman, Andrew Morita, and Michael S. Majewski

## Abstract

In 1998, the U.S. Geological Survey, in cooperation with the Sweetwater Authority, began a study to monitor water, air, and sediment at the Sweetwater and Loveland Reservoirs in San Diego County, California. The study includes regular sampling of water and air at Sweetwater Reservoir for chemical constituents, including volatile organic compounds (VOC), polynuclear aromatic hydrocarbons (PAH), pesticides, and major and trace elements.

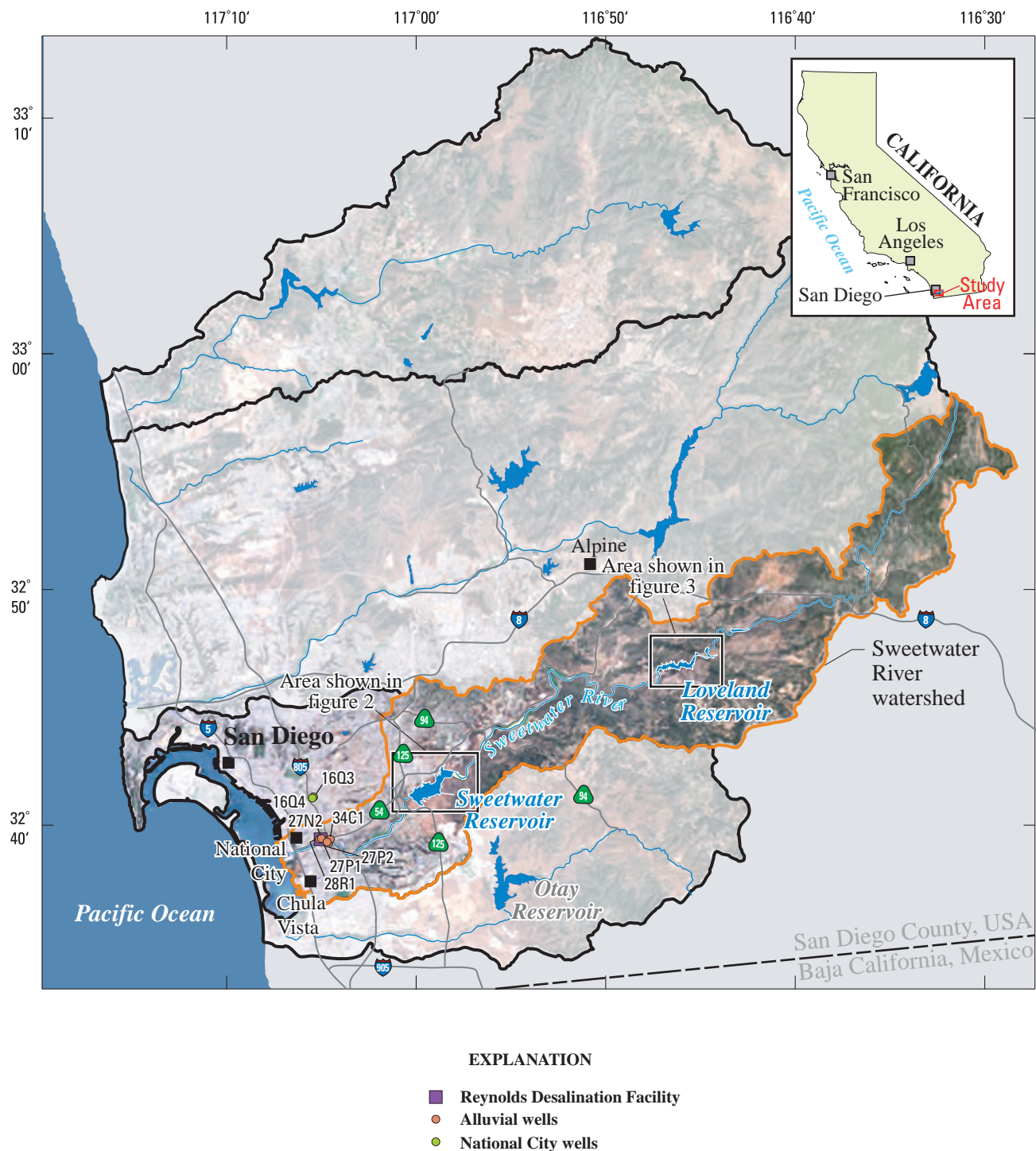
The purpose of this study is to monitor changes in contaminant composition and concentration during the construction and operation of State Route 125. To accomplish this, the study was divided into two phases. Phase One sampling (water years 1998–2004) determined baseline conditions for the detection frequency and the concentrations of target compounds in air and water. Phase Two sampling (starting water year 2005) continues at selected monitoring sites during and after construction of State Route 125 to assess the chemical impact this roadway alignment may have on water quality in the reservoir. Water samples were collected for VOCs and pesticides at Loveland Reservoir during Phase One and will be collected during Phase Two for comparison purposes. Air samples collected to monitor changes in VOCs, PAHs, and pesticides were analyzed by adapting methods used to analyze water samples. Bed-sediment samples have been and will be collected three times during the study; at the beginning of Phase One, at the start of Phase Two, and near the end of the study.

In addition to the ongoing data collection, several special studies were initiated to assess the occurrence of specific chemicals of concern, such as trace metals, anthropogenic indicator compounds, and pharmaceuticals. This report describes the study design, and the sampling and analytical methods, and presents data from water and air samples collected during the fourth and fifth years of Phase One of the study (October 2001 to September 2003). Data collected during the first three years has been previously published.

Three types of quality-control samples were used in this study: blanks, spikes, and replicates. Blanks and spikes are used to estimate result bias, and replicates are used to estimate result variability. Additionally, surrogate compounds were added at the laboratory to samples of VOCs, PAHs, pesticides, anthropogenic indicator compounds, and pharmaceuticals to monitor sample-specific performance of the analytical method.

## Introduction

The Sweetwater Authority (hereinafter referred to as the “Authority”) under the guidance of its Board of Directors, operates a public drinking-water supply system for over 175,000 residential and commercial customers in Chula Vista, National City, and Bonita, California. The Sweetwater Reservoir (SWR) ([fig. 1](#)), which has a storage capacity of 34.6 hm<sup>3</sup> (cubic hectometer), is located about 15 km southeast of San Diego, California. The Authority also stores water at Loveland Reservoir (LLR) ([fig. 1](#)), which has a storage capacity of 31.3 hm<sup>3</sup> and is located about 30 km east of SWR near Alpine, California. In addition to the two reservoirs, the Authority operates three deep wells in National City and several wells near the Sweetwater River in Chula Vista. The Reynolds Desalination Facility, formerly known as the Demineralization Facility, in Chula Vista, treats brackish ground water from the wells along the Sweetwater River. Approximately 70 percent of the water the Authority provides comes from local supplies that include the Sweetwater River, the Sweetwater alluvium, and the San Diego Groundwater Formation. The remaining water is imported from the Colorado River and the Sacramento/San Joaquin River systems through pipelines and aqueducts. Local reservoir and imported waters are treated at the Robert A. Perdue Treatment Plant (hereinafter referred to as the “Perdue Treatment Plant”) located at the SWR.

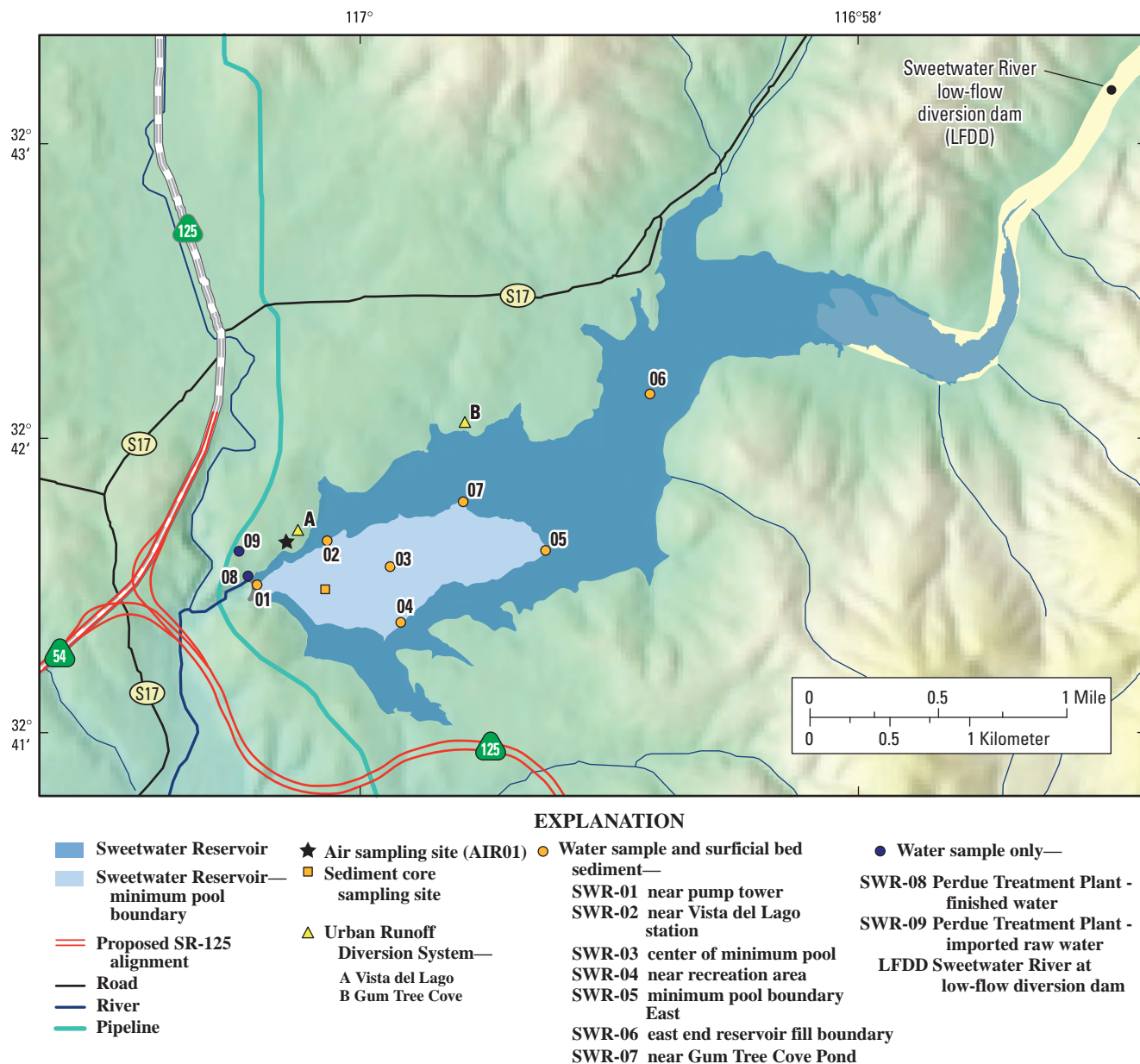


**Figure 1.** The general vicinity of Sweetwater and Loveland Reservoirs and surrounding watershed, San Diego County, California.

The Sweetwater Reservoir watershed covers 466 km<sup>2</sup> (fig. 1). Although much of the land is undeveloped, the area includes agricultural land, rural residential acreage, urban and suburban residential developments, three 18-hole golf courses, mining and industrial land uses, commercial recreation, commercial business development, and two Indian reservations (both having gaming facilities), in addition to part

of the Cleveland National Forest. SWR started a shore fishing program in 2005 that is restricted to an area on the south side of the reservoir. Shore fishing is allowed at Loveland Reservoir in a restricted area at the east end of the reservoir. The Authority maintains one motorized boat at each reservoir for routine water-quality sampling and regular shore patrols.





**Figure 2.** Sweetwater Reservoir and SR125 alignment, San Diego County, California.

The Authority is concerned about the impact that increasing growth and development in the Sweetwater Reservoir watershed will have on the quality of the drinking-water supply and has initiated efforts to protect the watershed. These efforts include determining the amount of total organic carbon (Fram and others, 2001), identifying issues through a watershed stakeholders' outreach program, and the constructing and operating an urban runoff diversion system (URDS; [fig. 2](#)). These programs help the Authority evaluate and manage the overall environmental health of the watershed by monitoring changes that can degrade the quality of the water supply and necessitate additional water treatment as the population increases and land use intensifies. Responding to concerns about maintaining the quality of the drinking-water

supply, in 1998, the Authority initiated a monitoring study in cooperation with the U.S. Geological Survey (USGS).

In addition to the increasing urbanization pressures within the watershed, the Authority is concerned about the construction and operation of the State Route (SR) 125 alignment project. In 1984, the San Diego Association of Governments added SR 125 to the Regional Transportation Plan as part of San Diego's future highway system. The SR 125 project consists of approximately 18 km of roadway construction/alignment that extends from SR-54 (northern terminus) to Interstate 905 (southern terminus) ([fig. 1](#)). The project plans call for the initial construction of a four-lane toll way that will be expanded to eight lanes with two additional lanes for dedicated transit purposes such as high-occupancy vehicle or light-rail operations (California Department of

Transportation, 2001) Approximately 200,000 vehicles per day, including a high percentage (more than 10 percent) of heavy diesel trucks from both the United States and Mexico, are expected to travel SR-125. The alignment will be elevated about 30 m above land surface at its highest point and will bring SR 125 within about 150 m of the reservoir at its nearest point. Because the SWR is downwind of the proposed alignment, the Authority became concerned that toxic vehicle emissions, paved road dust, and pesticides used on the roadside might enter the reservoir by atmospheric deposition in concentrations that could effect public health and impact the cost of treating the drinking-water supply.

In 1996 the Authority commissioned a study (Ogden Environmental and Energy Services, 1997) to model the atmospheric depositional loading to the SWR. The model incorporated variety of toxic compounds from vehicular fuel combustion emissions and any attendant health risks associated with the SR 125 alignment. The predicted concentrations of select contaminants were compared with the standards set by the California Safe Drinking Water Act (California Environmental Protection Agency, 1986) and with the California and federal maximum contaminant levels (MCL) for drinking water. The model simulations indicated that drinking-water guidance levels for one or more contaminants would be exceeded by the freeway construction options. This study was repeated in 1999 reaching similar conclusions (Byard, 1999). Both the Authority and the U.S. Environmental Protection Agency Region 9 concluded that the findings in the Ogden and Byard reports warranted the implementation of a monitoring program to characterize the effects that atmospheric deposition of vehicular emissions from the operation of SR 125 may have on the quality of the drinking water stored in the SWR.

## Purpose and Scope

This report presents data for water and air samples that were collected from October 2001 to September 2003 (water years 2002 and 2003) from the Sweetwater Reservoir watershed. This report is the third in a series of reports that describe the monitoring activities and present the data that will be used to assess the chemical effect of land-use changes and development in the watershed on water quality in the reservoir. Data derived from water- and air-quality samples and bed-sediment samples collected during the first year's sampling (1998–1999) were presented by Majewski and others (2002). Data collected during the second and third year's sampling (1999–2001) were presented by Mendez and others (2007). Bed sediments were not sampled during the time frame covered by this report.

This study will compare analytical results collected over time from three environmental media—water, air, and bed sediment—and determine whether any measured changes in

reservoir water quality are the result of atmospheric deposition of organic chemicals and metals originating from constructing and operating SR 125. In addition to providing data reports such as this one, a full analysis and assessment of the data will be written at the completion of the study.

## Study Design

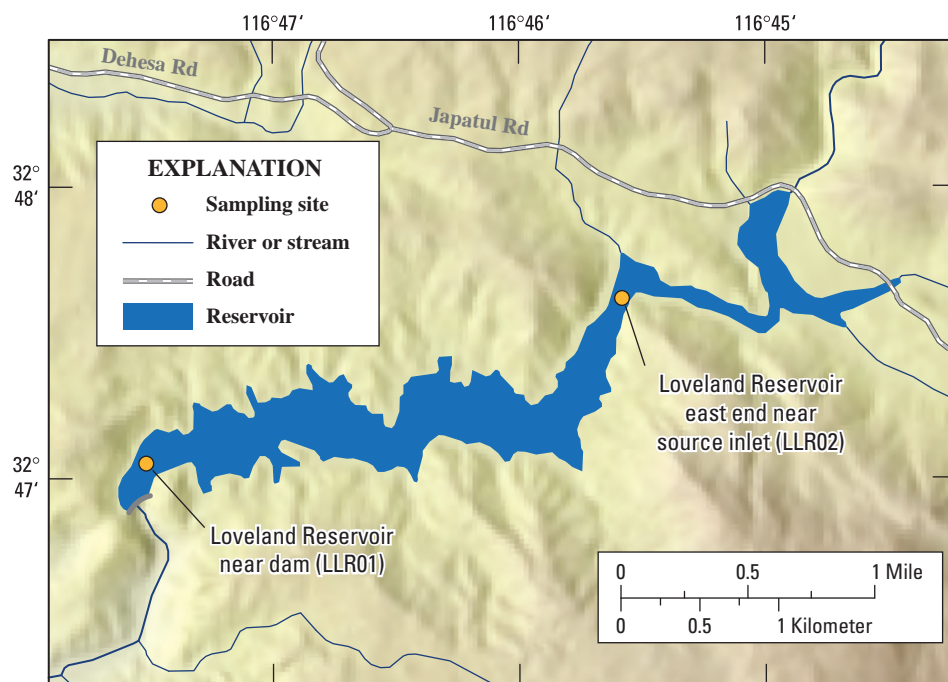
The study design consists of two phases: Phase One sampling started in October 1998 and continued through September 2004, the approximate start of construction for SR 125; Phase Two sampling started in October 2004, and will continue for two years after the completion of SR 125 in 2007. The objective of Phase One is to determine the occurrence and concentrations of select organic and inorganic contaminants in each of the three environmental media (water, air, and bed sediments) in order to establish baseline conditions for targeted compounds. The objective of Phase Two is to continue monitoring chemical constituents during construction and subsequent use of SR 125, to compare the analytical results to those of Phase One and thus assess the effect of SR 125 on water quality in the SWR. Two classifications of sampling were assigned: “Primary Sampling”, for a common set of compounds; and, “Special Studies Sampling”, to assess the occurrence of specific chemicals of concern, such as trace metals, anthropogenic indicator compounds, and pharmaceuticals. The water samples analyzed for volatile organic compounds (VOC), polycyclic aromatic hydrocarbons (PAH), and pesticides represent the “Primary Sampling.”

## Primary Sampling

As part of the primary sampling, each of the three environmental media in the Sweetwater Reservoir watershed was sampled and analyzed for those categories of compounds expected to accumulate in them. The categories of compounds in the three media analyzed were

- Surface water— VOCs, PAHs, and pesticides;
- Air—VOCs, PAHs, and pesticides;
- Bed sediments—PAHs, total polychlorinated biphenyls (PCB), pesticides, and major ions and trace metals.

Surface-water samples were originally collected from seven sites at SWR (sites SWR01–07, [fig. 2](#)) and from two at LLR ([fig. 3](#)) as part of the primary sampling. Regularly scheduled water sampling began at these sites in 1998. Starting in 1999, samples have been collected from only three of the seven sites at SWR and one site at LLR.



**Figure 3.** Sampling sites at Loveland Reservoir, San Diego County, California.

Air samples were collected from air sampling site AIR01 (fig. 2), located downwind of the proposed SR 125 route and upwind of the SWR along a transect of the predominant wind direction. The site is wired for AC power (120 volts), equipped with telephone modem access, and secured from the general public by a 2-m-high chain-link fence. The site includes a fully instrumented meteorological station that records hourly averages of wind speed and direction, ambient air temperature and relative humidity at two heights, rainfall, barometric pressure, and atmospheric stability. Air samples were not collected at LLR because its foothill location (30 km east of SWR) was too far downwind of SR 125 to be significantly effected by any airborne contaminants originating from SR 125.

## Special Studies

During the course of this study, there have been opportunities to conduct “special studies” to improve understanding of how different operational modes of the reservoir effect the quality of the water entering the treatment plant. These special studies are of limited scope and samples are collected at targeted (subset) locations. These studies provide up-to-date water-quality information on chemicals of current concern.

Because new contaminants of concern are discovered often, this current study has worked closely with scientists in the Methods Research and Development Program (MRDP)

and in Analytical Services at the USGS National Water Quality Laboratory (NWQL) to help develop new analytical methods. During the time frame of this report, special studies included collecting and analyzing trace metals in selected whole and filtered water samples, and anthropogenic indicator compounds (AIC) and pharmaceutical compounds in selected filtered-water samples.

## Sampling and Analytical Methods

Reservoir water samples for all analyses were collected at both reservoirs using a 1.2-L (liter), Teflon Kemmerer sampler (Wildco, Saginaw, Mo). Procedures for collecting and processing filtered-water samples to determine chemical content were based on protocols used by the USGS National Water Quality Assessment (NAWQA) Program (Shelton, 1994, 1997). Samples from the Sweetwater River at the low-flow diversion dam (LFDD) were obtained as “grab samples” collected by submerging the sample bottle, removing the cap, filling the bottle, and recapping the bottle while still submerged. The finished (treated for drinking) and imported raw-water samples were collected from spigots in the Perdue Treatment Plant. The water lines run continually and, hence, were well flushed before the sample bottles were filled. Samples collected for the analysis of VOCs and PAHs according to NWQL schedules 2020 and 1383, respectively, were not filtered.



Samples collected for methods determining pesticide, anthropogenic indicators, and pharmaceutical compounds were filtered through 142-mm (millimeter) diameter, 0.7- $\mu$ m (micrometer) nominal pore size glass-fiber filters into cleaned (baked) sample bottles (Sandstrom, 1995). All water samples were shipped on ice to the USGS NWQL. Before reservoir water samples were collected, a depth profile of dissolved oxygen, pH, specific conductance, and temperature were measured using a multi-parameter probe. The multi-parameter probe was calibrated, and measurements were recorded, at the Perdue treatment plant before the reservoir samples were collected. The NWQL analyzed 87 VOCs by using purge and trap capillary-column gas chromatography/mass spectrometry (P&T GC/MS) operated in full-scan mode, as described by Connor and others (1998).

Filtered-water samples were analyzed for pesticides using NWQL schedule 2001, 2002, 2003, or 2060. The filtered water sample was passed through a 0.5-gram (g) octadecylsilyl (C-18) solid-phase extraction (SPE) column. Pesticides were eluted from the column with 2 milliliters (mL) of ethyl acetate into a culture tube containing 0.1 mL of a procedural internal standard solution of three perdeuterated polycyclic aromatic hydrocarbons (acenaphthene-*d*10, phenanthrene-*d*10, and chrysene-*d*12 at 1 microgram per milliliter) in toluene. The extract was reduced to about 0.15 mL using nitrogen gas evaporation, transferred to a GC vial using a toluene rinse for a final extract volume of approximately 0.25 mL, and then analyzed. For schedule 2001, 48 pesticides and degradates were analyzed using capillary-column gas chromatography with mass spectrometric detection operated in selected-ion monitoring mode (GC/MS-SIM) (Zaugg and others, 1995; Lindley and others, 1996). For schedule 2002, 72 pesticides and degradates were analyzed using capillary-column gas chromatography with mass spectrometric detection operated in selected-ion monitoring mode (GC/MS-SIM) (Sandstrom and others, 2001). For schedule 2003, 66 pesticides and degradates, including a subset of analytes in schedules 2001 and 2002, were analyzed using GC/MS-SIM methods described by Sandstrom and others (2001) and Madsen and others (2003). For schedule 2060, 66 polar pesticides and degradates were analyzed using graphitized carbon column SPE (Carbopack B; Supelco, Bellefonte, Pa.) and liquid chromatography with mass spectrometric detection operated in selected-ion monitoring mode (LC/MS-SIM) as detailed by Furlong and others (2001).

## Air Methods

Air samples were collected for the analysis of VOCs, PAHs, and pesticides. For this discussion, the PAHs and pesticides are referred to as semivolatile organic compounds or “SOCs.” Each VOC air sample was a 24-hour composite collected every 12th day; the dates when these samples were collected was coordinated with the dates of the air sampling events at the Chula Vista location by the California Air Resources Board (CARB) Air Toxics Program. Originally,

each SOC air sample was a 24-hour/7-day weekly composite collected every third week, with a two-week time span between sample collection periods. However, during the time frame of this report, each sample was collected every fourth week and the non-collection time span was increased to three weeks.

## Volatile Organic Compounds

The low-volume VOC air sampling and analytical methods were developed by, and all samples were analyzed by, the research group of Dr. James Pankow at the Oregon Graduate Institute of Oregon Health and Science University. The VOC air samples were collected and analyzed by adsorption/thermal desorption GC/MS procedures as detailed by Pankow and others (1998, 2003). Ambient, gas phase, atmospheric VOC concentrations were monitored using two programmable low-volume air sampling pumps (224-PCXR8, SKC Inc., Eight Four, Pa.). One sampler pulled approximately 1.5 L of air through a glass cartridge containing 50 mg (milligram) of Carbotrap B in series with 280 mg of Carboxen 1000 (Supelco, Bellefonte, Pa.); these samples were analyzed for chlorofluorocarbons and other compounds with low breakthrough volumes (the VOCs, with the highest volatility). The second sampler pulled approximately 5 L of air through a glass cartridge containing 180 mg of Carbotrap B in series with 70 mg of Carboxen 1000 (Supelco, Bellefonte, Pa.); these samples were analyzed for VOC analytes with higher breakthrough volumes (VOCs with lower volatility). The method included 87 VOCs, ranging in volatility from that of dichlorodifluoromethane (CFC-12) to 1,2,3-trichlorobenzene. VOC concentrations in air are reported in parts per billion by volume (ppbv). These VOC air methods have been used in several other USGS studies that investigated the occurrence and distribution of VOCs in air (Baehr and others, 1999a,b; Bender and others, 2000).

## Semivolatile Organic Compounds

The research methods for SOC in air used in this monitoring program are similar to those described by Foreman and others (2000) for pesticides, and to USEPA methods TO-4A for pesticides (U.S. Environmental Protection Agency, 1999a) and TO-13A for PAH (Foreman and others, 1995; U.S. Environmental Protection Agency, 1999b). The air methods were developed to complement those used to analyze pesticides in water (Zaugg and others, 1995; Sandstrom and others, 2001) and PAHs/alkyl PAHs in sediment (Olson and others, 2004). The sampling and analytical methods used for the PAH and pesticide air samples have been used in several specialized studies undertaken by the USGS (Foreman and others, 1997, 2000; Majewski and others, 1998; Mendez and others, 2007). SOC concentrations are reported in nanograms per cubic meter of air (ng/m<sup>3</sup>). At this time, no air data have been entered into the USGS National Water Inventory System (NWIS) database.



The high-volume air samples for SOC<sub>s</sub> were collected by drawing air through a 90-mm diameter glass-fiber filter (GFF; type A/E, Pall Corp., East Hills, N.Y.) and then through a cartridge containing two polyurethane foam (PUF) plugs. The GFF, containing collected atmospheric particles, was analyzed to provide the operationally-defined particulate-phase concentration of an SOC. The PUF plugs collect the operationally-defined gas-phase concentration of an SOC. Before being used, the GFFs were cleaned by baking them at 450 degrees Celsius (°C), then allowed to cool for at least 2 hours before being weighed to the nearest 0.2 mg, then wrapped in baked aluminum (Al) foil and stored in resealable polyethylene bags. At SWR, a GFF was removed from the foil with clean (methanol-rinsed) stainless-steel forceps and placed in a perfluoralkoxy fluoropolymer (Teflon-PFA) filter holder (series 90, Savillex Corp., Minnetonka, Minn.) that was modified in two ways: (1) the outer closure piece of the filter holder was removed to provide an 80-mm diameter opening that would improve air flow and expose most of the GFF surface, enabling it to collect atmospheric particles; and, (2) the holder's inner closure piece was machined to include a 3.8-cm female National Pipe Thread (NPT) to allow a direct connection to the 3.8-cm male NPT threaded connection on the inlet of the PUF cartridge.

PUF plugs were 5 cm (centimeter) in diameter by 7.6 cm long and were prepared from open-cell foam that had an average density of 0.043 gm<sup>-3</sup> (gram per cubic meter) and contained no polybrominated diphenyl ether flame retardants (Netherland Rubber Company, Cincinnati, Ohio). PUF plugs were cleaned by first being rinsed with tap water and then sequentially extracted for at least 12 hours in a "Soxhlet" extractor apparatus with each of the following solvents: acetone; 30 percent ethyl acetate in hexane; and, dichloromethane. Residual solvent was squeezed from the PUF plugs using a potato masher, and the plugs were dried in a vacuum oven at 40°C for at least 48 hours before being stored in sealed 500-mL wide-mouth jars with Teflon-lined lids. At the air sampling site, primary (top) and secondary (bottom) PUF plugs were positioned in series inside a 24.2-cm long by 3.5-cm internal diameter Teflon-PFA cartridge (Savillex Corp.); the bottom PUF was held in place against a Teflon-PFA screen. PUF plugs were carefully inserted into the PUF cartridge using methanol-rinsed stainless-steel forceps to ensure that the PUF plugs were well fitted to the cartridge wall without creases that would allow air to migrate around the plug instead of passing through the foam.

The PUF cartridge was then connected to the GFF holder, and the GFF-PUF sampling train was positioned inside a high-volume sampler enclosure (Graesby-GMW, Village of Cleves, Ohio) comparable to that described in USEPA method TO-4A (U.S. Environmental Protection Agency, 1999a). The outlet of the PUF cartridge was connected via 0.95-cm outer diameter Teflon tubing to a blower motor. Air samples were collected at the sampling sites by pulling ambient air through the GFF-PUF sampling train at flow rates of 28 to

34 L/min (liter per minute) for seven days, providing sample volumes ranging from 262 to 372 m<sup>3</sup> (cubic meter) for samples described in this report. Sampling periods were controlled by a timer, and sample volume was calculated by multiplying the sample collection time by the air flow rate determined by using a calibrated flow meter. The time period between sample collections was typically 21 days (or more) for those samples given in this report. After the samples were collected, the GFF was removed from the holder using clean forceps, returned to the Al foil, folded in half (particle-laden side inward), and sealed in the foil and bag. PUF plugs were returned to the jars using forceps; the jars were labeled to identify the top or bottom PUF and were tightly sealed with the lids. GFF and PUF were stored at -5°C (maximum), if necessary, before being shipped overnight on ice packs to the USGS NWQL.

One field-blank sample to be analyzed for SOC<sub>s</sub> was collected to examine any possible contamination resulting from field handling of the GFF-PUF sampling components and from post-collection sample processing steps. The blank was obtained by loading one clean GFF and two clean PUF plugs into the sampling train at the field laboratory, taking the train out to the site to install and uninstall the train, returning the train to the field lab, and then unloading the GFF and PUF plugs for storage and shipping. No air was drawn through the sampling train while collecting the blank.

At the NWQL, air sample components were stored at -5°C (maximum) until analysis. GFFs were desiccated for 24 hours and weighed to the nearest 0.2 mg to determine particle weight. This weight was divided by the sample's air volume to determine the total suspended particle (TSP) concentration in micrograms of particles per cubic meter of air (µg/m<sup>3</sup>).

Samples collected during two periods of time were extracted using two different procedures. All samples collected through January 2002 were extracted using traditional solvent extraction procedures. Each GFF was placed in a 500-mL, flat bottom flask, and each PUF plug was placed in a separate Soxhlet apparatus. GFF or PUF plugs were fortified with surrogate compounds (see Quality Control section) and extracted with 100-mL (GFF) or 300-mL (PUF) of 30-percent ethyl acetate in hexane for at least 12 hours. These samples are identified as extracted by Soxhlet. Samples collected from February 2002 through September 2003 were extracted using a procedure referred to as pressurized-solvent extraction, which relies primarily on the elevated temperature of a pressurized solvent to achieve rapid extraction (U.S. Environmental Protection Agency, 1999; Alexandrou and others, 2001). Each GFF was placed into an 11-mL stainless-steel cell, and top and bottom PUF plugs were put into separate 33-mL cells before the compounds were extracted. The GFF or PUFs were fortified with surrogate compounds (see Quality Control section) and extracted using an accelerated solvent extractor, ASE 200 (Dionex Corp., Salt Lake City, Utah), using two 15-min static cycles at 120°C (GFF) or 100°C (PUF) under pressurized conditions (10,342 kilopascals). (Note: Top and

bottom PUF plugs used for samples collected during this reporting period were extracted and analyzed separately to determine PUF collection efficiencies for gas-phase SOCs.)

All extracts were dried with sodium sulfate and reduced in volume using Kuderna-Danish distillation and nitrogen gas evaporation to 1 mL (or 2 mL for samples collected after Dec. 2002). For samples collected before January 2003, the extract was introduced to a 0.5-g (gram) C-18 SPE column positioned above a 1-g Florisil SPE column (Biotage, Charlottesville, Va.; columns were pre-rinsed with acetone, dichloromethane, and ethyl acetate). Analytes were eluted with 6-mL of ethyl acetate, which was reduced to about 0.3 mL by nitrogen gas evaporation, and transferred with a 0.15-mL ethyl acetate rinse to a GC vial containing 500 ng (nanogram) of 1,4-dichlorobenzene and five perdeuterated polycyclic aromatic hydrocarbons (naphthalene-*d*8, acenaphthene-*d*10, phenanthrene-*d*10, chrysene-*d*12, and perylene-*d*12) in ethyl acetate, by internal injection standards. Air extracts were analyzed by GC/MS-SIM for PAHs and alkyl PAHs using instrumental procedures comparable to those described by Olson and others (2004). This analysis is referred to as the “AirPAH” method in this report. Concentrations for any detected alkylated-PAH were estimated (E) because alkylated-PAH standards were not available when calibration standards were prepared. The alkylated-PAHs were quantified using the calibration curves derived from appropriate parent PAHs (Olson and others, 2004).

Extracts of air samples collected until February 2002 also were analyzed for many of the same pesticides and degradates included in the water methods (NWQL schedules 2001 and 2002) by using the GC/MS-SIM instrumental procedures described by Zaugg and others (1995) and Sandstrom and others (2001). These methods are referred to as “Airpest001” and “Airpest002”, respectively, in this report. Samples collected from February 2002 through September 2003 were analyzed by GC/MS-SIM (comparable to NWQL water schedule 2003) for the 66 compounds that are a subset of the high and moderate-use pesticides and degradates determined using methods described by Zaugg and others (1995), Sandstrom and others (2001), and Madsen and others (2003). This pesticide analysis is referred to as “Airpest003” method in this report. Some analytes included in the water methods (NWQL schedules 2001, 2002, and 2003) were not amenable to the Airpest001, Airpest002, and Airpest003 methods because the compounds were inadequately collected by PUF or recovered during the SPE cleanup step; therefore, these compounds were not reported for the air samples. Also, three endosulfan compounds were included in the Airpest001 method, although they were not determined by NWQL schedule 2001 for the water samples.

Starting in January 2003, the air-sample-extract cleanup procedure was modified to improve recoveries of certain pesticides and degradates that were inadequately recovered during the C18/Florisil cleanup. After samples were extracted, extracts from these samples were reduced to about 2 mL and quantitatively (by weight) split approximately in half before

column cleanup; one portion (PAH fraction) was processed through the C18/Florisil SPE procedure and analyzed for PAHs and alkyl PAHs by GC/MS- SIM or full scan (top PUF plugs only) mode as described above except that the final extract volume before GC/MS analysis was 0.25 mL instead of 0.5 mL. The remaining portion (pesticide fraction) was added to a 0.5-g graphitized carbon SPE column (CarboPrep 90, Restek Corp., Bellefonte, Pa.; pre-rinsed with acetone, dichloromethane, and ethyl acetate) and the analytes were eluted with 13 mL of a 50 percent dichloromethane in ethyl acetate solution. The effluent was reduced using micro-Kuderna-Danish distillation to about 1 mL. A procedural internal standard solution of three perdeuterated polycyclic aromatic hydrocarbons (acenaphthene-*d*10, phenanthrene-*d*10, and chrysene-*d*12) in toluene was added to the extract before final solvent reduction to about 0.15 mL using nitrogen gas evaporation. The extract was transferred to a GC vial with a toluene rinse for an approximate 0.25-mL final volume for analysis by GC/MS-SIM instrumental procedures using Airpest003 method.

## Special Studies Methods

Data from three special studies collected during the 2-year time frame covered by this report were analyzed. The first special study examined concentrations of trace metals in water samples collected in the reservoir. By comparing concentrations in the reservoir to airborne particle concentrations, we can infer what fraction may have come from the alignment of SR125 with a new section of toll road. A variety of trace metals are emitted from auto exhaust, tire and brake wear, and road dust. Samples were collected at SWR01 ([fig. 2](#)) and analyzed as either unfiltered (whole-water) or filtered (operationally-defined dissolved phase) water types. Trace metals in unfiltered-water samples were analyzed using inductively coupled plasma-optical emission spectrometry and inductively coupled plasma-mass spectrometry using methods described by Garbarino and Struzeski (1998). Dissolved trace metals in filtered-water samplers were analyzed by inductively coupled plasma-mass spectrometry using methods described in Faires (1993).

The second special study comprised sampling and analysis for 62 anthropogenic indicator compounds (AIC), some of which are typically associated with wastewater effluent. Water samples collected for AIC were filtered through 0.7- $\mu$ m (micrometer) nominal pore size GFFs into new glass sample bottles (Sandstrom, 1995). Approximately 1-L filtered water samples were fortified with four surrogate compounds (see Quality Control section) and passed through a 1-g Oasis HLB SPE column (Waters Corp., Milford, Mass.). Eluted analytes (including some classified as endocrine disrupting compounds) were determined by GC/MS operated in full-scan mode. The USGS NWQL developed an analytical method that determines representative compounds from various chemical classes to monitor unregulated and

regulated contaminants typically associated with wastewater effluent (Zaugg and others, 2002), including some endocrine disrupting compounds.

The third (last) special study comprised sampling and analysis for 14 pharmaceutical compounds. These compounds were isolated from approximately 1-L filtered-water samples (fortified with ethylnicotinate-*d*4 as surrogate) using a 1-g Oasis HLB SPE column. Eluted analytes were determined by liquid chromatography with electrospray mass spectrometric detection operated in selected-ion monitoring mode as detailed by Cahill and others (2004).

## Sampling Strategy and Data

The following sections present the strategies used to collect water and air samples, as well as the corresponding data tables. Some data tables show more than one laboratory reporting level for a compound or an element in different samples. This occurs, in part, because reporting levels are updated annually, as necessary, as a component of the NWQL's yearly assessment of long-term method detection levels and laboratory reporting levels (Childress and others, 1999). Reporting levels also vary because of differences in sample volumes or the presence of interferences. Some concentrations are reported as estimated (E). In these cases, mass spectral results indicated that the sample contained the compound, but the concentration was less certain because it was below the lowest calibration standard or the laboratory reporting level.

## Water Sampling Strategy and Data

Water samples were collected at three sites in SWR (SWR01, SWR03, and SWR06; [fig. 2](#)), two sites at the Perdue Treatment Plant (SWR08 and SWR09; [fig. 2](#)), one site on the Sweetwater River above SWR (LFDD; [fig. 2](#)), and one site at Loveland Reservoir (LLR01) ([fig. 3](#)). The analyses of the water samples, except pharmaceutical data, have been entered into the USGS National Water Information System (NWIS) database. All sites within SWR, except site SWR06, are within the reservoir's minimum pool boundary ([fig. 2](#)) to ensure that water will be available for sampling throughout the year. SWR06 is in the northeastern third of the reservoir in very shallow water. When the water level falls, the water depth at SWR06 decreases, and sometimes the bed sediments are completely exposed. Whenever this has occurred, the sampling site was moved to a nearby location where the water depth was about one meter deep. Sampling sites at both SWR and LLR are marked with stationary buoys anchored to the bottom.

Three additional water-sampling sites (SWR08, SWR09, and LFDD; [table 1](#), [fig. 2](#)) were established outside of the reservoir boundaries. SWR08 monitors the quality of the finished water as it leaves the treatment plant for distribution

to customers. SWR09 monitors the quality of the imported water before it enters the treatment plant. Sweetwater River at the Low-Flow Diversion Dam (LFDD) monitors the quality of the water entering SWR from the watershed. During low flows, the water from LFDD is diverted into the Urban Runoff Diversion System (URDS) ponds. Local urban runoff and the first flush in the Sweetwater River are diverted into the URDS ponds to prevent contaminated water from entering the SWR. A first flush refers to the initial runoff from a storm or reservoir release after a dry period. All site identification numbers, other identifiers, and sampling site names are listed in [table 1](#).

Imported water is usually pumped directly into the treatment plant. Occasionally imported water is instead pumped directly into SWR to augment the local supply. When imported water is pumped directly into the reservoir, it significantly increases the water level; volume increases can be tens of thousands of acre-feet. Imported water is never used solely to maintain the minimum pool level.

Baseline water sampling at both SWR and LLR began in September 1998 and continued at 2-month intervals through September 1999. This bimonthly sampling allowed monitoring of the effects of various operational modes of the reservoirs, such as recharge or drawdown events that significantly changed the water level in the reservoirs. It also showed the spatial variability in chemical occurrence and concentration in each reservoir. From October 1999 to December 2002, the sampling frequency was reduced to once every third month (quarterly). Beginning in December 2002, the sampling frequency was increased to every other month (bimonthly) in anticipation of the beginning of the construction of SR125.

Beginning in October 1999, the number of sampling sites at SWR was reduced from seven to three, and the number of sampling sites at LLR was reduced to one. The Perdue Treatment Plant and Sweetwater River site locations were not changed. The number of sampling sites in the reservoir was reduced to focus the sampling efforts at "indicator" sites—those sites believed to provide the most relevant information without compromising the scientific integrity of the project. These indicator sites were

- SWR01—located near the dam and the intake for reservoir water to the treatment plant, used to monitor the quality of water entering the treatment plant.
- SWR03—located near the center of the minimum pool, used to monitor the quality of water at the center of the reservoir.
- SWR06—located near the east end of the reservoir, used to monitor the quality of water entering the reservoir from the Sweetwater River.
- LLR01—located near the dam, used to monitor the quality of the reserve storage water.



**Table 1.** Site identification numbers, site numbers, and corresponding site names, Sweetwater and Loveland Reservoirs, San Diego County, California.[See [figure 2](#) for site locations]

| Site identification No. | Other identifiers | Site name   |
|-------------------------|-------------------|---|
| 324130117002501         | SWR01             | Sweetwater Reservoir near pump tower                              |
| 324139117000801         | SWR02             | Sweetwater Reservoir near Vista del Lago station                  |
| 324131117000101         | SWR03             | Sweetwater Reservoir center minimum pool                          |
| 324126116595701         | SWR04             | Sweetwater Reservoir near recreation area                         |
| 324137116592401         | SWR05             | Sweetwater Reservoir minimum pool boundary East                   |
| 324209116585001         | SWR06             | Sweetwater Reservoir east end reservoir fill boundary             |
| 324147116593501         | SWR07             | Sweetwater Reservoir near Gum Tree Cove Pond                      |
| 324132117002701         | SWR08             | Perdue Treatment Plant-finished water at Sweetwater Reservoir     |
| 324137117002901         | SWR09             | Perdue Treatment Plant-imported raw water at Sweetwater Reservoir |
| 324311116565901         | LLDD              | Sweetwater River at low flow diversion above Sweetwater Reservoir |
| 324703116473101*        | LLR01             | Loveland Reservoir near dam                                       |
| 324737116453501*        | LLR02             | Loveland Reservoir east end near source inlet                     |
| 324141117001601         | AIR01             | Sweetwater Reservoir air sampling site                            |

\*Loveland Reservoir sites on [figure 3](#).

Before any reservoir water was sampled, depth profiles of dissolved oxygen, pH, specific conductance, and temperature were measured at 1-m intervals from the surface to the bottom at each sampling location. These measurements are given in [table 2](#). (See back of report for this and remaining tables.) At LLR, the depth-profile below 10 m was measured at 2-m intervals because the depth of LLR is much greater than that of SWR. If the temperature profile indicated a thermocline (thermal stratification), two sets of water samples were collected at the site: one at mid epilimnion and one at mid hypolimnion. The epilimnion can be defined as the layer in a lake extending from the surface to a depth where photosynthesis ends or where the slope of the temperature gradient changes. The hypolimnion can be defined as the poorly illuminated lower region of a stratified lake. The temperature of the hypolimnion is nearly uniform and oxygen is depleted. This stratum of water is characterized by decay rather than by the production of organic matter. When no thermocline was evident, only one sample set was collected at a point midway between the water surface and the reservoir bottom.

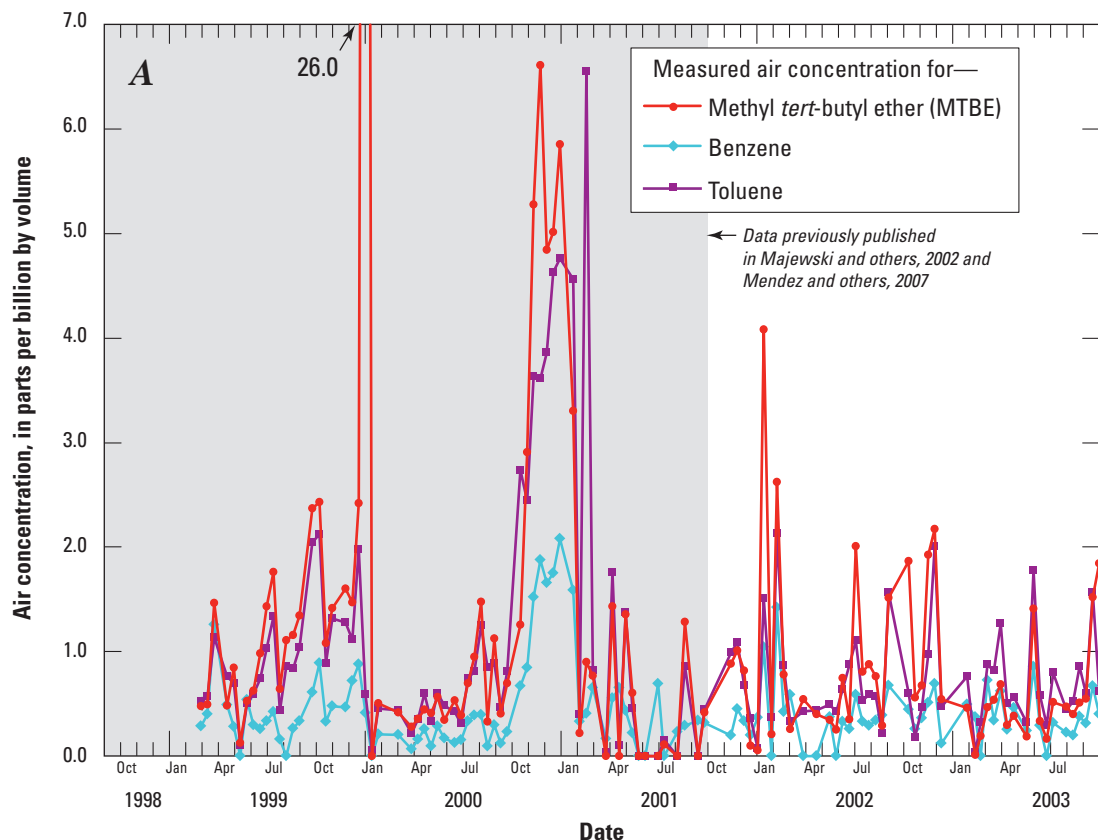
VOCs analyzed in whole-water samples (along with their applicable LRLs) are given in [table 3A](#), and the compounds detected are given in [table 3B](#). PAH compounds analyzed in whole-water samples are given in [table 4A](#), and the compounds detected are given in [table 4B](#). Concentrations of MTBE, benzene, and toluene in air samples at the air sampling site ([fig. 2](#)) from 1998 to 2003 are shown in [figure 4A](#) and can be compared with concentrations of these compounds in water. Concentrations of MTBE, benzene, and toluene in water samples at SWR01 and SWR03 from 1998 to 2003 are

shown in [figures 4B](#), [4C](#), and [4D](#), respectively. To avoid falsely implying trends in the plots due to variations in laboratory detection limits, all nondetections were plotted at a very low concentration (0.003 µg/L) for a normalized appearance. This normalized concentration was chosen so all of the detections were above this value.

A list of pesticide compounds analyzed for in filtered-water samples using NWQL schedule 2001 (and their applicable LRLs) are given in [table 5A](#); those from schedule 2002 are given in [table 6A](#); those from schedule 2003 are given in [table 7A](#); and those from schedule 2060 are given in [table 8A](#). The concentrations of the analytes detected are presented in the following tables according to NWQL schedule: schedule 2001 in [table 5B](#); schedule 2002 in [table 6B](#); schedule 2003 in [table 7B](#); and schedule 2060 in [table 8B](#). Concentrations of simazine at SWR01 and in finished and imported waters are shown in [figure 5](#). To avoid falsely implying trends in [figure 5](#) due to variations in laboratory detection limits, all nondetections were plotted at a very low concentration (0.003 µg/L) for a normalized appearance. This normalized concentration was chosen so all of the detections were above this value.

## Air Sampling Strategy and Data

Air data were collected to determine the occurrence, temporal patterns, and ambient concentration levels of selected airborne organic compounds (VOCs, PAHs, and pesticides). Site AIR01 was installed downwind of the proposed SR 125 routes and upwind of SWR ([fig. 2](#)) along the predominant wind direction. This air sampling station was established



**Figure 4.** (A) Concentrations in air of methyl-*tert*-butyl ether (MTBE), benzene, and toluene at the air sampling site, and concentrations in air and in water of (B) methyl-*tert*-butyl ether (MTBE), (C) benzene, and (D) toluene at Sweetwater Reservoir (SWR) near the pump tower (SWR01), and SWR center of minimum pool (SWR03), San Diego County, California.

following the guidelines outlined by the National Atmospheric Deposition Program (Bigelow, 1984), with additional guidance from the South Coast Air Pollution Control Board (William Brick, oral commun., 1999). The first VOC air sample was collected on March 23, 1999. The first PAH and pesticide air samples were collected on May 11, 1999.

The VOC air method was used to analyze 87 compounds. The results of the VOC air analyses are given in [tables 9A](#) and [9B](#). All VOCs results for the air samples were blank corrected at the lab before the data were released. Blanks were corrected on the basis of the results of 50 to 60 travel blanks from previous and current sampling events. The upper threshold of the blank contamination for each analyte was calculated as the average (mean) plus three times the standard deviation observed in the travel blanks. Concentrations below this threshold were reported as not detected. If the concentration in a sample was higher than this threshold, then the threshold was subtracted from the sample concentration to provide the blank-corrected concentration.

Individual PAH compounds and alkylated PAH homologs determined by the AirPAH method, and estimated reporting levels, are given in [table 10A](#). Concentrations of PAH and alkyl PAH detected in air samples are given in [table 10B](#). Also shown in [table 10B](#) are sampled air volumes, the total

suspended particulate (TSP) concentrations for the samples, how each sample component was extracted (Soxhlet extraction or pressurized solvent extraction, PSE), whether the extract was split before SPE cleanup, and whether the reported concentrations were determined by GC/MS operated in SIM or full-scan mode (typically, only the top PUF for this reporting period).

Pesticide compounds analyzed in air samples by the Airpest001 method are given in [table 11A](#), by the Airpest002 method in [table 12A](#), and by the Airpest003 method in [table 13A](#). Concentrations of the six parent pesticides (benfluralin, chlorpyrifos, dacthal, diazinon, malathion, and trifluralin) and a *p,p'*-DDT degradate, *p,p*-DDE, that were detected in the air samples using the Airpest001 method are given in [table 11B](#). Neither the parent *p,p*-DDT nor a second degradate, *p,p*-DDD, was determined by any of the air analysis methods used. Concentrations of the parent pyrethroid insecticide bifenthrin, the malathion degradate malaoxon, and the carbaryl or napropamide (less likely) degradate 1,4-naphthoquinone were detected in air samples by the Airpest002 method ([table 12B](#)). The degradates chlorpyrifos oxon and diazoxon initially determined by the Airpest002-method were not recovered during the Florisil SPE cleanup step (see Quality Control section and Mendez

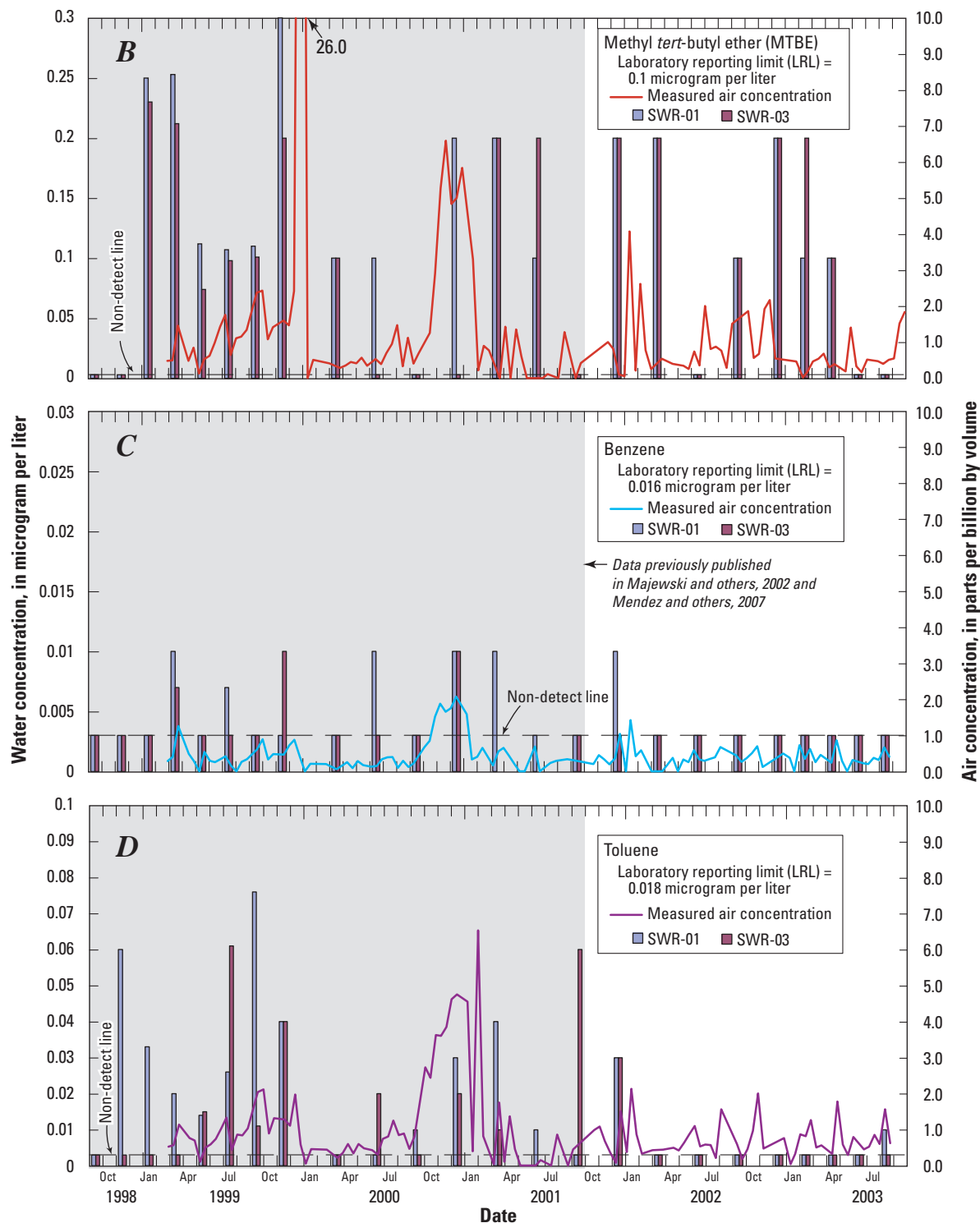
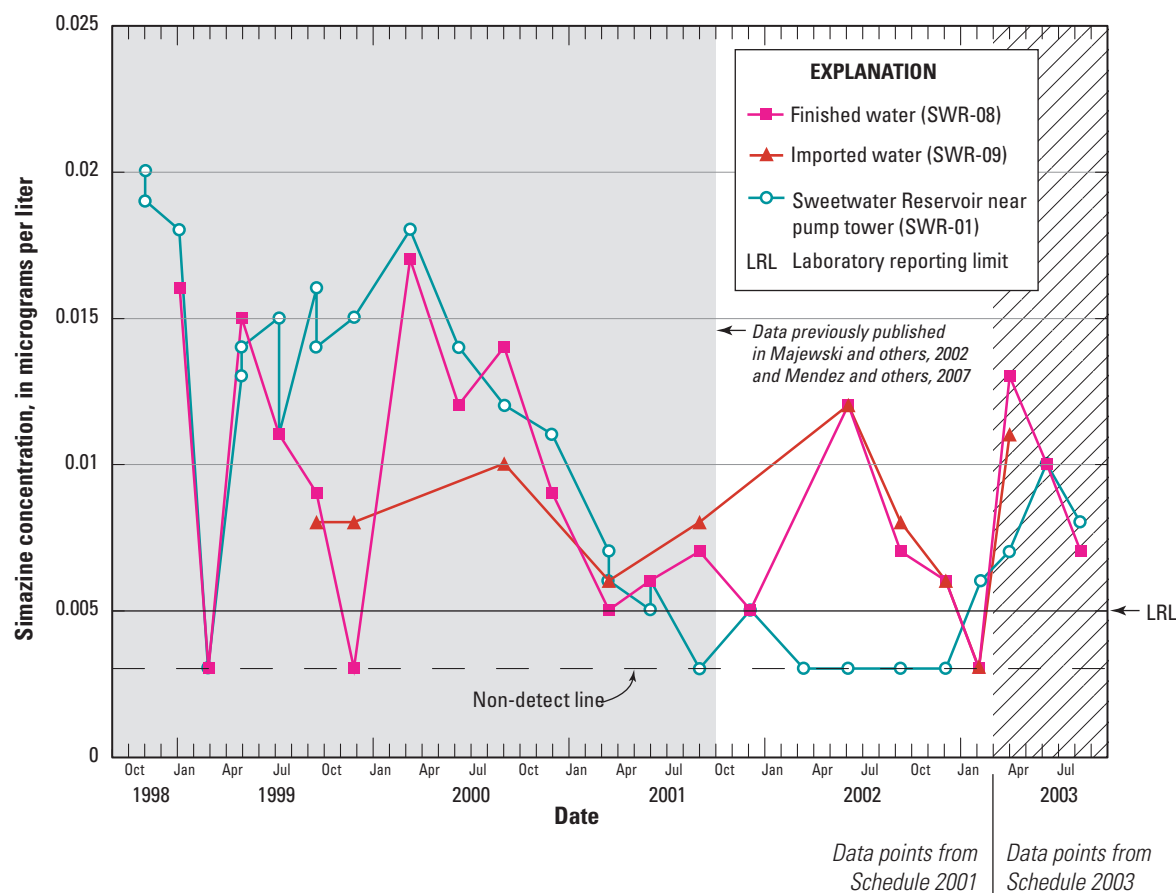


Figure 4. Continued.

and others, 2006). Concentrations of 11 parent pesticides, plus degradates diazoxon, malaoxon, deethylatrazine (from atrazine or propazine), and 4-chloro-2-methylphenol that were detected in air samples using the Airpest003 method are given in [table 13B](#). Degradates of MCPA, MCPB, mecoprop

and their salts and esters (these parent acid herbicides) were not determined by the Airpest003 method. Although the Airpest003 method includes many analytes determined by the other two air methods (11A and 12A), it does not include *p,p*-DDE, bifenthrin, and 1,4-naphthoquinone.



**Figure 5.** Concentrations of simazine in finished water at site SWR08, in imported water at site SWR09, and near the pump tower (site SWR01) at Sweetwater Reservoir, San Diego County, California.

## Special Studies Strategy and Data

Three special studies were conducted during the time frame covered by this report. The first special study analyzed trace metals in filtered and unfiltered (whole) water samples collected at SWR01 ([fig. 2](#)). Whole-water samples were collected in August 2003 ([table 14A](#)). Filtered-water samples were collected from February 2003 through August 2003 ([table 14B](#)). The second special study determined a variety of anthropogenic indicator compounds (AICs; [table 15A](#)), some of which are typically associated with wastewater effluent. Concentrations of AICs detected in filtered-water samples at sites SWR01, SWR08, SWR09, and LFDD ([fig. 2](#)) are given in [table 15B](#). The third special study analyzed pharmaceutical compounds in filtered-water samples collected at sites SWR01, SWR08, SWR09, and LFDD ([fig. 2](#)). The compounds analyzed and their detections are listed in [table 16](#).

## Quality Control

Three types of quality-control samples were used in this study: blanks, spikes, and replicates. Blanks and spikes

are used to estimate result bias, and replicates are used to estimate result variability. In addition, surrogate compounds were added to VOC, PAH, pesticide, AIC, and pharmaceutical samples at the laboratory to monitor sample-specific performance of the analytical method.

Blanks should be free of the analytes of interest, and can be prepared in the laboratory or field. Blank samples are analyzed to test for bias that could result from contamination of environmental samples by the analytes of interest or by interference during any stage of sample collection, processing, and analysis. Blanks for water samples are collected by processing USGS laboratory certified reagent water known to be free of the analytes of interest through any part of the sampling and processing stage. A field blank is collected at an environmental sampling location by passing blank water through all of the field-cleaned sampling equipment. Field blanks are used to verify that no stages of sample collection and processing have introduced contamination. Equipment blanks are collected annually and used to verify that sample collection and processing equipment are not introducing contamination. Source solution blanks are collected to demonstrate that the laboratory-certified reagent water is free of the analytes of interest. Travel (trip) blanks are used to identify contamination that may occur during sample

transport and analysis rather than as a result of sample collection and processing. “Lot blanks” are analyzed at the laboratory for a subset of the air VOC cartridges sent to be used for environmental samples to test the matrix used during manufacturing of the cartridges. Laboratory blanks are used to verify that the laboratory sample processing steps have not introduced contamination.

A spike is prepared by fortifying reagent water or the air-sampling media (GFFs or PUFs) with a known concentration of selected analytes. Spiked samples are used to measure bias in analyte recovery. Matrix spikes also can be used to test the effects of various matrices on the recovery of specific compounds, including matrix-induced analyte degradation. All spiking was done in the laboratory; no field-spiked samples were analyzed during this study period.

Replicate samples are collected and processed identically to the environmental sample and used to measure the variability during sample processing and analyses. Replicate air samples were not collected during this reporting period.

## Water Quality-Control Samples

One field quality-control sample type was collected during every reservoir sampling trip. The type of quality-control sample collected and the sampling location were chosen randomly. Blank and replicate quality-control data for VOCs in water samples are given in [table 17](#). The blank and replicate quality-control data for pesticides in water samples processed by schedules 2001 and 2060 are given in [tables 18](#) and [19](#), respectively.

The quality of analytical results was monitored by adding surrogate compounds to each sample before it was processed for analysis. These surrogate compounds were added at the NWQL to monitor sample preparation and analysis. For VOCs, surrogates 1,2-dichloroethane-*d*4, 1,4-bromofluorobenzene, and toluene-*d*8, were added to each VOC sample. The results, in percent recovery, for VOC surrogates in water are given in [table 3B](#). Surrogates 2-fluorophenol, 2-fluorobiphenyl, nitrobenzene-*d*5, phenol-*d*5, terphenyl-*d*14, and 2,4,6-tribromophenol were added to each PAH sample. The results, in percent recovery, for PAH surrogates in water are given in [table 4B](#). For pesticides in water that were analyzed using schedules 2001, 2002, and 2003, diazinon-*d*10 and alpha-HCH-*d*6 were added to each sample ([tables 5B](#), [6B](#), and [7B](#), respectively). For pesticides in water that were analyzed using schedule 2060, surrogates 2,4,5-T, barban, and caffeine- C13 were added to each sample ([table 8B](#)).

## Air Quality-Control Samples

Several replicate VOC air samples were collected for low breakthrough and high breakthrough volumes; the results are given in [tables 20A](#) and [20B](#), respectively. Each VOC air sample was analyzed along with an associated laboratory

spike, travel blank, lot blank, and laboratory blank. For chlorofluorocarbons and compounds with a low breakthrough volume, the laboratory spike, travel blank, lot blank, and laboratory blank data are in [tables 21A](#), [21B](#), [21C](#) and [21D](#), respectively. For VOC compounds with a high breakthrough volume, the laboratory spike, travel blank, lot blank, and laboratory blank data are in [tables 22A](#), [22B](#), [22C](#) and [22D](#), respectively.

Each air sample component (GFF and top and bottom PUF plugs) was fortified with surrogate compounds at the NWQL to monitor instrument performance during sample analysis. Recovery data for surrogate compounds nitrobenzene-*d*5, 2-fluorobiphenyl, and terphenyl-*d*14 used to monitor performance for the PAH analysis are given in [table 10](#). Recovery data for surrogate compounds diazinon-*d*10 and alpha-HCH-*d*6 used to monitor performance for the pesticides analyses by Airpest001, Airpest002, or Airpest003 methods are given in [tables 11B](#), [12B](#), and [13B](#), respectively.

The air methods are similar to the water methods for assessing the efficiency of the analytical method. Groups of SOC or VOC air samples have an associated laboratory blank and laboratory spike analyzed along with the environmental samples. The associated laboratory blank and laboratory spike quality-control data for the PAHs in air samples are given in [tables 23A](#) and [23B](#), respectively. One field PAH blank sample for all three components was collected during this reporting period for compounds listed in [table 23A](#). No PAH compounds were detected in this blank. To minimize risk of sampler contamination, no SOC field spike air samples were collected in this study. Instead, separate analyses of top and bottom PUF plugs were used to monitor sample-specific collection efficiency. No replicate air samples were collected.

The laboratory blank and laboratory spike data for method Airpest001 type pesticides in air are given in [tables 24A](#) and [24B](#). The laboratory blank and laboratory spike data for method Airpest002 pesticides in air are given in [tables 25A](#) and [25B](#). The laboratory blank and laboratory spike data method Airpest003 pesticides in air are given in [tables 26A](#) and [26B](#).

## Special Studies Quality-Control Sampling

During the time frame covered by this report, no quality-control field samples were collected for the three special studies. Recovery data for surrogate compound Ethylnicotinate-*d*4 that was added to each pharmaceutical sample are given in [table 16](#). Laboratory blank and spike data for pharmaceutical compounds are listed in [table 27A](#) and [27B](#), respectively.



## Summary

The primary purpose of this study is to monitor changes in composition and concentration of compounds in the air and water before, during, and after the construction and operation of a major thoroughfare being built upwind of the Sweetwater Reservoir. To accomplish this, the study was divided into two phases. Phase One sampling was designed to establish baseline conditions for target compounds (primary sampling) in terms of detection frequency and concentration in air and water. Phase Two sampling is planned to continue during and after construction of the roadway (SR 125) to assess the chemical impact this alignment project may have on the water quality in the reservoir. In a project of this size, many compounds are analyzed to help water agencies better understand the effects of urbanization on drinking-water reservoirs. In addition to the ongoing data collection, several special studies were initiated to assess the occurrence of specific chemicals of concern, such as trace metals, anthropogenic indicators, and pharmaceutical compounds.

Before any reservoir water was sampled, depth profiles of temperature, pH, dissolved oxygen, and specific conductance were recorded at each reservoir sampling location (table 2). VOCs analyzed in water samples and their results are in tables 3A and 3B, respectively. PAHs analyzed in water samples, and their results, are in tables 4A and 4B, respectively. Pesticide compounds analyzed in water by National Water Quality Laboratory (NWQL) schedules are in tables 5A, 6A, 7A, and 8A. Pesticide compounds detected by NAWQL schedules are in tables 5B, 6B, 7B, and 8B. Results of VOCs analyzed in air are in tables 9A and 9B. PAH compounds analyzed in air samples and their results are in table 10A and 10B, respectively. Pesticide compounds analyzed in air using three different National Water Quality Laboratory methods are in tables 11A, 12A, and 13A. Results for pesticide methods analyzed in air are in tables 11B, 12B, and 13B. Data from the three special studies in water for trace metals, anthropogenic indicators, and pharmaceutical compounds are in tables 14, 15, and 16. Quality-control data for VOCs in water samples are in table 17. Quality-control data for pesticides in water sampling are in tables 18 and 19. Replicate data for VOCs in air samples are in tables 20A and 20B. Quality-control travel-blank, spike, lot-blank, and laboratory-blank data for VOC in air samples are in tables 21A–D and 22A–D, respectively. Quality-control blank and spike data for PAH in air samples are in tables 23A and 23B. Quality-control blank and spike data for pesticide in air samples are in tables 24A–B, 25A–B, and 26A–B. Quality-control blank and spike data for pharmaceutical compounds in water samples are in tables 27A and 27B.

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## Tables

**Table 2.** Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and temperature for each sampling site and period for the Sweetwater and Loveland Reservoirs, San Diego County, California.

[Time is denoted in 24-hour format. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below the water surface. m, meter; mg/L, milligram per liter;  $\mu$ S/cm, microsiemens per centimeter; °C, degree Celsius; nd, no data]

| Date   | Time<br>(HHMM) | Sampling<br>depth<br>(m)<br>(00098) | Oxygen,<br>dissolved<br>(mg/L)<br>(00300) | pH, water<br>whole field<br>(standard units)<br>(00400) | Specific<br>conductance<br>( $\mu$ S/cm)<br>(00095) | Water<br>temperature<br>(°C)<br>(00010) |
|--|----------------|-------------------------------------|---|---|---|---|
| Sweetwater Reservoir near pump tower (SWR01) |                |                                     |   |   |   |   |
| December 10, 2001                            | 1117           | 0.1                                 | 7.8                                       | 7.8   | 1,110   | 14.1                                    |
|  | 1118           | 1.0                                 | 7.2                                       | 7.8   | 1,110   | 14.1                                    |
|  | 1119           | 2.0                                 | 7.1                                       | 7.8   | 1,110   | 13.7                                    |
|  | 1120           | 3.0                                 | 6.7                                       | 7.7   | 1,110   | 13.6                                    |
|  | 1121           | 4.0                                 | 6.7                                       | 7.7   | 1,110   | 13.5                                    |
|  | 1122           | 5.0                                 | 6.5                                       | 7.7   | 1,120   | 13.5                                    |
|  | 1123           | 5.9                                 | 2.4                                       | 7.4   | 1,180   | 14.0                                    |
| March 20, 2002                               | 0956           | 0.1                                 | 8.6                                       | 8.2   | 1,040   | 16.3                                    |
|  | 0957           | 1.0                                 | 8.9                                       | 8.2   | 1,040   | 16.1                                    |
|  | 0958           | 2.0                                 | 8.6                                       | 8.2   | 1,040   | 16.0                                    |
|  | 0959           | 3.0                                 | 8.6                                       | 8.2   | 1,040   | 15.7                                    |
|  | 1000           | 4.0                                 | 8.7                                       | 8.1   | 1,040   | 15.6                                    |
|  | 1001           | 5.0                                 | 7.9                                       | 8.1   | 1,040   | 15.5                                    |
|  | 1002           | 6.0                                 | 7.8                                       | 8.0   | 1,040   | 15.4                                    |
|  | 1003           | 7.0                                 | 7.7                                       | 8.0   | 1,040   | 15.3                                    |
|  | 1004           | 8.0                                 | 7.3                                       | 8.0   | 1,040   | 15.2                                    |
|  | 1005           | 8.5                                 | 2.0                                       | 7.7   | 1,050   | 15.2                                    |
| June 11, 2002                                | 0926           | 0.1                                 | 7.1                                       | 8.2   | 1,060   | 22.4                                    |
|  | 0927           | 1.0                                 | 7.3                                       | 8.2   | 1,060   | 22.2                                    |
|  | 0928           | 2.0                                 | 7.4                                       | 8.1   | 1,060   | 22.2                                    |
|  | 0930           | 4.0                                 | 7.3                                       | 8.1   | 1,060   | 22.2                                    |
|  | 0931           | 5.0                                 | 7.0                                       | 8.1   | 1,060   | 22.1                                    |
|  | 0932           | 6.0                                 | 4.0                                       | 7.8   | 1,050   | 21.6                                    |
|  | 0933           | 7.0                                 | 0.9                                       | 7.5   | 1,040   | 20.4                                    |
|  | 0934           | 8.0                                 | 0.5                                       | 7.8   | 1,120   | 20.1                                    |
| September 17, 2002                           | 0958           | 0.1                                 | 6.2                                       | 8.2   | 1,130   | 24.6                                    |
|  | 0959           | 1.0                                 | 5.9                                       | 8.3   | 1,110   | 24.5                                    |
|  | 1000           | 2.0                                 | 5.8                                       | 8.3   | 1,110   | 24.4                                    |
|  | 1001           | 3.0                                 | 5.8                                       | 8.3   | 1,110   | 24.4                                    |
|  | 1002           | 4.0                                 | 5.7                                       | 8.3   | 1,110   | 24.4                                    |
|  | 1003           | 5.0                                 | 5.5                                       | 8.3   | 1,110   | 24.4                                    |
| December 11, 2002                            | 1116           | 0.1                                 | 7.4                                       | 7.5   | 1,070   | 15.1                                    |
|  | 1117           | 1.0                                 | 6.9                                       | 7.9   | 1,080   | 14.9                                    |
|  | 1118           | 2.0                                 | 6.7                                       | 7.9   | 1,080   | 14.7                                    |
|  | 1119           | 3.0                                 | 6.2                                       | 7.9   | 1,080   | 14.6                                    |
|  | 1120           | 4.0                                 | 6.2                                       | 7.8   | 1,080   | 14.6                                    |
|  | 1121           | 5.0                                 | 5.7                                       | 7.8   | 1,070   | 14.6                                    |
|  | 1122           | 6.0                                 | 5.6                                       | 7.8   | 1,070   | 14.6                                    |
|  | 1123           | 7.0                                 | 5.4                                       | 7.8   | 1,070   | 14.6                                    |
|  | 1124           | 7.6                                 | 1.6                                       | 7.6   | 1,220   | 14.9                                    |
| February 14, 2003                            | 1125           | 0.1                                 | 10.5                                      | 8.1   | 1,020   | 15.3                                    |
|  | 1126           | 1.0                                 | 10.0                                      | 8.1   | 1,000   | 14.9                                    |
|  | 1127           | 2.0                                 | 9.2                                       | 8.2   | 1,030   | 14.8                                    |
|  | 1128           | 3.0                                 | 8.0                                       | 8.1   | 1,030   | 14.6                                    |

**Table 2.** Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and temperature for each sampling site and period for the Sweetwater and Loveland Reservoirs, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below the water surface. m, meter; mg/L, milligram per liter;  $\mu$ S/cm, microsiemens per centimeter; °C, degree Celsius; nd, no data]

| Date              | Time<br>(HHMM) | Sampling<br>depth<br>(m)<br>(00098) | Oxygen,<br>dissolved<br>(mg/L)<br>(00300) | pH, water<br>whole field<br>(standard units)<br>(00400) | Specific<br>conductance<br>( $\mu$ S/cm)<br>(00095) | Water<br>temperature<br>(°C)<br>(00010) |
|-------------------|----------------|-------------------------------------|---|---|---|---|
| February 14, 2003 | 1129           | 4.0                                 | 7.9                                       | 8.1   | 1,030   | 14.6                                    |
|                   | 1130           | 5.0                                 | 7.8                                       | 8.1   | 1,020   | 14.5                                    |
|                   | 1131           | 6.0                                 | 7.5                                       | 8.1   | 1,030   | 14.5                                    |
|                   | 1132           | 7.0                                 | 7.2                                       | 8.1   | 1,030   | 14.5                                    |
|                   | 1133           | 8.0                                 | 7.0                                       | 8.0   | 1,040   | 14.5                                    |
|                   | 1134           | 9.0                                 | 6.8                                       | 8.0   | 1,030   | 14.5                                    |
|                   | 1135           | 9.5                                 | 0.6                                       | 7.8   | 1,070   | 14.5                                    |
| April 08, 2003    | 1040           | 0.1                                 | 6.5                                       | 7.5   | 1,020   | 19.1                                    |
|                   | 1041           | 1.0                                 | 7.5                                       | 7.7   | 1,030   | 19.0                                    |
|                   | 1042           | 2.0                                 | 7.4                                       | 7.7   | 1,020   | 18.4                                    |
|                   | 1043           | 3.0                                 | 7.4                                       | 7.8   | 1,020   | 18.2                                    |
|                   | 1044           | 4.0                                 | 7.4                                       | 7.8   | 1,020   | 18.1                                    |
|                   | 1045           | 5.0                                 | 7.3                                       | 7.8   | 1,020   | 18.1                                    |
|                   | 1100           | 6.0                                 | 7.1                                       | 7.8   | 1,030   | 18.0                                    |
|                   | 1046           | 7.0                                 | 7.0                                       | 7.7   | 1,020   | 17.8                                    |
|                   | 1047           | 8.0                                 | 6.8                                       | 7.7   | 1,020   | 17.6                                    |
|                   | 1048           | 9.0                                 | 6.6                                       | 7.7   | 1,020   | 17.6                                    |
|                   | 1049           | 10.0                                | 6.4                                       | 7.7   | 1,020   | 17.6                                    |
|                   | 1050           | 12.0                                | 6.0                                       | 7.7   | 1,020   | 17.5                                    |
|                   | 1051           | 12.6                                | 1.0                                       | 7.5   | 1,050   | 17.5                                    |
| June 17, 2003     | 1128           | 0.1                                 | 9.1                                       | 8.0   | 990   | 23.4                                    |
|                   | 1129           | 1.0                                 | 9.2                                       | 8.0   | 992   | 23.1                                    |
|                   | 1130           | 2.0                                 | 9.2                                       | 8.0   | 991   | 23.0                                    |
|                   | 1131           | 3.0                                 | 9.3                                       | 8.0   | 991   | 22.8                                    |
|                   | 1132           | 4.0                                 | 9.3                                       | 8.0   | 991   | 22.6                                    |
|                   | 1133           | 5.0                                 | 5.6                                       | 7.8   | 973   | 20.7                                    |
|                   | 1134           | 6.0                                 | 3.4                                       | 7.6   | 965   | 20.0                                    |
|                   | 1135           | 7.0                                 | 3   | 7.6   | 960   | 19.7                                    |
|                   | 1140           | 8.0                                 | 2.8                                       | 7.5   | 958   | 19.6                                    |
|                   | 1136           | 9.0                                 | 2.8                                       | 7.5   | 958   | 19.4                                    |
|                   | 1137           | 10.0                                | 2.6                                       | 7.5   | 958   | 19.3                                    |
|                   | 1138           | 11.0                                | 2.5                                       | 7.5   | 957   | 19.3                                    |
|                   | 1139           | 11.4                                | 2.5                                       | 7.4   | 1,020   | 19.2                                    |
| August 19, 2003   | 1128           | 0.1                                 | 8.1                                       | 8.4   | 1,080   | 27.2                                    |
|                   | 1129           | 1.0                                 | 8.1                                       | 8.4   | 1,080   | 27.1                                    |
|                   | 1130           | 2.0                                 | 7.8                                       | 8.3   | 1,080   | 26.9                                    |
|                   | 1131           | 3.0                                 | 7.4                                       | 8.2   | 1,080   | 26.7                                    |
|                   | 1132           | 4.0                                 | 2.9                                       | 8.0   | 1,070   | 25.5                                    |
|                   | 1133           | 5.0                                 | 0.5                                       | 7.8   | 1,050   | 24.1                                    |
|                   | 1134           | 6.0                                 | 0.3                                       | 7.8   | 1,040   | 23.2                                    |
|                   | 1135           | 7.0                                 | 0.2                                       | 7.8   | 1,020   | 19.9                                    |
|                   | 1150           | 8.0                                 | 0.2                                       | 7.7   | 1,020   | 19.6                                    |
|                   | 1136           | 9.0                                 | 0.2                                       | 7.7   | 1,010   | 19.6                                    |
|                   | 1137           | 9.5                                 | 0.2                                       | 7.6   | 1,040   | 19.5                                    |

**Table 2.** Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and temperature for each sampling site and period for the Sweetwater and Loveland Reservoirs, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below the water surface. m, meter; mg/L, milligram per liter;  $\mu$ S/cm, microsiemens per centimeter; °C, degree Celsius; nd, no data]

| Date  | Time<br>(HHMM) | Sampling<br>depth<br>(m)<br>(00098) | Oxygen,<br>dissolved<br>(mg/L)<br>(00300) | pH, water<br>whole field<br>(standard units)<br>(00400) | Specific<br>conductance<br>( $\mu$ S/cm)<br>(00095) | Water<br>temperature<br>(°C)<br>(00010) |
|---|----------------|-------------------------------------|---|---|---|---|
| Sweetwater Reservoir center of minimum pool (SWR03) |                |                                     |   |   |   |   |
| December 10, 2001                                   | 1147           | 0.1                                 | 8.2                                       | 7.9   | 1,110   | 14.0                                    |
|   | 1148           | 1.0                                 | 7.6                                       | 7.8   | 1,110   | 13.8                                    |
|   | 1149           | 2.0                                 | 7.0                                       | 7.8   | 1,120   | 13.6                                    |
|   | 1150           | 3.0                                 | 6.8                                       | 7.7   | 1,120   | 13.6                                    |
|   | 1151           | 4.0                                 | 6.6                                       | 7.7   | 1,120   | 13.6                                    |
|   | 1152           | 5.0                                 | 6.6                                       | 7.7   | 1,120   | 13.5                                    |
|   | 1153           | 6.0                                 | 6.4                                       | 7.7   | 1,120   | 13.5                                    |
|   | 1154           | 7.0                                 | 6.0                                       | 7.7   | 1,120   | 13.5                                    |
|   | 1155           | 7.5                                 | 5.8                                       | 7.6   | 1,120   | 13.6                                    |
| March 20, 2002                                      | 1025           | 0.1                                 | 8.8                                       | 8.2   | 1,020   | 16.6                                    |
|   | 1026           | 1.0                                 | 8.5                                       | 8.2   | 1,040   | 15.8                                    |
|   | 1027           | 2.0                                 | 8.1                                       | 8.2   | 1,040   | 15.6                                    |
|   | 1028           | 3.0                                 | 7.5                                       | 8.1   | 1,040   | 15.5                                    |
|   | 1029           | 4.0                                 | 7.3                                       | 8.1   | 1,040   | 15.4                                    |
|   | 1030           | 5.0                                 | 7.3                                       | 8.1   | 1,040   | 15.3                                    |
|   | 1031           | 6.0                                 | 6.9                                       | 8.0   | 1,040   | 15.2                                    |
|   | 1032           | 7.0                                 | 7.0                                       | 8.0   | 1,040   | 15.1                                    |
|   | 1033           | 8.0                                 | 7.0                                       | 8.0   | 1,040   | 15.1                                    |
|   | 1034           | 9.0                                 | 6.9                                       | 8.0   | 1,040   | 15.1                                    |
|   | 1035           | 10.0                                | 6.3                                       | 8.0   | 1,040   | 15.1                                    |
| June 11, 2002                                       | 1005           | 0.1                                 | 7.7                                       | 8.4   | 1,040   | 23.0                                    |
|   | 1006           | 1.0                                 | 7.9                                       | 8.4   | 1,060   | 22.6                                    |
|   | 1007           | 2.0                                 | 7.7                                       | 8.3   | 1,060   | 22.4                                    |
|   | 1008           | 3.0                                 | 7.2                                       | 8.3   | 1,060   | 22.3                                    |
|   | 1009           | 4.0                                 | 7.2                                       | 8.3   | 1,060   | 22.2                                    |
|   | 1010           | 5.0                                 | 6.8                                       | 8.2   | 1,060   | 22.1                                    |
|   | 1011           | 6.0                                 | 3.6                                       | 7.8   | 1,050   | 21.7                                    |
|   | 1012           | 7.0                                 | 0.8                                       | 7.6   | 1,040   | 20.7                                    |
|   | 1013           | 8.0                                 | 0.5                                       | 7.6   | 1,040   | 20.2                                    |
|   | 1014           | 9.0                                 | 0.4                                       | 7.5   | 1,050   | 19.9                                    |
|   | 1015           | 10.0                                | 0.3                                       | 7.5   | 1,050   | 19.8                                    |
| September 17, 2002                                  | 1027           | 0.1                                 | 7.2                                       | 8.5   | 1,110   | 25.0                                    |
|   | 1028           | 1.0                                 | 7.2                                       | 8.5   | 1,110   | 24.8                                    |
|   | 1029           | 2.0                                 | 7.0                                       | 8.5   | 1,110   | 24.6                                    |
|   | 1030           | 3.0                                 | 6.7                                       | 8.5   | 1,110   | 24.6                                    |
|   | 1031           | 4.0                                 | 6.4                                       | 8.4   | 1,110   | 24.6                                    |
|   | 1032           | 5.0                                 | 2.7                                       | 8.1   | 1,120   | 24.4                                    |
|   | 1033           | 6.0                                 | 1.3                                       | 8.0   | 1,120   | 24.3                                    |
|   | 1034           | 7.0                                 | 0.5                                       | 7.9   | 1,120   | 24.2                                    |
| December 11, 2002                                   | 1146           | 0.1                                 | 8.1                                       | 8.2   | 1,080   | 15.5                                    |
|   | 1147           | 1.0                                 | 7.9                                       | 8.2   | 1,080   | 15.1                                    |
|   | 1148           | 2.0                                 | 7.1                                       | 8.1   | 1,080   | 14.7                                    |
|   | 1149           | 3.0                                 | 6.8                                       | 8.1   | 1,080   | 14.6                                    |
|   | 1150           | 4.0                                 | 6.7                                       | 8.1   | 1,080   | 14.6                                    |
|   | 1151           | 5.0                                 | 6.5                                       | 8.0   | 1,080   | 14.6                                    |



**Table 2.** Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and temperature for each sampling site and period for the Sweetwater and Loveland Reservoirs, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below the water surface. m, meter; mg/L, milligram per liter;  $\mu\text{S}/\text{cm}$ , microsiemens per centimeter;  $^{\circ}\text{C}$ , degree Celsius; nd, no data]

| Date              | Time<br>(HHMM) | Sampling<br>depth<br>(m)<br>(00098) | Oxygen,<br>dissolved<br>(mg/L)<br>(00300) | pH, water<br>whole field<br>(standard units)<br>(00400) | Specific<br>conductance<br>( $\mu\text{S}/\text{cm}$ )<br>(00095) | Water<br>temperature<br>( $^{\circ}\text{C}$ )<br>(00010) |
|-------------------|----------------|-------------------------------------|---|---|---|---|
| December 11, 2002 | 1152           | 6.0                                 | 6.4                                       | 8.0   | 1,080   | 14.6  |
|                   | 1153           | 7.0                                 | 6.3                                       | 8.0   | 1,080   | 14.6  |
|                   | 1154           | 8.0                                 | 6.1                                       | 8.0   | 1,080   | 14.6  |
|                   | 1155           | 8.6                                 | 4.0                                       | 7.9   | 1,080   | 14.6  |
| February 14, 2003 | 1215           | 0.1                                 | 11.2                                      | 8.4   | 1,030   | 15.6  |
|                   | 1216           | 1.0                                 | 10.3                                      | 8.4   | 1,030   | 15.4  |
|                   | 1217           | 2.0                                 | 8.8                                       | 8.3   | 1,040   | 14.7  |
|                   | 1218           | 3.0                                 | 7.9                                       | 8.2   | 1,040   | 14.6  |
|                   | 1219           | 4.0                                 | 7.8                                       | 8.2   | 1,000   | 14.5  |
|                   | 1220           | 5.0                                 | 7.5                                       | 8.2   | 1,040   | 14.6  |
|                   | 1221           | 6.0                                 | 7.4                                       | 8.2   | 1,040   | 14.5  |
|                   | 1222           | 7.0                                 | 7.3                                       | 8.2   | 1,040   | 14.5  |
|                   | 1223           | 8.0                                 | 7.0                                       | 8.1   | 1,040   | 14.4  |
|                   | 1224           | 9.0                                 | 6.4                                       | 8.1   | 1,040   | 14.4  |
|                   | 1225           | 9.9                                 | 5.2                                       | 7.9   | 1,040   | 14.4  |
| April 08, 2003    | 1140           | 0.1                                 | 7.2                                       | 8.1   | 1,030   | 19.4  |
|                   | 1141           | 1.0                                 | 7.2                                       | 8.0   | 1,030   | 18.7  |
|                   | 1142           | 2.0                                 | 7.2                                       | 8.0   | 1,030   | 18.4  |
|                   | 1143           | 3.0                                 | 7.3                                       | 8.0   | 1,020   | 18.2  |
|                   | 1144           | 4.0                                 | 7.3                                       | 8.0   | 1,020   | 18.1  |
|                   | 1145           | 5.0                                 | 7.0                                       | 8.0   | 1,030   | 18.0  |
|                   | 1200           | 6.0                                 | 6.9                                       | 7.9   | 1,030   | 17.9  |
|                   | 1146           | 7.0                                 | 6.8                                       | 7.9   | 1,030   | 17.9  |
|                   | 1147           | 8.0                                 | 6.7                                       | 7.9   | 1,030   | 17.9  |
|                   | 1148           | 9.0                                 | 6.7                                       | 7.9   | 1,030   | 17.9  |
|                   | 1149           | 10.0                                | 6.6                                       | 7.9   | 1,020   | 17.7  |
|                   | 1150           | 11.0                                | 6.1                                       | 7.8   | 1,020   | 17.5  |
|                   | 1151           | 12.0                                | 5.3                                       | 7.8   | 1,030   | 17.4  |
|                   | 1152           | 13.0                                | 2.9                                       | 7.7   | 1,030   | 17.4  |
| June 17, 2003     | 1208           | 0.1                                 | 9.3                                       | 8.1   | 968   | 23.6  |
|                   | 1209           | 1.0                                 | 9.3                                       | 8.1   | 968   | 23.1  |
|                   | 1210           | 2.0                                 | 9.5                                       | 8.0   | 970   | 23.1  |
|                   | 1211           | 3.0                                 | 9.3                                       | 8.0   | 971   | 22.9  |
|                   | 1212           | 4.0                                 | 7.3                                       | 7.8   | 967   | 21.9  |
|                   | 1213           | 5.0                                 | 5.1                                       | 7.7   | 960   | 20.8  |
|                   | 1214           | 6.0                                 | 4.2                                       | 7.6   | 959   | 20.5  |
|                   | 1215           | 7.0                                 | 2.5                                       | 7.6   | 949   | 20.0  |
|                   | 1200           | 8.0                                 | 1.6                                       | 7.5   | 957   | 19.5  |
|                   | 1216           | 9.0                                 | 1.2                                       | 7.5   | 953   | 19.4  |
|                   | 1217           | 10.0                                | 1.1                                       | 7.5   | 952   | 19.1  |
|                   | 1218           | 11.0                                | 0.6                                       | 7.4   | 952   | 18.8  |
|                   | 1219           | 12.0                                | 0.5                                       | 7.4   | 953   | 18.8  |
|                   | 1220           | 13.0                                | 0.4                                       | 7.4   | 953   | 18.8  |



**Table 2.** Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and temperature for each sampling site and period for the Sweetwater and Loveland Reservoirs, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below the water surface. m, meter; mg/L, milligram per liter;  $\mu$ S/cm, microsiemens per centimeter; °C, degree Celsius; nd, no data]

| Date  | Time<br>(HHMM) | Sampling<br>depth<br>(m)<br>(00098) | Oxygen,<br>dissolved<br>(mg/L)<br>(00300) | pH, water<br>whole field<br>(standard units)<br>(00400) | Specific<br>conductance<br>( $\mu$ S/cm)<br>(00095) | Water<br>temperature<br>(°C)<br>(00010) |
|---|----------------|-------------------------------------|---|---|---|---|
| August 19, 2003   | 1228           | 0.1                                 | 8.0                                       | 8.7   | 1,070   | 27.8                                    |
|   | 1229           | 1.0                                 | 8.1                                       | 8.6   | 1,070   | 27.6                                    |
|   | 1230           | 2.0                                 | 8.1                                       | 8.5   | 1,070   | 27.1                                    |
|   | 1231           | 3.0                                 | 7.1                                       | 8.4   | 1,070   | 26.6                                    |
|   | 1232           | 4.0                                 | 3.1                                       | 8.1   | 1,070   | 25.9                                    |
|   | 1233           | 5.0                                 | 1.3                                       | 8.0   | 1,050   | 24.4                                    |
|   | 1234           | 6.0                                 | 0.8                                       | 8.0   | 1,020   | 21.7                                    |
|   | 1235           | 7.0                                 | 0.6                                       | 7.9   | 1,010   | 20.3                                    |
|   | 1250           | 8.0                                 | 0.4                                       | 7.8   | 1,010   | 20.0                                    |
|   | 1236           | 9.0                                 | 0.4                                       | 7.7   | 1,010   | 19.6                                    |
|   | 1237           | 10.0                                | 0.3                                       | 7.7   | 1,010   | 19.5                                    |
| Sweetwater Reservoir east end reservoir fill boundary (SWR06) |                |                                     |   |   |   |   |
| December 10, 2001   | 1219           | 0.1                                 | 9.9                                       | 8.2   | 1,110   | 14.2                                    |
|   | 1220           | 1.0                                 | 10.3                                      | 8.3   | 1,110   | 14.1                                    |
| March 20, 2002  | 1048           | 0.1                                 | 8.1                                       | 8.1   | 1,040   | 16.8                                    |
|   | 1050           | 0.5                                 | 8.1                                       | 8.1   | 1,040   | 16.5                                    |
|   | 1052           | 0.7                                 | 8.2                                       | 8.1   | 1,200   | 16.4                                    |
| June 11, 2002   | 1039           | 0.1                                 | 7.8                                       | 8.4   | 1,070   | 23.5                                    |
|   | 1040           | 1.0                                 | 6.4                                       | 8.2   | 1,070   | 22.7                                    |
|   | 1041           | 1.2                                 | 5.6                                       | 8.2   | 1,070   | 22.7                                    |
| September 17, 2002  | 1100           | 0.5                                 | 4.5                                       | 8.3   | 1,120   | 24.9                                    |
|   | 1101           | 1.0                                 | 4.5                                       | 8.3   | 1,130   | 23.8                                    |
| December 11, 2002   | 1210           | 0.5                                 | 12.2                                      | 8.8   | 1,070   | 16.5                                    |
|   | 1211           | 1.0                                 | 11.3                                      | 8.7   | 1,080   | 15.5                                    |
|   | 1212           | 1.5                                 | 10.8                                      | 8.6   | 1,080   | 15.1                                    |
| February 14, 2003   | 1240           | 0.1                                 | 15  | 8.4   | 1,050   | 16.2                                    |
|   | 1241           | 1.0                                 | 12.8                                      | 8.4   | 1,060   | 16.0                                    |
| April 08, 2003  | 1240           | 0.5                                 | 6.2                                       | 7.9   | 1,060   | 20.1                                    |
|   | 1241           | 1.0                                 | 5.6                                       | 7.8   | 1,090   | 19.2                                    |
|   | 1242           | 1.4                                 | 5.3                                       | 7.7   | 1,090   | 18.9                                    |
| June 17, 2003   | 1239           | 0.1                                 | 10.1                                      | 7.9   | 992   | 25.1                                    |
|   | 1240           | 1.0                                 | 8.1                                       | 7.9   | 1,020   | 24.8                                    |
|   | 1241           | 1.4                                 | 7.2                                       | 7.9   | 1,020   | 24.8                                    |
| August 19, 2003   | 1320           | 0.1                                 | 8.6                                       | 8.5   | 1,070   | 28.9                                    |
|   | 1321           | 0.6                                 | 8.5                                       | 8.5   | 1,070   | 28.8                                    |

**Table 2.** Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and temperature for each sampling site and period for the Sweetwater and Loveland Reservoirs, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below the water surface. m, meter; mg/L, milligram per liter;  $\mu$ S/cm, microsiemens per centimeter; °C, degree Celsius; nd, no data]

| Date   | Time<br>(HHMM) | Sampling<br>depth<br>(m)<br>(00098) | Oxygen,<br>dissolved<br>(mg/L)<br>(00300) | pH, water<br>whole field<br>(standard units)<br>(00400) | Specific<br>conductance<br>( $\mu$ S/cm)<br>(00095) | Water<br>temperature<br>(°C)<br>(00010) |
|--|----------------|-------------------------------------|---|---|---|---|
| Sweetwater River at low-flow diversion dam above Sweetwater Reservoir (LFDD) |                |                                     |   |   |   |   |
| December 10, 2001  | 1420           | nd                                  | nd  | nd  | nd  | nd                                      |
| March 20, 2002   | 1200           | nd                                  | nd  | nd  | nd  | nd                                      |
| June 11, 2002  | 1340           | nd                                  | nd  | nd  | nd  | nd                                      |
| September 17, 2002   | 1330           | nd                                  | nd  | nd  | nd  | nd                                      |
| December 12, 2002  | 1020           | 0.1                                 | 7.7                                       | 7.7   | 3,000   | 11.2                                    |
| February 11, 2003  | 1440           | 0.1                                 | 10.2                                      | 8.0   | 2,840   | 12.8                                    |
| April 09, 2003   | 1530           | 0.1                                 | nd  | 7.8   | nd  | 16.4                                    |
| June 18, 2003  | 1400           | 0.1                                 | 5.4                                       | 7.6   | 2,850   | 20.2                                    |
| August 20, 2003  | 1400           | 0.1                                 | 4.7                                       | 7.7   | 3,040   | 23.2                                    |
| Loveland Reservoir near dam (LLR01)  |                |                                     |   |   |   |   |
| December 11, 2001  | 1019           | 0.1                                 | 3.5                                       | 7.4   | 576   | 12.8                                    |
|  | 1020           | 1.0                                 | 2.7                                       | 7.4   | 580   | 12.7                                    |
|  | 1021           | 2.0                                 | 2.4                                       | 7.4   | 579   | 12.7                                    |
|  | 1022           | 3.0                                 | 2.2                                       | 7.4   | 579   | 12.7                                    |
|  | 1023           | 4.0                                 | 2.1                                       | 7.4   | 579   | 12.7                                    |
|  | 1024           | 5.0                                 | 2.1                                       | 7.4   | 579   | 12.7                                    |
|  | 1025           | 6.0                                 | 2.0                                       | 7.4   | 579   | 12.7                                    |
|  | 1026           | 7.0                                 | 2.0                                       | 7.4   | 579   | 12.7                                    |
|  | 1027           | 8.0                                 | 2.0                                       | 7.4   | 578   | 12.7                                    |
|  | 1028           | 9.0                                 | 2.0                                       | 7.3   | 578   | 12.7                                    |
|  | 1029           | 10.0                                | 2.0                                       | 7.3   | 578   | 12.7                                    |
|  | 1030           | 12.0                                | 1.8                                       | 7.3   | 578   | 12.7                                    |
|  | 1031           | 14.0                                | 1.4                                       | 7.3   | 578   | 12.6                                    |
|  | 1032           | 16.0                                | 0.5                                       | 7.3   | 577   | 12.6                                    |
|  | 1033           | 18.0                                | 0.4                                       | 7.3   | 573   | 12.2                                    |
|  | 1034           | 20.0                                | 0.4                                       | 7.2   | 569   | 11.9                                    |
|  | 1035           | 22.0                                | 0.3                                       | 7.2   | 568   | 11.7                                    |
|  | 1036           | 24.0                                | 0.3                                       | 7.2   | 567   | 11.7                                    |
|  | 1037           | 26.0                                | 0.3                                       | 7.2   | 567   | 11.7                                    |
| March 19, 2002   | 1108           | 0.1                                 | 8.8                                       | 8.2   | 561   | 13.7                                    |
|  | 1110           | 1.0                                 | 8.9                                       | 8.2   | 574   | 13.6                                    |
|  | 1112           | 2.0                                 | 8.9                                       | 8.2   | 583   | 12.8                                    |
|  | 1114           | 3.0                                 | 8.9                                       | 8.2   | 583   | 12.8                                    |
|  | 1116           | 4.0                                 | 8.9                                       | 8.2   | 582   | 12.8                                    |
|  | 1118           | 5.0                                 | 8.9                                       | 8.1   | 583   | 12.7                                    |
|  | 1120           | 6.0                                 | 8.8                                       | 8.1   | 583   | 12.6                                    |
|  | 1122           | 7.0                                 | 8.8                                       | 8.1   | 583   | 12.6                                    |
|  | 1124           | 8.0                                 | 8.8                                       | 8.1   | 584   | 12.6                                    |

**Table 2.** Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and temperature for each sampling site and period for the Sweetwater and Loveland Reservoirs, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below the water surface. m, meter; mg/L, milligram per liter;  $\mu$ S/cm, microsiemens per centimeter; °C, degree Celsius; nd, no data]

| Date               | Time<br>(HHMM) | Sampling<br>depth<br>(m)<br>(00098) | Oxygen,<br>dissolved<br>(mg/L)<br>(00300) | pH, water<br>whole field<br>(standard units)<br>(00400) | Specific<br>conductance<br>( $\mu$ S/cm)<br>(00095) | Water<br>temperature<br>(°C)<br>(00010) |
|--------------------|----------------|-------------------------------------|---|---|---|---|
| March 19, 2002     | 1126           | 9.0                                 | 8.5                                       | 8.0   | 584   | 12.3                                    |
|                    | 1128           | 10.0                                | 7.7                                       | 7.9   | 585   | 12.0                                    |
|                    | 1129           | 12.0                                | 6.5                                       | 7.7   | 585   | 11.6                                    |
|                    | 1130           | 13.0                                | 7.0                                       | 7.8   | 585   | 11.8                                    |
|                    | 1132           | 14.0                                | 6.0                                       | 7.7   | 585   | 11.4                                    |
|                    | 1134           | 16.0                                | 5.6                                       | 7.6   | 584   | 11.2                                    |
|                    | 1136           | 18.0                                | 5.5                                       | 7.6   | 584   | 11.2                                    |
|                    | 1138           | 20.0                                | 5.4                                       | 7.6   | 584   | 11.1                                    |
|                    | 1140           | 22.0                                | 5.4                                       | 7.6   | 584   | 11.1                                    |
|                    | 1142           | 24.0                                | 5.1                                       | 7.5   | 583   | 11.0                                    |
|                    | 1144           | 26.0                                | 4.8                                       | 7.5   | 583   | 10.9                                    |
|                    | 1146           | 27.2                                | 1.9                                       | 7.2   | 582   | 10.8                                    |
| June 12, 2002      | 1113           | 0.1                                 | 10.4                                      | 9.1   | 561   | 23.0                                    |
|                    | 1114           | 1.0                                 | 11.4                                      | 9.2   | 557   | 22.5                                    |
|                    | 1130           | 2.0                                 | 11.0                                      | 9.1   | 552   | 22.4                                    |
|                    | 1115           | 3.0                                 | 10.7                                      | 9.1   | 553   | 22.2                                    |
|                    | 1116           | 4.0                                 | 1.4                                       | 8.0   | 588   | 19.3                                    |
|                    | 1117           | 5.0                                 | 0.8                                       | 7.9   | 592   | 17.7                                    |
|                    | 1118           | 6.0                                 | 0.6                                       | 7.8   | 595   | 16.8                                    |
|                    | 1119           | 7.0                                 | 0.5                                       | 7.7   | 596   | 15.9                                    |
|                    | 1120           | 8.0                                 | 0.4                                       | 7.6   | 597   | 15.2                                    |
|                    | 1121           | 9.0                                 | 0.4                                       | 7.6   | 599   | 14.1                                    |
|                    | 1122           | 10.0                                | 0.3                                       | 7.6   | 600   | 13.3                                    |
|                    | 1123           | 12.0                                | 0.3                                       | 7.6   | 599   | 12.5                                    |
|                    | 1124           | 14.0                                | 0.3                                       | 7.5   | 597   | 12.2                                    |
|                    | 1125           | 16.0                                | 0.2                                       | 7.5   | 596   | 12.1                                    |
|                    | 1126           | 18.0                                | 0.2                                       | 7.5   | 595   | 12.0                                    |
|                    | 1127           | 20.0                                | 0.2                                       | 7.5   | 595   | 11.9                                    |
|                    | 1128           | 22.0                                | 0.1                                       | 7.4   | 594   | 11.9                                    |
|                    | 1129           | 24.0                                | 0.2                                       | 7.5   | 594   | 11.8                                    |
|                    | 1131           | 25.0                                | 0.1                                       | 7.3   | 601   | 11.8                                    |
| September 17, 2002 | 1047           | 0.1                                 | 6.8                                       | 8.7   | 604   | 23.2                                    |
|                    | 1048           | 1.0                                 | 6.9                                       | 8.7   | 602   | 23.2                                    |
|                    | 1049           | 2.0                                 | 6.8                                       | 8.6   | 602   | 23.1                                    |
|                    | 1110           | 3.0                                 | 6.8                                       | 8.6   | 602   | 23.0                                    |
|                    | 1050           | 4.0                                 | 6.8                                       | 8.6   | 602   | 23.0                                    |
|                    | 1051           | 5.0                                 | 6.8                                       | 8.6   | 602   | 23.0                                    |
|                    | 1052           | 6.0                                 | 1.4                                       | 8.2   | 602   | 22.1                                    |
|                    | 1053           | 7.0                                 | 0.4                                       | 7.8   | 601   | 17.0                                    |
|                    | 1054           | 8.0                                 | 0.3                                       | 7.7   | 602   | 15.4                                    |
|                    | 1055           | 9.0                                 | 0.2                                       | 7.7   | 601   | 14.3                                    |
|                    | 1056           | 10.0                                | 0.2                                       | 7.6   | 602   | 13.8                                    |
|                    | 1057           | 12.0                                | 0.1                                       | 7.7   | 598   | 12.9                                    |
|                    | 1058           | 14.0                                | 0.1                                       | 7.6   | 600   | 12.4                                    |
|                    | 1059           | 16.0                                | 0.1                                       | 7.5   | 601   | 12.3                                    |
|                    | 1100           | 18.0                                | 0.1                                       | 7.5   | 601   | 12.2                                    |
|                    | 1101           | 20.0                                | 0.1                                       | 7.5   | 602   | 12.2                                    |
|                    | 1102           | 22.0                                | 0.1                                       | 7.5   | 600   | 12.1                                    |

**Table 2.** Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and temperature for each sampling site and period for the Sweetwater and Loveland Reservoirs, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below the water surface. m, meter; mg/L, milligram per liter;  $\mu$ S/cm, microsiemens per centimeter; °C, degree Celsius; nd, no data]

| Date               | Time<br>(HHMM) | Sampling<br>depth<br>(m)<br>(00098) | Oxygen,<br>dissolved<br>(mg/L)<br>(00300) | pH, water<br>whole field<br>(standard units)<br>(00400) | Specific<br>conductance<br>( $\mu$ S/cm)<br>(00095) | Water<br>temperature<br>(°C)<br>(00010) |
|--------------------|----------------|-------------------------------------|---|---|---|---|
| September 17, 2002 | 1103           | 24.0                                | 0.1                                       | 7.5   | 601   | 12.1                                    |
|                    | 1104           | 26.0                                | 0.1                                       | 7.4   | 602   | 12.0                                    |
| December 12, 2002  | 1129           | 0.1                                 | 5.5                                       | 7.7   | 608   | 13.4                                    |
|                    | 1130           | 1.0                                 | 5.5                                       | 7.7   | 608   | 13.4                                    |
|                    | 1131           | 2.0                                 | 5.2                                       | 7.7   | 608   | 13.0                                    |
|                    | 1132           | 3.0                                 | 5.0                                       | 7.7   | 608   | 13.0                                    |
|                    | 1133           | 4.0                                 | 4.9                                       | 7.7   | 608   | 13.0                                    |
|                    | 1134           | 5.0                                 | 4.9                                       | 7.7   | 608   | 13.0                                    |
|                    | 1135           | 6.0                                 | 4.8                                       | 7.7   | 608   | 13.0                                    |
|                    | 1136           | 7.0                                 | 4.8                                       | 7.7   | 608   | 12.9                                    |
|                    | 1137           | 8.0                                 | 4.7                                       | 7.7   | 608   | 12.9                                    |
|                    | 1138           | 9.0                                 | 4.6                                       | 7.7   | 608   | 12.9                                    |
|                    | 1139           | 10.0                                | 4.6                                       | 7.7   | 608   | 12.9                                    |
|                    | 1140           | 12.0                                | 4.5                                       | 7.7   | 609   | 12.9                                    |
|                    | 1141           | 14.0                                | 4.5                                       | 7.7   | 608   | 12.9                                    |
|                    | 1142           | 16.0                                | 4.4                                       | 7.7   | 608   | 12.9                                    |
|                    | 1143           | 18.0                                | 4.4                                       | 7.7   | 608   | 12.9                                    |
|                    | 1144           | 20.0                                | 4.3                                       | 7.7   | 608   | 12.9                                    |
|                    | 1145           | 22.0                                | 4.2                                       | 7.6   | 608   | 12.9                                    |
|                    | 1146           | 24.0                                | 0.2                                       | 7.3   | 602   | 12.4                                    |
|                    | 1147           | 26.0                                | 0.1                                       | 7.3   | 602   | 12.4                                    |
| February 12, 2003  | 1048           | 0.2                                 | 8.4                                       | 7.9   | 617   | 13.3                                    |
|                    | 1049           | 1.0                                 | 8.2                                       | 7.9   | 618   | 13.3                                    |
|                    | 1050           | 2.0                                 | 8.1                                       | 7.9   | 618   | 13.3                                    |
|                    | 1051           | 3.0                                 | 8.1                                       | 7.9   | 618   | 13.3                                    |
|                    | 1052           | 4.0                                 | 7.9                                       | 7.9   | 619   | 13.1                                    |
|                    | 1053           | 5.0                                 | 7.8                                       | 7.8   | 619   | 12.9                                    |
|                    | 1054           | 6.0                                 | 7.6                                       | 7.8   | 619   | 12.8                                    |
|                    | 1055           | 7.0                                 | 7.5                                       | 7.8   | 619   | 12.7                                    |
|                    | 1056           | 8.0                                 | 7.3                                       | 7.8   | 619   | 12.5                                    |
|                    | 1057           | 9.0                                 | 7.2                                       | 7.8   | 619   | 12.5                                    |
|                    | 1058           | 10.0                                | 7.1                                       | 7.8   | 619   | 12.4                                    |
|                    | 1059           | 12.0                                | 7.1                                       | 7.8   | 618   | 12.3                                    |
|                    | 1100           | 14.0                                | 7.0                                       | 7.8   | 618   | 12.2                                    |
|                    | 1101           | 16.0                                | 5.1                                       | 7.7   | 616   | 12.0                                    |
|                    | 1102           | 18.0                                | 2.7                                       | 7.5   | 616   | 11.8                                    |
|                    | 1103           | 20.0                                | 2.7                                       | 7.5   | 614   | 11.7                                    |
|                    | 1104           | 22.0                                | 2.5                                       | 7.5   | 614   | 11.6                                    |
|                    | 1105           | 24.0                                | 2.4                                       | 7.5   | 614   | 11.6                                    |
|                    | 1106           | 26.0                                | 2.1                                       | 7.4   | 615   | 11.6                                    |
|                    | 1107           | 28.0                                | 1.6                                       | 7.4   | 621   | 11.6                                    |
| April 09, 2003*    | 1201           | 0.1                                 | 11.3                                      | 8.1   | 626   | 17.4                                    |
|                    | 1202           | 1.0                                 | 12.1                                      | 8.2   | 627   | 16.9                                    |
|                    | 1203           | 2.0                                 | 12.3                                      | 8.3   | 628   | 16.7                                    |
|                    | 1204           | 3.0                                 | 12.0                                      | 8.3   | 628   | 16.6                                    |
|                    | 1205           | 4.0                                 | 11.4                                      | 8.2   | 627   | 15.4                                    |
|                    | 1206           | 5.0                                 | 6.3                                       | 8.2   | 628   | 11.0                                    |

**Table 2.** Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and temperature for each sampling site and period for the Sweetwater and Loveland Reservoirs, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below the water surface. m, meter; mg/L, milligram per liter;  $\mu$ S/cm, microsiemens per centimeter; °C, degree Celsius; nd, no data]

| Date            | Time<br>(HHMM) | Sampling<br>depth<br>(m)<br>(00098) | Oxygen,<br>dissolved<br>(mg/L)<br>(00300) | pH, water<br>whole field<br>(standard units)<br>(00400) | Specific<br>conductance<br>( $\mu$ S/cm)<br>(00095) | Water<br>temperature<br>(°C)<br>(00010) |
|-----------------|----------------|-------------------------------------|---|---|---|---|
| June 18, 2003   | 1138           | 0.1                                 | 9.7                                       | 8.0   | 601   | 23.4                                    |
|                 | 1139           | 1.0                                 | 9.3                                       | 8.1   | 601   | 23.4                                    |
|                 | 1040           | 2.0                                 | 9.3                                       | 8.1   | 610   | 23.2                                    |
|                 | 1141           | 3.0                                 | 9.5                                       | 8.1   | 610   | 23.1                                    |
|                 | 1142           | 4.0                                 | 9   | 8.1   | 610   | 23.0                                    |
|                 | 1143           | 5.0                                 | 5.1                                       | 7.8   | 605   | 21.0                                    |
|                 | 1144           | 6.0                                 | 1.9                                       | 7.8   | 585   | 17.8                                    |
|                 | 1145           | 7.0                                 | 1.1                                       | 7.7   | 591   | 16.5                                    |
|                 | 1146           | 8.0                                 | 0.7                                       | 7.7   | 586   | 15.9                                    |
|                 | 1147           | 9.0                                 | 0.5                                       | 7.7   | 585   | 15.4                                    |
|                 | 1148           | 10.0                                | 0.4                                       | 7.7   | 586   | 15.0                                    |
|                 | 1149           | 12.0                                | 0.4                                       | 7.7   | 582   | 14.3                                    |
|                 | 1100           | 14.0                                | 0.4                                       | 7.6   | 584   | 13.8                                    |
|                 | 1150           | 16.0                                | 0.3                                       | 7.6   | 585   | 13.5                                    |
|                 | 1151           | 18.0                                | 0.3                                       | 7.6   | 580   | 13.4                                    |
|                 | 1152           | 20.0                                | 0.3                                       | 7.6   | 584   | 13.3                                    |
|                 | 1153           | 22.0                                | 0.3                                       | 7.6   | 583   | 13.2                                    |
|                 | 1154           | 24.0                                | 0.3                                       | 7.6   | 582   | 13.1                                    |
| August 20, 2003 | 1036           | 0.1                                 | 7.3                                       | 8.4   | 649   | 26.5                                    |
|                 | 1037           | 1.0                                 | 7.5                                       | 8.4   | 653   | 26.3                                    |
|                 | 1038           | 2.0                                 | 7.8                                       | 8.4   | 653   | 26.3                                    |
|                 | 1100           | 3.0                                 | 8.0                                       | 8.3   | 653   | 26.2                                    |
|                 | 1039           | 4.0                                 | 7.8                                       | 8.3   | 653   | 26.2                                    |
|                 | 1040           | 5.0                                 | 8.1                                       | 8.3   | 653   | 26.0                                    |
|                 | 1041           | 6.0                                 | 3.4                                       | 8.1   | 634   | 22.7                                    |
|                 | 1042           | 7.0                                 | 5.0                                       | 8.1   | 618   | 19.0                                    |
|                 | 1043           | 8.0                                 | 3.3                                       | 8.3   | 610   | 17.3                                    |
|                 | 1044           | 9.0                                 | 3.2                                       | 8.1   | 612   | 15.4                                    |
|                 | 1045           | 10.0                                | 1.5                                       | 8.0   | 612   | 15.3                                    |
|                 | 1046           | 12.0                                | 1.4                                       | 8.0   | 608   | 14.4                                    |
|                 | 1047           | 14.0                                | 1.0                                       | 7.9   | 606   | 13.8                                    |
|                 | 1048           | 16.0                                | 0.9                                       | 7.9   | 610   | 13.6                                    |
|                 | 1049           | 18.0                                | 0.8                                       | 7.9   | 610   | 13.5                                    |
|                 | 1050           | 20.0                                | 0.7                                       | 7.9   | 610   | 13.4                                    |
|                 | 1051           | 22.0                                | 0.6                                       | 7.8   | 610   | 13.3                                    |
|                 | 1052           | 24.0                                | 0.4                                       | 7.8   | 611   | 13.1                                    |
|                 | 1053           | 26.0                                | 0.2                                       | 7.7   | 611   | 13.0                                    |

\*Probe malfunctioned at 5 meters; total depth was 24 meters.

**Table 3A.** Volatile organic compounds analyzed in whole-water samples from the Sweetwater Reservoir watershed, San Diego County, California.

[The parameter code is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property; LRL, laboratory reporting level. LRL values are reported as micrograms per liter (µg/L) unless noted]

| Compound                            | Parameter code | LRL  | Compound                                | Parameter code | LRL  |
|-------------------------------------|----------------|------|---|----------------|------|
| 1,1,1,2-Tetrachloroethane           | 77562          | 0.03 | Bromochloromethane                      | 77297          | 0.12 |
| 1,1,1-Trichloroethane               | 34506          | 0.03 | Bromodichloromethane                    | 32101          | 0.05 |
| 1,1,2,2-Tetrachloroethane           | 34516          | 0.09 | Bromoethene                             | 50002          | 0.10 |
| 1,1,2-Trichlorotrifluoroethane      | 77652          | 0.06 | Bromomethane                            | 34413          | 0.30 |
| 1,1,2-Trichloroethane               | 34511          | 0.06 | 2- Butanone                             | 81595          | 5.00 |
| 1,1-Dichloroethane                  | 34496          | 0.04 | <i>n</i> -Butylbenzene                  | 77342          | 0.20 |
| 1,1-Dichloroethylene                | 34501          | 0.04 | sec-Butylbenzene                        | 77350          | 0.06 |
| 1,1-Dichloropropene                 | 77168          | 0.05 | <i>tert</i> -Butylbenzene               | 77353          | 0.10 |
| 1,2,3,4-Tetramethylbenzene          | 49999          | 0.20 | Carbon disulfide                        | 77041          | 0.07 |
| 1,2,3,5-Tetramethylbenzene          | 50000          | 0.20 | Chlorobenzene                           | 34301          | 0.03 |
| 1,2,3-Trichlorobenzene              | 77613          | 0.30 | Chloroethane                            | 34311          | 0.10 |
| 1,2,3-Trichloropropane              | 77443          | 0.16 | Chloromethane                           | 34418          | 0.20 |
| 1,2,3-Trimethylbenzene              | 77221          | 0.10 | Dibromochloromethane                    | 32105          | 0.20 |
| 1,2,4-Trichlorobenzene              | 34551          | 0.10 | Dibromomethane                          | 30217          | 0.05 |
| 1,2,4-Trimethylbenzene              | 77222          | 0.06 | Dichlorodifluoromethane                 | 34668          | 0.18 |
| 1,2-Dibromo-3-chloropropane         | 82625          | 0.50 | Dichloromethane                         | 34423          | 0.20 |
| 1,2-Dibromoethane                   | 77651          | 0.04 | Diethyl ether                           | 81576          | 0.20 |
| 1,2-Dichlorobenzene                 | 34536          | 0.03 | Diisopropyl ether                       | 81577          | 0.10 |
| 1,2-Dichloroethane                  | 32103          | 0.10 | Ethylbenzene                            | 34371          | 0.03 |
| <i>cis</i> -1,2-Dichloroethylene    | 77093          | 0.04 | Ethyl <i>tert</i> -butyl ether          | 50004          | 0.05 |
| <i>trans</i> -1,2-Dichloroethylene  | 34546          | 0.03 | Ethyl methacrylate                      | 73570          | 0.20 |
| 1,2-Dichloropropane                 | 34541          | 0.03 | <i>o</i> -Ethyl toluene                 | 77220          | 0.06 |
| 1,3,5-Trimethylbenzene              | 77226          | 0.04 | Hexachlorobutadiene                     | 39702          | 0.10 |
| 1,3-Dichlorobenzene                 | 34566          | 0.03 | Hexachloroethane                        | 34396          | 0.20 |
| <i>trans</i> -1,4-Dichloro-2-butene | 73547          | 0.70 | 2-Hexanone                              | 77103          | 0.70 |
| 1,3-Dichloropropane                 | 77173          | 0.10 | Isopropylbenzene                        | 77223          | 0.06 |
| <i>cis</i> -1,3-Dichloropropene     | 34704          | 0.09 | Methyl acrylonitrile                    | 81593          | 0.60 |
| <i>trans</i> -1,3-Dichloropropene   | 34699          | 0.09 | Methyl acrylate                         | 49991          | 2.00 |
| 1,4-Dichlorobenzene                 | 34571          | 0.05 | Methyl iodide                           | 77424          | 0.35 |
| 2,2-Dichloropropane                 | 77170          | 0.05 | Methyl methacrylate                     | 81597          | 0.30 |
| 2-Chlorotoluene                     | 77275          | 0.04 | Methyl <i>tert</i> - butyl ether (MTBE) | 78032          | 0.20 |
| 3-Chloropropene                     | 78109          | 0.12 | Naphthalene                             | 34696          | 0.50 |
| 4-Chlorotoluene                     | 77277          | 0.05 | <i>tert</i> - Pentyl methyl ether       | 50005          | 0.08 |
| 4-Isopropyl-1-methylbenzene         | 77356          | 0.12 | <i>n</i> -Propylbenzene                 | 77224          | 0.04 |
| 4-Methyl-2-pentanone                | 78133          | 0.40 | Styrene                                 | 77128          | 0.04 |
| Acetone                             | 81552          | 7    | Tetrachloroethylene                     | 34475          | 0.03 |
| Acrylonitrile                       | 34215          | 1.00 | Tetrachloromethane                      | 32102          | 0.06 |
| Benzene                             | 34030          | 0.04 | Tetrahydrofuran                         | 81607          | 2.00 |
| Bromobenzene                        | 81555          | 0.04 | Toluene                                 | 34010          | 0.05 |

**Table 3A.** Volatile organic compounds analyzed in whole-water samples from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[The parameter code is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property; LRL, laboratory reporting level. LRL values are reported as micrograms per liter (µg/L) unless noted]

| Compound                                  | Parameter code | LRL     |
|---|----------------|---------|
| Tribromomethane                           | 32104          | 0.10    |
| Trichloroethylene                         | 39108          | 0.04    |
| Trichlorofluoromethane                    | 34488          | 0.09    |
| Trichloromethane (chloroform)             | 32106          | 0.20    |
| Vinyl chloride                            | 39175          | 0.10    |
| <i>m</i> - and <i>p</i> -Xylene           | 85795          | 0.06    |
| <i>o</i> -Xylene                          | 77135          | 0.07    |
| 1,4-Bromofluorobenzene, surrogate         | 99834          | percent |
| 1,2-Dichloroethane- <i>d</i> 4, surrogate | 99832          | percent |
| Toluene- <i>d</i> 8, surrogate            | 99833          | percent |

**Table 3B.** Analytical results for volatile organic compounds detected in whole-water samples from the Sweetwater Reservoir watershed, San Diego County, California.

[See [table 1](#) for site identification number. Time is denoted in 24-hour format. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. —, compound was not detected at a concentration above laboratory reporting level. LRL, laboratory reporting level; E, estimated value; na, not applicable; SWR, Sweetwater Reservoir. Concentrations are given in micrograms per liter (µg/L) unless noted. \*, quality control blank detection indicates that concentration is suspect]

| Site name   | Date       | Time | Sampling depth (00098) | <i>cis</i> -1,2-Dichloro-ethylene (77093) [0.04] | 1,2-Dichloro-propane (34541) [0.03] | Acetone (81552) [7] | Benzene (34030) [0.04] | Bromo-chloro-methane (77297) [0.12] | Bromo-dichloro-methane (32101) [0.05] | Carbon disulfide (77041) [0.07] | Chloro-benzene (34301) [0.03] | Chloro-ethane (34311) [0.12] |
|---|------------|------|------------------------|--|-------------------------------------|---------------------|------------------------|-------------------------------------|---------------------------------------|---------------------------------|-------------------------------|------------------------------|
| Sweetwater Reservoir near pump tower (SWR01)                  | 12/10/2001 | 1120 | 3.0                    | —  | —                                   | —                   | E0.01                  | —                                   | 0.40                                  | —                               | —                             | —                            |
|   | 3/20/2002  | 1000 | 4.0                    | —  | —                                   | —                   | —                      | —                                   | 0.20                                  | —                               | —                             | —                            |
|   | 6/11/2002  | 0930 | 4.0                    | —  | —                                   | —                   | —                      | —                                   | 2.07                                  | —                               | —                             | —                            |
|   | 9/17/2002  | 1000 | 2.0                    | —  | —                                   | —                   | —                      | —                                   | 0.46                                  | —                               | —                             | —                            |
|   | 12/11/2002 | 1120 | 4.0                    | —  | —                                   | —                   | —                      | —                                   | 0.19                                  | —                               | —                             | —                            |
|   | 2/14/2003  | 1130 | 5.0                    | —  | —                                   | —                   | —                      | —                                   | 1.03                                  | —                               | —                             | —                            |
|   | 4/8/2003   | 1100 | 6.0                    | —  | —                                   | E2                  | —                      | —                                   | E0.10                                 | —                               | —                             | —                            |
|   | 6/17/2003  | 1130 | 2.0                    | —  | —                                   | —                   | —                      | —                                   | 0.11                                  | —                               | —                             | —                            |
|   | 6/17/2003  | 1140 | 8.0                    | —  | —                                   | —                   | —                      | —                                   | 0.20                                  | —                               | —                             | —                            |
|   | 8/19/2003  | 1130 | 2.0                    | —  | —                                   | —                   | —                      | —                                   | 0.18                                  | E0.09                           | —                             | —                            |
| Sweetwater Reservoir center of minimum pool (SWR03)           | 8/19/2003  | 1150 | 8.0                    | —  | —                                   | —                   | —                      | —                                   | E0.02                                 | 0.26                            | —                             | —                            |
|   | 12/10/2001 | 1150 | 3.0                    | —  | —                                   | —                   | —                      | —                                   | 0.11                                  | —                               | —                             | —                            |
|   | 3/20/2002  | 1030 | 5.0                    | —  | —                                   | —                   | —                      | —                                   | 0.15*                                 | —                               | —                             | —                            |
|   | 6/11/2002  | 1010 | 5.0                    | —  | —                                   | —                   | —                      | —                                   | E0.05                                 | —                               | —                             | —                            |
|   | 9/17/2002  | 1030 | 3.0                    | —  | —                                   | —                   | —                      | —                                   | E0.06                                 | —                               | —                             | —                            |
|   | 12/11/2002 | 1150 | 4.0                    | —  | —                                   | —                   | —                      | —                                   | 0.10                                  | —                               | —                             | —                            |
|   | 2/14/2003  | 1220 | 5.0                    | —  | —                                   | —                   | —                      | —                                   | 0.12                                  | —                               | —                             | —                            |
|   | 4/8/2003   | 1200 | 6.0                    | —  | —                                   | —                   | —                      | —                                   | 0.12                                  | —                               | —                             | —                            |
|   | 6/17/2003  | 1200 | 8.0                    | —  | —                                   | —                   | —                      | E0.03                               | 0.16                                  | —                               | —                             | —                            |
|   | 6/17/2003  | 1210 | 2.0                    | —  | —                                   | —                   | —                      | —                                   | 0.11                                  | —                               | —                             | —                            |
| Sweetwater Reservoir east end reservoir fill boundary (SWR06) | 8/19/2003  | 1230 | 2.0                    | —  | —                                   | —                   | —                      | —                                   | E0.09                                 | —                               | —                             | —                            |
|   | 8/19/2003  | 1250 | 8.0                    | —  | —                                   | —                   | —                      | —                                   | —                                     | E0.08                           | —                             | —                            |
|   | 12/10/2001 | 1220 | 1.0                    | —  | —                                   | —                   | E0.01                  | —                                   | E0.05                                 | —                               | —                             | —                            |
|   | 3/20/2002  | 1050 | 0.5                    | —  | —                                   | —                   | —                      | —                                   | 0.14                                  | —                               | —                             | —                            |
|   | 6/11/2002  | 1040 | 1.0                    | —  | —                                   | —                   | —                      | —                                   | —                                     | —                               | —                             | —                            |
|   | 9/17/2002  | 1100 | 0.5                    | —  | —                                   | —                   | —                      | —                                   | E0.06                                 | —                               | —                             | —                            |
|   | 12/11/2002 | 1210 | 0.5                    | —  | —                                   | —                   | —                      | —                                   | E0.07                                 | —                               | —                             | —                            |
|   | 2/14/2003  | 1240 | 0.1                    | —  | —                                   | E1                  | —                      | —                                   | E0.08                                 | —                               | —                             | —                            |
|   | 4/8/2003   | 1240 | 0.5                    | —  | —                                   | E2                  | —                      | —                                   | E0.08                                 | E0.02                           | —                             | —                            |
|   | 6/17/2003  | 1240 | 1.0                    | —  | —                                   | —                   | —                      | —                                   | E0.05                                 | E0.04                           | —                             | —                            |
|   | 8/19/2003  | 1320 | 0.1                    | —  | —                                   | —                   | —                      | —                                   | E0.04                                 | E0.03                           | —                             | —                            |



**Table 3B.** Analytical results for volatile organic compounds detected in whole-water samples from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See [table 1](#) for site identification number. Time is denoted in 24-hour format. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. —, compound was not detected at a concentration above laboratory reporting level. LRL, laboratory reporting level; E, estimated value; na, not applicable; SWR, Sweetwater Reservoir. Concentrations are given in micrograms per liter (µg/L) unless noted. \*, quality control blank detection indicates that concentration is suspect]

| Site name   | Date       | Time | Sampling depth (00098) | <i>cis</i> -1,2-Dichloro-ethylene (77093) [0.04] | 1,2-Dichloro-propane (34541) [0.03] | Acetone (81552) [7] | Benzene (34030) [0.04] | Bromo-chloro-methane (77297) [0.12] | Bromo-dichloro-methane (32101) [0.05] | Carbon disulfide (77041) [0.07] | Chloro-benzene (34301) [0.03] | Chloro-ethane (34311) [0.12] |
|---|------------|------|------------------------|--|-------------------------------------|---------------------|------------------------|-------------------------------------|---------------------------------------|---------------------------------|-------------------------------|------------------------------|
| Loveland reservoir near dam (LLR01)                         | 12/11/2001 | 1030 | 12                     | —  | —                                   | —                   | —                      | —                                   | —                                     | —                               | —                             | —                            |
|   | 3/19/2002  | 1130 | 13                     | —  | —                                   | —                   | —                      | —                                   | —                                     | —                               | —                             | —                            |
|   | 6/12/2002  | 1120 | 8.0                    | —  | —                                   | —                   | —                      | —                                   | —                                     | —                               | —                             | —                            |
|   | 6/12/2002  | 1130 | 2.0                    | —  | —                                   | —                   | —                      | —                                   | —                                     | E0.02                           | —                             | —                            |
|   | 9/18/2002  | 1100 | 18                     | —  | —                                   | —                   | —                      | —                                   | —                                     | —                               | —                             | —                            |
|   | 9/18/2002  | 1110 | 3.0                    | —  | —                                   | —                   | —                      | —                                   | —                                     | —                               | —                             | —                            |
|   | 12/12/2002 | 1140 | 12                     | —  | —                                   | —                   | —                      | —                                   | —                                     | —                               | —                             | —                            |
|   | 2/12/2003  | 1100 | 14                     | —  | —                                   | —                   | —                      | —                                   | —                                     | —                               | —                             | —                            |
|   | 4/9/2003   | 1200 | 18                     | —  | —                                   | —                   | —                      | —                                   | —                                     | —                               | —                             | —                            |
|   | 4/9/2003   | 1220 | 6.0                    | —  | —                                   | —                   | —                      | —                                   | —                                     | —                               | —                             | —                            |
|   | 6/18/2003  | 1040 | 2.0                    | —  | —                                   | —                   | —                      | —                                   | —                                     | —                               | —                             | —                            |
|   | 6/18/2003  | 1100 | 14                     | —  | —                                   | —                   | —                      | —                                   | —                                     | —                               | —                             | —                            |
| Sweetwater River at low-flow diversion dam above SWR (LFDD) | 8/20/2003  | 1050 | 20                     | —  | —                                   | —                   | E0.02                  | —                                   | —                                     | E0.09                           | —                             | —                            |
|   | 8/20/2003  | 1100 | 3.0                    | —  | —                                   | —                   | —                      | —                                   | —                                     | —                               | —                             | —                            |
|   | 12/10/2001 | 1420 | 0.1                    | E0.04  | —                                   | —                   | —                      | —                                   | —                                     | E0.02                           | —                             | —                            |
|   | 3/20/2002  | 1200 | 0.1                    | E0.03  | —                                   | —                   | —                      | —                                   | —                                     | E0.03                           | —                             | —                            |
|   | 6/11/2002  | 1340 | 0.1                    | E0.02  | E0.02                               | —                   | —                      | —                                   | —                                     | E0.05                           | —                             | —                            |
|   | 9/17/2002  | 1330 | 0.1                    | —  | —                                   | —                   | —                      | —                                   | —                                     | —                               | —                             | —                            |
|   | 12/12/2002 | 1020 | 0.1                    | E0.04  | —                                   | —                   | —                      | —                                   | —                                     | E0.02                           | —                             | —                            |
|   | 2/11/2003  | 1440 | 0.1                    | E0.04  | —                                   | —                   | —                      | —                                   | —                                     | E0.08                           | —                             | —                            |
|   | 4/9/2003   | 1530 | 0.1                    | E0.03  | —                                   | —                   | —                      | —                                   | —                                     | E0.04                           | —                             | —                            |
|   | 6/18/2003  | 1400 | 0.1                    | E0.03  | —                                   | —                   | —                      | —                                   | —                                     | E0.05                           | —                             | —                            |
|   | 8/20/2003  | 1400 | 0.1                    | E0.01  | —                                   | —                   | —                      | —                                   | —                                     | 0.11                            | —                             | —                            |
|   | 12/10/2001 | 1400 | nd                     | —  | —                                   | —                   | —                      | —                                   | 14.5                                  | 0.02                            | —                             | —                            |
| Perdue Treatment Plant- finished water at SWR (SWR08)       | 3/20/2002  | 1100 | nd                     | —  | —                                   | —                   | —                      | —                                   | 21.3                                  | —                               | —                             | —                            |
|   | 6/11/2002  | 1230 | nd                     | —  | —                                   | —                   | —                      | —                                   | 18.4                                  | —                               | —                             | E0.1                         |
|   | 9/17/2002  | 1130 | nd                     | —  | —                                   | —                   | —                      | —                                   | 17.7                                  | E0.04                           | —                             | —                            |
|   | 12/11/2002 | 1400 | nd                     | —  | —                                   | E4                  | —                      | —                                   | 9.78                                  | —                               | —                             | —                            |
|   | 2/11/2003  | 1440 | nd                     | —  | —                                   | E6                  | E0.02                  | —                                   | 7.08                                  | —                               | E0.02                         | —                            |
|   | 4/9/2003   | 840  | nd                     | —  | —                                   | E6                  | —                      | —                                   | 7.34                                  | —                               | —                             | —                            |
|   | 6/17/2003  | 1550 | nd                     | —  | —                                   | 12                  | —                      | —                                   | 28.3                                  | —                               | —                             | —                            |
|   | 8/20/2003  | 1430 | nd                     | —  | —                                   | 13                  | —                      | E0.04                               | 29.4                                  | 0.15                            | —                             | E0.1                         |

**Table 3B.** Analytical results for volatile organic compounds detected in whole-water samples from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See [table 1](#) for site identification number. Time is denoted in 24-hour format. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. —, compound was not detected at a concentration above laboratory reporting level. LRL, laboratory reporting level; E, estimated value; na, not applicable; SWR, Sweetwater Reservoir. Concentrations are given in micrograms per liter (µg/L) unless noted. \*, quality control blank detection indicates that concentration is suspect]

[illegible]

**Table 4A.** Polycyclic aromatic hydrocarbon compounds analyzed in whole-water samples from the Sweetwater Reservoir watershed, San Diego County, California.

[The parameter code is used in the U.S. Geological Survey (USGS) computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Laboratory reporting level (LRL) values are reported as micrograms per liter unless noted]

| Compound                         | Parameter code | LRL   | Compound                                   | Parameter code | LRL     |
|----------------------------------|----------------|-------|--|----------------|---------|
| Acenaphthene                     | 34205          | 0.28  | 2,4-Dinitrotoluene                         | 34611          | 0.43    |
| Acenaphthylene                   | 34200          | 0.30  | 2,6-Dinitrotoluene                         | 34626          | 0.43    |
| Anthracene                       | 34220          | 0.39  | 1,2-Diphenylhydrazine                      | 82626          | 0.30    |
| Benzidine                        | 39120          | 1,000 | Fluoranthene                               | 34376          | 0.30    |
| Benz[ <i>a</i> ]anthracene       | 34526          | 0.26  | Fluorene                                   | 34381          | 0.33    |
| Benzo[ <i>a</i> ]pyrene          | 34247          | 0.33  | Hexachlorobenzene                          | 39700          | 0.30    |
| Benzo[ <i>b</i> ]fluoranthene    | 34230          | 0.40  | Hexachlorobutadiene                        | 39702          | 0.46    |
| Benzo[ <i>ghi</i> ]perylene      | 34521          | 0.64  | Hexachlorocyclopentadiene                  | 34386          | 0.52    |
| Benzo[ <i>k</i> ]fluoranthene    | 34242          | 0.45  | Hexachloroethane                           | 34396          | 0.66    |
| Benzyl <i>n</i> -butyl phthalate | 34292          | 1.26  | Indeno[1,2,3- <i>cd</i> ]pyrene            | 34403          | 0.56    |
| 4-Bromophenyl phenyl ether       | 34636          | 0.36  | Isophorone                                 | 34408          | 0.60    |
| bis(2-Chloroethoxy)methane       | 34278          | 0.35  | 2-Methyl-4,6-dinitrophenol                 | 34657          | 0.77    |
| bis(2-Chloroethyl) ether         | 34273          | 0.30  | Naphthalene                                | 34696          | 0.32    |
| bis(2-Chloroisopropyl) ether     | 34283          | 0.38  | Nitrobenzene                               | 34447          | 0.21    |
| 4-Chloro-3-methylphenol          | 34452          | 0.55  | 2-Nitrophenol                              | 34591          | 0.30    |
| 2-Chloronaphthalene              | 34581          | 0.38  | 4-Nitrophenol                              | 34646          | 0.51    |
| 2-Chlorophenol                   | 34586          | 0.42  | <i>N</i> -Nitrosodimethylamine             | 34438          | 0.33    |
| 4-Chlorophenyl phenyl ether      | 34641          | 0.34  | <i>N</i> -Nitrosodi- <i>n</i> -propylamine | 34428          | 0.82    |
| Chrysene                         | 34320          | 0.33  | <i>N</i> -Nitrosodiphenylamine             | 34433          | 0.81    |
| bis(2-Ethylhexyl) phthalate      | 39100          | 1.05  | Pentachlorophenol                          | 39032          | 0.87    |
| Dibenz[ <i>a,h</i> ]anthracene   | 34556          | 0.70  | Phenanthrene                               | 34461          | 0.32    |
| 1,2-Dichlorobenzene              | 34536          | 0.49  | Phenol                                     | 34694          | 0.44    |
| 1,3-Dichlorobenzene              | 34566          | 0.57  | Pyrene                                     | 34469          | 0.35    |
| 1,4-Dichlorobenzene              | 34571          | 0.53  | 1,2,4-Trichlorobenzene                     | 34551          | 0.41    |
| 3,3'-Dichlorobenzidine           | 34631          | 0.65  | 2,4,6-Trichlorophenol                      | 34621          | 0.31    |
| 2,4-Dichlorophenol               | 34601          | 0.39  | 2-Fluorophenol, surrogate                  | L2325          | percent |
| Diethyl phthalate                | 34336          | 0.61  | 2-Fluorobiphenyl, surrogate                | 49279          | percent |
| 2,4-Dimethylphenol               | 34606          | 0.37  | Nitrobenzene- <i>d</i> 5, surrogate        | 49280          | percent |
| Dimethyl phthalate               | 34341          | 0.59  | Phenol- <i>d</i> 5, surrogate              | 90630          | percent |
| Di- <i>n</i> -butyl phthalate    | 39110          | 0.87  | Terphenyl- <i>d</i> 14, surrogate          | 49278          | percent |
| Di- <i>n</i> -octyl phthalate    | 34596          | 1.86  | 2,4,6-Tribromophenol, surrogate            | 90652          | percent |
| 2,4-Dinitrophenol                | 34616          | 0.80  |  |                |         |

**Table 4B.** Analytical results for polycyclic aromatic hydrocarbon concentrations in whole-water samples from the Sweetwater Reservoir watershed, San Diego County, California.

[See [table 1](#) for site identification number. Time is denoted in 24-hour scale. The five digit number in parentheses below the compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. —, compound was not detected at a concentration above laboratory reporting level. LRL, laboratory reporting level; E, estimated value; na, not applicable. Concentrations are reported as micrograms per liter (µg/L) unless noted]

| Site name  | Date      | Time | Sampling depth (00098) (meter) | bis (2-Ethyl-hexyl) phthalate (39100) | Fluor-anthene (34376) | Phen-anthrene (34461) | Phenol (34694) | Pyrene (34469) |
|--|-----------|------|--------------------------------|---------------------------------------|-----------------------|-----------------------|----------------|----------------|
| [LRL]  |           |      |                                | [1.05]                                | [0.30]                | [0.32]                | [0.44]         | [0.35]         |
| Sweetwater Reservoir near pump tower (SWR01)                                 | 6/17/2003 | 1130 | 2.0                            | —                                     | —                     | —                     | E0.2           | —              |
|  | 8/19/2003 | 1130 | 2.0                            | E1.0                                  | —                     | —                     | E0.3           | —              |
| Sweetwater Reservoir center of minimum pool (SWR03)                          | 6/17/2003 | 1210 | 2.0                            | —                                     | E0.2                  | E0.01                 | E0.3           | E0.1           |
|  | 8/19/2003 | 1230 | 2.0                            | —                                     | —                     | —                     | —              | —              |
| Perdue Treatment Plant—finished water at Sweetwater Reservoir (SWR08)        | 6/17/2003 | 1550 | na                             | —                                     | —                     | —                     | —              | —              |
|  | 8/20/2003 | 1430 | na                             | —                                     | —                     | —                     | —              | —              |
| Sweetwater River at low-flow diversion dam above Sweetwater Reservoir (LFDD) | 6/18/2003 | 1400 | 0.1                            | E1.1                                  | —                     | —                     | E0.3           | —              |
|  | 8/20/2003 | 1400 | 0.1                            | —                                     | —                     | —                     | E1.5           | —              |
| Loveland Reservoir near dam (LLR01)  | 6/18/2003 | 1040 | 2.0                            | E2.2                                  | —                     | —                     | —              | —              |
|  | 8/20/2003 | 1100 | 3.0                            | —                                     | —                     | —                     | E1.6           | —              |

| Site name  | Date      | 2,4,6-Trichloro-phenol (34621) | 2-Fluoro-phenyl, surrogate (L2325) (percent) | 2-Fluoro-biphenyl, surrogate (49279) (percent) | Nitro-benzene- <i>d</i> 5, surrogate (49280) (percent) | Phenol- <i>d</i> 5, surrogate (90630) (percent) | Terphenyl- <i>d</i> 14, surrogate (49278) (percent) | 2,4,6-Tribromo-mophenol, surrogate (90652) (percent) |
|--|-----------|--------------------------------|--|--|--|---|---|--|
| [LRL]  |           | [0.31]                         |  |  |  |   |   |  |
| Sweetwater Reservoir near pump tower (SWR01)                                 | 6/17/2003 | —                              | 41.6   | 94.0   | 97.1   | 29.2  | 48.7  | 84.9   |
|  | 8/19/2003 | —                              | 64.0   | 80.9   | 83.6   | 48.9  | 27.6  | 75.8   |
| Sweetwater Reservoir center of minimum pool (SWR03)                          | 6/17/2003 | —                              | 66.3   | 89.5   | 94.1   | 55.0  | 40.7  | 79.3   |
|  | 8/19/2003 | —                              | 58.3   | 77.2   | 84.7   | 48.1  | 22.4  | 67.1   |
| Perdue Treatment Plant—finished water at Sweetwater Reservoir (SWR08)        | 6/17/2003 | E0.4                           | 2.2  | 91.2   | 93.9   | 0.9   | 39.6  | 109  |
|  | 8/20/2003 | —                              | 2.5  | 89.2   | 87.8   | 1.3   | 39.9  | 125  |
| Sweetwater River at low-flow diversion dam above Sweetwater Reservoir (LFDD) | 6/18/2003 | —                              | 76.9   | 91.7   | 96.4   | 58.0  | 40.3  | 94.8   |
|  | 8/20/2003 | —                              | 79.7   | 84.7   | 88.3   | 57.9  | 35.1  | 85.0   |
| Loveland Reservoir near dam (LLR01)  | 6/18/2003 | —                              | 74.6   | 93.2   | 97.5   | 53.7  | 58.9  | 97.0   |
|  | 8/20/2003 | —                              | 87.0   | 95.6   | 98.2   | 67.3  | 35.6  | 99.2   |

**Table 5A.** Pesticide compounds analyzed in filtered-water samples, using U.S. Geological Survey's National Water Quality Laboratory schedule 2001, from the Sweetwater Reservoir watershed, San Diego County, California.

The parameter code is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. LRL, laboratory reporting level; LRL values reported as micrograms per liter unless noted]

| Compound           | Parameter code | LRL   | Compound                             | Parameter code | LRL     |
|--------------------|----------------|-------|--------------------------------------|----------------|---------|
| Acetochlor         | 49260          | 0.006 | Metolachlor                          | 39415          | 0.013   |
| Alachlor           | 46342          | 0.004 | Metribuzin                           | 82630          | 0.006   |
| Atrazine           | 39632          | 0.007 | Molinate                             | 82671          | 0.002   |
| Azinphos-methyl    | 82686          | 0.005 | Napropamide                          | 82684          | 0.007   |
| Benfluralin        | 82673          | 0.010 | Parathion                            | 39542          | 0.010   |
| Butylate           | 04028          | 0.002 | Parathion-methyl                     | 82667          | 0.006   |
| Carbaryl           | 82680          | 0.041 | Pebulate                             | 82669          | 0.004   |
| Carbofuran         | 82674          | 0.020 | Pendimethalin                        | 82683          | 0.022   |
| Chlorpyrifos       | 38933          | 0.005 | <i>cis</i> - Permethrin              | 82687          | 0.006   |
| Cyanazine          | 04041          | 0.018 | Phorate                              | 82664          | 0.011   |
| Dacthal (DCPA)     | 82682          | 0.003 | Prometon                             | 04037          | 0.010   |
| <i>p,p'</i> -DDE   | 34653          | 0.003 | Propachlor                           | 04024          | 0.010   |
| Deethylatrazine    | 04040          | 0.006 | Propanil                             | 82679          | 0.011   |
| Diazinon           | 39572          | 0.005 | Propargite                           | 82685          | 0.020   |
| Dieldrin           | 39381          | 0.005 | Pronyzamide                          | 82676          | 0.004   |
| 2,6-Diethylaniline | 82660          | 0.006 | Simazine                             | 04035          | 0.005   |
| Disulfoton         | 82677          | 0.020 | Tebuthiuron                          | 82670          | 0.020   |
| EPTC               | 82668          | 0.002 | Terbacil                             | 82665          | 0.034   |
| Ethalfuralin       | 82663          | 0.009 | Terbufos                             | 82675          | 0.020   |
| Ethoprophos        | 82672          | 0.005 | Thiobencarb                          | 82681          | 0.005   |
| Fonofos            | 04095          | 0.003 | Tri-allate                           | 82678          | 0.002   |
| $\alpha$ -HCH      | 34253          | 0.005 | Trifluralin                          | 82661          | 0.009   |
| Lindane            | 39341          | 0.004 | Diazinon- <i>d</i> 10, surrogate     | 91063          | percent |
| Linuron            | 82666          | 0.035 | $\alpha$ -HCH- <i>d</i> 6, surrogate | 91065          | percent |
| Malathion          | 39532          | 0.027 |                                      |                |         |







**Table 6A.** Pesticide compounds analyzed in filtered-water samples, using U.S. Geological Survey's National Water Quality Laboratory schedule 2002, from the Sweetwater Reservoir watershed, San Diego County, California.

[The parameter code is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. LRL, laboratory reporting level; LRL values reported as micrograms per liter (µg/L) unless noted]

| Compound                                      | Parameter code | LRL   | Compound   | Parameter code | LRL     |
|---|----------------|-------|--|----------------|---------|
| 2-Amino- <i>N</i> -isopropylbenzamide         | 61617          | 0.005 | Fonofos oxygen analog  | 61649          | 0.002   |
| Azinphos-methyl-oxon                          | 61635          | 0.016 | Iprodione  | 61593          | 1.42    |
| Bifenthrin                                    | 61580          | 0.005 | Isofenphos   | 61594          | 0.003   |
| 2-(4- <i>tert</i> -Butylphenoxy)cyclo-hexanol | 61637          | 0.011 | Hexazinone   | 04025          | 0.009   |
| 2-Chloro-2,6-diethylacetanilide               | 61618          | 0.005 | Malaoxon   | 61652          | 0.008   |
| 4-Chloro-2-methyl phenol                      | 61633          | 0.006 | Metalaxyl  | 61596          | 0.005   |
| Chlorpyrifos, oxygen analog                   | 61636          | 0.056 | Methidathion   | 61598          | 0.006   |
| Cycloate                                      | 04031          | 0.005 | <i>c</i> -Methyl-3-(2,2-dichlorovinyl)-2,2-dimethyl-(1-cyclopropane)-carboxylate | 79842          | 0.008   |
| Cyfluthrin                                    | 61585          | 0.008 | <i>t</i> -Methyl-3-(2,2-dichlorovinyl)-2,2-dimethyl-(1-cyclopropane)-carboxylate | 79843          | 0.013   |
| λ-Cyhalothrin                                 | 61595          | 0.009 | Myclobutanil   | 61599          | 0.008   |
| Cypermethrin                                  | 61586          | 0.009 | 1,4-Naphthoquinone   | 61611          | 0.051   |
| 2,5-Dichloroaniline                           | 61614          | 0.026 | 1-Naphthol   | 49295          | 0.088   |
| 3,4-Dichloroaniline                           | 61625          | 0.008 | Oxyfluorfen  | 61600          | 0.007   |
| 3,5-Dichloroaniline                           | 61627          | 0.005 | Paraoxon-ethyl   | 61663          | 0.008   |
| 4,4'-Dichlorobenzophenone                     | 61631          | 0.003 | Paraoxon-methyl  | 61664          | 0.030   |
| Dichlorvos                                    | 38775          | 0.012 | Pendimethalin  | 61665          | 0.143   |
| Dicrotophos                                   | 38454          | 0.084 | Phorate oxon   | 61666          | 0.097   |
| Dimethoate                                    | 82662          | 0.006 | Phosmet  | 61601          | 0.008   |
| <i>E</i> -Dimethomorph                        | 79844          | 0.020 | Phosmet oxon   | 61668          | 0.055   |
| <i>Z</i> -Dimethomorph                        | 79845          | 0.046 | Profenofos   | 61603          | 0.006   |
| Disulfoton sulfone                            | 61640          | 0.016 | Prometryn  | 04036          | 0.006   |
| Disulfoton sulfoxide                          | 61641          | 0.002 | <i>cis</i> -Propiconazole  | 79846          | 0.008   |
| Endosulfan ether                              | 61642          | 0.004 | <i>trans</i> -Propiconazole  | 79847          | 0.013   |
| α-Endosulfan                                  | 34362          | 0.005 | Sulfotepp  | 61605          | 0.003   |
| β-Endosulfan                                  | 34357          | 0.014 | Sulprofos  | 38716          | 0.024   |
| Endosulfan sulfate                            | 61590          | 0.006 | Tebupirimphos  | 61602          | 0.006   |
| Ethion  | 82346          | 0.004 | Tebupirimphos oxygen analog  | 61669          | 0.006   |
| Ethion monoxon                                | 61644          | 0.034 | Telfluthrin  | 61606          | 0.008   |
| Ethoprop metabolite                           | 61660          | 0.008 | Temephos   | 61607          | 0.267   |
| 2-Ethyl 6-methylaniline                       | 61620          | 0.005 | Tribufos   | 61610          | 0.004   |
| 2-[(2-Ethyl-6-methylphenyl)amino]-1-propanol  | 61615          | 0.126 | Terbufos sulfone   | 61674          | 0.068   |
| Fenamiphos                                    | 61591          | 0.029 | Terbutylazine  | 04022          | 0.010   |
| Fenamiphos sulfone                            | 61645          | 0.008 | 3-Trifluoromethylaniline   | 61630          | 0.011   |
| Fenamiphos sulfoxide                          | 61646          | 0.031 | Diazinon- <i>d</i> 10 surrogate  | 99223          | Percent |
| Fenthion                                      | 38801          | 0.015 | α-HCH- <i>d</i> 6 surrogate  | 99224          | Percent |
| Fenthion sulfoxide                            | 61647          | 0.008 |  |                |         |
| Flumetralin                                   | 61592          | 0.004 |  |                |         |

**Table 6B.** Analytical results for pesticide compounds detected in filtered-water samples, using U.S. Geological Survey's National Water Quality Laboratory schedule 2002, from the Sweetwater Reservoir watershed, San Diego County, California.

[See [table 1](#) for site identification number. Time is denoted in 24-hour scale. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. LRL, laboratory reporting level; SWR, Sweetwater Reservoir; E, estimated value; concentrations reported as micrograms per liter (µg/L) unless noted]

| Site name   | Date       | Time | Hexazinone<br>(04025) | Prometryn<br>(04036) | Diazinon-<br>d10,<br>surrogate<br>(percent)<br>(99223) | α-HCH-d6,<br>surrogate<br>(percent)<br>(34230) |
|---|------------|------|-----------------------|----------------------|--|--|
| [LRL]   |            |      | [0.007]               | [0.041]              |  |  |
| Perdue Treatment Plant - finished water at SWR<br>(SWR08) | 06/11/2002 | 1250 | E 0.009               | E0.003               | 84.8   | 102.8  |

**Table 7A.** Pesticide compounds analyzed in filtered-water samples, using U.S. Geological Survey's National Water Quality Laboratory schedule 2003, from the Sweetwater Reservoir watershed, San Diego County, California.

[The parameter code is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. LRL, laboratory reporting level; LRL values reported as micrograms per liter unless noted]

| Compound                                      | Parameter code | LRL   | Compound                             | Parameter code | LRL     |
|---|----------------|-------|--------------------------------------|----------------|---------|
| Acetochlor                                    | 49260          | 0.006 | Fipronil sulfone                     | 62168          | 0.005   |
| Alachlor                                      | 46342          | 0.004 | Fonofos                              | 04095          | 0.003   |
| Atrazine                                      | 39632          | 0.007 | Fonofos oxygen analog                | 61649          | 0.002   |
| Azinphos-methyl                               | 82686          | 0.05  | Hexazinone                           | 04025          | 0.013   |
| Azinphos-methyl oxygen analog                 | 61635          | 0.02  | Iprodione                            | 61593          | 1.42    |
| Benfluralin                                   | 82673          | 0.10  | Isofenphos                           | 91594          | 0.003   |
| Carbaryl                                      | 82680          | 0.041 | Malaoxon                             | 61652          | 0.008   |
| 2-Chloro-2,6-diethylacetanilide               | 61618          | 0.005 | Malathion                            | 39532          | 0.027   |
| 4-Chloro-2-methylphenol                       | 61633          | 0.006 | Metalaxyl                            | 61596          | 0.005   |
| Chlorpyrifos                                  | 38933          | 0.005 | Methidathion                         | 61598          | 0.006   |
| Chlorpyrifos oxygen analog                    | 61636          | 0.06  | Metolachlor                          | 39415          | 0.013   |
| Cyfluthrin                                    | 61585          | 0.008 | Metribuzin                           | 82630          | 0.006   |
| Cypermethrin                                  | 61586          | 0.009 | Myclobutanil                         | 61599          | 0.008   |
| Dacthal (DCPA)                                | 82682          | 0.003 | 1-Naphthol                           | 49295          | 0.09    |
| Deethylatrazine                               | 04040          | 0.006 | Paraoxon-methyl                      | 61664          | 0.03    |
| Desulfinylfipronil                            | 62170          | 0.004 | Parathion-methyl                     | 82667          | 0.006   |
| Desulfinylfipronil amide                      | 62169          | 0.009 | Pendimethilan                        | 82683          | 0.012   |
| Diazinon                                      | 39572          | 0.005 | <i>cis</i> -Permethrin               | 82687          | 0.006   |
| 3,4-Dichloroaniline                           | 61625          | 0.004 | Phorate                              | 82664          | 0.011   |
| Dichlorvos                                    | 38775          | 0.012 | Phorate oxygen analog                | 61666          | 0.10    |
| Dicrotophos                                   | 38454          | 0.08  | Phosmet                              | 61601          | 0.008   |
| Dieldrin                                      | 39381          | 0.005 | Phosmet oxygen analog                | 61668          | 0.060   |
| 2,6-Diethylaniline                            | 82660          | 0.006 | Prometon                             | 04037          | 0.01    |
| Dimethoate                                    | 82662          | 0.006 | Prometryn                            | 04036          | 0.005   |
| Ethion  | 82346          | 0.004 | Pronamide                            | 82676          | 0.004   |
| Ethion monoxon                                | 61644          | 0.03  | Simazine                             | 04035          | 0.005   |
| 2-Ethyl-6-methylaniline                       | 61620          | 0.004 | Tebuthiuron                          | 82670          | 0.02    |
| 2-[(2-Ethyl-6-methylphenyl)-amino]-1-propanol | 61615          | 0.10  | Terbufos                             | 82675          | 0.02    |
| Fenamiphos                                    | 61591          | 0.03  | Terbufos oxygen analog sulfone       | 61674          | 0.07    |
| Fenamiphos sulfone                            | 61645          | 0.008 | Terbutylazine                        | 04022          | 0.01    |
| Fenamiphos sulfoxide                          | 61646          | 0.03  | Trifluralin                          | 82661          | 0.009   |
| Fipronil                                      | 62166          | 0.007 | Diazinon- <i>d</i> 10, surrogate     | 99994          | percent |
| Fipronil sulfide                              | 62167          | 0.005 | $\alpha$ -HCH- <i>d</i> 6, surrogate | 99995          | percent |

**Table 7B.** Analytical results for pesticide compounds detected in filtered-water samples, using U.S. Geological Survey's National Water Quality Laboratory schedule 2003, from the Sweetwater Reservoir watershed, San Diego County, California.

[See [table 1](#) for site identification number. Time is denoted in 24-hour format. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. LRL, laboratory reporting level; —, compound not detected at a concentration above laboratory reporting level; E, estimated value; SWR, Sweetwater Reservoir; NA, not analyzed; na, not applicable; concentrations reported as micrograms per liter unless noted]

| Site name  | Date       | Time | Sampling depth<br>(00098)<br>(meter) | Atrazine <sup>1</sup><br>(39632) | Carbaryl <sup>1</sup><br>(82680) | Dacthal <sup>1</sup><br>(DCPA)<br>(82682) | Diazinon <sup>1</sup><br>(39572) | 3,4-Di-<br>chloro-<br>aniline<br>(61625) |
|--|------------|------|--------------------------------------|----------------------------------|----------------------------------|---|----------------------------------|--|
| [LRL]  |            |      |                                      | [0.007]                          | [0.041]                          | [0.003]                                   | [0.005]                          | [0.004]                                  |
| Sweetwater Reservoir near pump tower<br>(SWR01)                  | 02/14/2003 | 1130 | 5.0                                  | —                                | —                                | —   | E0.004                           | —  |
|  | 04/08/2003 | 1100 | 6.0                                  | —                                | —                                | —   | 0.008                            | —  |
|  | 06/17/2003 | 1130 | 2.0                                  | —                                | —                                | —   | —                                | —  |
|  | 08/19/2003 | 1130 | 2.0                                  | E0.003                           | —                                | —   | E0.005                           | —  |
|  | 08/19/2003 | 1150 | 8.0                                  | —                                | —                                | —   | —                                | 0.009                                    |
| Sweetwater Reservoir center of minimum pool<br>(SWR03)           | 02/14/2003 | 1220 | 5.0                                  | —                                | —                                | —   | E0.003                           | —  |
|  | 04/08/2003 | 1200 | 6.0                                  | —                                | —                                | —   | 0.006                            | —  |
|  | 06/17/2003 | 1210 | 2.0                                  | —                                | —                                | —   | —                                | —  |
|  | 08/19/2003 | 1230 | 2.0                                  | E0.003                           | —                                | —   | —                                | —  |
|  | 08/19/2003 | 1250 | 8.0                                  | —                                | —                                | —   | E0.003                           | 0.008                                    |
| Sweetwater Reservoir east end reservoir fill<br>boundary (SWR06) | 02/14/2003 | 1240 | 0.1                                  | —                                | E0.003                           | —   | 0.011                            | —  |
|  | 04/08/2003 | 1240 | 0.5                                  | E0.003                           | —                                | —   | 0.006                            | —  |
|  | 08/19/2003 | 1320 | 0.1                                  | —                                | —                                | —   | E0.003                           | E0.003                                   |
| Loveland reservoir near dam (LLR01)                              | 04/9/2003  | 1200 | 18                                   | —                                | —                                | —   | E0.003                           | —  |
|  | 04/9/2003  | 1220 | 6.0                                  | —                                | —                                | —   | —                                | —  |
|  | 06/18/2003 | 1040 | 2.0                                  | —                                | —                                | —   | —                                | —  |
|  | 08/20/2003 | 1050 | 20                                   | —                                | —                                | —   | —                                | 0.007                                    |
|  | 08/20/2003 | 1100 | 3.0                                  | —                                | —                                | —   | —                                | —  |
| Sweetwater River at low-flow diversion dam<br>above SWR (LFDD)   | 04/09/2003 | 1530 | 0.1                                  | —                                | —                                | —   | E0.004                           | —  |
|  | 06/18/2003 | 1400 | 0.1                                  | —                                | —                                | —   | —                                | —  |
|  | 08/20/2003 | 1400 | 0.1                                  | —                                | —                                | —   | —                                | 0.012                                    |
| Perdue Treatment Plant—finished water at SWR<br>(SWR08)          | 04/09/2003 | 0840 | na                                   | E0.005                           | —                                | E.002                                     | —                                | —  |
|  | 06/17/2003 | 1550 | na                                   | —                                | —                                | —   | —                                | —  |
|  | 08/20/2003 | 1430 | na                                   | E0.003                           | —                                | —   | —                                | —  |
| Perdue Treatment Plant—imported raw water at<br>SWR (SWR09)      | 04/09/2003 | 0820 | na                                   | E0.005                           | —                                | E.002                                     | —                                | E0.004                                   |



**Table 7B.** Analytical results for pesticide compounds detected in filtered-water samples, using U.S. Geological Survey's National Water Quality Laboratory schedule 2003, from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See [table 1](#) for site identification number. Time is denoted in 24-hour format. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. LRL, laboratory reporting level; —, compound not detected at a concentration above laboratory reporting level; E, estimated value; SWR, Sweetwater Reservoir; NA, not analyzed; na, not applicable; concentrations reported as micrograms per liter unless noted]

| Site name  | Date       | Time | Fipronil<br>(62166) | Fipronil<br>sulfide<br>(62167) | Hexa-<br>zinone<br>(04025) | Metola-<br>chlor <sup>1</sup><br>(39415) | Myclo-<br>butanil<br>(61599) | Prometon <sup>1</sup><br>(04037) |
|--|------------|------|---------------------|--------------------------------|----------------------------|--|------------------------------|----------------------------------|
| [LRL]  |            |      | [0.007]             | [0.005]                        | [0.013]                    | [0.013]                                  | [0.008]                      | [0.01]                           |
| Sweetwater Reservoir near pump tower<br>(SWR01)                  | 02/14/2003 | 1130 | —                   | —                              | NA                         | E0.003                                   | —                            | E0.003                           |
|  | 04/08/2003 | 1100 | —                   | —                              | NA                         | —  | —                            | E0.005                           |
|  | 06/17/2003 | 1130 | —                   | —                              | —                          | —  | —                            | E0.008                           |
|  | 08/19/2003 | 1130 | —                   | —                              | E0.009                     | —  | —                            | E0.007                           |
|  | 08/19/2003 | 1150 | —                   | —                              | E0.009                     | —  | —                            | E0.007                           |
| Sweetwater Reservoir center of minimum<br>pool (SWR03)           | 02/14/2003 | 1220 | —                   | —                              | NA                         | —  | —                            | E0.003                           |
|  | 04/08/2003 | 1200 | —                   | —                              | NA                         | —  | —                            | E0.005                           |
|  | 06/17/2003 | 1210 | —                   | —                              | —                          | —  | —                            | E0.006                           |
|  | 08/19/2003 | 1230 | —                   | —                              | E0.008                     | —  | —                            | E0.006                           |
|  | 08/19/2003 | 1250 | —                   | —                              | E0.008                     | —  | —                            | E0.003                           |
| Sweetwater Reservoir east end reservoir fill<br>boundary (SWR06) | 02/14/2003 | 1240 | —                   | —                              | NA                         | —  | E0.007                       | E0.009                           |
|  | 04/08/2003 | 1240 | —                   | —                              | NA                         | —  | —                            | E0.005                           |
|  | 08/19/2003 | 1320 | —                   | —                              | E0.009                     | —  | —                            | E0.007                           |
| Loveland reservoir near dam (LLR01)                              | 04/9/2003  | 1200 | —                   | —                              | NA                         | —  | —                            | E0.005                           |
|  | 04/9/2003  | 1220 | —                   | —                              | NA                         | —  | —                            | E0.005                           |
|  | 06/18/2003 | 1040 | —                   | —                              | —                          | —  | —                            | —                                |
|  | 08/20/2003 | 1050 | —                   | —                              | —                          | —  | —                            | E0.005                           |
|  | 08/20/2003 | 1100 | —                   | —                              | —                          | —  | —                            | E0.005                           |
| Sweetwater River at low-flow diversion dam<br>above SWR (LFDD)   | 04/09/2003 | 1530 | —                   | —                              | NA                         | —  | —                            | E0.010                           |
|  | 06/18/2003 | 1400 | E0.006              | —                              | —                          | —  | —                            | E0.007                           |
|  | 08/20/2003 | 1400 | E0.008              | E.005                          | —                          | —  | —                            | E0.006                           |
| Perdue Treatment Plant—finished water at<br>SWR (SWR08)          | 04/09/2003 | 0840 | —                   | —                              | NA                         | E0.005                                   | —                            | E0.003                           |
|  | 06/17/2003 | 1550 | —                   | —                              | —                          | —  | —                            | E0.006                           |
|  | 08/20/2003 | 1430 | —                   | —                              | E0.008                     | —  | —                            | E0.007                           |
| Perdue Treatment Plant—imported raw water<br>at SWR (SWR09)      | 04/09/2003 | 0820 | —                   | —                              | NA                         | E0.005                                   | —                            | —                                |

**Table 7B.** Analytical results for pesticide compounds detected in filtered-water samples, using U.S. Geological Survey's National Water Quality Laboratory schedule 2003, from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See [table 1](#) for site identification number. Time is denoted in 24-hour format. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. LRL, laboratory reporting level; —, compound not detected at a concentration above laboratory reporting level; E, estimated value; SWR, Sweetwater Reservoir; NA, not analyzed; na, not applicable; concentrations reported as micrograms per liter unless noted]

| Site name  | Date       | Time | Prometryn<br>(04036) | Simazine <sup>1</sup><br>(04035) | Tebu-<br>thiuron <sup>1</sup><br>(82670) | Diazinon- <i>d</i> 10,<br>surrogate<br>(99994)<br>[percent] | $\alpha$ -HCH- <i>d</i> 6,<br>surrogate<br>(99995)<br>[percent] |
|--|------------|------|----------------------|----------------------------------|--|---|---|
| [LRL]  |            |      | [0.005]              | [0.005]                          | [0.02]                                   |   |   |
| Sweetwater Reservoir near pump tower<br>(SWR01)                  | 02/14/2003 | 1130 | —                    | 0.006                            | —  | 108   | 100   |
|  | 04/08/2003 | 1100 | —                    | 0.007                            | E.01                                     | 102   | 98.2  |
|  | 06/17/2003 | 1130 | —                    | 0.010                            | —  | 110   | 95.1  |
|  | 08/19/2003 | 1130 | —                    | 0.008                            | E.01                                     | 106   | 83.2  |
|  | 08/19/2003 | 1150 | —                    | 0.008                            | —  | 104   | 84.4  |
| Sweetwater Reservoir center of minimum<br>pool (SWR03)           | 02/14/2003 | 1220 | —                    | 0.006                            | —  | 105   | 102   |
|  | 04/08/2003 | 1200 | —                    | 0.006                            | —  | 99.2  | 98.4  |
|  | 06/17/2003 | 1210 | —                    | —                                | —  | 106   | 97.2  |
|  | 08/19/2003 | 1230 | —                    | 0.008                            | E.01                                     | 105   | 90.4  |
|  | 08/19/2003 | 1250 | E0.003               | 0.008                            | E.01                                     | 111   | 89.8  |
| Sweetwater Reservoir east end reservoir fill<br>boundary (SWR06) | 02/14/2003 | 1240 | —                    | 0.006                            | E.04                                     | 111   | 102   |
|  | 04/08/2003 | 1240 | —                    | 0.006                            | —  | 103   | 93.2  |
|  | 08/19/2003 | 1320 | —                    | —                                | E.01                                     | 107   | 88.7  |
| Loveland reservoir near dam (LLR01)                              | 04/9/2003  | 1200 | —                    | E0.005                           | —  | 97.4  | 91.4  |
|  | 04/9/2003  | 1220 | —                    | 0.006                            | —  | 102   | 100   |
|  | 06/18/2003 | 1040 | —                    | —                                | —  | 106   | 98.1  |
|  | 08/20/2003 | 1050 | —                    | 0.006                            | —  | 100   | 83.5  |
|  | 08/20/2003 | 1100 | —                    | —                                | —  | 112   | 94.9  |
| Sweetwater River at low-flow diversion dam<br>above SWR (LFDD)   | 04/09/2003 | 1530 | —                    | E0.005                           | 0.02                                     | 93.4  | 83.8  |
|  | 06/18/2003 | 1400 | —                    | —                                | —  | 110   | 104   |
|  | 08/20/2003 | 1400 | —                    | —                                | E.01                                     | 107   | 92.5  |
| Perdue Treatment Plant—finished water at<br>SWR (SWR08)          | 04/09/2003 | 0840 | —                    | 0.013                            | —  | 106   | 105   |
|  | 06/17/2003 | 1550 | —                    | 0.010                            | —  | 101   | 98.2  |
|  | 08/20/2003 | 1430 | —                    | 0.007                            | E.01                                     | 100   | 88.3  |
| Perdue Treatment Plant—imported raw<br>water at SWR (SWR09)      | 04/09/2003 | 0820 | E0.005               | 0.011                            | —  | 105   | 94.5  |

<sup>1</sup> National Water Quality Laboratory schedule 2001 is the preferred method.

**Table 8A.** Pesticide compounds analyzed in filtered-water samples, using U.S. Geological Survey's National Water Quality Laboratory schedule 2060, from the Sweetwater Reservoir watershed, San Diego County, California.

[The parameter code is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Laboratory reporting level (LRL) values are reported as micrograms per liter unless noted]

| Compound   | Parameter code | LRL   | Compound                | Parameter code | LRL     |
|--|----------------|-------|-------------------------|----------------|---------|
| Acifluorfen                                      | 49315          | 0.007 | Fluometuron             | 38811          | 0.03    |
| Aldicarb   | 49312          | 0.04  | Hydroxyatrazine         | 50355          | 0.008   |
| Aldicarb sulfone                                 | 49313          | 0.02  | 3-Hydroxycarbofuran     | 49308          | 0.006   |
| Aldicarb sulfoxide                               | 49314          | 0.008 | Imazaquin               | 50356          | 0.02    |
| Atrazine   | 39632          | 0.009 | Imazethapyr             | 50407          | 0.02    |
| Bendiocarb                                       | 50299          | 0.03  | Imidacloprid            | 61695          | 0.007   |
| Benomyl  | 50300          | 0.004 | Linuron                 | 38478          | 0.01    |
| Bensulfuron-methyl                               | 61693          | 0.02  | MCPA                    | 38482          | 0.02    |
| Bentazon   | 38711          | 0.01  | MCPB                    | 38487          | 0.01    |
| Bromacil   | 04029          | 0.03  | Metalaxyl               | 50359          | 0.02    |
| Bromoxynil                                       | 49311          | 0.02  | Methiocarb              | 38501          | 0.008   |
| Caffeine   | 50305          | 0.50  | Methomyl                | 49296          | 0.004   |
| Carbaryl   | 49310          | 0.03  | Metsulfuron-methyl      | 61697          | 0.03    |
| Carbofuran                                       | 49309          | 0.00  | Neburon                 | 49294          | 0.01    |
| Chloramben, methyl ester                         | 61188          | 0.02  | Nicosulfuron            | 50364          | 0.01    |
| Chlorimuron-ethyl                                | 50306          | 0.010 | Norflurazon             | 49293          | 0.02    |
| <i>N</i> (4-Chlorophenyl)- <i>N</i> -methyl urea | 61692          | 0.02  | Oryzalin                | 49292          | 0.02    |
| Clopyralid                                       | 49305          | 0.01  | Oxamyl                  | 38866          | 0.01    |
| Cycloate   | 04031          | 0.01  | Picloram                | 49291          | 0.02    |
| 2,4-D and 2,4-methyl ester                       | 66469          | 0.009 | Propham                 | 49236          | 0.010   |
| 2,4-DB   | 38746          | 0.02  | Propiconazole           | 50471          | 0.02    |
| Dacthal monoacid                                 | 49304          | 0.01  | Propoxur                | 38538          | 0.008   |
| Deethylatrazine                                  | 04040          | 0.006 | Siduron                 | 38548          | 0.02    |
| Deisopropylatrazine                              | 04038          | 0.04  | Sulfometuron-methyl     | 50377          | 0.009   |
| Dicamba  | 38442          | 0.01  | Tebuthiuron             | 82670          | 0.02    |
| Dichlorprop                                      | 49302          | 0.01  | Terbacil                | 04032          | 0.010   |
| Dinoseb  | 49301          | 0.01  | Triclopyr               | 49235          | 0.02    |
| Diphenamid                                       | 04033          | 0.03  | Barban, surrogate       | 90640          | percent |
| Diuron   | 49300          | 0.01  | Caffeine-C13, surrogate | 99959          | percent |
| Fenuron  | 49297          | 0.03  | 2,4,5-T, surrogate      | 99958          | percent |
| Flumetsulam                                      | 61694          | 0.01  |                         |                |         |

**Table 8B.** Analytical results for pesticide compounds detected in filtered-water samples, using U.S. Geological Survey's National Water Quality Laboratory Schedule 2060, from the Sweetwater Reservoir watershed, San Diego County, California.

[See [table 1](#) for site identification number. Time is denoted in 24-hour scale. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. The compounds 2,4-D and 2,4-D methyl ester were summed on a molar basis and reported as 2,4-D. National Water Quality Laboratory schedule 2003 is the preferred method for tebuthiuron. LRL, laboratory reporting level; —, compound not detected at a concentration above laboratory reporting level; E, estimated value; na, not applicable; concentrations reported as micrograms per liter unless noted]

| Site name   | Date       | Time | Sampling depth<br>(00098)<br>(meter) | Bensul-<br>furon-<br>methyl<br>(61693) | Bentazon<br>(38711) | Caffeine<br>(50305) | 2,4-D and<br>2,4-D<br>methyl<br>ester<br>(66496) |
|---|------------|------|--------------------------------------|--|---------------------|---------------------|--|
| [LRL]   |            |      |                                      | [0.02]                                 | [0.01]              | [0.5]               | [0.09]   |
| Sweetwater Reservoir near pump tower (SWR01)                  | 06/11/2002 | 0930 | 4.0                                  | —                                      | —                   | —                   | —  |
|   | 09/17/2002 | 1000 | 2.0                                  | —                                      | —                   | —                   | —  |
|   | 02/14/2003 | 1130 | 5.0                                  | —                                      | —                   | —                   | —  |
|   | 06/17/2003 | 1130 | 2.0                                  | —                                      | E0.01               | —                   | E0.02  |
|   | 08/19/2003 | 1130 | 2.0                                  | —                                      | E0.01               | —                   | —  |
|   | 08/19/2003 | 1150 | 8.0                                  | —                                      | E0.01               | —                   | —  |
| Sweetwater Reservoir center of minimum pool (SWR03)           | 06/17/2003 | 1210 | 2.0                                  | —                                      | E0.01               | —                   | E0.02  |
|   | 08/19/2003 | 1230 | 2.0                                  | —                                      | E0.01               | 0.021               | —  |
|   | 08/19/2003 | 1250 | 8.0                                  | —                                      | E0.01               | 0.012               | —  |
| Sweetwater Reservoir east end reservoir fill boundary (SWR06) | 08/19/2003 | 1320 | 0.1                                  | —                                      | E0.004              | 0.018               | —  |
| Loveland reservoir near dam (LLR01)                           | 06/12/2002 | 1120 | 8.0                                  | —                                      | —                   | —                   | —  |
|   | 09/18/2002 | 1110 | 3.0                                  | —                                      | —                   | —                   | —  |
|   | 02/12/2003 | 1100 | 14                                   | —                                      | —                   | —                   | —  |
|   | 06/18/2003 | 1040 | 2.0                                  | —                                      | E0.004              | —                   | —  |
|   | 08/20/2003 | 1050 | 20                                   | —                                      | —                   | E0.033              | —  |
|   | 08/20/2003 | 1100 | 3.0                                  | —                                      | —                   | 0.035               | —  |
| Sweetwater River at low-flow diversion above SWR (LFDD)       | 03/20/2002 | 1200 | 0.1                                  | —                                      | —                   | 0.21                | 0.03   |
|   | 06/11/2002 | 1340 | 0.1                                  | —                                      | —                   | —                   | —  |
|   | 09/17/2002 | 1330 | 0.1                                  | —                                      | —                   | E0.37               | —  |
|   | 12/12/2002 | 1020 | 0.1                                  | —                                      | —                   | —                   | —  |
|   | 02/11/2003 | 1440 | 0.1                                  | —                                      | —                   | —                   | —  |
|   | 04/09/2003 | 1530 | 0.1                                  | —                                      | —                   | —                   | —  |
|   | 06/18/2003 | 1400 | 0.1                                  | —                                      | —                   | —                   | —  |
|   | 08/20/2003 | 1400 | 0.1                                  | —                                      | —                   | 0.60                | —  |
| Perdue Treatment Plant—finished water at SWR (SWR08)          | 06/11/2002 | 1230 | na                                   | —                                      | —                   | —                   | —  |
|   | 09/17/2002 | 1130 | na                                   | —                                      | —                   | —                   | E0.01  |
|   | 12/11/2002 | 1400 | na                                   | —                                      | —                   | —                   | —  |
|   | 02/11/2003 | 1440 | na                                   | —                                      | —                   | —                   | —  |
|   | 04/09/2003 | 0840 | na                                   | —                                      | —                   | —                   | E0.01  |
|   | 06/17/2003 | 1550 | na                                   | —                                      | E.01                | —                   | E0.01  |
|   | 08/20/2003 | 1430 | na                                   | —                                      | E.01                | —                   | E0.01  |
| Perdue Treatment Plant—imported raw water at SWR (SWR09)      | 06/11/2002 | 1250 | na                                   | —                                      | —                   | —                   | —  |
|   | 09/17/2002 | 1240 | na                                   | E0.003                                 | —                   | —                   | E0.02  |
|   | 12/11/2002 | 1420 | na                                   | —                                      | —                   | —                   | E0.01  |
|   | 02/11/2003 | 1500 | na                                   | —                                      | —                   | —                   | —  |
|   | 04/09/2003 | 0820 | na                                   | —                                      | —                   | —                   | E0.01  |

**Table 8B.** Analytical results for pesticide compounds detected in filtered-water samples, using U.S. Geological Survey's National Water Quality Laboratory Schedule 2060, from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See [table 1](#) for site identification number. Time is denoted in 24-hour scale. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. The compounds 2,4-D and 2,4-D methyl ester were summed on a molar basis and reported as 2,4-D. National Water Quality Laboratory schedule 2003 is the preferred method for tebuthiuron. LRL, laboratory reporting level; —, compound not detected at a concentration above laboratory reporting level; E, estimated value; na, not applicable; concentrations reported as micrograms per liter unless noted]

| Site name   | Date       | Time | Diphen-<br>amid<br>(04033) | Diuron<br>(49300) | Fluo-<br>meturon<br>(38811) | Hydroxy-<br>atrazine<br>(50355) | Ima-<br>zethapyr<br>(50407) |
|---|------------|------|----------------------------|-------------------|-----------------------------|---------------------------------|-----------------------------|
| [LRL]   |            |      | [0.03]                     | [0.01]            | [0.03]                      | [0.008]                         | [0.02]                      |
| Sweetwater Reservoir near pump tower (SWR01)                  | 06/11/2002 | 0930 | —                          | 0.04              | —                           | —                               | —                           |
|   | 09/17/2002 | 1000 | —                          | 0.03              | —                           | E0.008                          | —                           |
|   | 02/14/2003 | 1130 | —                          | 0.02              | —                           | E.005                           | —                           |
|   | 06/17/2003 | 1130 | —                          | 0.04              | —                           | —                               | —                           |
|   | 08/19/2003 | 1130 | —                          | E0.03             | —                           | E.010                           | —                           |
|   | 08/19/2003 | 1150 | —                          | E0.04             | —                           | E.009                           | —                           |
| Sweetwater Reservoir center of minimum pool (SWR03)           | 06/17/2003 | 1210 | —                          | E0.05             | —                           | —                               | —                           |
|   | 08/19/2003 | 1230 | —                          | 0.03              | —                           | —                               | —                           |
|   | 08/19/2003 | 1250 | —                          | 0.04              | —                           | E.008                           | —                           |
| Sweetwater Reservoir east end reservoir fill boundary (SWR06) | 08/19/2003 | 1320 | —                          | E0.03             | —                           | E0.007                          | —                           |
| Loveland reservoir near dam (LLR01)                           | 06/12/2002 | 1120 | —                          | 0.03              | —                           | —                               | —                           |
|   | 09/18/2002 | 1110 | —                          | 0.02              | —                           | —                               | —                           |
|   | 02/12/2003 | 1100 | —                          | 0.02              | —                           | —                               | —                           |
|   | 06/18/2003 | 1040 | —                          | 0.02              | —                           | —                               | —                           |
|   | 08/20/2003 | 1050 | —                          | E0.02             | E0.01                       | —                               | —                           |
|   | 08/20/2003 | 1100 | —                          | —                 | E0.01                       | —                               | —                           |
| Sweetwater River at low-flow diversion above SWR (LFDD)       | 03/20/2002 | 1200 | E0.02                      | 0.32              | —                           | —                               | —                           |
|   | 06/11/2002 | 1340 | —                          | 0.02              | —                           | —                               | —                           |
|   | 09/17/2002 | 1330 | —                          | —                 | —                           | E0.014                          | —                           |
|   | 12/12/2002 | 1020 | E0.005                     | —                 | —                           | —                               | —                           |
|   | 02/11/2003 | 1440 | E0.005                     | —                 | —                           | —                               | —                           |
|   | 04/09/2003 | 1530 | E0.004                     | —                 | —                           | —                               | —                           |
|   | 06/18/2003 | 1400 | E0.003                     | E0.02             | —                           | —                               | —                           |
|   | 08/20/2003 | 1400 | E0.005                     | —                 | —                           | —                               | E0.01                       |
| Perdue Treatment Plant—finished water at SWR (SWR08)          | 06/11/2002 | 1230 | —                          | 0.03              | —                           | —                               | —                           |
|   | 09/17/2002 | 1130 | —                          | —                 | —                           | —                               | —                           |
|   | 12/11/2002 | 1400 | —                          | —                 | —                           | —                               | —                           |
|   | 02/11/2003 | 1440 | —                          | 0.03              | —                           | E0.007                          | —                           |
|   | 04/09/2003 | 0840 | —                          | E0.12             | —                           | —                               | —                           |
|   | 06/17/2003 | 1550 | —                          | E0.04             | —                           | E0.006                          | —                           |
|   | 08/20/2003 | 1430 | —                          | E0.02             | —                           | E0.011                          | —                           |
| Perdue Treatment Plant—imported raw water at SWR (SWR09)      | 06/11/2002 | 1250 | —                          | 0.06              | —                           | —                               | —                           |
|   | 09/17/2002 | 1240 | —                          | 0.02              | —                           | E0.006                          | —                           |
|   | 12/11/2002 | 1420 | —                          | 0.02              | —                           | —                               | —                           |
|   | 02/11/2003 | 1500 | —                          | 0.04              | —                           | E0.005                          | —                           |
|   | 04/09/2003 | 0820 | —                          | 0.14              | —                           | —                               | —                           |

**Table 8B.** Analytical results for pesticide compounds detected in filtered-water samples, using U.S. Geological Survey's National Water Quality Laboratory Schedule 2060, from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See [table 1](#) for site identification number. Time is denoted in 24-hour scale. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. The compounds 2,4-D and 2,4-D methyl ester were summed on a molar basis and reported as 2,4-D. National Water Quality Laboratory schedule 2003 is the preferred method for tebuthiuron. LRL, laboratory reporting level; —, compound not detected at a concentration above laboratory reporting level; E, estimated value; na, not applicable; concentrations reported as micrograms per liter unless noted]

| Site name   | Date       | Time | Linuron<br>(38478) | Siduron<br>(38548) | Sulfo-<br>meturon-<br>methyl<br>(50337) | Tebu-<br>thiuron<br>(82670) |
|---|------------|------|--------------------|--------------------|---|-----------------------------|
| [LRL]   |            |      | [0.01]             | [0.02]             | [0.009]                                 | [0.02]                      |
| Sweetwater Reservoir near pump tower (SWR01)                  | 06/11/2002 | 0930 | —                  | —                  | —                                       | —                           |
|   | 09/17/2002 | 1000 | —                  | —                  | —                                       | —                           |
|   | 02/14/2003 | 1130 | —                  | —                  | —                                       | —                           |
|   | 06/17/2003 | 1130 | —                  | —                  | —                                       | —                           |
|   | 08/19/2003 | 1130 | —                  | —                  | —                                       | —                           |
|   | 08/19/2003 | 1150 | —                  | —                  | —                                       | —                           |
| Sweetwater Reservoir center of minimum pool (SWR03)           | 06/17/2003 | 1210 | —                  | —                  | —                                       | —                           |
|   | 08/19/2003 | 1230 | —                  | —                  | —                                       | —                           |
|   | 08/19/2003 | 1250 | —                  | —                  | —                                       | —                           |
| Sweetwater Reservoir east end reservoir fill boundary (SWR06) | 08/19/2003 | 1320 | —                  | —                  | —                                       | —                           |
| Loveland reservoir near dam (LLR01)                           | 06/12/2002 | 1120 | —                  | —                  | —                                       | —                           |
|   | 09/18/2002 | 1110 | —                  | —                  | —                                       | —                           |
|   | 02/12/2003 | 1100 | —                  | —                  | —                                       | —                           |
|   | 06/18/2003 | 1040 | —                  | —                  | —                                       | —                           |
|   | 08/20/2003 | 1050 | —                  | —                  | —                                       | —                           |
|   | 08/20/2003 | 1100 | —                  | —                  | —                                       | —                           |
| Sweetwater River at low-flow diversion above SWR (LFDD)       | 03/20/2002 | 1200 | —                  | —                  | E0.034                                  | 0.009                       |
|   | 06/11/2002 | 1340 | —                  | —                  | —                                       | —                           |
|   | 09/17/2002 | 1330 | —                  | —                  | —                                       | E0.003                      |
|   | 12/12/2002 | 1020 | —                  | —                  | —                                       | E0.006                      |
|   | 02/11/2003 | 1440 | —                  | E0.01              | E0.004                                  | E0.005                      |
|   | 04/09/2003 | 1530 | —                  | —                  | —                                       | —                           |
|   | 06/18/2003 | 1400 | —                  | —                  | —                                       | —                           |
|   | 08/20/2003 | 1400 | —                  | —                  | —                                       | E0.005                      |
| Perdue Treatment Plant—finished water at SWR (SWR08)          | 06/11/2002 | 1230 | —                  | —                  | —                                       | —                           |
|   | 09/17/2002 | 1130 | —                  | —                  | —                                       | —                           |
|   | 12/11/2002 | 1400 | E0.01              | —                  | —                                       | —                           |
|   | 02/11/2003 | 1440 | —                  | —                  | —                                       | —                           |
|   | 04/09/2003 | 0840 | —                  | —                  | —                                       | —                           |
|   | 06/17/2003 | 1550 | —                  | —                  | —                                       | —                           |
|   | 08/20/2003 | 1430 | —                  | —                  | —                                       | E0.01                       |
| Perdue Treatment Plant—imported raw water at SWR (SWR09)      | 06/11/2002 | 1250 | —                  | —                  | —                                       | —                           |
|   | 09/17/2002 | 1240 | —                  | —                  | —                                       | —                           |
|   | 12/11/2002 | 1420 | —                  | —                  | —                                       | —                           |
|   | 02/11/2003 | 1500 | —                  | —                  | —                                       | —                           |
|   | 04/09/2003 | 0820 | —                  | —                  | —                                       | —                           |



**Table 8B.** Analytical results for pesticide compounds detected in filtered-water samples, using U.S. Geological Survey's National Water Quality Laboratory Schedule 2060, from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See [table 1](#) for site identification number. Time is denoted in 24-hour scale. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. The compounds 2,4-D and 2,4-D methyl ester were summed on a molar basis and reported as 2,4-D. National Water Quality Laboratory schedule 2003 is the preferred method for tebuthiuron. LRL, laboratory reporting level; —, compound not detected at a concentration above laboratory reporting level; E, estimated value; na, not applicable; concentrations reported as micrograms per liter unless noted]

| Site name   | Date       | Time | Barban,<br>surrogate<br>(90640)<br>(percent) | Caffeine-C13,<br>surrogate<br>(99959)<br>(percent) | 2,4,5-T,<br>surrogate<br>(99958)<br>(percent) |
|---|------------|------|--|--|---|
| <b>[LRL]</b>  |            |      |  |  |   |
| Sweetwater Reservoir near pump tower (SWR01)                  | 06/11/2002 | 0930 | 76.5   | 76.6   | 77.2  |
|   | 09/17/2002 | 1000 | E174   | E148   | 72.0  |
|   | 02/14/2003 | 1130 | 145  | 69.4   | 77.7  |
|   | 06/17/2003 | 1130 | 44.0   | 63.7   | 64.7  |
|   | 08/19/2003 | 1130 | 102  | 75.7   | 99.1  |
|   | 08/19/2003 | 1150 | 66.0   | 78.6   | 96.6  |
| Sweetwater Reservoir center of minimum pool (SWR03)           | 06/17/2003 | 1210 | 123  | 80.7   | 87.8  |
|   | 08/19/2003 | 1230 | 79.1   | 70.0   | 95.5  |
|   | 08/19/2003 | 1250 | 75.8   | 65.5   | 86.8  |
| Sweetwater Reservoir east end reservoir fill boundary (SWR06) | 08/19/2003 | 1320 | 64.7   | 74.8   | 90.6  |
| Loveland reservoir near dam (LLR01)                           | 06/12/2002 | 1120 | 102  | 74.9   | 95.9  |
|   | 09/18/2002 | 1110 | 75.4   | 155  | 87.4  |
|   | 02/12/2003 | 1100 | 128  | 77.3   | 70.8  |
|   | 06/18/2003 | 1040 | 55.3   | 69.2   | 61.1  |
|   | 08/20/2003 | 1050 | E45.8  | E89.1  | 85.3  |
|   | 08/20/2003 | 1100 | 65.0   | 78.3   | 92.9  |
| Sweetwater River at low-flow diversion above SWR (LFDD)       | 03/20/2002 | 1200 | 42.0   | 73.7   | 62.8  |
|   | 06/11/2002 | 1340 | 101  | 76.9   | 73.9  |
|   | 09/17/2002 | 1330 | E91.9  | E172   | 73.6  |
|   | 12/12/2002 | 1020 | 69.5   | 125  | 76.6  |
|   | 02/11/2003 | 1440 | 96.2   | 82.7   | 61.8  |
|   | 04/09/2003 | 1530 | 47.5   | 58.9   | 68.9  |
|   | 06/18/2003 | 1400 | 72.6   | 84.1   | 78.9  |
|   | 08/20/2003 | 1400 | 61.8   | 99.9   | 92.0  |
| Perdue Treatment Plant—finished water at SWR (SWR08)          | 06/11/2002 | 1230 | 94.2   | 71.7   | 84.4  |
|   | 09/17/2002 | 1130 | E113   | 117  | 97.7  |
|   | 12/11/2002 | 1400 | 69.0   | 111  | 75.8  |
|   | 02/11/2003 | 1440 | E200   | 66.9   | 77.2  |
|   | 04/09/2003 | 0840 | 117  | 48.9   | 76.4  |
|   | 06/17/2003 | 1550 | 121  | 75.8   | 89.4  |
|   | 08/20/2003 | 1430 | 111  | 68.0   | 96.3  |
| Perdue Treatment Plant—imported raw water at SWR (SWR09)      | 06/11/2002 | 1250 | 113  | 80.3   | 68.3  |
|   | 09/17/2002 | 1240 | E74.7  | 116  | 92.5  |
|   | 12/11/2002 | 1420 | 110  | 110  | 81.6  |
|   | 02/11/2003 | 1500 | 117  | 59.4   | 78.5  |
|   | 04/09/2003 | 0820 | 86.8   | 47.8   | 69.4  |

**Table 9A.** Analytical results for volatile organic compounds in air with low breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). mm of Hg, millimeters of mercury; NA, not analyzed; E, estimated value. —, compound was not detected at a concentration above the laboratory reporting level. \*, suspect because concentration in laboratory blank was greater than 10 percent of that in environmental sample]

| Date<br>(mm/dd/yyyy) | Pressure<br>(mm of Hg) | Temperature<br>°C | Dichlorodifluoro-<br>methane<br>(CFC-12) | Chloro-<br>methane | Chloro-<br>ethene<br>(vinyl<br>chloride) | Bromo-<br>methane | Chloro-<br>ethane | Bromo-<br>ethene<br>(vinyl<br>bromide) |
|----------------------|------------------------|-------------------|--|--------------------|--|-------------------|-------------------|--|
| 10/10/2001           | 754                    | 18.8              | 0.72                                     | —                  | —  | —                 | —                 | —                                      |
| 10/22/2001           | 753                    | 17.8              | 0.45                                     | —                  | —  | —                 | —                 | —                                      |
| 11/15/2001           | 753                    | 15.7              | 0.90                                     | —                  | —  | —                 | —                 | —                                      |
| 11/27/2001           | 755                    | 11.2              | 0.28                                     | —                  | —  | —                 | —                 | —                                      |
| 12/09/2001           | 752                    | 12.3              | 0.25                                     | —                  | —  | —                 | —                 | —                                      |
| 12/21/2001           | 758                    | 11.4              | 0.58                                     | —                  | —  | —                 | —                 | —                                      |
| 01/03/2002           | 757                    | 11.9              | NA                                       | NA                 | NA                                       | NA                | NA                | NA                                     |
| 01/14/2002           | 753                    | 10.6              | NA                                       | NA                 | NA                                       | NA                | NA                | NA                                     |
| 01/28/2002           | 754                    | 10.6              | —  | —                  | —  | —                 | —                 | —                                      |
| 02/07/2002           | 761                    | 10.2              | 0.78                                     | —                  | —  | —                 | —                 | —                                      |
| 02/19/2002           | 760                    | 10.9              | 0.84                                     | —                  | —  | —                 | —                 | —                                      |
| 03/03/2002           | 761                    | 13.9              | 2.11                                     | —                  | —  | —                 | —                 | —                                      |
| 03/27/2002           | 754                    | 12.5              | 0.61*                                    | —                  | —  | —                 | —                 | —                                      |
| 04/20/2002           | 761                    | 13.9              | 0.87                                     | —                  | —  | —                 | —                 | —                                      |
| 05/14/2002           | 751                    | 17.0              | 0.29                                     | —                  | —  | E2.08             | —                 | —                                      |
| 05/26/2002           | 753                    | 13.4              | 0.60                                     | —                  | —  | —                 | —                 | —                                      |
| 06/07/2002           | 750                    | 16.2              | 0.35                                     | —                  | —  | —                 | —                 | —                                      |
| 06/19/2002           | 750                    | 16.2              | 0.74                                     | —                  | —  | —                 | —                 | —                                      |
| 07/01/2002           | 753                    | 16.9              | 0.76                                     | —                  | —  | —                 | —                 | —                                      |
| 07/13/2002           | 751                    | 18.1              | 0.48                                     | —                  | —  | —                 | —                 | —                                      |
| 07/25/2002           | 754                    | 18.6              | 0.55                                     | —                  | —  | —                 | —                 | —                                      |
| 08/06/2002           | 753                    | 17.2              | 0.72                                     | —                  | —  | —                 | —                 | —                                      |
| 08/18/2002           | 752                    | 18.5              | 0.38                                     | —                  | —  | —                 | —                 | —                                      |
| 08/30/2002           | 751                    | 20.8              | 0.73                                     | —                  | —  | —                 | —                 | —                                      |
| 09/11/2002           | 750                    | 21.8              | 0.74                                     | —                  | —  | —                 | —                 | —                                      |
| 09/23/2002           | 749                    | 22.7              | 0.71                                     | —                  | —  | —                 | —                 | —                                      |
| 10/05/2002           | 752                    | 19.0              | 0.97                                     | —                  | —  | —                 | —                 | —                                      |
| 10/17/2002           | 752                    | 16.2              | 0.50                                     | —                  | —  | —                 | —                 | —                                      |
| 10/29/2002           | 752                    | 15.8              | 0.37                                     | —                  | —  | —                 | —                 | —                                      |
| 11/10/2002           | 756                    | 16.2              | 0.56                                     | —                  | —  | —                 | —                 | —                                      |
| 11/22/2002           | 754                    | 17.0              | 0.38                                     | —                  | —  | —                 | —                 | —                                      |
| 12/04/2002           | 758                    | 13.6              | 0.72                                     | —                  | —  | —                 | —                 | —                                      |
| 01/20/2003           | 758                    | 14.5              | 0.71                                     | —                  | —  | E0.87             | —                 | —                                      |
| 02/04/2003           | 754                    | 13.8              | 0.54                                     | —                  | —  | —                 | —                 | —                                      |
| 02/14/2003           | 753                    | 14.9              | —  | —                  | —  | —                 | —                 | —                                      |

**Table 9A.** Analytical results for volatile organic compounds in air with low breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). mm of Hg, millimeters of mercury; NA, not analyzed; E, estimated value. —, compound was not detected at a concentration above the laboratory reporting level. \*, suspect because concentration in laboratory blank is greater than 10 percent of that in environmental sample]

| Date<br>(mm/dd/yyyy) | Pressure<br>(mm of Hg) | Temperature<br>°C | Dichlorodifluoro-<br>methane<br>(CFC-12) | Chloro-<br>methane | Chloro-<br>ethene<br>(vinyl<br>chloride) | Bromo-<br>methane | Chloro-<br>ethane | Bromo-<br>ethene<br>(vinyl<br>bromide) |
|----------------------|------------------------|-------------------|--|--------------------|--|-------------------|-------------------|--|
| 02/26/2003           | 752                    | 12.6              | 0.60                                     | —                  | —  | —                 | —                 | —                                      |
| 03/10/2003           | 753                    | 15.0              | 1.81                                     | —                  | —  | E0.31             | —                 | —                                      |
| 03/22/2003           | 756                    | 15.4              | 0.74                                     | —                  | —  | —                 | —                 | —                                      |
| 04/03/2003           | 757                    | 12.4              | 0.63                                     | —                  | —  | —                 | —                 | —                                      |
| 04/15/2003           | 757                    | 12.6              | 0.48                                     | —                  | —  | —                 | —                 | —                                      |
| 05/09/2003           | 762                    | 13.8              | 0.68                                     | —                  | —  | —                 | —                 | —                                      |
| 05/21/2003           | 758                    | 20.2              | 0.41                                     | —                  | —  | —                 | —                 | —                                      |
| 06/02/2003           | 758                    | 16.4              | 0.56                                     | —                  | —  | —                 | —                 | —                                      |
| 06/14/2003           | 759                    | 19.1              | 0.78                                     | —                  | —  | E0.40             | —                 | —                                      |
| 06/26/2003           | 759                    | 19.2              | 0.72                                     | —                  | —  | E0.20             | —                 | —                                      |
| 07/09/2003           | 758                    | 18.7              | 0.72                                     | —                  | —  | —                 | —                 | —                                      |
| 07/20/2003           | 761                    | 22.9              | 0.72                                     | —                  | —  | —                 | —                 | —                                      |
| 08/01/2003           | 762                    | 23.0              | 0.72                                     | —                  | —  | —                 | —                 | —                                      |
| 08/13/2003           | 758                    | 23.6              | 0.66                                     | —                  | —  | —                 | —                 | —                                      |
| 08/25/2003           | 759                    | 23.0              | 0.59                                     | —                  | —  | —                 | —                 | —                                      |
| 09/06/2003           | 759                    | 24.4              | 0.47                                     | —                  | —  | —                 | —                 | —                                      |
| 09/18/2003           | 757                    | 19.5              | 0.42                                     | —                  | —  | —                 | —                 | —                                      |

**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site identification number is 32414117001601. Concentrations are given in part per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | Dibromo-<br>methane | Bromo-<br>dichloro-<br>methane | Carbon<br>tetra-<br>chloride | 1,2-Dichloro-<br>ethane | Bromoform | Dibromo-<br>chloro-<br>methane | Chloroform | Toluene | Benzene |
|----------------------|---------------------|--------------------------------|------------------------------|-------------------------|-----------|--------------------------------|------------|---------|---------|
| 10/10/2001           | NA                  | NA                             | NA                           | NA                      | NA        | NA                             | NA         | NA      | NA      |
| 10/22/2001           | NA                  | NA                             | NA                           | NA                      | NA        | NA                             | NA         | NA      | NA      |
| 11/15/2001           | —                   | —                              | E0.03                        | —                       | —         | —                              | E0.02      | 0.99    | 0.20    |
| 11/27/2001           | —                   | —                              | E0.14                        | —                       | —         | —                              | E0.04      | 1.10    | 0.36    |
| 12/09/2001           | E0.01               | —                              | E0.12                        | E0.01                   | —         | —                              | E0.02      | 0.68    | 0.34    |
| 12/21/2001           | —                   | —                              | 0.02                         | —                       | —         | —                              | —          | 0.27    | 0.18    |
| 01/03/2002           | —                   | —                              | E0.03                        | —                       | —         | —                              | —          | E0.08   | 0.37    |
| 01/14/2002           | —                   | —                              | E0.22                        | E0.02                   | —         | —                              | E0.02      | 2.25    | 0.99    |
| 01/28/2002           | —                   | —                              | E0.08                        | —                       | —         | —                              | —          | 0.37    | —       |
| 02/07/2002           | —                   | —                              | E0.09                        | —                       | —         | —                              | —          | 2.13    | 1.42    |
| 02/19/2002           | —                   | —                              | E0.11                        | —                       | —         | —                              | E0.03      | 0.87    | 0.42    |
| 03/03/2002           | —                   | —                              | E0.03                        | —                       | —         | —                              | —          | 0.33    | 0.58    |
| 03/27/2002           | —                   | —                              | E0.12                        | —                       | —         | —                              | —          | 0.43    | —       |
| 04/20/2002           | —                   | —                              | E0.07                        | —                       | —         | —                              | E0.02      | 0.45    | —       |
| 05/14/2002           | —                   | —                              | E0.06                        | —                       | —         | —                              | E0.02      | 0.49    | 0.37    |
| 05/26/2002           | —                   | —                              | E0.09                        | —                       | —         | —                              | E0.01      | 0.42    | —       |
| 06/07/2002           | —                   | —                              | E0.23                        | —                       | —         | —                              | E0.05      | 0.63    | 0.33    |
| 06/19/2002           | —                   | —                              | E0.15                        | —                       | —         | —                              | E0.01      | 0.87    | 0.26    |
| 07/01/2002           | —                   | —                              | 0.36                         | —                       | —         | —                              | E0.08      | 1.10    | 0.58    |
| 07/13/2002           | —                   | —                              | E0.20                        | —                       | —         | —                              | E0.02      | 0.53    | 0.33    |
| 07/25/2002           | —                   | —                              | E0.23                        | —                       | —         | —                              | E0.02      | 0.59    | 0.29    |
| 08/06/2002           | —                   | —                              | E0.19                        | —                       | —         | —                              | E0.01      | 0.57    | 0.34    |
| 08/18/2002           | —                   | —                              | E0.25                        | —                       | —         | —                              | E0.01      | 0.21    | 0.39    |
| 08/30/2002           | —                   | —                              | E0.13                        | —                       | —         | —                              | E0.03      | 1.56    | 0.68    |
| 09/11/2002           | NA                  | NA                             | NA                           | NA                      | NA        | NA                             | NA         | NA      | NA      |
| 09/23/2002           | NA                  | NA                             | NA                           | NA                      | NA        | NA                             | NA         | NA      | NA      |
| 10/05/2002           | —                   | —                              | E0.15                        | —                       | —         | —                              | E0.04      | 0.60    | 0.44    |
| 10/17/2002           | —                   | —                              | 0.20                         | —                       | —         | —                              | 0.09       | 0.18    | 0.26    |
| 10/29/2002           | —                   | —                              | 0.28                         | —                       | —         | —                              | E0.08      | 0.46    | 0.36    |
| 11/10/2002           | —                   | —                              | E0.16                        | —                       | —         | —                              | 0.16       | 0.97    | 0.51    |
| 11/22/2002           | —                   | —                              | E0.10                        | —                       | —         | —                              | E0.03      | 2.00    | 0.69    |
| 12/04/2002           | —                   | —                              | E0.03                        | —                       | —         | —                              | —          | 0.47    | E0.12   |

**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in part per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | Dibromo-<br>methane | Bromo-<br>dichloro-<br>methane | Carbon<br>tetra-<br>chloride | 1,2-Dichloro-<br>ethane | Bromoform | Dibromo-<br>chloro-<br>methane | Chloroform | Toluene | Benzene |
|----------------------|---------------------|--------------------------------|------------------------------|-------------------------|-----------|--------------------------------|------------|---------|---------|
| 01/20/2003           | —                   | —                              | 0.19                         | —                       | —         | —                              | E0.01      | 0.76    | 0.49    |
| 02/04/2003           | —                   | —                              | —                            | —                       | —         | —                              | —          | E0.04   | 0.37    |
| 02/14/2003           | —                   | —                              | E0.09                        | —                       | —         | —                              | —          | 0.32    | —       |
| 02/26/2003           | —                   | —                              | 0.39                         | —                       | —         | —                              | E0.03      | 0.87    | 0.72    |
| 03/10/2003           | E0.02               | —                              | E0.06                        | —                       | —         | —                              | E0.02      | 0.82    | 0.34    |
| 03/22/2003           | —                   | —                              | E0.13                        | —                       | —         | —                              | E0.04      | 1.26    | 0.62    |
| 04/03/2003           | —                   | —                              | E0.15                        | —                       | —         | —                              | 0.15       | 0.50    | 0.25    |
| 04/15/2003           | —                   | —                              | 0.30                         | —                       | —         | —                              | E0.04      | 0.56    | 0.46    |
| 05/09/2003           | —                   | —                              | E0.12                        | —                       | —         | —                              | E0.02      | 0.32    | 0.24    |
| 05/21/2003           | —                   | —                              | 0.34                         | —                       | —         | —                              | E0.03      | 1.78    | 0.86    |
| 06/02/2003           | —                   | —                              | 0.30                         | —                       | —         | —                              | E0.01      | 0.58    | 0.29    |
| 06/14/2003           | —                   | —                              | E0.07                        | —                       | —         | —                              | —          | 0.29    | ND      |
| 06/26/2003           | —                   | —                              | E0.05                        | —                       | —         | —                              | E0.03      | 0.79    | 0.32    |
| 07/09/2003           | NA                  | NA                             | NA                           | NA                      | NA        | NA                             | NA         | NA      | NA      |
| 07/20/2003           | —                   | —                              | 0.20                         | —                       | —         | —                              | E0.02      | 0.45    | 0.22    |
| 08/01/2003           | —                   | —                              | 0.18                         | —                       | —         | —                              | E0.02      | 0.52    | 0.20    |
| 08/13/2003           | —                   | —                              | E0.09                        | —                       | —         | —                              | E0.03      | 0.85    | 0.38    |
| 08/25/2003           | —                   | —                              | 0.18                         | —                       | —         | —                              | E0.04      | 0.59    | 0.31    |
| 09/06/2003           | —                   | —                              | E0.13                        | —                       | —         | —                              | E0.03      | 1.56    | 0.67    |
| 09/18/2003           | —                   | —                              | 0.18                         | —                       | —         | —                              | E0.04      | 0.62    | 0.40    |

**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | 2-Propene-<br>nitrile<br>(Acrylonitrile) | Chloro-<br>benzene | Ethyl-<br>benzene | Hexachloro-<br>ethane | Methylene<br>chloride | Tetrachloro-<br>ethene<br>(PCE) | 1,1- Dichloro-<br>ethane | 1,1- Di-<br>chloro-<br>ethene | 1,1,1-Tri-<br>chloro-<br>ethane |
|----------------------|--|--------------------|-------------------|-----------------------|-----------------------|---------------------------------|--------------------------|-------------------------------|---------------------------------|
| 10/10/2001           | NA                                       | NA                 | NA                | NA                    | NA                    | NA                              | NA                       | NA                            | NA                              |
| 10/22/2001           | NA                                       | NA                 | NA                | NA                    | NA                    | NA                              | NA                       | NA                            | NA                              |
| 11/15/2001           | —  | —                  | 0.09              | —                     | E0.07                 | E0.03                           | —                        | —                             | E0.02                           |
| 11/27/2001           | —  | —                  | 0.12              | —                     | 0.13                  | E0.03                           | —                        | —                             | E0.05                           |
| 12/09/2001           | —  | —                  | 0.11              | —                     | —                     | —                               | —                        | —                             | E0.04                           |
| 12/21/2001           | —  | E0.01              | E0.02             | —                     | E0.07                 | —                               | —                        | —                             | —                               |
| 01/03/2002           | —  | E0.01              | E0.03             | —                     | E0.04                 | —                               | —                        | —                             | E0.01                           |
| 01/14/2002           | —  | —                  | 0.41              | —                     | 0.17                  | 0.06                            | —                        | —                             | 0.09                            |
| 01/28/2002           | —  | —                  | 0.07              | —                     | —                     | —                               | —                        | —                             | E0.02                           |
| 02/07/2002           | —  | —                  | 0.73              | —                     | E0.10                 | E0.06                           | —                        | —                             | E0.04                           |
| 02/19/2002           | —  | —                  | 0.12              | —                     | E0.08                 | E0.03                           | —                        | —                             | E0.04                           |
| 03/03/2002           | E0.04                                    | E0.01              | E0.03             | —                     | 0.18                  | —                               | —                        | —                             | E0.01                           |
| 03/27/2002           | —  | —                  | E0.06             | —                     | —                     | —                               | —                        | —                             | E0.04                           |
| 04/20/2002           | —  | —                  | E0.06             | —                     | E0.09                 | —                               | —                        | —                             | E0.03                           |
| 05/14/2002           | —  | —                  | E0.05             | —                     | 0.14                  | E0.01                           | —                        | —                             | E0.03                           |
| 05/26/2002           | —  | —                  | E0.05             | —                     | 0.10                  | E0.01                           | —                        | —                             | E0.04                           |
| 06/07/2002           | —  | —                  | 0.13              | —                     | 0.48                  | —                               | —                        | —                             | E0.06                           |
| 06/19/2002           | —  | —                  | 0.11              | —                     | E0.05                 | E0.01                           | —                        | —                             | E0.05                           |
| 07/01/2002           | —  | —                  | 0.21              | —                     | 0.24                  | E0.04                           | —                        | —                             | 0.15                            |
| 07/13/2002           | —  | —                  | 0.14              | —                     | E0.04                 | E0.02                           | —                        | —                             | E0.06                           |
| 07/25/2002           | —  | —                  | 0.10              | —                     | E0.06                 | E0.03                           | —                        | —                             | E0.06                           |
| 08/06/2002           | —  | —                  | 0.11              | —                     | E0.05                 | E0.02                           | —                        | —                             | E0.05                           |
| 08/18/2002           | —  | —                  | E0.05             | —                     | E0.03                 | —                               | —                        | —                             | E0.06                           |
| 08/30/2002           | —  | E0.01              | 0.23              | —                     | 0.33                  | 0.10                            | —                        | —                             | E0.05                           |
| 09/11/2002           | NA                                       | NA                 | NA                | NA                    | NA                    | NA                              | NA                       | NA                            | NA                              |
| 09/23/2002           | NA                                       | NA                 | NA                | NA                    | NA                    | NA                              | NA                       | NA                            | NA                              |
| 10/05/2002           | —  | —                  | 0.21              | —                     | E0.06                 | E0.02                           | —                        | —                             | E0.04                           |
| 10/17/2002           | —  | —                  | E0.04             | —                     | 0.17                  | E0.01                           | —                        | —                             | E0.04                           |
| 10/29/2002           | —  | —                  | 0.16              | —                     | 0.12                  | E0.01                           | —                        | —                             | E0.07                           |
| 11/10/2002           | —  | —                  | 0.41              | —                     | 0.26                  | —                               | —                        | —                             | 0.08                            |
| 11/22/2002           | —  | —                  | 0.28              | —                     | 0.13                  | 0.07                            | —                        | —                             | E0.04                           |
| 12/04/2002           | —  | —                  | E0.07             | —                     | E0.06                 | E0.02                           | —                        | —                             | E0.01                           |
| 01/20/2003           | —  | —                  | 0.15              | —                     | E0.03                 | E0.03                           | —                        | —                             | E0.06                           |
| 02/04/2003           | —  | E0.01              | E0.01             | —                     | E0.02                 | E0.01                           | —                        | —                             | —                               |
| 02/14/2003           | —  | —                  | E0.05             | —                     | E0.04                 | E0.01                           | —                        | —                             | E0.03                           |
| 02/26/2003           | —  | —                  | 0.20              | —                     | E0.07                 | E0.02                           | —                        | —                             | 0.10                            |
| 03/10/2003           | —  | —                  | 0.11              | —                     | 0.22                  | E0.03                           | —                        | —                             | E0.02                           |
| 03/22/2003           | —  | —                  | 0.17              | —                     | 0.11                  | E0.04                           | —                        | —                             | E0.04                           |
| 04/03/2003           | —  | E0.01              | 0.08              | —                     | 0.12                  | E0.01                           | —                        | —                             | E0.06                           |



**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | 2-Propene-<br>nitrile<br>(Acrylonitrile) | Chloro-<br>benzene | Ethyl-<br>benzene | Hexachloro-<br>ethane | Methylene<br>chloride | Tetrachloro-<br>ethene<br>(PCE) | 1,1- Dichloro-<br>ethane | 1,1- Di-<br>chloro-<br>ethene | 1,1,1-Tri-<br>chloro-<br>ethane |
|----------------------|--|--------------------|-------------------|-----------------------|-----------------------|---------------------------------|--------------------------|-------------------------------|---------------------------------|
| 04/15/2003           | —  | E0.01              | 0.09              | —                     | E0.08                 | E0.02                           | —                        | —                             | 0.09                            |
| 05/09/2003           | —  | E0.01              | E0.04             | —                     | 0.13                  | E0.01                           | —                        | —                             | E0.03                           |
| 05/21/2003           | —  | E0.01              | 0.31              | —                     | 0.14                  | E0.06                           | —                        | —                             | 0.10                            |
| 06/02/2003           | —  | —                  | 0.11              | —                     | E0.06                 | E0.02                           | —                        | —                             | 0.07                            |
| 06/14/2003           | —  | —                  | E0.05             | —                     | E0.09                 | E0.01                           | —                        | —                             | E0.03                           |
| 06/26/2003           | —  | E0.01              | 0.15              | —                     | E0.10                 | E0.02                           | —                        | —                             | E0.03                           |
| 07/09/2003           | NA                                       | NA                 | NA                | NA                    | NA                    | NA                              | NA                       | NA                            | NA                              |
| 07/20/2003           | —  | —                  | 0.10              | —                     | E0.04                 | E0.01                           | —                        | —                             | E0.05                           |
| 08/01/2003           | —  | E0.01              | 0.12              | —                     | E0.09                 | E0.03                           | —                        | —                             | E0.04                           |
| 08/13/2003           | —  | —                  | 0.15              | —                     | E0.06                 | E0.02                           | —                        | —                             | E0.04                           |
| 08/25/2003           | —  | E0.01              | 0.14              | —                     | E0.06                 | E0.03                           | —                        | —                             | E0.04                           |
| 09/06/2003           | —  | E0.01              | 0.23              | —                     | 0.33                  | 0.10                            | —                        | —                             | E0.05                           |
| 09/18/2003           | —  | —                  | 0.21              | —                     | E0.07                 | E0.02                           | —                        | —                             | E0.05                           |

**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 32414117001601. Concentrations are given in parts per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

[illegible]

**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 32414117001601. Concentrations are given in parts per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

[illegible]

**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | <i>trans</i> -1,3-<br>Dichloro-<br>propene | <i>cis</i> -1,3-<br>Dichloro-<br>propene | Trichloro-<br>ethene<br>(TCE) | Hexa-<br>chloro-<br>butadiene | Methyl<br>acrylate | 1,2,3,4-Tetra-<br>methyl-<br>benzene | Ethyl <i>tert</i> -<br>butyl ether<br>(ETBE) | <i>tert</i> -Amyl<br>methyl ether<br>(TAME) | <i>trans</i> -1,4-<br>Dichloro-2-<br>butene |
|----------------------|--|--|-------------------------------|-------------------------------|--------------------|--------------------------------------|--|---|---|
| 10/10/2001           | NA   | NA                                       | NA                            | NA                            | NA                 | NA                                   | NA   | NA  | NA  |
| 10/22/2001           | NA   | NA                                       | NA                            | NA                            | NA                 | NA                                   | NA   | NA  | NA  |
| 11/15/2001           | —  | —  | E0.02                         | —                             | E0.01              | E0.01                                | —  | —   | —   |
| 11/27/2001           | —  | —  | E0.01                         | —                             | E0.05              | E0.01                                | —  | —   | —   |
| 12/09/2001           | —  | —  | —                             | —                             | E0.05              | E0.01                                | —  | —   | —   |
| 12/21/2001           | —  | —  | —                             | —                             | —                  | E0.01                                | —  | —   | —   |
| 01/03/2002           | —  | —  | E0.01                         | —                             | —                  | —                                    | E0.05  | —   | —   |
| 01/14/2002           | —  | —  | 0.07                          | —                             | —                  | E0.01                                | —  | E0.04                                       | —   |
| 01/28/2002           | —  | —  | E0.01                         | —                             | —                  | E0.01                                | —  | —   | —   |
| 02/07/2002           | —  | —  | E0.01                         | —                             | —                  | E0.01                                | —  | —   | —   |
| 02/19/2002           | —  | —  | E0.01                         | —                             | —                  | E0.01                                | —  | —   | —   |
| 03/03/2002           | —  | —  | E0.01                         | —                             | —                  | E0.01                                | —  | —   | —   |
| 03/27/2002           | —  | —  | E0.01                         | —                             | —                  | E0.01                                | —  | —   | —   |
| 04/20/2002           | —  | —  | E0.01                         | —                             | —                  | E0.01                                | E0.01  | —   | —   |
| 05/14/2002           | —  | —  | E0.01                         | —                             | —                  | E0.01                                | —  | —   | —   |
| 05/26/2002           | —  | —  | —                             | —                             | —                  | —                                    | —  | —   | —   |
| 06/07/2002           | —  | —  | —                             | —                             | —                  | E0.01                                | —  | —   | —   |
| 06/19/2002           | —  | —  | E0.03                         | —                             | —                  | E0.01                                | —  | —   | —   |
| 07/01/2002           | —  | —  | —                             | —                             | —                  | E0.01                                | —  | —   | —   |
| 07/13/2002           | —  | —  | E0.01                         | —                             | —                  | E0.01                                | E0.01  | —   | —   |
| 07/25/2002           | —  | —  | E0.02                         | —                             | E0.04              | E0.01                                | E0.01  | —   | —   |
| 08/06/2002           | —  | —  | E0.03                         | —                             | —                  | E0.01                                | E0.01  | —   | —   |
| 08/18/2002           | —  | —  | —                             | —                             | —                  | —                                    | —  | —   | —   |
| 08/30/2002           | —  | —  | E0.02                         | —                             | E0.02              | E0.01                                | —  | E0.03                                       | —   |
| 09/11/2002           | NA   | NA                                       | NA                            | NA                            | NA                 | NA                                   | NA   | NA  | NA  |
| 09/23/2002           | NA   | NA                                       | NA                            | NA                            | NA                 | NA                                   | NA   | NA  | NA  |
| 10/05/2002           | —  | —  | E0.02                         | —                             | E0.02              | E0.01                                | E0.01  | —   | —   |
| 10/17/2002           | —  | —  | —                             | —                             | —                  | —                                    | E0.04  | —   | —   |
| 10/29/2002           | —  | —  | E0.07                         | —                             | —                  | E0.01                                | E0.03  | —   | —   |
| 11/10/2002           | —  | —  | —                             | —                             | —                  | E0.02                                | E0.01  | —   | —   |
| 11/22/2002           | —  | —  | 0.06                          | —                             | —                  | E0.01                                | E0.01  | —   | —   |
| 12/04/2002           | —  | —  | E0.01                         | —                             | —                  | E0.01                                | —  | —   | —   |
| 01/20/2003           | —  | —  | E0.02                         | —                             | —                  | E0.01                                | —  | —   | —   |
| 02/04/2003           | —  | —  | E0.01                         | —                             | —                  | E0.01                                | E0.03  | —   | —   |
| 02/14/2003           | —  | —  | E0.01                         | —                             | —                  | E0.01                                | —  | —   | —   |
| 02/26/2003           | —  | —  | 0.25                          | —                             | —                  | E0.01                                | —  | —   | —   |
| 03/10/2003           | —  | —  | —                             | —                             | —                  | E0.01                                | —  | —   | —   |
| 03/22/2003           | —  | —  | —                             | —                             | —                  | E0.01                                | —  | —   | —   |
| 04/03/2003           | —  | —  | E0.01                         | —                             | —                  | E0.01                                | —  | —   | —   |
| 04/15/2003           | —  | —  | E0.01                         | —                             | —                  | E0.01                                | —  | —   | —   |

**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | <i>trans</i> -1,3-<br>Dichloro-<br>propene | <i>cis</i> -1,3-<br>Dichloro-<br>propene | Trichloro-<br>ethene<br>(TCE) | Hexa-<br>chloro-<br>butadiene | Methyl<br>acrylate | 1,2,3,4-Tetra-<br>methyl-<br>benzene | Ethyl <i>tert</i> -<br>butyl ether<br>(ETBE) | <i>tert</i> -Amyl<br>methyl ether<br>(TAME) | <i>trans</i> -1,4-<br>Dichloro-2-<br>butene |
|----------------------|--|--|-------------------------------|-------------------------------|--------------------|--------------------------------------|--|---|---|
| 05/09/2003           | —  | —  | —                             | —                             | —                  | E0.01                                | E0.01  | —   | —   |
| 05/21/2003           | —  | —  | E0.04                         | —                             | E0.09              | E0.01                                | E0.01  | —   | —   |
| 06/02/2003           | —  | —  | E0.01                         | —                             | —                  | E0.01                                | E0.02  | —   | —   |
| 06/14/2003           | —  | —  | —                             | —                             | —                  | E0.01                                | E0.01  | —   | —   |
| 06/26/2003           | —  | —  | E0.01                         | —                             | —                  | E0.01                                | E0.01  | —   | —   |
| 07/09/2003           | NA   | NA                                       | NA                            | NA                            | NA                 | NA                                   | NA   | NA  | NA  |
| 07/20/2003           | —  | —  | E0.04                         | —                             | —                  | E0.01                                | E0.02  | —   | —   |
| 08/01/2003           | —  | —  | E0.01                         | —                             | —                  | E0.01                                | E0.03  | —   | —   |
| 08/13/2003           | —  | —  | E0.01                         | —                             | —                  | E0.01                                | E0.01  | —   | —   |
| 08/25/2003           | —  | —  | E0.03                         | —                             | —                  | E0.02                                | E0.02  | —   | —   |
| 09/06/2003           | —  | —  | E0.02                         | —                             | —                  | E0.01                                | —  | E0.03                                       | —   |
| 09/18/2003           | —  | —  | E0.02                         | —                             | E0.05              | E0.01                                | E0.01  | —   | —   |

**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | Ethylmeth-<br>acrylate | Carbon<br>disulfide | <i>cis</i> -1,2-<br>Dichloro-<br>ethene | 2-Hexanone<br>(MBK) | Ethenyl-<br>benzene<br>(Styrene) | <i>o</i> -Xylene | 1,1-Di-<br>chloro-<br>propene | 2,2-Di-<br>chloro-<br>propene | 1,3-Di-<br>chloro-<br>propene |
|----------------------|------------------------|---------------------|---|---------------------|----------------------------------|------------------|-------------------------------|-------------------------------|-------------------------------|
| 10/10/2001           | NA                     | NA                  | NA                                      | NA                  | NA                               | NA               | NA                            | NA                            | NA                            |
| 10/22/2001           | NA                     | NA                  | NA                                      | NA                  | NA                               | NA               | NA                            | NA                            | NA                            |
| 11/15/2001           | —                      | E0.02               | —                                       | —                   | —                                | 0.11             | —                             | —                             | —                             |
| 11/27/2001           | —                      | —                   | —                                       | —                   | —                                | 0.15             | —                             | —                             | —                             |
| 12/09/2001           | —                      | —                   | —                                       | E0.01               | E0.02                            | 0.13             | —                             | —                             | —                             |
| 12/21/2001           | —                      | —                   | —                                       | E0.01               | E0.02                            | E0.03            | —                             | —                             | —                             |
| 01/03/2002           | —                      | E0.03               | —                                       | E0.03               | E0.04                            | E0.03            | —                             | —                             | —                             |
| 01/14/2002           | —                      | E0.02               | —                                       | E0.03               | E0.08                            | 0.47             | —                             | —                             | —                             |
| 01/14/2002           | —                      | E0.02               | —                                       | E0.03               | 0.09                             | 0.42             | —                             | —                             | —                             |
| 01/28/2002           | —                      | —                   | —                                       | E0.01               | E0.03                            | 0.10             | —                             | —                             | —                             |
| 02/07/2002           | —                      | —                   | —                                       | E0.01               | 0.11                             | 0.85             | —                             | —                             | —                             |
| 02/19/2002           | —                      | —                   | —                                       | E0.01               | E0.02                            | 0.15             | —                             | —                             | —                             |
| 03/03/2002           | —                      | 0.13                | —                                       | E0.01               | —                                | E0.04            | —                             | —                             | —                             |
| 03/27/2002           | —                      | —                   | —                                       | E0.01               | —                                | E0.07            | 0.14                          | —                             | —                             |
| 04/20/2002           | —                      | —                   | —                                       | E0.01               | —                                | E0.07            | —                             | —                             | —                             |
| 05/14/2002           | —                      | E0.05               | —                                       | E0.01               | —                                | E0.07            | —                             | —                             | —                             |
| 05/26/2002           | —                      | E0.06               | —                                       | E0.01               | —                                | E0.05            | —                             | —                             | —                             |
| 06/07/2002           | —                      | E0.03               | —                                       | 0.20                | E0.02                            | 0.16             | —                             | —                             | —                             |
| 06/19/2002           | —                      | —                   | —                                       | E0.01               | E0.04                            | 0.15             | —                             | —                             | —                             |
| 07/01/2002           | —                      | —                   | —                                       | E0.07               | E0.06                            | 0.26             | —                             | —                             | —                             |
| 07/13/2002           | —                      | —                   | —                                       | E0.02               | E0.03                            | 0.19             | —                             | —                             | —                             |
| 07/25/2002           | —                      | —                   | —                                       | E0.02               | E0.02                            | 0.12             | —                             | —                             | —                             |
| 08/06/2002           | —                      | —                   | —                                       | E0.02               | E0.04                            | 0.15             | —                             | —                             | —                             |
| 08/18/2002           | —                      | —                   | —                                       | E0.02               | E0.01                            | E0.05            | —                             | —                             | —                             |
| 08/30/2002           | —                      | E0.02               | —                                       | E0.02               | E0.04                            | 0.30             | —                             | —                             | —                             |
| 09/11/2002           | NA                     | NA                  | NA                                      | NA                  | NA                               | NA               | NA                            | NA                            | NA                            |
| 09/23/2002           | NA                     | NA                  | NA                                      | NA                  | NA                               | NA               | NA                            | NA                            | NA                            |
| 10/05/2002           | —                      | —                   | —                                       | E0.05               | E0.03                            | 0.24             | —                             | —                             | —                             |
| 10/17/2002           | —                      | —                   | —                                       | E0.01               | E0.02                            | E0.06            | —                             | —                             | —                             |
| 10/29/2002           | —                      | —                   | —                                       | E0.03               | E0.05                            | 0.23             | —                             | —                             | —                             |
| 11/10/2002           | —                      | —                   | —                                       | E0.03               | 0.11                             | 0.63             | —                             | —                             | —                             |
| 11/22/2002           | —                      | —                   | —                                       | E0.02               | E0.07                            | 0.32             | —                             | —                             | —                             |
| 12/04/2002           | —                      | —                   | —                                       | E0.02               | E0.02                            | 0.09             | —                             | —                             | —                             |
| 01/20/2003           | —                      | —                   | —                                       | E0.01               | E0.03                            | 0.18             | —                             | —                             | —                             |
| 02/04/2003           | —                      | —                   | —                                       | E0.01               | E0.01                            | E0.01            | —                             | —                             | —                             |
| 02/14/2003           | —                      | —                   | —                                       | E0.01               | E0.01                            | E0.07            | —                             | —                             | —                             |
| 02/26/2003           | —                      | E0.03               | —                                       | 0.13                | 0.11                             | 0.24             | —                             | —                             | —                             |
| 03/10/2003           | —                      | —                   | —                                       | E0.06               | E0.02                            | 0.13             | —                             | —                             | —                             |
| 03/22/2003           | —                      | —                   | —                                       | E0.07               | E0.02                            | 0.19             | —                             | —                             | —                             |
| 04/03/2003           | —                      | —                   | —                                       | E0.02               | E0.02                            | 0.10             | —                             | —                             | —                             |

**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | Ethylmeth-<br>acrylate | Carbon<br>disulfide | <i>cis</i> -1,2-<br>Dichloro-<br>ethene | 2-Hexanone<br>(MBK) | Ethenyl-<br>benzene<br>(Styrene) | <i>o</i> -Xylene | 1,1-Di-<br>chloro-<br>propene | 2,2-Di-<br>chloro-<br>propene | 1,3-Di-<br>chloro-<br>propene |
|----------------------|------------------------|---------------------|---|---------------------|----------------------------------|------------------|-------------------------------|-------------------------------|-------------------------------|
| 04/15/2003           | —                      | E0.03               | —                                       | E0.03               | E0.01                            | 0.10             | —                             | —                             | —                             |
| 05/09/2003           | —                      | —                   | —                                       | E0.02               | E0.01                            | E0.05            | —                             | —                             | —                             |
| 05/21/2003           | —                      | —                   | —                                       | E0.03               | E0.05                            | 0.36             | —                             | —                             | —                             |
| 06/02/2003           | —                      | —                   | —                                       | E0.02               | E0.02                            | 0.13             | —                             | —                             | —                             |
| 06/14/2003           | —                      | —                   | —                                       | E0.02               | E0.01                            | E0.06            | —                             | —                             | —                             |
| 06/26/2003           | —                      | E0.02               | —                                       | E0.06               | E0.03                            | 0.19             | —                             | —                             | —                             |
| 07/09/2003           | NA                     | NA                  | NA                                      | NA                  | NA                               | NA               | NA                            | NA                            | NA                            |
| 07/20/2003           | —                      | —                   | —                                       | E0.03               | E0.02                            | 0.11             | —                             | —                             | —                             |
| 08/01/2003           | —                      | E0.03               | —                                       | E0.01               | E0.02                            | 0.13             | —                             | —                             | —                             |
| 08/13/2003           | —                      | E0.02               | —                                       | E0.02               | E0.03                            | 0.20             | —                             | —                             | —                             |
| 08/25/2003           | —                      | —                   | —                                       | E0.05               | E0.03                            | 0.17             | —                             | —                             | —                             |
| 09/06/2003           | —                      | E0.02               | —                                       | E0.02               | E0.04                            | 0.30             | —                             | —                             | —                             |
| 09/18/2003           | —                      | E0.01               | —                                       | E0.04               | E0.04                            | 0.25             | —                             | —                             | —                             |



**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | 2-Ethyl-<br>toluene | 1,2,3-<br>Trimethyl-<br>benzene | 1,2,4-<br>Trimethyl-<br>benzene | Isopropyl-<br>benzene<br>(Cumene) | n-propyl-<br>benzene | 1,3,5-<br>Trimethyl-<br>benzene | 2-Chloro-<br>toluene | 4-Chloro-<br>toluene | Bromo-<br>chloro-<br>methane |
|----------------------|---------------------|---------------------------------|---------------------------------|-----------------------------------|----------------------|---------------------------------|----------------------|----------------------|------------------------------|
| 10/10/2001           | NA                  | NA                              | NA                              | NA                                | NA                   | NA                              | NA                   | NA                   | NA                           |
| 10/22/2001           | NA                  | NA                              | NA                              | NA                                | NA                   | NA                              | NA                   | NA                   | NA                           |
| 11/15/2001           | E0.02               | E0.02                           | 0.10                            | E0.01                             | E0.02                | E0.02                           | —                    | —                    | —                            |
| 11/27/2001           | E0.02               | E0.02                           | 0.11                            | E0.01                             | E0.02                | E0.03                           | —                    | —                    | —                            |
| 12/09/2001           | E0.03               | E0.02                           | 0.10                            | E0.01                             | E0.02                | E0.03                           | —                    | —                    | —                            |
| 12/21/2001           | E0.01               | E0.01                           | E0.04                           | E0.01                             | E0.01                | E0.01                           | —                    | —                    | —                            |
| 01/03/2002           | E0.02               | E0.02                           | E0.03                           | E0.01                             | E0.02                | E0.02                           | —                    | —                    | —                            |
| 01/14/2002           | 0.09                | 0.09                            | 0.32                            | E0.02                             | E0.07                | 0.09                            | —                    | —                    | —                            |
| 01/28/2002           | E0.02               | E0.02                           | 0.08                            | E0.01                             | E0.01                | E0.02                           | —                    | —                    | —                            |
| 02/07/2002           | 0.19                | 0.15                            | 0.74                            | E0.03                             | 0.13                 | 0.19                            | —                    | —                    | —                            |
| 02/19/2002           | E0.03               | E0.02                           | 0.11                            | E0.01                             | E0.02                | E0.03                           | —                    | —                    | —                            |
| 03/03/2002           | E0.01               | E0.01                           | E0.03                           | E0.01                             | E0.01                | E0.01                           | —                    | —                    | —                            |
| 03/27/2002           | E0.02               | E0.02                           | E0.07                           | E0.01                             | E0.01                | E0.02                           | —                    | —                    | —                            |
| 04/20/2002           | E0.02               | E0.02                           | E0.06                           | E0.01                             | E0.01                | E0.02                           | —                    | —                    | —                            |
| 05/14/2002           | E0.02               | E0.02                           | E0.06                           | E0.01                             | E0.01                | E0.02                           | —                    | —                    | —                            |
| 05/26/2002           | E0.01               | E0.01                           | E0.04                           | E0.01                             | E0.01                | E0.01                           | —                    | —                    | —                            |
| 06/07/2002           | E0.04               | E0.02                           | 0.13                            | 0.12                              | E0.05                | E0.04                           | —                    | —                    | —                            |
| 06/19/2002           | E0.03               | E0.03                           | 0.15                            | E0.02                             | E0.03                | E0.03                           | —                    | —                    | —                            |
| 07/01/2002           | E0.07               | E0.06                           | 0.24                            | E0.01                             | E0.05                | E0.07                           | —                    | —                    | —                            |
| 07/13/2002           | 0.14                | E0.06                           | 0.21                            | E0.01                             | E0.04                | E0.06                           | —                    | —                    | —                            |
| 07/25/2002           | E0.03               | E0.03                           | 0.10                            | E0.01                             | E0.02                | E0.03                           | —                    | —                    | —                            |
| 08/06/2002           | E0.04               | E0.04                           | 0.15                            | E0.01                             | E0.02                | E0.04                           | —                    | —                    | —                            |
| 08/18/2002           | E0.01               | E0.02                           | E0.05                           | E0.03                             | E0.01                | E0.01                           | —                    | —                    | —                            |
| 08/30/2002           | 0.07                | 0.08                            | 0.29                            | E0.01                             | 0.06                 | 0.08                            | —                    | —                    | —                            |
| 09/11/2002           | NA                  | NA                              | NA                              | NA                                | NA                   | NA                              | NA                   | NA                   | NA                           |
| 09/23/2002           | NA                  | NA                              | NA                              | NA                                | NA                   | NA                              | NA                   | NA                   | NA                           |
| 10/05/2002           | E0.06               | E0.05                           | 0.23                            | E0.01                             | E0.05                | E0.06                           | —                    | —                    | —                            |
| 10/17/2002           | E0.02               | E0.02                           | 0.08                            | E0.06                             | E0.02                | E0.02                           | —                    | —                    | —                            |
| 10/29/2002           | E0.05               | E0.05                           | 0.17                            | E0.01                             | E0.05                | E0.05                           | —                    | —                    | —                            |
| 11/10/2002           | 0.26                | 0.19                            | 1.12                            | E0.03                             | 0.20                 | 0.32                            | —                    | —                    | —                            |
| 11/22/2002           | 0.08                | E0.06                           | 0.29                            | E0.02                             | E0.06                | 0.08                            | —                    | —                    | —                            |
| 12/04/2002           | E0.02               | E0.02                           | 0.08                            | E0.01                             | E0.02                | E0.02                           | —                    | —                    | —                            |
| 01/20/2003           | E0.04               | E0.04                           | 0.16                            | E0.01                             | E0.03                | E0.04                           | —                    | —                    | —                            |
| 02/04/2003           | E0.01               | E0.01                           | E0.02                           | E0.01                             | E0.01                | E0.01                           | —                    | —                    | —                            |
| 02/14/2003           | E0.01               | E0.01                           | E0.05                           | E0.01                             | E0.01                | E0.02                           | —                    | —                    | —                            |
| 02/26/2003           | E0.05               | E0.04                           | 0.17                            | E0.01                             | E0.03                | E0.05                           | —                    | —                    | —                            |
| 03/10/2003           | E0.03               | E0.02                           | 0.10                            | E0.01                             | E0.02                | E0.04                           | —                    | —                    | —                            |
| 03/22/2003           | E0.03               | E0.03                           | 0.12                            | E0.01                             | E0.03                | E0.04                           | —                    | —                    | —                            |
| 04/03/2003           | E0.02               | E0.01                           | E0.07                           | E0.01                             | E0.01                | E0.02                           | —                    | —                    | —                            |
| 04/15/2003           | E0.02               | E0.02                           | E0.07                           | E0.01                             | E0.01                | E0.02                           | —                    | —                    | —                            |

**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | 2-Ethyl-<br>toluene | 1,2,3-<br>Trimethyl-<br>benzene | 1,2,4-<br>Trimethyl-<br>benzene | Isopropyl-<br>benzene<br>(Cumene) | <i>n</i> -propyl-<br>benzene | 1,3,5-<br>Trimethyl-<br>benzene | 2-Chloro-<br>toluene | 4-Chloro-<br>toluene | Bromo-<br>chloro-<br>methane |
|----------------------|---------------------|---------------------------------|---------------------------------|-----------------------------------|------------------------------|---------------------------------|----------------------|----------------------|------------------------------|
| 05/09/2003           | E0.01               | E0.01                           | E0.04                           | E0.01                             | E0.01                        | E0.01                           | —                    | —                    | —                            |
| 05/21/2003           | E0.07               | E0.05                           | 0.24                            | E0.01                             | E0.05                        | E0.07                           | —                    | —                    | —                            |
| 06/02/2003           | E0.03               | E0.02                           | 0.09                            | E0.01                             | E0.02                        | E0.03                           | —                    | —                    | —                            |
| 06/14/2003           | E0.01               | E0.01                           | 0.05                            | E0.01                             | E0.01                        | E0.02                           | —                    | —                    | —                            |
| 06/26/2003           | E0.04               | E0.04                           | 0.15                            | E0.01                             | E0.03                        | E0.05                           | —                    | —                    | —                            |
| 07/09/2003           | NA                  | NA                              | NA                              | NA                                | NA                           | NA                              | NA                   | NA                   | NA                           |
| 07/20/2003           | E0.03               | E0.03                           | 0.09                            | E0.01                             | E0.02                        | E0.02                           | —                    | —                    | —                            |
| 08/01/2003           | E0.03               | E0.04                           | 0.10                            | E0.01                             | E0.02                        | E0.03                           | —                    | —                    | —                            |
| 08/13/2003           | E0.05               | E0.05                           | 0.17                            | E0.01                             | E0.03                        | E0.05                           | —                    | —                    | —                            |
| 08/25/2003           | E0.04               | E0.05                           | 0.12                            | E0.01                             | E0.03                        | E0.04                           | —                    | —                    | —                            |
| 09/06/2003           | 0.07                | 0.08                            | 0.29                            | E0.01                             | E0.06                        | 0.08                            | —                    | —                    | —                            |
| 09/18/2003           | E0.06               | E0.05                           | 0.22                            | E0.01                             | E0.05                        | E0.06                           | —                    | —                    | —                            |

**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | <i>n</i> -Butyl-<br>benzene | <i>sec</i> -Butyl-<br>benzene | <i>tert</i> -Butyl-<br>benzene | 1-Isopropyl-<br>4-methyl-<br>benzene | 1,2,3--<br>Trichloro-<br>propene | 1,1,1,2-<br>Tetrachloro-<br>ethane | 1,2,3-<br>Trichloro-<br>benzene | 1,2-<br>Dibromo-<br>ethane | Methyl <i>tert</i> -<br>butyl ether<br>(MTBE) |
|----------------------|-----------------------------|-------------------------------|--------------------------------|--------------------------------------|----------------------------------|------------------------------------|---------------------------------|----------------------------|---|
| 10/10/2001           | NA                          | NA                            | NA                             | NA                                   | NA                               | NA                                 | NA                              | NA                         | NA  |
| 10/22/2001           | NA                          | NA                            | NA                             | NA                                   | NA                               | NA                                 | NA                              | NA                         | NA  |
| 11/15/2001           | E0.01                       | E0.01                         | —                              | E0.03                                | —                                | —                                  | —                               | —                          | 0.88  |
| 11/27/2001           | E0.01                       | E0.01                         | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.98  |
| 12/09/2001           | E0.01                       | E0.01                         | —                              | E0.02                                | —                                | —                                  | —                               | —                          | 0.82  |
| 12/21/2001           | E0.01                       | —                             | —                              | E0.01                                | —                                | —                                  | —                               | —                          | E0.11   |
| 01/03/2002           | —                           | —                             | —                              | E0.01                                | —                                | —                                  | —                               | —                          | E0.05   |
| 01/14/2002           | —                           | E0.01                         | —                              | E0.04                                | —                                | —                                  | —                               | —                          | 3.43  |
| 01/28/2002           | E0.01                       | —                             | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.21  |
| 02/07/2002           | —                           | —                             | —                              | E0.04                                | —                                | —                                  | —                               | —                          | 2.62  |
| 02/19/2002           | E0.01                       | E0.01                         | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.78  |
| 03/03/2002           | E0.01                       | —                             | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.26  |
| 03/27/2002           | E0.01                       | E0.01                         | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.54  |
| 04/20/2002           | E0.01                       | E0.01                         | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.36  |
| 05/14/2002           | E0.01                       | —                             | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.34  |
| 05/26/2002           | E0.01                       | —                             | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.25  |
| 06/07/2002           | E0.01                       | 0.06                          | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.74  |
| 06/19/2002           | E0.01                       | E0.01                         | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.35  |
| 07/01/2002           | E0.03                       | E0.01                         | —                              | E0.05                                | —                                | —                                  | —                               | —                          | 2.00  |
| 07/13/2002           | E0.01                       | E0.01                         | —                              | E0.05                                | —                                | —                                  | —                               | —                          | 0.80  |
| 07/25/2002           | E0.01                       | E0.01                         | —                              | E0.03                                | —                                | —                                  | —                               | —                          | 0.87  |
| 08/06/2002           | E0.01                       | —                             | —                              | E0.03                                | —                                | —                                  | —                               | —                          | 0.76  |
| 08/18/2002           | E0.01                       | —                             | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.29  |
| 08/30/2002           | E0.02                       | E0.01                         | —                              | E0.05                                | —                                | —                                  | —                               | —                          | 1.51  |
| 09/11/2002           | NA                          | NA                            | NA                             | NA                                   | NA                               | NA                                 | NA                              | NA                         | NA  |
| 09/23/2002           | NA                          | NA                            | NA                             | NA                                   | NA                               | NA                                 | NA                              | NA                         | NA  |
| 10/05/2002           | E0.01                       | —                             | —                              | E0.03                                | —                                | —                                  | —                               | —                          | 1.86  |
| 10/17/2002           | E0.01                       | —                             | —                              | E0.04                                | —                                | —                                  | —                               | —                          | 0.56  |
| 10/29/2002           | E0.02                       | —                             | —                              | E0.04                                | —                                | E0.02                              | —                               | —                          | 0.68  |
| 11/10/2002           | E0.04                       | E0.02                         | —                              | 0.81                                 | —                                | —                                  | —                               | —                          | 1.92  |
| 11/22/2002           | E0.02                       | E0.01                         | —                              | E0.02                                | —                                | —                                  | —                               | —                          | 2.17  |
| 12/04/2002           | E0.01                       | —                             | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.54  |
| 01/20/2003           | E0.01                       | —                             | —                              | E0.02                                | —                                | —                                  | —                               | —                          | 0.46  |
| 02/04/2003           | E0.01                       | —                             | —                              | E0.01                                | —                                | —                                  | —                               | —                          | E0.01   |
| 02/14/2003           | E0.01                       | E0.01                         | —                              | E0.02                                | —                                | —                                  | —                               | —                          | 0.19  |
| 02/26/2003           | E0.01                       | E0.01                         | —                              | E0.02                                | —                                | —                                  | —                               | —                          | 0.46  |
| 03/10/2003           | E0.01                       | —                             | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.54  |
| 03/22/2003           | E0.01                       | —                             | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.68  |
| 04/03/2003           | E0.01                       | —                             | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.30  |
| 04/15/2003           | E0.01                       | —                             | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.39  |

**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | <i>n</i> -Butyl-<br>benzene | <i>sec</i> -Butyl-<br>benzene | <i>tert</i> -Butyl-<br>benzene | 1-Isopropyl-<br>4-methyl-<br>benzene | 1,2,3--<br>Trichloro-<br>propene | 1,1,1,2-<br>Tetrachloro-<br>ethane | 1,2,3-<br>Trichloro-<br>benzene | 1,2-<br>Dibromo-<br>ethane | Methyl <i>tert</i> -<br>butyl ether<br>(MTBE) |
|----------------------|-----------------------------|-------------------------------|--------------------------------|--------------------------------------|----------------------------------|------------------------------------|---------------------------------|----------------------------|---|
| 05/09/2003           | E0.01                       | —                             | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.19  |
| 05/21/2003           | E0.01                       | E0.01                         | 0.05                           | E0.03                                | —                                | —                                  | —                               | —                          | 1.40  |
| 06/02/2003           | E0.01                       | E0.01                         | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.33  |
| 06/14/2003           | E0.01                       | —                             | —                              | E0.01                                | —                                | —                                  | —                               | —                          | 0.16  |
| 06/26/2003           | E0.01                       | E0.01                         | —                              | E0.04                                | —                                | —                                  | —                               | —                          | 0.52  |
| 07/09/2003           | NA                          | NA                            | NA                             | NA                                   | NA                               | NA                                 | NA                              | NA                         | NA  |
| 07/20/2003           | E0.01                       | E0.01                         | —                              | E0.03                                | —                                | —                                  | —                               | —                          | 0.47  |
| 08/01/2003           | E0.01                       | E0.01                         | —                              | E0.03                                | —                                | —                                  | —                               | —                          | 0.40  |
| 08/13/2003           | E0.01                       | E0.01                         | —                              | 0.07                                 | —                                | E0.03                              | —                               | —                          | 0.51  |
| 08/25/2003           | E0.01                       | —                             | —                              | 0.07                                 | —                                | —                                  | —                               | —                          | 0.55  |
| 09/6/2003            | E0.02                       | E0.01                         | —                              | E0.05                                | —                                | —                                  | —                               | —                          | 1.51  |
| 09/18/2003           | E0.01                       | —                             | —                              | E0.03                                | —                                | —                                  | —                               | —                          | 1.84  |

**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | 3-Chloro-<br>1-propene | 4-Methyl-2-<br>pentanone<br>(MIBK) | Acetone | Bromo-<br>benzene | Diethyl<br>ether | Diisopropyl<br>ether<br>(DIPE) | Methyl-<br>acrylonitrile | 2-Butanone<br>(Methyl<br>ethyl<br>ketone) | Methyl-<br>meth-<br>acrylate |
|----------------------|------------------------|------------------------------------|---------|-------------------|------------------|--------------------------------|--------------------------|---|------------------------------|
| 10/10/2001           | NA                     | NA                                 | NA      | NA                | NA               | NA                             | NA                       | NA  | NA                           |
| 10/22/2001           | NA                     | NA                                 | NA      | NA                | NA               | NA                             | NA                       | NA  | NA                           |
| 11/15/2001           | —                      | —                                  | —       | —                 | —                | —                              | —                        | 0.18                                      | —                            |
| 11/27/2001           | —                      | —                                  | 1.08    | —                 | —                | —                              | —                        | 0.18                                      | —                            |
| 12/09/2001           | —                      | E0.01                              | —       | —                 | —                | —                              | —                        | 0.23                                      | —                            |
| 12/21/2001           | —                      | E0.01                              | 0.47    | —                 | —                | —                              | —                        | E0.08                                     | —                            |
| 01/03/2002           | —                      | —                                  | 2.30    | —                 | —                | —                              | —                        | 0.22                                      | —                            |
| 01/14/2002           | —                      | E0.06                              | 3.58    | —                 | —                | —                              | —                        | 1.12                                      | —                            |
| 01/28/2002           | —                      | —                                  | 1.50    | —                 | —                | —                              | —                        | E0.09                                     | —                            |
| 02/07/2002           | —                      | —                                  | 1.03    | —                 | —                | —                              | —                        | 0.81                                      | —                            |
| 02/19/2002           | —                      | E0.02                              | 1.02    | —                 | —                | —                              | —                        | 0.22                                      | —                            |
| 03/03/2002           | —                      | E0.03                              | —       | —                 | —                | —                              | —                        | E0.08                                     | —                            |
| 03/27/2002           | —                      | E0.01                              | —       | —                 | —                | —                              | —                        | 0.21                                      | —                            |
| 04/20/2002           | —                      | E0.01                              | 1.42    | —                 | E0.02            | —                              | —                        | 0.19                                      | —                            |
| 05/14/2002           | —                      | E0.02                              | 0.46    | —                 | —                | —                              | —                        | 0.31                                      | —                            |
| 05/26/2002           | —                      | E0.01                              | 1.25    | —                 | —                | —                              | —                        | 0.36                                      | —                            |
| 06/07/2002           | —                      | E0.09                              | 3.78    | —                 | —                | —                              | —                        | 0.32                                      | —                            |
| 06/19/2002           | —                      | E0.02                              | 0.54    | —                 | —                | —                              | —                        | 0.30                                      | —                            |
| 07/01/2002           | —                      | E0.07                              | 3.59    | —                 | —                | —                              | —                        | 0.78                                      | —                            |
| 07/13/2002           | —                      | E0.05                              | 2.57    | —                 | —                | —                              | —                        | 0.59                                      | —                            |
| 07/25/2002           | —                      | E0.03                              | 1.10    | —                 | —                | —                              | —                        | 0.45                                      | —                            |
| 08/06/2002           | —                      | E0.02                              | 1.31    | —                 | —                | —                              | —                        | 0.45                                      | —                            |
| 08/18/2002           | —                      | —                                  | 1.56    | —                 | —                | E0.02                          | —                        | 0.31                                      | —                            |
| 08/30/2002           | —                      | E0.06                              | 2.24    | —                 | —                | —                              | —                        | 0.32                                      | —                            |
| 09/11/2002           | NA                     | NA                                 | NA      | NA                | NA               | NA                             | NA                       | NA  | NA                           |
| 09/23/2002           | NA                     | NA                                 | NA      | NA                | NA               | NA                             | NA                       | NA  | NA                           |
| 10/05/2002           | —                      | E0.06                              | 1.52    | —                 | —                | —                              | —                        | 0.59                                      | —                            |
| 10/17/2002           | —                      | E0.01                              | 2.57    | —                 | —                | —                              | —                        | 0.46                                      | —                            |
| 10/29/2002           | —                      | E0.04                              | 2.45    | —                 | —                | —                              | —                        | 0.63                                      | —                            |
| 11/10/2002           | —                      | E0.04                              | 1.61    | —                 | —                | —                              | —                        | 0.40                                      | —                            |
| 11/22/2002           | —                      | E0.08                              | 1.05    | —                 | —                | —                              | —                        | 0.66                                      | —                            |
| 12/04/2002           | —                      | E0.01                              | —       | —                 | —                | —                              | —                        | E0.12                                     | —                            |
| 01/20/2003           | —                      | E0.02                              | 0.21    | —                 | —                | —                              | —                        | 0.48                                      | —                            |
| 02/04/2003           | —                      | E0.09                              | 0.60    | —                 | —                | —                              | —                        | E0.14                                     | —                            |
| 02/14/2003           | —                      | E0.01                              | 0.51    | —                 | —                | —                              | —                        | E0.09                                     | —                            |
| 02/26/2003           | —                      | E0.04                              | 1.15    | —                 | —                | —                              | —                        | 0.48                                      | —                            |
| 03/10/2003           | —                      | 0.10                               | 2.67    | —                 | —                | —                              | —                        | 0.34                                      | —                            |
| 03/22/2003           | —                      | 0.16                               | 0.79    | —                 | —                | —                              | —                        | 0.42                                      | —                            |
| 04/03/2003           | —                      | E0.03                              | 1.22    | —                 | —                | —                              | —                        | 0.27                                      | —                            |

**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | 3-Chloro-<br>1-propene | 4-Methyl-2-<br>pentanone<br>(MIBK) | Acetone | Bromo-<br>benzene | Diethyl<br>ether | Diisopropyl<br>ether<br>(DIPE) | Methyl-<br>acrylonitrile | 2-Butanone<br>(Methyl<br>ethyl<br>ketone) | Methyl-<br>meth-<br>acrylate |
|----------------------|------------------------|------------------------------------|---------|-------------------|------------------|--------------------------------|--------------------------|---|------------------------------|
| 04/15/2003           | —                      | E0.02                              | 0.78    | —                 | —                | —                              | —                        | 0.31                                      | —                            |
| 05/09/2003           | —                      | E0.01                              | 0.83    | —                 | —                | —                              | —                        | 0.18                                      | —                            |
| 05/21/2003           | —                      | E0.09                              | 4.48    | —                 | —                | —                              | —                        | 0.93                                      | —                            |
| 06/02/2003           | —                      | E0.03                              | 2.85    | —                 | —                | —                              | —                        | 0.39                                      | —                            |
| 06/14/2003           | —                      | E0.05                              | 1.28    | —                 | —                | —                              | —                        | 0.27                                      | —                            |
| 06/26/2003           | —                      | 0.13                               | 1.60    | —                 | —                | —                              | —                        | 0.23                                      | —                            |
| 07/09/2003           | NA                     | NA                                 | NA      | NA                | NA               | NA                             | NA                       | NA  | NA                           |
| 07/20/2003           | —                      | E0.04                              | 2.37    | —                 | —                | —                              | —                        | 0.41                                      | —                            |
| 08/01/2003           | —                      | E0.06                              | 1.81    | —                 | —                | —                              | —                        | 0.29                                      | —                            |
| 08/13/2003           | —                      | E0.03                              | 0.98    | —                 | —                | —                              | —                        | 0.35                                      | —                            |
| 08/25/2003           | —                      | E0.02                              | 0.56    | —                 | —                | —                              | —                        | E0.07                                     | —                            |
| 09/06/2003           | —                      | E0.06                              | 2.62    | —                 | —                | —                              | —                        | 0.33                                      | —                            |
| 09/18/2003           | —                      | E0.06                              | 2.74    | —                 | —                | —                              | —                        | 0.57                                      | —                            |

**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | Tetra-<br>hydrofuran | 1,2-Dibromo-<br>3-chloro-<br>propene<br>(DBCP) | <i>m</i> - and <i>p</i> --<br>Xylene | 1,2,3,5-<br>Tetra-<br>methyl-<br>benzene | 1,2,4,5-<br>Tetra-<br>methyl-<br>benzene | Methyl-<br>acetate | <i>tert</i> -Amyl<br>alcohol | <i>tert</i> -Butyl<br>alcohol |
|----------------------|----------------------|--|--------------------------------------|--|--|--------------------|------------------------------|-------------------------------|
| 10/10/2001           | NA                   | NA   | NA                                   | NA                                       | NA                                       | NA                 | NA                           | NA                            |
| 10/22/2001           | NA                   | NA   | NA                                   | NA                                       | NA                                       | NA                 | NA                           | NA                            |
| 11/15/2001           | —                    | —  | 0.34                                 | E0.01                                    | E0.01                                    | —                  | —                            | E0.05                         |
| 11/27/2001           | —                    | —  | 0.52                                 | E0.01                                    | E0.01                                    | —                  | —                            | E0.06                         |
| 12/09/2001           | —                    | —  | 0.38                                 | E0.01                                    | E0.01                                    | —                  | E0.01                        | E0.09                         |
| 12/21/2001           | —                    | —  | E0.08                                | E0.01                                    | E0.01                                    | —                  | —                            | E0.05                         |
| 01/03/2002           | —                    | —  | E0.08                                | —  | —  | —                  | E0.04                        | 0.24                          |
| 01/14/2002           | E0.03                | —  | 1.19                                 | E0.04                                    | E0.03                                    | —                  | E0.08                        | 0.29                          |
| 01/28/2002           | —                    | —  | 0.26                                 | E0.01                                    | E0.01                                    | —                  | E0.01                        | —                             |
| 02/07/2002           | —                    | —  | 2.33                                 | E0.03                                    | E0.03                                    | —                  | —                            | E0.10                         |
| 02/19/2002           | —                    | —  | 0.42                                 | E0.01                                    | E0.01                                    | —                  | E0.01                        | E0.08                         |
| 03/03/2002           | —                    | —  | 0.13                                 | E0.01                                    | E0.01                                    | —                  | —                            | —                             |
| 03/27/2002           | —                    | —  | 0.20                                 | E0.01                                    | E0.01                                    | —                  | E0.01                        | E0.08                         |
| 04/20/2002           | —                    | —  | 0.20                                 | E0.01                                    | E0.01                                    | —                  | E0.01                        | 0.15                          |
| 05/14/2002           | —                    | —  | 0.20                                 | E0.01                                    | E0.01                                    | —                  | —                            | E0.02                         |
| 05/26/2002           | —                    | —  | 0.16                                 | —  | —  | —                  | —                            | E0.01                         |
| 06/07/2002           | —                    | —  | 0.46                                 | E0.01                                    | E0.01                                    | —                  | —                            | 0.20                          |
| 06/19/2002           | —                    | —  | 0.44                                 | E0.01                                    | E0.01                                    | —                  | —                            | E0.08                         |
| 07/01/2002           | —                    | —  | 0.71                                 | E0.04                                    | E0.03                                    | —                  | —                            | 0.28                          |
| 07/13/2002           | —                    | —  | 0.49                                 | E0.03                                    | E0.02                                    | —                  | E0.02                        | E0.12                         |
| 07/25/2002           | —                    | —  | 0.32                                 | E0.01                                    | E0.01                                    | —                  | E0.03                        | E0.12                         |
| 08/06/2002           | —                    | —  | 0.39                                 | E0.02                                    | E0.01                                    | —                  | E0.03                        | E0.11                         |
| 08/18/2002           | —                    | —  | 0.14                                 | E0.01                                    | E0.01                                    | —                  | E0.02                        | E0.03                         |
| 08/30/2002           | E0.01                | —  | 0.83                                 | E0.03                                    | E0.02                                    | —                  | E0.01                        | E0.09                         |
| 09/11/2002           | NA                   | NA   | NA                                   | NA                                       | NA                                       | NA                 | NA                           | NA                            |
| 09/23/2002           | NA                   | NA   | NA                                   | NA                                       | NA                                       | NA                 | NA                           | NA                            |
| 10/05/2002           | —                    | —  | 0.76                                 | E0.02                                    | E0.01                                    | —                  | E0.05                        | 0.15                          |
| 10/17/2002           | —                    | —  | 0.17                                 | E0.01                                    | E0.01                                    | —                  | —                            | 0.42                          |
| 10/29/2002           | —                    | —  | 0.63                                 | E0.02                                    | E0.01                                    | —                  | E0.08                        | 0.37                          |
| 11/10/2002           | —                    | —  | 1.76                                 | 0.06                                     | E0.05                                    | —                  | —                            | E0.10                         |
| 11/22/2002           | —                    | —  | 0.91                                 | E0.03                                    | E0.02                                    | —                  | E0.02                        | E0.12                         |
| 12/04/2002           | —                    | —  | 0.25                                 | E0.01                                    | E0.01                                    | —                  | —                            | E0.05                         |
| 01/20/2003           | —                    | —  | 0.53                                 | E0.02                                    | E0.01                                    | —                  | E0.03                        | E0.03                         |
| 02/04/2003           | —                    | —  | E0.03                                | E0.01                                    | E0.01                                    | —                  | E0.02                        | E0.05                         |
| 02/14/2003           | —                    | —  | 0.19                                 | E0.01                                    | E0.01                                    | —                  | E0.01                        | E0.05                         |
| 02/26/2003           | —                    | —  | 0.68                                 | E0.02                                    | E0.01                                    | —                  | E0.02                        | E0.04                         |
| 03/10/2003           | —                    | —  | 0.35                                 | E0.01                                    | E0.01                                    | —                  | E0.02                        | E0.07                         |
| 03/22/2003           | —                    | —  | 0.53                                 | E0.01                                    | E0.01                                    | —                  | E0.01                        | —                             |
| 04/03/2003           | —                    | —  | 0.27                                 | E0.01                                    | E0.01                                    | —                  | E0.02                        | 0.14                          |



**Table 9B.** Analytical results for volatile organic compounds in air with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). E, estimated value; NA, not analyzed; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | Tetra-<br>hydrofuran | 1,2-Dibromo-<br>3-chloro-<br>propene<br>(DBCP) | <i>m</i> - and <i>p</i> --<br>Xylene | 1,2,3,5-<br>Tetra-<br>methyl-<br>benzene | 1,2,4,5-<br>Tetra-<br>methyl-<br>benzene | Methyl-<br>acetate | <i>tert</i> -Amyl<br>alcohol | <i>tert</i> -Butyl<br>alcohol |
|----------------------|----------------------|--|--------------------------------------|--|--|--------------------|------------------------------|-------------------------------|
| 04/15/2003           | —                    | —  | 0.28                                 | E0.01                                    | E0.01                                    | —                  | E0.02                        | E0.05                         |
| 05/09/2003           | —                    | —  | 0.15                                 | E0.01                                    | E0.01                                    | —                  | E0.01                        | E0.08                         |
| 05/21/2003           | —                    | —  | 1.03                                 | E0.02                                    | E0.01                                    | —                  | 0.16                         | 0.14                          |
| 06/02/2003           | —                    | —  | 0.33                                 | E0.01                                    | E0.01                                    | —                  | E0.02                        | 0.33                          |
| 06/14/2003           | —                    | —  | 0.16                                 | E0.01                                    | E0.01                                    | —                  | E0.02                        | E0.13                         |
| 06/26/2003           | —                    | —  | 0.53                                 | E0.01                                    | E0.01                                    | —                  | E0.02                        | E0.10                         |
| 07/09/2003           | NA                   | NA   | NA                                   | NA                                       | NA                                       | NA                 | NA                           | NA                            |
| 07/20/2003           | —                    | —  | 0.29                                 | E0.02                                    | E0.02                                    | —                  | E0.07                        | 0.27                          |
| 08/01/2003           | —                    | —  | 0.36                                 | E0.02                                    | E0.01                                    | —                  | E0.03                        | 0.29                          |
| 08/13/2003           | —                    | —  | 0.52                                 | E0.02                                    | E0.01                                    | —                  | E0.03                        | E0.09                         |
| 08/25/2003           | —                    | —  | 0.41                                 | E0.03                                    | E0.02                                    | —                  | E0.05                        | E0.09                         |
| 09/06/2003           | E0.01                | —  | 0.83                                 | E0.03                                    | E0.02                                    | —                  | E0.02                        | E0.10                         |
| 09/18/2003           | —                    | —  | 0.79                                 | E0.02                                    | E0.01                                    | —                  | E0.05                        | 0.14                          |

**Table 10A.** Polycyclic aromatic hydrocarbon (PAH) and alkylated PAH compounds analyzed in air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site identification number is 324141117001601. Estimated reporting level for split extract analyzed in full scan mode assumes 315 cubic meters as the average air volume. Alkylated PAH homolog concentrations are estimated. ng/m<sup>3</sup>, nanogram per cubic meter]

| Compound  | Estimated reporting level <sup>1</sup> (ng/m <sup>3</sup> ) | Ion (mass-to-charge ratio) monitored for alkylated PAH homologs |
|---|---|---|
| Anthracene  | 0.5   |   |
| Benz[ <i>a</i> ] anthracene                                       | 0.5   |   |
| Benzo[ <i>ghi</i> ] perylene                                      | 0.5   |   |
| Benzo[ <i>a</i> ] pyrene  | 0.5   |   |
| Benzo[ <i>b</i> ] fluoranthene                                    | 0.5   |   |
| Benzo[ <i>e</i> ] pyrene  | 0.5   |   |
| Benzo[ <i>k</i> ] fluoranthene                                    | 0.5   |   |
| Chrysene  | 0.5   |   |
| Coronene  | 0.5   |   |
| Dibenzo[ <i>a,h</i> ] anthracene                                  | 0.5   |   |
| Fluoranthene  | 0.5   |   |
| Indeno[1,2,3- <i>cd</i> ] pyrene                                  | 0.5   |   |
| 2-Methylanthracene  | 0.5   |   |
| 4,5-Methylenepheneanthrene  | 0.5   |   |
| 1-Methylphenanthrene  | 0.5   |   |
| 1-Methylpyrene  | 0.5   |   |
| Perylene  | 0.5   |   |
| Phenanthrene  | 0.5   |   |
| Pyrene  | 0.5   |   |
| <b>Alkylated PAH homologs</b>                                     |   |   |
| C1-178 Isomers, methylated phenanthrenes/anthracenes              | 0.5   | 178   |
| C1-202 Isomers, methylated fluoranthenes/pyrenes                  | 0.5   | 202   |
| C1-228 Isomers, methylated benzo[ <i>a</i> ]anthracenes/chrysenes | 0.5   | 228   |
| C1-252 Isomers, methylated benzopyrenes/perylenes                 | 0.5   | 252   |
| C2-178 Isomers, alkylated phenanthrenes/anthracenes               | 0.5   | 178   |
| C2-202 Isomers, alkylated fluoranthenes/pyrenes                   | 0.5   | 202   |
| C2-228 Isomers, alkylated benzo[ <i>a</i> ]anthracenes/chrysenes  | 0.5   | 228   |
| C2-252 Isomers, alkylated benzopyrenes/perylenes                  | 0.5   | 252   |
| C3-178 Isomers, alkylated phenanthrenes/anthracenes               | 0.5   | 178   |
| C3-202 Isomers, alkylated fluoranthenes/pyrenes                   | 0.5   | 202   |
| C3-228 Isomers, alkylated benzo[ <i>a</i> ]anthracenes/chrysenes  | 0.5   | 228   |
| C3-252 Isomers, alkylated benzopyrenes/perylenes                  | 0.5   | 252   |
| C4-178 Isomers, alkylated phenanthrenes/anthracenes               | 0.5   | 178   |
| C4-202 Isomers, alkylated fluoranthenes/pyrenes                   | 0.5   | 202   |
| C4-228 Isomers, alkylated benzo[ <i>a</i> ]anthracenes/chrysenes  | 0.5   | 228   |
| C4-252 Isomers, alkylated benzopyrenes/perylenes                  | 0.5   | 252   |
| C5-178 Isomers, alkylated phenanthrenes/anthracenes               | 0.5   | 178   |
| C5-202 Isomers, alkylated fluoranthenes/pyrenes                   | 0.5   | 202   |
| C5-228 Isomers, alkylated benzo[ <i>a</i> ]anthracenes/chrysenes  | 0.5   | 228   |
| C5-252 Isomers, alkylated benzopyrenes/perylenes                  | 0.5   | 252   |
| 2-Fluorobiphenyl, surrogate                                       | percent   |   |
| Nitrobenzene- <i>d</i> 5, surrogate                               | percent   |   |
| Terphenyl- <i>d</i> 14, surrogate                                 | percent   |   |

**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume<br>sampled<br>(m <sup>3</sup> ) | Total suspended<br>particulate<br>(µg/m <sup>3</sup> ) | Sample<br>prepara-<br>tion set<br>number | Extraction<br>by Soxhlet<br>or PSE | Extract<br>split | GCMS<br>SIM or<br>Scan | Anthra-<br>cene | Benz[a]<br>anthra-<br>cene | Benzo[ghi]<br>perylene | Benzo[a]<br>pyrene | Benzo[b]<br>fluor-<br>anthene |
|----------------------------|------------|--|--|--|------------------------------------|------------------|------------------------|-----------------|----------------------------|------------------------|--------------------|-------------------------------|
| 10/2/2001                  | GFF        | 291.4                                      | 50.8   | 02.037                                   | Soxhlet                            | no               | SIM                    | —               | —                          | —                      | —                  | —                             |
|                            | Top PUF    |  |  | 02.037                                   | Soxhlet                            | no               | SIM                    | —               | —                          | —                      | —                  | —                             |
|                            | Bottom PUF |  |  | 02.037                                   | Soxhlet                            | no               | SIM                    | —               | —                          | —                      | —                  | —                             |
|                            | TOTAL      |  |  |  |                                    |                  |                        | —               | —                          | —                      | —                  | —                             |
| 10/30/2001                 | GFF        | 318.7                                      | 72.2   | 02.037                                   | Soxhlet                            | no               | SIM                    | —               | —                          | —                      | —                  | —                             |
|                            | Top PUF    |  |  | 02.037                                   | Soxhlet                            | no               | SIM                    | 0.11            | —                          | —                      | —                  | —                             |
|                            | Bottom PUF |  |  | 02.037                                   | Soxhlet                            | no               | SIM                    | —               | —                          | —                      | —                  | —                             |
|                            | TOTAL      |  |  |  |                                    |                  |                        | 0.11            | —                          | —                      | —                  | —                             |
| 12/04/2001                 | GFF        | 323.8                                      | 47.6   | 02.037                                   | Soxhlet                            | no               | SIM                    | 0.03            | 0.11                       | 0.54                   | 0.12               | 0.37                          |
|                            | Top PUF    |  |  | 02.037                                   | Soxhlet                            | no               | SIM                    | 0.66            | 0.17                       | —                      | 0.06               | 0.09                          |
|                            | Bottom PUF |  |  | 02.037                                   | Soxhlet                            | no               | SIM                    | —               | —                          | —                      | —                  | —                             |
|                            | TOTAL      |  |  |  |                                    |                  |                        | 0.69            | 0.28                       | 0.54                   | 0.18               | 0.46                          |
| 01/08/2002                 | GFF        | 335.9                                      | 62.5   | 02.037                                   | Soxhlet                            | no               | SIM                    | 0.03            | 0.08                       | 0.40                   | 0.07               | 0.40                          |
|                            | Top PUF    |  |  | 02.037                                   | Soxhlet                            | no               | SIM                    | 0.39            | 0.10                       | —                      | —                  | —                             |
|                            | Bottom PUF |  |  | 02.037                                   | Soxhlet                            | no               | SIM                    | —               | —                          | —                      | —                  | —                             |
|                            | TOTAL      |  |  |  |                                    |                  |                        | 0.42            | 0.18                       | 0.40                   | 0.07               | 0.40                          |
| 02/05/2002                 | GFF        | 372.7                                      | 77.3   | 02.35009                                 | PSE                                | no               | SIM                    | 0.02            | 0.06                       | 0.19                   | 0.07               | 0.16                          |
|                            | Top PUF    |  |  | 02.35009                                 | PSE                                | no               | SIM                    | 0.27            | 0.08                       | —                      | —                  | —                             |
|                            | Bottom PUF |  |  | 02.35009                                 | PSE                                | no               | SIM                    | —               | —                          | —                      | —                  | —                             |
|                            | TOTAL      |  |  |  |                                    |                  |                        | 0.29            | 0.13                       | 0.19                   | 0.07               | 0.16                          |
| 03/05/2002                 | GFF        | 329.2                                      | 46.2   | 02.35009                                 | PSE                                | no               | SIM                    | —               | 0.03                       | 0.06                   | 0.03               | —                             |
|                            | Top PUF    |  |  | 02.35009                                 | PSE                                | no               | SIM                    | 0.12            | 0.04                       | —                      | —                  | —                             |
|                            | Bottom PUF |  |  | 02.35009                                 | PSE                                | no               | SIM                    | —               | —                          | —                      | —                  | —                             |
|                            | TOTAL      |  |  |  |                                    |                  |                        | 0.12            | 0.07                       | 0.06                   | 0.03               | —                             |
| 04/02/2002                 | GFF        | 344.7                                      | 42.9   | 02.35009                                 | PSE                                | no               | SIM                    | —               | —                          | 0.02                   | —                  | —                             |
|                            | Top PUF    |  |  | 02.35009                                 | PSE                                | no               | SIM                    | —               | 0.03                       | —                      | —                  | —                             |
|                            | Bottom PUF |  |  | 02.35009                                 | PSE                                | no               | SIM                    | —               | —                          | —                      | —                  | —                             |
|                            | TOTAL      |  |  |  |                                    |                  |                        | —               | 0.03                       | 0.02                   | —                  | —                             |
| 05/07/2002                 | GFF        | 345.8                                      | 59.6   | 02.35009                                 | PSE                                | no               | SIM                    | —               | 0.03                       | 0.02                   | 0.021              | —                             |
|                            | Top PUF    |  |  | 02.35009                                 | PSE                                | no               | SIM                    | —               | 0.05                       | —                      | —                  | —                             |
|                            | Bottom PUF |  |  | 02.35009                                 | PSE                                | no               | SIM                    | —               | —                          | —                      | —                  | 0.03                          |
|                            | TOTAL      |  |  |  |                                    |                  |                        | —               | 0.08                       | 0.02                   | 0.02               | 0.03                          |

**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>), unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume sampled<br>(m <sup>3</sup> ) | Total suspended particulate<br>(µg/m <sup>3</sup> ) | Sample preparation set number | Extraction by Soxhlet or PSE | Extract split | GCMS SIM or Scan | Anthra-cene | Benz[a] anthra-cene | Benzo[ghi] perylene | Benzo[a] pyrene | Benzo[b] fluor-anthene |
|----------------------------|------------|---|---|-------------------------------|------------------------------|---------------|------------------|-------------|---------------------|---------------------|-----------------|------------------------|
| 06/04/2002                 | GFF        | 317.3                                   | 54.8  | 02.35009                      | PSE                          | no            | SIM              | —           | —                   | 0.02                | —               | —                      |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | —           | —                   | —                   | 0.02            | —                      |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —           | —                   | —                   | —               | —                      |
|                            | TOTAL      |   |   |                               |                              |               |                  | —           | —                   | 0.02                | 0.02            | —                      |
| 07/02/2002                 | GFF        | 328.5                                   | 59.1  | 02.35009                      | PSE                          | no            | SIM              | —           | 0.03                | 0.02                | 0.02            | —                      |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | —           | —                   | —                   | —               | —                      |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —           | —                   | —                   | —               | —                      |
|                            | TOTAL      |   |   |                               |                              |               |                  | —           | 0.03                | 0.02                | 0.02            | —                      |
| 08/06/2002                 | GFF        | 262.4                                   | 71.6  | 02.35009                      | PSE                          | no            | SIM              | —           | 0.04                | 0.03                | 0.03            | —                      |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | —           | —                   | —                   | —               | —                      |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —           | —                   | 0.01                | 0.04            | —                      |
|                            | TOTAL      |   |   |                               |                              |               |                  | —           | 0.04                | 0.05                | 0.07            | —                      |
| 10/01/2002                 | GFF        | 315.9                                   | 62.0  | 02.35009                      | PSE                          | no            | SIM              | —           | 0.04                | 0.07                | 0.03            | —                      |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | —           | 0.05                | 0.02                | 0.03            | —                      |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —           | —                   | —                   | —               | —                      |
|                            | TOTAL      |   |   |                               |                              |               |                  | —           | 0.09                | 0.09                | 0.06            | —                      |
| 11/26/2002                 | GFF        | 301.3                                   | 47.8  | 02.35009                      | PSE                          | no            | SIM              | —           | 0.06                | 0.19                | 0.07            | 0.16                   |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.47        | 0.10                | —                   | 0.02            | —                      |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —           | —                   | —                   | —               | —                      |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.47        | 0.16                | 0.19                | 0.09            | 0.16                   |
| 01/07/2003                 | GFF        | 294.8                                   | 53.6  | 03.32308                      | PSE                          | yes           | SIM              | —           | 0.09                | 0.33                | 0.14            | 0.28                   |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | 0.55        | 0.1                 | —                   | —               | —                      |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —           | —                   | —                   | —               | —                      |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.55        | 0.19                | 0.33                | 0.14            | 0.28                   |
| 02/04/2003                 | GFF        | 312.1                                   | 36.5  | 03.32308                      | PSE                          | yes           | SIM              | —           | 0.06                | 0.20                | —               | 0.19                   |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | 0.22        | 0.06                | —                   | —               | —                      |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —           | —                   | —                   | —               | —                      |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.22        | 0.12                | 0.20                | —               | 0.19                   |
| 03/04/2003                 | GFF        | 283.0                                   | 53.0  | 03.32308                      | PSE                          | yes           | Scan             | —           | —                   | 0.15                | —               | 0.14                   |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | 0.17        | —                   | —                   | —               | —                      |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —           | —                   | —                   | —               | —                      |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.17        | —                   | 0.15                | —               | 0.14                   |

**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume<br>sampled<br>(m <sup>3</sup> ) | Total suspended<br>particulate<br>(µg/m <sup>3</sup> ) | Sample prepara-<br>tion set<br>number | Extraction<br>by Soxhlet<br>or PSE | Extract<br>split | GCMS<br>SIM or<br>Scan | Anthra-<br>cene | Benz[a]<br>anthra-<br>cene | Benzo[ghi]<br>perylene | Benzo[a]<br>pyrene | Benzo[b]<br>fluor-<br>anthene |
|----------------------------|------------|--|--|---------------------------------------|------------------------------------|------------------|------------------------|-----------------|----------------------------|------------------------|--------------------|-------------------------------|
| 04/01/2003                 | GFF        | 301.1                                      | 33.2   | 03.32308                              | PSE                                | yes              | SIM                    | —               | —                          | 0.05                   | —                  | —                             |
|                            | Top PUF    |  |  | 03.32308                              | PSE                                | yes              | SIM                    | —               | —                          | —                      | —                  | —                             |
|                            | Bottom PUF |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —               | —                          | —                      | —                  | —                             |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | —               | —                          | 0.05                   | —                  | —                             |
| 04/29/2003                 | GFF        | 315.3                                      | 40.0   | 03.32308                              | PSE                                | yes              | SIM                    | —               | —                          | 0.05                   | —                  | —                             |
|                            | Top PUF    |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —               | —                          | —                      | —                  | —                             |
|                            | Bottom PUF |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —               | —                          | —                      | —                  | —                             |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | —               | —                          | 0.05                   | —                  | —                             |
| 05/27/2003                 | GFF        | 326.5                                      | 55.7   | 03.32308                              | PSE                                | yes              | SIM                    | —               | —                          | 0.04                   | —                  | —                             |
|                            | Top PUF    |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —               | —                          | —                      | —                  | —                             |
|                            | Bottom PUF |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —               | —                          | —                      | —                  | —                             |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | —               | —                          | 0.04                   | —                  | —                             |
| 07/22/2003                 | GFF        | 307.8                                      | 52.6   | 03.32308                              | PSE                                | yes              | SIM                    | —               | —                          | 0.06                   | —                  | —                             |
|                            | Top PUF    |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —               | —                          | —                      | —                  | —                             |
|                            | Bottom PUF |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —               | —                          | —                      | —                  | —                             |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | —               | —                          | 0.06                   | —                  | —                             |
| 08/26/2003                 | GFF        | 311.9                                      | 71.8   | 03.32308                              | PSE                                | yes              | SIM                    | —               | —                          | 0.04                   | —                  | —                             |
|                            | Top PUF    |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —               | —                          | —                      | —                  | —                             |
|                            | Bottom PUF |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —               | —                          | —                      | —                  | —                             |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | —               | —                          | 0.04                   | —                  | —                             |

**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>), unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume sampled<br>(m <sup>3</sup> ) | Total suspended particulate<br>(µg/m <sup>3</sup> ) | Sample preparation set number | Extraction by Soxhlet or PSE | Extract split | GCMS SIM or Scan | Benzo[e] pyrene | Benzo[k] fluor-anthene | Chrysene | Coronene | Dibenzo [a,h] anthracene |
|----------------------------|------------|---|---|-------------------------------|------------------------------|---------------|------------------|-----------------|------------------------|----------|----------|--------------------------|
| 10/2/2001                  | GFF        | 291.4                                   | 50.8  | 02.037                        | Soxhlet                      | no            | SIM              | —               | —                      | 0.02     | —        | —                        |
|                            | Top PUF    |   |   | 02.037                        | Soxhlet                      | no            | SIM              | —               | —                      | 0.03     | —        | —                        |
|                            | Bottom PUF |   |   | 02.037                        | Soxhlet                      | no            | SIM              | —               | —                      | —        | —        | —                        |
|                            | TOTAL      |   |   |                               |                              |               |                  | —               | —                      | 0.05     | —        | —                        |
| 10/30/2001                 | GFF        | 318.7                                   | 72.2  | 02.037                        | Soxhlet                      | no            | SIM              | —               | —                      | 0.02     | —        | —                        |
|                            | Top PUF    |   |   | 02.037                        | Soxhlet                      | no            | SIM              | —               | —                      | 0.16     | —        | —                        |
|                            | Bottom PUF |   |   | 02.037                        | Soxhlet                      | no            | SIM              | —               | —                      | —        | —        | —                        |
|                            | TOTAL      |   |   |                               |                              |               |                  | —               | —                      | 0.18     | —        | —                        |
| 12/04/2001                 | GFF        | 323.8                                   | 47.6  | 02.037                        | Soxhlet                      | no            | SIM              | 0.34            | 0.40                   | 0.18     | 0.35     | —                        |
|                            | Top PUF    |   |   | 02.037                        | Soxhlet                      | no            | SIM              | 0.04            | 0.08                   | 0.35     | —        | —                        |
|                            | Bottom PUF |   |   | 02.037                        | Soxhlet                      | no            | SIM              | —               | —                      | —        | —        | —                        |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.38            | 0.48                   | 0.53     | 0.35     | —                        |
| 01/08/2002                 | GFF        | 335.9                                   | 62.5  | 02.037                        | Soxhlet                      | no            | SIM              | 0.29            | 0.36                   | 0.17     | 0.28     | —                        |
|                            | Top PUF    |   |   | 02.037                        | Soxhlet                      | no            | SIM              | —               | —                      | 0.27     | —        | —                        |
|                            | Bottom PUF |   |   | 02.037                        | Soxhlet                      | no            | SIM              | —               | —                      | —        | —        | —                        |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.29            | 0.36                   | 0.44     | 0.28     | —                        |
| 02/05/2002                 | GFF        | 372.7                                   | 77.3  | 02.35009                      | PSE                          | no            | SIM              | 0.11            | 0.11                   | 0.07     | 0.14     | 0.02                     |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.03            | —                      | 0.19     | —        | —                        |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —               | —                      | —        | —        | —                        |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.14            | 0.11                   | 0.26     | 0.14     | 0.02                     |
| 03/05/2002                 | GFF        | 329.2                                   | 46.2  | 02.35009                      | PSE                          | no            | SIM              | 0.05            | —                      | 0.04     | 0.05     | —                        |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | —               | —                      | 0.10     | —        | —                        |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —               | —                      | —        | —        | —                        |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.05            | —                      | 0.14     | 0.05     | —                        |
| 04/02/2002                 | GFF        | 344.7                                   | 42.9  | 02.35009                      | PSE                          | no            | SIM              | —               | —                      | —        | 0.02     | —                        |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.01            | —                      | 0.04     | —        | —                        |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —               | —                      | —        | —        | —                        |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.01            | —                      | 0.04     | 0.02     | —                        |
| 05/07/2002                 | GFF        | 345.8                                   | 59.6  | 02.35009                      | PSE                          | no            | SIM              | 0.02            | —                      | 0.02     | 0.02     | —                        |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | —               | —                      | 0.04     | —        | —                        |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —               | —                      | —        | —        | —                        |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.02            | —                      | 0.06     | 0.02     | —                        |

**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume<br>sampled<br>(m <sup>3</sup> ) | Total suspended<br>particulate<br>(µg/m <sup>3</sup> ) | Sample prepara-<br>tion set<br>number | Extraction<br>by Soxhlet<br>or PSE | Extract<br>split | GCMS<br>SIM or<br>Scan | Benzo[e]<br>pyrene | Benzo[k]<br>fluor-<br>anthene | Chry-<br>sene | Coronene | Dibenzo<br>[a,h]<br>anthra-<br>cene |
|----------------------------|------------|--|--|---------------------------------------|------------------------------------|------------------|------------------------|--------------------|-------------------------------|---------------|----------|-------------------------------------|
| 06/04/2002                 | GFF        | 317.3                                      | 54.8   | 02.35009                              | PSE                                | no               | SIM                    | 0.02               | —                             | 0.02          | 0.020    | —                                   |
|                            | Top PUF    |  |  | 02.35009                              | PSE                                | no               | SIM                    | —                  | —                             | —             | —        | —                                   |
|                            | Bottom PUF |  |  | 02.35009                              | PSE                                | no               | SIM                    | —                  | —                             | —             | —        | —                                   |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | 0.02               | —                             | 0.02          | 0.02     | —                                   |
| 07/02/2002                 | GFF        | 328.5                                      | 59.1   | 02.35009                              | PSE                                | no               | SIM                    | 0.02               | —                             | 0.02          | 0.020    | —                                   |
|                            | Top PUF    |  |  | 02.35009                              | PSE                                | no               | SIM                    | —                  | —                             | —             | —        | —                                   |
|                            | Bottom PUF |  |  | 02.35009                              | PSE                                | no               | SIM                    | —                  | —                             | —             | —        | —                                   |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | 0.02               | —                             | 0.02          | 0.02     | —                                   |
| 08/06/2002                 | GFF        | 262.4                                      | 71.6   | 02.35009                              | PSE                                | no               | SIM                    | 0.03               | —                             | 0.03          | 0.02     | —                                   |
|                            | Top PUF    |  |  | 02.35009                              | PSE                                | no               | SIM                    | —                  | —                             | —             | —        | —                                   |
|                            | Bottom PUF |  |  | 02.35009                              | PSE                                | no               | SIM                    | 0.03               | —                             | —             | —        | —                                   |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | 0.06               | —                             | 0.03          | 0.02     | —                                   |
| 10/01/2002                 | GFF        | 315.9                                      | 62.0   | 02.35009                              | PSE                                | no               | SIM                    | 0.05               | —                             | 0.04          | 0.06     | —                                   |
|                            | Top PUF    |  |  | 02.35009                              | PSE                                | no               | SIM                    | 0.02               | —                             | 0.08          | 0.01     | —                                   |
|                            | Bottom PUF |  |  | 02.35009                              | PSE                                | no               | SIM                    | —                  | —                             | —             | —        | —                                   |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | 0.07               | —                             | 0.12          | 0.07     | —                                   |
| 11/26/2002                 | GFF        | 301.3                                      | 47.8   | 02.35009                              | PSE                                | no               | SIM                    | 0.12               | 0.18                          | 0.07          | 0.12     | 0.02                                |
|                            | Top PUF    |  |  | 02.35009                              | PSE                                | no               | SIM                    | 0.03               | —                             | 0.17          | —        | —                                   |
|                            | Bottom PUF |  |  | 02.35009                              | PSE                                | no               | SIM                    | —                  | —                             | —             | —        | —                                   |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | 0.15               | 0.18                          | 0.24          | 0.12     | 0.02                                |
| 01/07/2003                 | GFF        | 294.8                                      | 53.6   | 03.32308                              | PSE                                | yes              | SIM                    | 0.22               | 0.24                          | 0.11          | 0.20     | 0.05                                |
|                            | Top PUF    |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —                  | —                             | 0.22          | —        | —                                   |
|                            | Bottom PUF |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —                  | —                             | —             | —        | —                                   |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | 0.22               | 0.24                          | 0.33          | 0.20     | 0.05                                |
| 02/04/2003                 | GFF        | 312.1                                      | 36.5   | 03.32308                              | PSE                                | yes              | SIM                    | 0.14               | 0.16                          | 0.07          | 0.14     | —                                   |
|                            | Top PUF    |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —                  | —                             | 0.18          | —        | —                                   |
|                            | Bottom PUF |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —                  | —                             | —             | —        | —                                   |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | 0.14               | 0.16                          | 0.25          | 0.14     | —                                   |
| 03/04/2003                 | GFF        | 283.0                                      | 53.0   | 03.32308                              | PSE                                | yes              | Scan                   | —                  | —                             | 0.05          | 0.16     | —                                   |
|                            | Top PUF    |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —                  | —                             | 0.12          | —        | —                                   |
|                            | Bottom PUF |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —                  | —                             | —             | —        | —                                   |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | —                  | —                             | 0.17          | 0.16     | —                                   |



**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume sampled<br>(m <sup>3</sup> ) | Total suspended particulate<br>(µg/m <sup>3</sup> ) | Sample preparation set number | Extraction by Soxhlet or PSE | Extract split | GCMS SIM or Scan | Benzo[ <i>a</i> ]pyrene | Benzo[ <i>k</i> ]fluoranthene | Chrysene | Coronene | Dibenzo[ <i>a,h</i> ]anthracene |
|----------------------------|------------|---|---|-------------------------------|------------------------------|---------------|------------------|-------------------------|-------------------------------|----------|----------|---------------------------------|
| 04/01/2003                 | GFF        | 301.1                                   | 33.2  | 03.32308                      | PSE                          | yes           | SIM              | —                       | —                             | —        | 0.04     | —                               |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | SIM              | —                       | —                             | 0.02     | —        | —                               |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —                       | —                             | —        | —        | —                               |
|                            | TOTAL      |   |   |                               |                              |               |                  | —                       | —                             | 0.02     | 0.04     | —                               |
| 04/29/2003                 | GFF        | 315.3                                   | 40.0  | 03.32308                      | PSE                          | yes           | SIM              | —                       | —                             | —        | 0.04     | —                               |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | —                       | —                             | —        | —        | —                               |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —                       | —                             | —        | —        | —                               |
|                            | TOTAL      |   |   |                               |                              |               |                  | —                       | —                             | —        | 0.04     | —                               |
| 05/27/2003                 | GFF        | 326.5                                   | 55.7  | 03.32308                      | PSE                          | yes           | SIM              | —                       | —                             | —        | 0.04     | —                               |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | —                       | —                             | —        | —        | —                               |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —                       | —                             | —        | —        | —                               |
|                            | TOTAL      |   |   |                               |                              |               |                  | —                       | —                             | —        | 0.04     | —                               |
| 07/22/2003                 | GFF        | 307.8                                   | 52.6  | 03.32308                      | PSE                          | yes           | SIM              | —                       | —                             | —        | 0.06     | —                               |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | —                       | —                             | —        | —        | —                               |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —                       | —                             | —        | —        | —                               |
|                            | TOTAL      |   |   |                               |                              |               |                  | —                       | —                             | —        | 0.06     | —                               |
| 08/26/2003                 | GFF        | 311.9                                   | 71.8  | 03.32308                      | PSE                          | yes           | SIM              | —                       | —                             | —        | 0.04     | —                               |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | —                       | —                             | —        | —        | —                               |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —                       | —                             | —        | —        | —                               |
|                            | TOTAL      |   |   |                               |                              |               |                  | —                       | —                             | —        | 0.04     | —                               |

**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume sampled<br>(m <sup>3</sup> ) | Total suspended particulate<br>(µg/m <sup>3</sup> ) | Sample preparation set number | Extraction by Soxhlet or PSE | Extract split | GCMS SIM or Scan | Fluoranthene | Indeno [1,2,3- <i>cd</i> ] pyrene | 2-Methylanthracene | 4,5-Methyl-ene phen-anthrene | 1-Methyl-phenanthrene |
|----------------------------|------------|---|---|-------------------------------|------------------------------|---------------|------------------|--------------|-----------------------------------|--------------------|------------------------------|-----------------------|
| 10/2/2001                  | GFF        | 291.4                                   | 50.8  | 02.037                        | Soxhlet                      | no            | SIM              | 0.02         | —                                 | —                  | —                            | —                     |
|                            | Top PUF    |   |   | 02.037                        | Soxhlet                      | no            | SIM              | 0.71         | —                                 | —                  | 0.17                         | 0.23                  |
|                            | Bottom PUF |   |   | 02.037                        | Soxhlet                      | no            | SIM              | —            | —                                 | —                  | —                            | —                     |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.73         | —                                 | —                  | 0.17                         | 0.23                  |
| 10/30/2001                 | GFF        | 318.7                                   | 72.2  | 02.037                        | Soxhlet                      | no            | SIM              | 0.04         | —                                 | —                  | —                            | —                     |
|                            | Top PUF    |   |   | 02.037                        | Soxhlet                      | no            | SIM              | 1.70         | —                                 | —                  | 0.44                         | 0.55                  |
|                            | Bottom PUF |   |   | 02.037                        | Soxhlet                      | no            | SIM              | —            | —                                 | —                  | —                            | —                     |
|                            | TOTAL      |   |   |                               |                              |               |                  | 1.74         | —                                 | —                  | 0.44                         | 0.55                  |
| 12/04/2001                 | GFF        | 323.8                                   | 47.6  | 02.037                        | Soxhlet                      | no            | SIM              | 0.09         | 0.40                              | —                  | —                            | 0.02                  |
|                            | Top PUF    |   |   | 02.037                        | Soxhlet                      | no            | SIM              | 2.00         | —                                 | 0.13               | 0.65                         | 0.89                  |
|                            | Bottom PUF |   |   | 02.037                        | Soxhlet                      | no            | SIM              | —            | —                                 | —                  | —                            | —                     |
|                            | TOTAL      |   |   |                               |                              |               |                  | 2.09         | 0.40                              | 0.13               | 0.65                         | 0.91                  |
| 01/08/2002                 | GFF        | 335.9                                   | 62.5  | 02.037                        | Soxhlet                      | no            | SIM              | 0.12         | 0.32                              | —                  | —                            | 0.03                  |
|                            | Top PUF    |   |   | 02.037                        | Soxhlet                      | no            | SIM              | 1.80         | —                                 | —                  | —                            | 0.65                  |
|                            | Bottom PUF |   |   | 02.037                        | Soxhlet                      | no            | SIM              | —            | —                                 | —                  | —                            | —                     |
|                            | TOTAL      |   |   |                               |                              |               |                  | 1.92         | 0.32                              | —                  | —                            | 0.68                  |
| 02/05/2002                 | GFF        | 372.7                                   | 77.3  | 02.35009                      | PSE                          | no            | SIM              | 0.08         | 0.14                              | —                  | —                            | —                     |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 1.20         | —                                 | —                  | 0.39                         | 0.42                  |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —            | —                                 | —                  | —                            | —                     |
|                            | TOTAL      |   |   |                               |                              |               |                  | 1.28         | 0.14                              | —                  | 0.39                         | 0.42                  |
| 03/05/2002                 | GFF        | 329.2                                   | 46.2  | 02.35009                      | PSE                          | no            | SIM              | 0.04         | 0.05                              | —                  | —                            | —                     |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 1.10         | —                                 | —                  | 0.28                         | 0.31                  |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —            | —                                 | —                  | —                            | —                     |
|                            | TOTAL      |   |   |                               |                              |               |                  | 1.14         | 0.05                              | —                  | 0.28                         | 0.31                  |
| 04/02/2002                 | GFF        | 344.7                                   | 42.9  | 02.35009                      | PSE                          | no            | SIM              | 0.03         | —                                 | —                  | —                            | —                     |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.50         | —                                 | —                  | 0.13                         | 0.14                  |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —            | —                                 | —                  | —                            | —                     |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.53         | —                                 | —                  | 0.13                         | 0.14                  |
| 05/07/2002                 | GFF        | 345.8                                   | 59.6  | 02.35009                      | PSE                          | no            | SIM              | 0.03         | 0.02                              | —                  | —                            | —                     |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.63         | —                                 | —                  | 0.15                         | 0.21                  |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —            | —                                 | —                  | —                            | —                     |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.66         | 0.02                              | —                  | 0.15                         | 0.21                  |

**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume sampled<br>(m <sup>3</sup> ) | Total suspended particulate<br>(µg/m <sup>3</sup> ) | Sample preparation set number | Extraction by Soxhlet or PSE | Extract split | GCMS SIM or Scan | Fluoranthene | Indeno [1,2,3-cd] pyrene | 2-Methylanthracene | 4,5-Methylphenanthrene | 1-Methylphenanthrene |
|----------------------------|------------|---|---|-------------------------------|------------------------------|---------------|------------------|--------------|--------------------------|--------------------|------------------------|----------------------|
| 06/04/2002                 | GFF        | 317.3                                   | 54.8  | 02.35009                      | PSE                          | no            | SIM              | 0.03         | —                        | —                  | —                      | —                    |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.53         | —                        | —                  | 0.13                   | 0.14                 |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —            | —                        | —                  | —                      | —                    |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.56         | —                        | —                  | 0.13                   | 0.14                 |
| 07/02/2002                 | GFF        | 328.5                                   | 59.1  | 02.35009                      | PSE                          | no            | SIM              | 0.03         | 0.021                    | —                  | —                      | —                    |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.60         | —                        | —                  | 0.14                   | 0.16                 |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —            | —                        | —                  | —                      | —                    |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.63         | 0.02                     | —                  | 0.14                   | 0.16                 |
| 08/06/2002                 | GFF        | 262.4                                   | 71.6  | 02.35009                      | PSE                          | no            | SIM              | 0.04         | 0.03                     | —                  | —                      | —                    |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 1.10         | —                        | —                  | 0.26                   | 0.34                 |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —            | 0.02                     | —                  | —                      | —                    |
|                            | TOTAL      |   |   |                               |                              |               |                  | 1.14         | 0.06                     | —                  | 0.26                   | 0.34                 |
| 10/01/2002                 | GFF        | 315.9                                   | 62.0  | 02.35009                      | PSE                          | no            | SIM              | 0.05         | 0.05                     | —                  | —                      | —                    |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.89         | 0.02                     | —                  | 0.22                   | 0.24                 |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —            | —                        | —                  | —                      | —                    |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.94         | 0.07                     | —                  | 0.22                   | 0.24                 |
| 11/26/2002                 | GFF        | 301.3                                   | 47.8  | 02.35009                      | PSE                          | no            | SIM              | 0.05         | 0.16                     | —                  | —                      | —                    |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 1.40         | —                        | 0.12               | 0.43                   | 0.52                 |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —            | —                        | —                  | —                      | —                    |
|                            | TOTAL      |   |   |                               |                              |               |                  | 1.45         | 0.16                     | 0.12               | 0.43                   | 0.52                 |
| 01/07/2003                 | GFF        | 294.8                                   | 53.6  | 03.32308                      | PSE                          | yes           | SIM              | 0.08         | 0.26                     | —                  | —                      | —                    |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | 1.70         | —                        | 0.13               | 0.55                   | 0.66                 |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —            | —                        | —                  | —                      | —                    |
|                            | TOTAL      |   |   |                               |                              |               |                  | 1.78         | 0.26                     | 0.13               | 0.55                   | 0.66                 |
| 02/04/2003                 | GFF        | 312.1                                   | 36.5  | 03.32308                      | PSE                          | yes           | SIM              | 0.07         | 0.19                     | —                  | —                      | —                    |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | 1.40         | —                        | —                  | 0.40                   | 0.46                 |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —            | —                        | —                  | —                      | —                    |
|                            | TOTAL      |   |   |                               |                              |               |                  | 1.47         | 0.19                     | —                  | 0.40                   | 0.46                 |
| 03/04/2003                 | GFF        | 283.0                                   | 53.0  | 03.32308                      | PSE                          | yes           | Scan             | 0.08         | 0.14                     | —                  | —                      | —                    |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | 1.20         | —                        | —                  | 0.31                   | 0.38                 |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —            | —                        | —                  | —                      | —                    |
|                            | TOTAL      |   |   |                               |                              |               |                  | 1.28         | 0.14                     | —                  | 0.31                   | 0.38                 |

**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume<br>sampled<br>(m <sup>3</sup> ) | Total suspended<br>particulate<br>(µg/m <sup>3</sup> ) | Sample<br>prepara-<br>tion set<br>number | Extraction<br>by Soxhlet<br>or PSE | Extract<br>split | GCMS<br>SIM or<br>Scan | Fluor-<br>anthene | Indeno<br>[1,2,3- <i>cd</i> ]<br>pyrene | 2-Methyl-<br>anthra-<br>cene | 4,5-<br>Methyl-<br>ene-<br>phen-<br>anthrene | 1-Methyl-<br>phenan-<br>threne |
|----------------------------|------------|--|--|--|------------------------------------|------------------|------------------------|-------------------|---|------------------------------|--|--------------------------------|
| 04/01/2003                 | GFF        | 301.1                                      | 33.2   | 03.32308                                 | PSE                                | yes              | SIM                    | —                 | —                                       | —                            | —  | —                              |
|                            | Top PUF    |  |  | 03.32308                                 | PSE                                | yes              | SIM                    | 0.22              | —                                       | —                            | —  | 0.11                           |
|                            | Bottom PUF |  |  | 03.32308                                 | PSE                                | yes              | Scan                   | —                 | —                                       | —                            | —  | —                              |
|                            | TOTAL      |  |  |  |                                    |                  |                        | 0.22              | —                                       | —                            | —  | 0.11                           |
| 04/29/2003                 | GFF        | 315.3                                      | 40.0   | 03.32308                                 | PSE                                | yes              | SIM                    | —                 | —                                       | —                            | —  | —                              |
|                            | Top PUF    |  |  | 03.32308                                 | PSE                                | yes              | Scan                   | 0.64              | —                                       | —                            | 0.16   | 0.17                           |
|                            | Bottom PUF |  |  | 03.32308                                 | PSE                                | yes              | Scan                   | —                 | —                                       | —                            | —  | —                              |
|                            | TOTAL      |  |  |  |                                    |                  |                        | 0.64              | —                                       | —                            | 0.16   | 0.17                           |
| 05/27/2003                 | GFF        | 326.5                                      | 55.7   | 03.32308                                 | PSE                                | yes              | SIM                    | 0.05              | —                                       | —                            | —  | —                              |
|                            | Top PUF    |  |  | 03.32308                                 | PSE                                | yes              | Scan                   | 0.70              | —                                       | —                            | 0.14   | 0.18                           |
|                            | Bottom PUF |  |  | 03.32308                                 | PSE                                | yes              | Scan                   | —                 | —                                       | —                            | —  | —                              |
|                            | TOTAL      |  |  |  |                                    |                  |                        | 0.75              | —                                       | —                            | 0.14   | 0.18                           |
| 07/22/2003                 | GFF        | 307.8                                      | 52.6   | 03.32308                                 | PSE                                | yes              | SIM                    | 0.05              | —                                       | —                            | —  | 0.04                           |
|                            | Top PUF    |  |  | 03.32308                                 | PSE                                | yes              | Scan                   | 0.92              | —                                       | —                            | 0.20   | 0.30                           |
|                            | Bottom PUF |  |  | 03.32308                                 | PSE                                | yes              | Scan                   | —                 | —                                       | —                            | —  | —                              |
|                            | TOTAL      |  |  |  |                                    |                  |                        | 0.97              | —                                       | —                            | 0.20   | 0.34                           |
| 08/26/2003                 | GFF        | 311.9                                      | 71.8   | 03.32308                                 | PSE                                | yes              | SIM                    | 0.05              | —                                       | —                            | —  | —                              |
|                            | Top PUF    |  |  | 03.32308                                 | PSE                                | yes              | Scan                   | 1.20              | —                                       | —                            | 0.22   | 0.33                           |
|                            | Bottom PUF |  |  | 03.32308                                 | PSE                                | yes              | Scan                   | —                 | —                                       | —                            | —  | —                              |
|                            | TOTAL      |  |  |  |                                    |                  |                        | 1.25              | —                                       | —                            | 0.22   | 0.33                           |

**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume<br>sampled<br>(m <sup>3</sup> ) | Total<br>suspended<br>particulate<br>(µg/m <sup>3</sup> ) | Sample<br>preparation<br>set<br>number | Extraction<br>by Soxhlet<br>or PSE | Extract<br>split | GCMS<br>SIM or<br>Scan | 1-<br>Methyl-<br>pyrene | Perylene | Phen-<br>anthrene | Pyrene | C1-178<br>Isomers,<br>methylated<br>phen-<br>anthrenes/<br>anthracenes<br>(E) |
|----------------------------|------------|--|---|--|------------------------------------|------------------|------------------------|-------------------------|----------|-------------------|--------|---|
| 10/2/2001                  | GFF        | 291.4                                      | 50.8  | 02.037                                 | Soxhlet                            | no               | SIM                    | —                       | —        | —                 | 0.03   | —   |
|                            | Top PUF    |  |   | 02.037                                 | Soxhlet                            | no               | SIM                    | 0.02                    | —        | 2.80              | 0.37   | 2.80  |
|                            | Bottom PUF |  |   | 02.037                                 | Soxhlet                            | no               | SIM                    | —                       | —        | 0.96              | —      | —   |
|                            | TOTAL      |  |   |  |                                    |                  |                        | 0.02                    | —        | 3.80              | 0.40   | 2.80  |
| 10/30/2001                 | GFF        | 318.7                                      | 72.2  | 02.037                                 | Soxhlet                            | no               | SIM                    | —                       | —        | 0.03              | 0.04   | —   |
|                            | Top PUF    |  |   | 02.037                                 | Soxhlet                            | no               | SIM                    | 0.06                    | —        | 5.80              | 1.10   | 7.30  |
|                            | Bottom PUF |  |   | 02.037                                 | Soxhlet                            | no               | SIM                    | —                       | —        | 2.50              | —      | —   |
|                            | TOTAL      |  |   |  |                                    |                  |                        | 0.06                    | —        | 8.33              | 1.14   | 7.30  |
| 12/04/2001                 | GFF        | 323.8                                      | 47.6  | 02.037                                 | Soxhlet                            | no               | SIM                    | 0.03                    | —        | 0.05              | 0.11   | —   |
|                            | Top PUF    |  |   | 02.037                                 | Soxhlet                            | no               | SIM                    | 0.14                    | —        | 8.50              | 1.70   | 7.10  |
|                            | Bottom PUF |  |   | 02.037                                 | Soxhlet                            | no               | SIM                    | 0.01                    | —        | 0.30              | —      | —   |
|                            | TOTAL      |  |   |  |                                    |                  |                        | 0.18                    | —        | 8.85              | 1.81   | 7.10  |
| 01/08/2002                 | GFF        | 335.9                                      | 62.5  | 02.037                                 | Soxhlet                            | no               | SIM                    | —                       | —        | 0.06              | 0.12   | 0.08  |
|                            | Top PUF    |  |   | 02.037                                 | Soxhlet                            | no               | SIM                    | 0.09                    | —        | 7.30              | 1.50   | 13.0  |
|                            | Bottom PUF |  |   | 02.037                                 | Soxhlet                            | no               | SIM                    | —                       | —        | 0.51              | —      | —   |
|                            | TOTAL      |  |   |  |                                    |                  |                        | 0.09                    | —        | 7.87              | 1.62   | 13.1  |
| 02/05/2002                 | GFF        | 372.7                                      | 77.3  | 02.35009                               | PSE                                | no               | SIM                    | 0.02                    | 0.02     | 0.04              | 0.09   | 0.06  |
|                            | Top PUF    |  |   | 02.35009                               | PSE                                | no               | SIM                    | 0.07                    | —        | 4.80              | 1.10   | 5.00  |
|                            | Bottom PUF |  |   | 02.35009                               | PSE                                | no               | SIM                    | —                       | —        | 0.37              | —      | 1.30  |
|                            | TOTAL      |  |   |  |                                    |                  |                        | 0.09                    | 0.02     | 5.21              | 1.19   | 6.36  |
| 03/05/2002                 | GFF        | 329.2                                      | 46.2  | 02.35009                               | PSE                                | no               | SIM                    | 0.02                    | —        | —                 | 0.04   | 0.04  |
|                            | Top PUF    |  |   | 02.35009                               | PSE                                | no               | SIM                    | 0.05                    | —        | 5.10              | 0.75   | 4.40  |
|                            | Bottom PUF |  |   | 02.35009                               | PSE                                | no               | SIM                    | —                       | —        | 0.11              | —      | 2.50  |
|                            | TOTAL      |  |   |  |                                    |                  |                        | 0.07                    | —        | 5.21              | 0.79   | 6.94  |
| 04/02/2002                 | GFF        | 344.7                                      | 42.9  | 02.35009                               | PSE                                | no               | SIM                    | —                       | —        | —                 | 0.03   | 0.04  |
|                            | Top PUF    |  |   | 02.35009                               | PSE                                | no               | SIM                    | 0.03                    | —        | 2.20              | 0.33   | 2.40  |
|                            | Bottom PUF |  |   | 02.35009                               | PSE                                | no               | SIM                    | —                       | —        | 0.13              | —      | 1.10  |
|                            | TOTAL      |  |   |  |                                    |                  |                        | 0.03                    | —        | 2.33              | 0.36   | 3.54  |
| 05/07/2002                 | GFF        | 345.8                                      | 59.6  | 02.35009                               | PSE                                | no               | SIM                    | —                       | —        | —                 | 0.03   | —   |
|                            | Top PUF    |  |   | 02.35009                               | PSE                                | no               | SIM                    | —                       | —        | 3.10              | 0.31   | 5.10  |
|                            | Bottom PUF |  |   | 02.35009                               | PSE                                | no               | SIM                    | —                       | —        | 0.29              | —      | 0.15  |
|                            | TOTAL      |  |   |  |                                    |                  |                        | —                       | —        | 3.39              | 0.34   | 5.25  |

**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume<br>sampled<br>(m <sup>3</sup> ) | Total<br>suspended<br>particulate<br>(µg/m <sup>3</sup> ) | Sample<br>prepara-<br>tion set<br>number | Extraction<br>by Soxhlet<br>or PSE | Extract<br>split | GCMS<br>SIM or<br>Scan | 1-<br>Methyl-<br>pyrene | Perylene | Phen-<br>anthrene | Pyrene | C1-178<br>Isomers,<br>methylated<br>phen-<br>anthrenes/<br>anthracenes<br>(E) |
|----------------------------|------------|--|---|--|------------------------------------|------------------|------------------------|-------------------------|----------|-------------------|--------|---|
| 06/04/2002                 | GFF        | 317.3                                      | 54.8  | 02.35009                                 | PSE                                | no               | SIM                    | —                       | —        | —                 | 0.03   | —   |
|                            | Top PUF    |  |   | 02.35009                                 | PSE                                | no               | SIM                    | —                       | —        | 2.10              | 0.29   | 1.90  |
|                            | Bottom PUF |  |   | 02.35009                                 | PSE                                | no               | SIM                    | —                       | —        | 0.33              | —      | —   |
|                            | TOTAL      |  |   |  |                                    |                  |                        | —                       | —        | 2.43              | 0.32   | 1.90  |
| 07/02/2002                 | GFF        | 328.5                                      | 59.1  | 02.35009                                 | PSE                                | no               | SIM                    | —                       | —        | 0.02              | 0.03   | —   |
|                            | Top PUF    |  |   | 02.35009                                 | PSE                                | no               | SIM                    | —                       | —        | 2.41              | 0.31   | 3.48  |
|                            | Bottom PUF |  |   | 02.35009                                 | PSE                                | no               | SIM                    | —                       | —        | 0.64              | —      | —   |
|                            | TOTAL      |  |   |  |                                    |                  |                        | —                       | —        | 3.08              | 0.34   | 3.48  |
| 08/06/2002                 | GFF        | 262.4                                      | 71.6  | 02.35009                                 | PSE                                | no               | SIM                    | —                       | —        | 0.03              | 0.05   | —   |
|                            | Top PUF    |  |   | 02.35009                                 | PSE                                | no               | SIM                    | —                       | —        | 5.20              | 0.56   | 2.50  |
|                            | Bottom PUF |  |   | 02.35009                                 | PSE                                | no               | SIM                    | —                       | —        | 0.91              | —      | —   |
|                            | TOTAL      |  |   |  |                                    |                  |                        | —                       | —        | 6.14              | 0.61   | 2.50  |
| 10/01/2002                 | GFF        | 315.9                                      | 62.0  | 02.35009                                 | PSE                                | no               | SIM                    | —                       | —        | 0.03              | 0.06   | —   |
|                            | Top PUF    |  |   | 02.35009                                 | PSE                                | no               | SIM                    | 0.04                    | —        | 4.30              | 0.56   | 2.80  |
|                            | Bottom PUF |  |   | 02.35009                                 | PSE                                | no               | SIM                    | —                       | —        | 0.50              | —      | —   |
|                            | TOTAL      |  |   |  |                                    |                  |                        | 0.04                    | —        | 4.83              | 0.62   | 2.80  |
| 11/26/2002                 | GFF        | 301.3                                      | 47.8  | 02.35009                                 | PSE                                | no               | SIM                    | 0.03                    | 0.02     | 0.03              | 0.05   | —   |
|                            | Top PUF    |  |   | 02.35009                                 | PSE                                | no               | SIM                    | 0.09                    | —        | 5.90              | 1.10   | 2.80  |
|                            | Bottom PUF |  |   | 02.35009                                 | PSE                                | no               | SIM                    | 0.02                    | —        | 0.04              | —      | —   |
|                            | TOTAL      |  |   |  |                                    |                  |                        | 0.14                    | 0.02     | 5.97              | 1.15   | 2.80  |
| 01/07/2003                 | GFF        | 294.8                                      | 53.6  | 03.32308                                 | PSE                                | yes              | SIM                    | —                       | —        | 0.11              | 0.09   | 0.10  |
|                            | Top PUF    |  |   | 03.32308                                 | PSE                                | yes              | Scan                   | —                       | —        | 9.20              | 1.40   | 3.10  |
|                            | Bottom PUF |  |   | 03.32308                                 | PSE                                | yes              | Scan                   | —                       | —        | —                 | —      | —   |
|                            | TOTAL      |  |   |  |                                    |                  |                        | —                       | —        | 9.31              | 1.49   | 3.20  |
| 02/04/2003                 | GFF        | 312.1                                      | 36.5  | 03.32308                                 | PSE                                | yes              | SIM                    | —                       | —        | 0.05              | 0.08   | —   |
|                            | Top PUF    |  |   | 03.32308                                 | PSE                                | yes              | Scan                   | —                       | —        | 6.10              | 1.10   | 2.10  |
|                            | Bottom PUF |  |   | 03.32308                                 | PSE                                | yes              | Scan                   | —                       | —        | 0.11              | —      | —   |
|                            | TOTAL      |  |   |  |                                    |                  |                        | —                       | —        | 6.26              | 1.18   | 2.10  |
| 03/04/2003                 | GFF        | 283.0                                      | 53.0  | 03.32308                                 | PSE                                | yes              | Scan                   | —                       | —        | 0.05              | 0.09   | —   |
|                            | Top PUF    |  |   | 03.32308                                 | PSE                                | yes              | Scan                   | —                       | —        | 6.00              | 0.81   | 1.90  |
|                            | Bottom PUF |  |   | 03.32308                                 | PSE                                | yes              | Scan                   | —                       | —        | 0.37              | —      | —   |
|                            | TOTAL      |  |   |  |                                    |                  |                        | —                       | —        | 6.42              | 0.90   | 1.90  |

**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume sampled<br>(m <sup>3</sup> ) | Total suspended particulate<br>(µg/m <sup>3</sup> ) | Sample preparation set number | Extraction by Soxhlet or PSE | Extract split | GCMS SIM or Scan | 1-Methyl-pyrene | Perylene | Phenanthrene | Pyrene | C1-178 Isomers, methylated phenanthrenes/anthracenes (E) |
|----------------------------|------------|---|---|-------------------------------|------------------------------|---------------|------------------|-----------------|----------|--------------|--------|--|
| 04/01/2003                 | GFF        | 301.1                                   | 33.2  | 03.32308                      | PSE                          | yes           | SIM              | —               | —        | —            | —      | —  |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | SIM              | —               | —        | 1.20         | 0.14   | 0.59   |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —               | —        | 0.17         | —      | —  |
|                            | TOTAL      |   |   |                               |                              |               |                  | —               | —        | 1.37         | 0.14   | 0.59   |
| 04/29/2003                 | GFF        | 315.3                                   | 40.0  | 03.32308                      | PSE                          | yes           | SIM              | —               | —        | —            | —      | —  |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | —               | —        | 2.90         | 0.42   | 0.98   |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —               | —        | 0.14         | —      | —  |
|                            | TOTAL      |   |   |                               |                              |               |                  | —               | —        | 3.04         | 0.42   | 0.98   |
| 05/27/2003                 | GFF        | 326.5                                   | 55.7  | 03.32308                      | PSE                          | yes           | SIM              | —               | —        | —            | 0.05   | —  |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | —               | —        | 2.50         | 0.40   | 1.10   |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —               | —        | 1.10         | —      | —  |
|                            | TOTAL      |   |   |                               |                              |               |                  | —               | —        | 3.60         | 0.45   | 1.10   |
| 07/22/2003                 | GFF        | 307.8                                   | 52.6  | 03.32308                      | PSE                          | yes           | SIM              | —               | —        | 0.05         | 0.05   | —  |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | —               | —        | 3.30         | 0.57   | 1.70   |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —               | —        | 1.90         | —      | —  |
|                            | TOTAL      |   |   |                               |                              |               |                  | —               | —        | 5.25         | 0.62   | 1.70   |
| 08/26/2003                 | GFF        | 311.9                                   | 71.8  | 03.32308                      | PSE                          | yes           | SIM              | —               | —        | 0.04         | 0.05   | —  |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | —               | —        | 2.90         | 0.60   | 1.80   |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —               | —        | 3.30         | —      | —  |
|                            | TOTAL      |   |   |                               |                              |               |                  | —               | —        | 6.24         | 0.65   | 1.80   |



**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume sampled<br>(m <sup>3</sup> ) | Total suspended particulate<br>(µg/m <sup>3</sup> ) | Sample preparation set number | Extraction by Soxhlet or PSE | Extract split | GCMS SIM or Scan | C1-202 Isomers, methylated fluo-ranthenes/pyrenes (E) | C1-228 Isomers, methylated benzo[a]anthracenes/chrysenes (E) | C1-252 Isomers, methylated benzo-pyrenes/ perylenes (E) | C2-178 Isomers, alkylated phen-anthracenes/ anthracenes (E) | C2-202 Isomers, alkylated fluor-anthenes/ pyrenes (E) |
|----------------------------|------------|---|---|-------------------------------|------------------------------|---------------|------------------|---|--|---|---|---|
| 10/2/2001                  | GFF        | 291.4                                   | 50.8  | 02.037                        | Soxhlet                      | no            | SIM              | —   | —  | —   | —   | —   |
|                            | Top PUF    |   |   | 02.037                        | Soxhlet                      | no            | SIM              | 0.12  | —  | —   | 0.59  | —   |
|                            | Bottom PUF |   |   | 02.037                        | Soxhlet                      | no            | SIM              | —   | —  | —   | —   | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.12  | —  | —   | 0.59  | —   |
| 10/30/2001                 | GFF        | 318.7                                   | 72.2  | 02.037                        | Soxhlet                      | no            | SIM              | —   | —  | —   | —   | —   |
|                            | Top PUF    |   |   | 02.037                        | Soxhlet                      | no            | SIM              | 0.45  | —  | —   | 1.40  | —   |
|                            | Bottom PUF |   |   | 02.037                        | Soxhlet                      | no            | SIM              | —   | —  | —   | —   | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.45  | —  | —   | 1.40  | —   |
| 12/04/2001                 | GFF        | 323.8                                   | 47.6  | 02.037                        | Soxhlet                      | no            | SIM              | 0.11  | 0.17   | 0.32  | —   | —   |
|                            | Top PUF    |   |   | 02.037                        | Soxhlet                      | no            | SIM              | 0.82  | 0.12   | —   | 2.00  | 0.31  |
|                            | Bottom PUF |   |   | 02.037                        | Soxhlet                      | no            | SIM              | —   | —  | —   | —   | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.93  | 0.29   | 0.32  | 2.00  | 0.31  |
| 01/08/2002                 | GFF        | 335.9                                   | 62.5  | 02.037                        | Soxhlet                      | no            | SIM              | 0.10  | 0.12   | —   | 0.05  | —   |
|                            | Top PUF    |   |   | 02.037                        | Soxhlet                      | no            | SIM              | 0.59  | —  | —   | 1.50  | —   |
|                            | Bottom PUF |   |   | 02.037                        | Soxhlet                      | no            | SIM              | —   | —  | —   | —   | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.69  | 0.12   | —   | 1.55  | —   |
| 02/05/2002                 | GFF        | 372.7                                   | 77.3  | 02.35009                      | PSE                          | no            | SIM              | 0.08  | —  | 0.08  | 0.04  | —   |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.54  | —  | —   | 1.00  | —   |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —   | —  | —   | —   | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.62  | —  | 0.08  | 1.04  | —   |
| 03/05/2002                 | GFF        | 329.2                                   | 46.2  | 02.35009                      | PSE                          | no            | SIM              | —   | —  | —   | —   | —   |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.34  | —  | —   | 0.88  | —   |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —   | —  | —   | —   | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.34  | —  | —   | 0.88  | —   |
| 04/02/2002                 | GFF        | 344.7                                   | 42.9  | 02.35009                      | PSE                          | no            | SIM              | —   | —  | —   | —   | —   |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.16  | —  | —   | 0.46  | —   |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —   | —  | —   | —   | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.16  | —  | —   | 0.46  | —   |
| 05/07/2002                 | GFF        | 345.8                                   | 59.6  | 02.35009                      | PSE                          | no            | SIM              | —   | —  | —   | —   | —   |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.13  | —  | —   | 0.60  | —   |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —   | —  | —   | —   | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.13  | —  | —   | 0.60  | —   |

**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound was not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume sampled<br>(m <sup>3</sup> ) | Total suspended particulate<br>(µg/m <sup>3</sup> ) | Sample preparation set number | Extraction by Soxhlet or PSE | Extract split | GCMS SIM or Scan | C1-202 Isomers, methylated fluoranthenes/pyrenes (E) | C1-228 Isomers, methylated benzo[a]anthracenes/chrysenes (E) | C1-252 Isomers, methylated benzo-pyrenes/ perylenes (E) | C2-178 Isomers, alkylated phen-anthracenes (E) | C2-202 Isomers, alkylated fluor-anthracenes/pyrenes (E) |
|----------------------------|------------|---|---|-------------------------------|------------------------------|---------------|------------------|--|--|---|--|---|
| 06/04/2002                 | GFF        | 317.3                                   | 54.8  | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —   | —  | —   |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.13   | —  | —   | 0.40   | —   |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —   | —  | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.13   | —  | —   | 0.40   | —   |
| 07/02/2002                 | GFF        | 328.5                                   | 59.1  | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —   | —  | —   |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —   | 0.49   | —   |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —   | —  | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | —  | —  | —   | 0.49   | —   |
| 08/06/2002                 | GFF        | 262.4                                   | 71.6  | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —   | —  | —   |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —   | 0.92   | —   |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —   | —  | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | —  | —  | —   | 0.92   | —   |
| 10/01/2002                 | GFF        | 315.9                                   | 62.0  | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —   | —  | —   |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.22   | —  | —   | 0.71   | —   |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —   | —  | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.22   | —  | —   | 0.71   | —   |
| 11/26/2002                 | GFF        | 301.3                                   | 47.8  | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —   | —  | —   |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.63   | —  | —   | 1.20   | —   |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —   | —  | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.63   | —  | —   | 1.20   | —   |
| 01/07/2003                 | GFF        | 294.8                                   | 53.6  | 03.32308                      | PSE                          | yes           | SIM              | 0.11   | 0.15   | —   | —  | —   |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | 0.59   | —  | —   | 1.60   | —   |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —  | —  | —   | —  | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.70   | 0.15   | —   | 1.60   | —   |
| 02/04/2003                 | GFF        | 312.1                                   | 36.5  | 03.32308                      | PSE                          | yes           | SIM              | 0.09   | —  | —   | —  | —   |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | 0.48   | —  | —   | 1.20   | —   |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —  | —  | —   | —  | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.57   | —  | —   | 1.20   | —   |
| 03/04/2003                 | GFF        | 283.0                                   | 53.0  | 03.32308                      | PSE                          | yes           | Scan             | —  | —  | —   | —  | —   |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | 0.36   | —  | —   | 0.91   | —   |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —  | —  | —   | —  | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.36   | —  | —   | 0.91   | —   |

**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound was not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume sampled<br>(m <sup>3</sup> ) | Total suspended particulate<br>(µg/m <sup>3</sup> ) | Sample preparation set number | Extraction by Soxhlet or PSE | Extract split | GCMS SIM or Scan | C1-202 Isomers, methylated fluoranthenes/pyrenes (E) | C1-228 Isomers, methylated benzo[a]anthracenes/chrysenes (E) | C1-252 Isomers, methylated benzo-pyrenes/perylenes (E) | C2-178 Isomers, alkylated phen-anthracenes (E) | C2-202 Isomers, alkylated fluor-anthracenes/pyrenes (E) |
|----------------------------|------------|---|---|-------------------------------|------------------------------|---------------|------------------|--|--|--|--|---|
| 06/04/2002                 | GFF        | 317.3                                   | 54.8  | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —  | —  | —   |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.13   | —  | —  | 0.40   | —   |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —  | —  | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.13   | —  | —  | 0.40   | —   |
| 07/02/2002                 | GFF        | 328.5                                   | 59.1  | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —  | —  | —   |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —  | 0.49   | —   |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —  | —  | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | —  | —  | —  | 0.49   | —   |
| 08/06/2002                 | GFF        | 262.4                                   | 71.6  | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —  | —  | —   |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —  | 0.92   | —   |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —  | —  | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | —  | —  | —  | 0.92   | —   |
| 10/01/2002                 | GFF        | 315.9                                   | 62.0  | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —  | —  | —   |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.22   | —  | —  | 0.71   | —   |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —  | —  | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.22   | —  | —  | 0.71   | —   |
| 11/26/2002                 | GFF        | 301.3                                   | 47.8  | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —  | —  | —   |
|                            | Top PUF    |   |   | 02.35009                      | PSE                          | no            | SIM              | 0.63   | —  | —  | 1.20   | —   |
|                            | Bottom PUF |   |   | 02.35009                      | PSE                          | no            | SIM              | —  | —  | —  | —  | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.63   | —  | —  | 1.20   | —   |
| 01/07/2003                 | GFF        | 294.8                                   | 53.6  | 03.32308                      | PSE                          | yes           | SIM              | 0.11   | 0.15   | —  | —  | —   |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | 0.59   | —  | —  | 1.60   | —   |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —  | —  | —  | —  | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.70   | 0.15   | —  | 1.60   | —   |
| 02/04/2003                 | GFF        | 312.1                                   | 36.5  | 03.32308                      | PSE                          | yes           | SIM              | 0.09   | —  | —  | —  | —   |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | 0.48   | —  | —  | 1.20   | —   |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —  | —  | —  | —  | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.57   | —  | —  | 1.20   | —   |
| 03/04/2003                 | GFF        | 283.0                                   | 53.0  | 03.32308                      | PSE                          | yes           | Scan             | —  | —  | —  | —  | —   |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | 0.36   | —  | —  | 0.91   | —   |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —  | —  | —  | —  | —   |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.36   | —  | —  | 0.91   | —   |

**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume sampled<br>(m <sup>3</sup> ) | Total suspended particulate<br>(µg/m <sup>3</sup> ) | Sample preparation set number | Extraction by Soxhlet or PSE | Extract split | GCMS SIM or Scan | C1-202 Isomers, methylated fluoranthenes/pyrenes (E) | C1-228 Isomers, methylated benzo[a]anthracenes/chrysenes (E) | C1-252 Isomers, methylated benzo-pyrenes/ perylenes (E) | C2-178 Isomers, alkylated phen-anthracenes (E) | C2-202 Isomers, alkylated fluor-anthenes/pyrenes (E) |
|----------------------------|------------|---|---|-------------------------------|------------------------------|---------------|------------------|--|--|---|--|--|
| 04/01/2003                 | GFF        | 301.1                                   | 33.2  | 03.32308                      | PSE                          | yes           | SIM              | —  | —  | —   | —  | —  |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | SIM              | 0.09   | —  | —   | 0.23   | —  |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —  | —  | —   | —  | —  |
|                            | TOTAL      |   |   |                               |                              |               |                  | 0.09   | —  | —   | 0.23   | —  |
| 04/29/2003                 | GFF        | 315.3                                   | 40.0  | 03.32308                      | PSE                          | yes           | SIM              | —  | —  | —   | —  | —  |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | —  | —  | —   | 0.47   | —  |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —  | —  | —   | —  | —  |
|                            | TOTAL      |   |   |                               |                              |               |                  | —  | —  | —   | 0.47   | —  |
| 05/27/2003                 | GFF        | 326.5                                   | 55.7  | 03.32308                      | PSE                          | yes           | SIM              | —  | —  | —   | —  | —  |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | —  | —  | —   | 0.53   | —  |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —  | —  | —   | —  | —  |
|                            | TOTAL      |   |   |                               |                              |               |                  | —  | —  | —   | 0.53   | —  |
| 07/22/2003                 | GFF        | 307.8                                   | 52.6  | 03.32308                      | PSE                          | yes           | SIM              | —  | —  | —   | —  | —  |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | —  | —  | —   | 0.94   | —  |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —  | —  | —   | —  | —  |
|                            | TOTAL      |   |   |                               |                              |               |                  | —  | —  | —   | 0.94   | —  |
| 08/26/2003                 | GFF        | 311.9                                   | 71.8  | 03.32308                      | PSE                          | yes           | SIM              | —  | —  | —   | —  | —  |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | —  | —  | —   | 0.97   | —  |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —  | —  | —   | —  | —  |
|                            | TOTAL      |   |   |                               |                              |               |                  | —  | —  | —   | 0.97   | —  |

**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume<br>sampled<br>(m <sup>3</sup> ) | Total suspended<br>particulate<br>(µg/m <sup>3</sup> ) | Sample prepara-<br>tion<br>set number | Extraction<br>by Soxhlet<br>or PSE | Extract<br>split | GCMS<br>SIM or<br>Scan | C3-178<br>Isomers,<br>alkylated<br>phenanthrenes/<br>anthracenes<br>(E) | 2-Fluoro-<br>biphenyl<br>(surrogate)<br>(percent) | Nitro-<br>benzene- <i>d</i> 5<br>(surrogate)<br>(percent) | Terphenyl-<br><i>d</i> 14<br>(surrogate)<br>(percent) |
|----------------------------|------------|--|--|---------------------------------------|------------------------------------|------------------|------------------------|---|---|---|---|
| 10/2/2001                  | GFF        | 291.4                                      | 50.8   | 02.037                                | Soxhlet                            | no               | SIM                    | —   | 36.0  | 27.2  | 102   |
|                            | Top PUF    |  |  | 02.037                                | Soxhlet                            | no               | SIM                    | —   | 71.4  | 65.5  | 101   |
|                            | Bottom PUF |  |  | 02.037                                | Soxhlet                            | no               | SIM                    | —   | 81.9  | 78.8  | 116   |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | —   |   |   |   |
| 10/30/2001                 | GFF        | 318.7                                      | 72.2   | 02.037                                | Soxhlet                            | no               | SIM                    | —   | 41.7  | 33.0  | 122   |
|                            | Top PUF    |  |  | 02.037                                | Soxhlet                            | no               | SIM                    | 0.32  | 95.9  | 83.8  | 104   |
|                            | Bottom PUF |  |  | 02.037                                | Soxhlet                            | no               | SIM                    | —   | 76.2  | 75.3  | 123   |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | 0.32  |   |   |   |
| 12/04/2001                 | GFF        | 323.8                                      | 47.6   | 02.037                                | Soxhlet                            | no               | SIM                    | —   | 75.3  | 47.1  | 112   |
|                            | Top PUF    |  |  | 02.037                                | Soxhlet                            | no               | SIM                    | 0.52  | 75.4  | 58.1  | 103   |
|                            | Bottom PUF |  |  | 02.037                                | Soxhlet                            | no               | SIM                    | —   | 76.4  | 50.9  | 123   |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | 0.52  |   |   |   |
| 01/08/2002                 | GFF        | 335.9                                      | 62.5   | 02.037                                | Soxhlet                            | no               | SIM                    | —   | 57.9  | 40.3  | 106   |
|                            | Top PUF    |  |  | 02.037                                | Soxhlet                            | no               | SIM                    | 0.72  | 58.4  | 55.1  | 103   |
|                            | Bottom PUF |  |  | 02.037                                | Soxhlet                            | no               | SIM                    | —   | 61.2  | 62.8  | 117   |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | 0.72  |   |   |   |
| 02/05/2002                 | GFF        | 372.7                                      | 77.3   | 02.35009                              | PSE                                | no               | SIM                    | 0.04  | 36.8  | 32.7  | 59.0  |
|                            | Top PUF    |  |  | 02.35009                              | PSE                                | no               | SIM                    | 0.34  | 76.3  | 86.8  | 97.0  |
|                            | Bottom PUF |  |  | 02.35009                              | PSE                                | no               | SIM                    | —   | 73.2  | 81.5  | 89.3  |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | 0.38  |   |   |   |
| 03/05/2002                 | GFF        | 329.2                                      | 46.2   | 02.35009                              | PSE                                | no               | SIM                    | —   | 61.8  | 40.4  | 64.4  |
|                            | Top PUF    |  |  | 02.35009                              | PSE                                | no               | SIM                    | 0.10  | 73.9  | 82.5  | 105   |
|                            | Bottom PUF |  |  | 02.35009                              | PSE                                | no               | SIM                    | —   | 78.5  | 86.4  | 100   |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | 0.10  |   |   |   |
| 04/02/2002                 | GFF        | 344.7                                      | 42.9   | 02.35009                              | PSE                                | no               | SIM                    | —   | 48.1  | 40.4  | 70.0  |
|                            | Top PUF    |  |  | 02.35009                              | PSE                                | no               | SIM                    | —   | 74.7  | 81.9  | 88.6  |
|                            | Bottom PUF |  |  | 02.35009                              | PSE                                | no               | SIM                    | —   | 65.4  | 70.4  | 82.9  |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | —   |   |   |   |
| 05/07/2002                 | GFF        | 345.8                                      | 59.6   | 02.35009                              | PSE                                | no               | SIM                    | —   | 53.3  | 28.4  | 71.0  |
|                            | Top PUF    |  |  | 02.35009                              | PSE                                | no               | SIM                    | —   | 81.1  | 90.7  | 92.0  |
|                            | Bottom PUF |  |  | 02.35009                              | PSE                                | no               | SIM                    | —   | 71.7  | 75.6  | 91.0  |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | —   |   |   |   |

**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Concentrations of individual PAH that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume<br>sampled<br>(m <sup>3</sup> ) | Total suspended<br>particulate<br>(µg/m <sup>3</sup> ) | Sample prepara-<br>tion set<br>number | Extraction<br>by Soxhlet<br>or PSE | Extract<br>split | GCMS<br>SIM or<br>Scan | C3-178 Isomers,<br>alkylated<br>phenanthrenes/<br>anthracenes<br>(E) | 2-Fluoro-<br>biphenyl<br>(surrogate)<br>(percent) | Nitro-<br>benzene- <i>d</i> 5<br>(surrogate)<br>(percent) | Terphenyl-<br><i>d</i> 14<br>(surrogate)<br>(percent) |
|----------------------------|------------|--|--|---------------------------------------|------------------------------------|------------------|------------------------|--|---|---|---|
| 06/04/2002                 | GFF        | 317.3                                      | 54.8   | 02.35009                              | PSE                                | no               | SIM                    | —  | 59.6  | 44.3  | 71.8  |
|                            | Top PUF    |  |  | 02.35009                              | PSE                                | no               | SIM                    | —  | 63.9  | 62.6  | 83.7  |
|                            | Bottom PUF |  |  | 02.35009                              | PSE                                | no               | SIM                    | —  | 82.0  | 85.8  | 100   |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | —  |   |   |   |
| 07/02/2002                 | GFF        | 328.5                                      | 59.1   | 02.35009                              | PSE                                | no               | SIM                    | —  | 68.7  | 53.7  | 76.9  |
|                            | Top PUF    |  |  | 02.35009                              | PSE                                | no               | SIM                    | 0.16   | 70.2  | 71.4  | 82.0  |
|                            | Bottom PUF |  |  | 02.35009                              | PSE                                | no               | SIM                    | —  | 60.6  | 61.9  | 84.6  |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | 0.16   |   |   |   |
| 08/06/2002                 | GFF        | 262.4                                      | 71.6   | 02.35009                              | PSE                                | no               | SIM                    | —  | 58.6  | 43.5  | 66.1  |
|                            | Top PUF    |  |  | 02.35009                              | PSE                                | no               | SIM                    | 0.27   | 69.0  | 72.9  | 91.3  |
|                            | Bottom PUF |  |  | 02.35009                              | PSE                                | no               | SIM                    | —  | 70.2  | 74.2  | 90.6  |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | 0.27   |   |   |   |
| 10/01/2002                 | GFF        | 315.9                                      | 62.0   | 02.35009                              | PSE                                | no               | SIM                    | —  | 44.6  | 35.0  | 62.5  |
|                            | Top PUF    |  |  | 02.35009                              | PSE                                | no               | SIM                    | 0.22   | 65.6  | 64.9  | 91.9  |
|                            | Bottom PUF |  |  | 02.35009                              | PSE                                | no               | SIM                    | —  | 59.4  | 59.1  | 87.3  |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | 0.22   |   |   |   |
| 11/26/2002                 | GFF        | 301.3                                      | 47.8   | 02.35009                              | PSE                                | no               | SIM                    | —  | 50.8  | 40.1  | 72.0  |
|                            | Top PUF    |  |  | 02.35009                              | PSE                                | no               | SIM                    | 0.33   | 67.0  | 67.6  | 88.2  |
|                            | Bottom PUF |  |  | 02.35009                              | PSE                                | no               | SIM                    | —  | 69.8  | 74.7  | 90.1  |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | 0.33   |   |   |   |
| 01/07/2003                 | GFF        | 294.8                                      | 53.6   | 03.32308                              | PSE                                | yes              | SIM                    | —  | 76.5  | 76.5  | 88.2  |
|                            | Top PUF    |  |  | 03.32308                              | PSE                                | yes              | Scan                   | 0.69   | 94.1  | 129   | 106   |
|                            | Bottom PUF |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —  | 100   | 124   | 112   |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | 0.69   |   |   |   |
| 02/04/2003                 | GFF        | 312.1                                      | 36.5   | 03.32308                              | PSE                                | yes              | SIM                    | —  | 75.0  | 75.0  | 93.8  |
|                            | Top PUF    |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —  | 113   | 125   | 119   |
|                            | Bottom PUF |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —  | 100   | 131   | 113   |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | —  |   |   |   |
| 03/04/2003                 | GFF        | 283.0                                      | 53.0   | 03.32308                              | PSE                                | yes              | Scan                   | —  | 82.2  | 102   | 102   |
|                            | Top PUF    |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —  | 88.9  | 122   | 100   |
|                            | Bottom PUF |  |  | 03.32308                              | PSE                                | yes              | Scan                   | —  | 94.4  | 106   | 106   |
|                            | TOTAL      |  |  |                                       |                                    |                  |                        | —  |   |   |   |

**Table 10B.** Analytical results for polycyclic aromatic hydrocarbon (PAH) and alkylated PAH concentrations in air from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Values are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Concentrations of individual PAHs that are less than 0.5 ng/m<sup>3</sup> (the reporting level) are estimated. µg/m<sup>3</sup>, microgram per cubic meter; E, estimated concentration; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; m<sup>3</sup>, cubic meter; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; PSE, pressurized solvent extraction; —, compound not detected at a concentration above the laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | Type       | Air volume sampled<br>(m <sup>3</sup> ) | Total suspended particulate<br>(µg/m <sup>3</sup> ) | Sample preparation set number | Extraction by Soxhlet or PSE | Extract split | GCMS SIM or Scan | C3-178 Isomers, alkylated phenanthrenes/anthracenes (E) | 2-Fluoro-biphenyl, surrogate (percent) | Nitro-benzene- <i>d</i> 5, surrogate (percent) | Terphenyl- <i>d</i> 14, surrogate (percent) |
|----------------------------|------------|---|---|-------------------------------|------------------------------|---------------|------------------|---|--|--|---|
| 04/01/2003                 | GFF        | 301.1                                   | 33.2  | 03.32308                      | PSE                          | yes           | SIM              | —   | 76.5                                   | 76.5   | 94.1  |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | SIM              | —   | 70.6                                   | 88.2   | 88.0  |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —   | 94.1                                   | 118  | 100   |
|                            | TOTAL      |   |   |                               |                              |               |                  | —   |  |  |   |
| 04/29/2003                 | GFF        | 315.3                                   | 40.0  | 03.32308                      | PSE                          | yes           | SIM              | —   | 75.0                                   | 68.8   | 87.5  |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | —   | 100                                    | 125  | 113   |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —   | 93.8                                   | 87.5   | 106   |
|                            | TOTAL      |   |   |                               |                              |               |                  | —   |  |  |   |
| 05/27/2003                 | GFF        | 326.5                                   | 55.7  | 03.32308                      | PSE                          | yes           | SIM              | —   | 73.3                                   | 66.7   | 93.3  |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | —   | 107                                    | 153  | 113   |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —   | 107                                    | 127  | 107   |
|                            | TOTAL      |   |   |                               |                              |               |                  | —   |  |  |   |
| 07/22/2003                 | GFF        | 307.8                                   | 52.6  | 03.32308                      | PSE                          | yes           | SIM              | —   | 68.8                                   | 58.1   | 93.8  |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | —   | 106                                    | 125  | 106   |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —   | 100                                    | 113  | 100   |
|                            | TOTAL      |   |   |                               |                              |               |                  | —   |  |  |   |
| 08/26/2003                 | GFF        | 311.9                                   | 71.8  | 03.32308                      | PSE                          | yes           | SIM              | —   | 61.9                                   | 48.1   | 87.5  |
|                            | Top PUF    |   |   | 03.32308                      | PSE                          | yes           | Scan             | —   | 93.8                                   | 125  | 100   |
|                            | Bottom PUF |   |   | 03.32308                      | PSE                          | yes           | Scan             | —   | 106                                    | 156  | 100   |
|                            | TOTAL      |   |   |                               |                              |               |                  | —   |  |  |   |

**Table 11A.** Pesticide compounds analyzed using method Airpest001 for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site identification number is 324141117001601. Estimated reporting level assumes 315 cubic meters as the average air volume. ng/m<sup>3</sup>, nanogram per cubic meter]

| Compound                              | Estimated reporting level (ng/m <sup>3</sup> ) |
|---------------------------------------|--|
| Acetochlor                            | 0.03   |
| Alachlor                              | 0.03   |
| Atrazine                              | 0.03   |
| Azinphos-methyl <sup>1</sup>          | 0.02   |
| Benfluralin <sup>1</sup>              | 0.30   |
| Carbaryl <sup>1</sup>                 | 0.05   |
| Carbofuran                            | 0.05   |
| Chlorpyrifos                          | 0.06   |
| Cyanazine                             | 0.06   |
| Dacthal (DCPA)                        | 0.03   |
| <i>p,p'</i> -DDE                      | 0.10   |
| Deethylatrazine                       | 0.05   |
| Diazinon                              | 0.03   |
| Dieldrin                              | 0.02   |
| Disulfoton <sup>1</sup>               | 0.27   |
| Ethalfuralin <sup>1</sup>             | 0.30   |
| Ethion                                | 0.03   |
| Ethoprophos                           | 0.05   |
| Fonofos                               | 0.05   |
| $\alpha$ -HCH                         | 0.03   |
| Lindane                               | 0.06   |
| Linuron <sup>1</sup>                  | 0.03   |
| Malathion                             | 0.08   |
| Metolachlor                           | 0.03   |
| Metribuzin                            | 0.06   |
| Molinate <sup>1</sup>                 | 0.50   |
| Napropamide                           | 0.05   |
| Parathion                             | 0.06   |
| Parathion-methyl                      | 0.10   |
| Pendimethalin                         | 0.06   |
| <i>cis</i> -Permethrin                | 0.08   |
| Phorate                               | 0.03   |
| Prometon <sup>1</sup>                 | 0.29   |
| Propyzamide                           | 0.05   |
| Propachlor                            | 0.11   |
| Propanil                              | 0.06   |
| Propargite I & II,                    | 0.21   |
| Simazine                              | 0.08   |
| Tebuthiuron <sup>1</sup>              | 0.45   |
| Terbufos <sup>1</sup>                 | 0.21   |
| Thiobencarb                           | 0.03   |
| Tri-allate                            | 0.02   |
| Trifluralin <sup>1</sup>              | 0.03   |
| Diazinon- <i>d</i> 10 (surrogate)     | percent  |
| $\alpha$ -HCH- <i>d</i> 6 (surrogate) | percent  |

<sup>1</sup>Concentration estimated.



**Table 11B.** Analytical results for pesticide concentrations detected using method Airpest001 for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site identification number is 32414117001601. Air sampling concentrations are in nanograms per cubic meter unless noted. µg/m³, microgram per cubic meter; g, gram; m³, cubic meter; GFF, glass fiber filter; PUF, polyurethane foam; E, estimated value; —, compound not detected at a concentration above the laboratory reporting level. All samples in this table are from sample preparation set number 02.037]

| Date<br>(mm/dd/yyyy) | Type     | Air<br>volume<br>sampled<br>(m³) | Particle<br>weight<br>(g) | Total<br>suspended<br>particulates<br>(µg/m³) | Ben-<br>fluralin | Chlor-<br>pyrifos | Dacthal<br>(DCPA) | p,p'-DDE | Diazinon | Mala-<br>thion | Trifluralin | Diazinon-<br>d10<br>(percent) | α-HCH-δ6<br>(percent) |
|----------------------|----------|----------------------------------|---------------------------|---|------------------|-------------------|-------------------|----------|----------|----------------|-------------|-------------------------------|-----------------------|
| 10/2/2001            | GFF      | 291.4                            | 0.015                     | 50.8  | —                | —                 | —                 | —        | 0.04     | 0.03           | —           | 73.8                          | 58.2                  |
|                      | Top PUF  |                                  |                           |   | —                | 0.24              | 0.12              | 0.02     | 0.67     | 0.07           | —           | 97.5                          | 82.4                  |
|                      | Back PUF |                                  |                           |   | —                | —                 | —                 | —        | —        | —              | —           | 112                           | 94.1                  |
|                      | TOTAL    |                                  |                           |   | —                | 0.24              | 0.12              | 0.02     | 0.71     | 0.10           | —           |                               |                       |
| 10/30/2001           | GFF      | 318.7                            | 0.023                     | 72.2  | —                | —                 | —                 | —        | —        | —              | —           | 89.0                          | 78.0                  |
|                      | Top PUF  |                                  |                           | E0.09   | 0.50             | 0.13              | 0.11              | 4.27     | 1.02     | —              | E0.27       | 101                           | 95.0                  |
|                      | Back PUF |                                  |                           | —   | —                | —                 | —                 | —        | —        | —              | E0.13       | 113                           | 94.0                  |
|                      | TOTAL    |                                  |                           | E0.09   | 0.50             | 0.13              | 0.11              | 4.27     | 1.02     | —              | E0.40       |                               |                       |
| 12/4/2001            | GFF      | 323.8                            | 0.015                     | 47.6  | —                | —                 | —                 | —        | —        | —              | —           | 98.5                          | 88.2                  |
|                      | Top PUF  |                                  |                           | —   | 0.18             | —                 | 0.03              | 1.22     | 0.17     | —              | E0.29       | 105                           | 83.8                  |
|                      | Back PUF |                                  |                           | —   | —                | —                 | —                 | —        | —        | —              | —           | 101                           | 81.5                  |
|                      | TOTAL    |                                  |                           | —   | 0.18             | —                 | 0.03              | 1.22     | 0.17     | —              | E0.29       |                               |                       |
| 1/8/2002             | GFF      | 335.9                            | 0.021                     | 62.5  | —                | —                 | —                 | —        | —        | —              | —           | 99.8                          | 86.0                  |
|                      | Top PUF  |                                  |                           | —   | 0.14             | —                 | 0.06              | 0.92     | 0.19     | —              | E0.13       | 98.0                          | 83.2                  |
|                      | Back PUF |                                  |                           | —   | —                | —                 | —                 | —        | —        | —              | —           | 103                           | 84.0                  |
|                      | TOTAL    |                                  |                           | —   | 0.14             | —                 | 0.06              | 0.92     | 0.19     | —              | E0.13       |                               |                       |

**Table 12A.** Pesticide compounds analyzed using method Airpest002 for air samples collected from the Sweetwater Reservoir atmospheric site, California.

[The site identification number is 324141117001601. Estimated reporting level assumes 315 cubic meters as the average air volume. ng/m<sup>3</sup>, nanogram per cubic meter]

| Compound  | Estimated reporting level (ng/m <sup>3</sup> ) | Compound                                    | Estimated reporting level (ng/m <sup>3</sup> ) |
|---|--|---|--|
| 2-Amino- <i>N</i> -isopropylbenzamide                               | 0.05   | Tefluthrin                                  | 0.02   |
| Azinphos-methyl oxon <sup>1</sup>                                   | 0.27   | Temephos <sup>1</sup>                       | 0.85   |
| Bifenthrin  | 0.07   | Terbufos oxygen analog sulfone <sup>1</sup> | 0.29   |
| 2-(4- <i>tert</i> -Butylphenoxy)-cyclohexanol                       | 0.08   | Terbutylazine                               | 0.05   |
| 4-Chlorobenzylmethyl sulfone  | 0.06   | Tribufos                                    | 0.22   |
| 2-Chloro-2,6-diethylacetanilide                                     | 0.08   | 3-Trifluoromethylaniline <sup>1</sup>       | 0.12   |
| 4-Chloro-2-methylphenol <sup>1</sup>                                | 0.06   | Diazinon- <i>d</i> 10 (surrogate)           | percent  |
| Cycloate  | 0.04   | $\alpha$ -HCH- <i>d</i> 6 (surrogate)       | percent  |
| $\lambda$ -Cyhalothrin  | 0.09   | <sup>1</sup> Concentration estimated.       |  |
| Cyfluthrin <sup>1</sup>   | 0.34   |   |  |
| Cypermethrin <sup>1</sup>   | 0.29   |   |  |
| 2,5-Dichloroaniline   | 0.08   |   |  |
| 3,4-Dichloroaniline <sup>1</sup>                                    | 0.06   |   |  |
| 3,5-Dichloroaniline   | 0.08   |   |  |
| 4,4'-Dichlorobenzophenone   | 0.06   |   |  |
| Dimethoate  | 0.04   |   |  |
| <i>E</i> -Dimethomorph  | 0.24   |   |  |
| <i>Z</i> -Dimethomorph  | 0.17   |   |  |
| Disulfoton sulfone  | 0.09   |   |  |
| $\alpha$ -Endosulfan  | 0.07   |   |  |
| $\beta$ -Endosulfan   | 0.09   |   |  |
| Endosulfan ether  | 0.06   |   |  |
| Endosulfan sulfate  | 0.14   |   |  |
| Ethion  | 0.10   |   |  |
| Ethion monoxon  | 0.13   |   |  |
| Ethoprophos   | 0.10   |   |  |
| 2-Ethyl-6-methylaniline <sup>1</sup>                                | 0.06   |   |  |
| Fenthion  | 0.20   |   |  |
| Fenthion sulfone  | 0.05   |   |  |
| Fenthion sulfone oxygen analog                                      | 0.04   |   |  |
| Fenthion sulfoxide  | 0.08   |   |  |
| Flumetralin <sup>1</sup>  | 0.23   |   |  |
| Fonophos oxygen analog <sup>1</sup>                                 | 0.10   |   |  |
| Iprodione <sup>1</sup>  | 0.17   |   |  |
| Isofenphos  | 0.07   |   |  |
| Malaoxon <sup>1</sup>   | 0.25   |   |  |
| Methidathion  | 0.06   |   |  |
| Myclobutanil  | 0.21   |   |  |
| 1,4-Naphthoquinone <sup>1</sup>                                     | 0.12   |   |  |
| Oxyfluorfen   | 0.11   |   |  |
| Paraoxon-ethyl <sup>1</sup>   | 0.10   |   |  |
| Paraoxon-methyl <sup>1</sup>  | 0.12   |   |  |
| Profenofos  | 0.19   |   |  |
| Prometryn   | 0.04   |   |  |
| Propetamphos  | 0.03   |   |  |
| <i>cis</i> -Propiconazole   | 0.08   |   |  |
| <i>trans</i> -Propiconazole   | 0.22   |   |  |
| <i>O</i> -ethyl- <i>O</i> -methyl- <i>S</i> -propylphosphorothioate | 0.05   |   |  |
| Sulfotepp   | 0.10   |   |  |
| Tebupirimphos   | 0.03   |   |  |
| Tebupirimphos oxygen analog   | 0.04   |   |  |

**Table 12B.** Analytical results for pesticide concentrations detected using method Airpest002 for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site identification number is 324141117001601. All samples in this table are from sample preparation set number 02.037. Air sampling concentrations are in nanograms per cubic meter unless noted.  $\mu\text{g}/\text{m}^3$ , microgram per cubic meter; g, gram;  $\text{m}^3$ , cubic meter; GFF, glass fiber filter; PUF, polyurethane foam; E, estimated value; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | Type       | Air volume<br>sampled<br>( $\text{m}^3$ ) | Particle<br>weight<br>(g) | Total<br>suspended<br>particulate<br>( $\text{mg}/\text{m}^3$ ) | Bifenthrin | Malaoxon | 1,4-<br>Naphtho-<br>quinone | Diazinon-<br>d10<br>(percent) | $\alpha$ -HCH-d6<br>(percent) |
|----------------------|------------|---|---------------------------|---|------------|----------|-----------------------------|-------------------------------|-------------------------------|
| 10/02/2001           | GFF        | 291.4                                     | 0.015                     | 50.8  | E0.05      | E0.30    | —                           | 79.7                          | 57.1                          |
|                      | Top PUF    |   |                           |   | —          | —        | —                           | 94.0                          | 78.0                          |
|                      | Bottom PUF |   |                           |   | —          | —        | —                           | 92.2                          | 84.4                          |
|                      | TOTAL      |   |                           |   | E0.05      | E0.30    | —                           |                               |                               |
| 10/30/2001           | GFF        | 318.7                                     | 0.023                     | 72.2  | E0.05      | E0.24    | —                           | 100                           | 76.8                          |
|                      | Top PUF    |   |                           |   | —          | —        | —                           | 96.6                          | 81.9                          |
|                      | Bottom PUF |   |                           |   | —          | —        | —                           | 81.7                          | 75.4                          |
|                      | TOTAL      |   |                           |   | E0.05      | E0.24    | —                           |                               |                               |
| 12/04/2001           | GFF        | 323.8                                     | 0.015                     | 47.6  | E0.06      | E0.09    | —                           | 99.9                          | 78.0                          |
|                      | Top PUF    |   |                           |   | —          | —        | E0.22                       | 90.0                          | 83.9                          |
|                      | Bottom PUF |   |                           |   | —          | —        | E0.07                       | 91.1                          | 78.8                          |
|                      | TOTAL      |   |                           |   | E0.06      | E0.09    | E0.29                       |                               |                               |
| 01/08/2002           | GFF        | 335.9                                     | 0.021                     | 62.5  | —          | —        | —                           | 94.4                          | 79.3                          |
|                      | Top PUF    |   |                           |   | —          | —        | —                           | 84.6                          | 84.1                          |
|                      | Bottom PUF |   |                           |   | —          | —        | —                           | 78.4                          | 67.0                          |
|                      | TOTAL      |   |                           |   | —          | —        | —                           |                               |                               |

**Table 13A.** Pesticide compounds analyzed using method Airpest003 for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site identification number is 324141117001601. Estimated reporting level assumes 315 cubic meters as the average air volume. ng/m<sup>3</sup>, nanogram per cubic meter]

| Compound                                | Estimated reporting level (ng/m <sup>3</sup> ) | Compound                                    | Estimated reporting level (ng/m <sup>3</sup> ) |
|---|--|---|--|
| Acetochlor                              | 0.05   | Fipronil sulfide                            | 0.06   |
| Alachlor                                | 0.05   | Fipronil sulfone                            | 0.06   |
| Atrazine                                | 0.05   | Fonofos                                     | 0.06   |
| Azinphos-methyl <sup>1</sup>            | 0.11   | Hexazinone <sup>1</sup>                     | 0.06   |
| Azinphos-methyl oxon <sup>1</sup>       | 0.11   | Iprodione <sup>1</sup>                      | 0.10   |
| Benfluralin <sup>1</sup>                | 0.30   | Isofenphos                                  | 0.10   |
| Carbaryl <sup>1</sup>                   | 0.10   | Malaoxon <sup>1</sup>                       | 0.14   |
| 2-Chloro-2,6-diethylacetanilide         | 0.08   | Malathion <sup>1</sup>                      | 0.14   |
| 4-Chloro-2-methylphenol                 | 0.06   | Metalaxyl                                   | 0.08   |
| Chlorpyrifos                            | 0.06   | Methidathion                                | 0.11   |
| Chlorpyrifos oxygen analog <sup>1</sup> | 0.16   | Metolachlor                                 | 0.05   |
| Cyfluthrin <sup>1</sup>                 | 0.13   | Metribuzin                                  | 0.10   |
| Cypermethrin <sup>1</sup>               | 0.16   | Myclobutanil                                | 0.11   |
| Dacthal (DCPA)                          | 0.05   | Paraoxon-methyl <sup>1</sup>                | 0.21   |
| Deethylatrazine                         | 0.11   | Parathion-methyl                            | 0.06   |
| Desulfinylfipronil                      | 0.06   | Pendimethalin                               | 0.06   |
| Desulfinylfipronil amide <sup>1</sup>   | 0.08   | Phorate <sup>1</sup>                        | 0.13   |
| Diazinon                                | 0.06   | Phorate oxon <sup>1</sup>                   | 0.14   |
| Diazoxon <sup>1</sup>                   | 0.10   | Prometon                                    | 0.05   |
| 3,4-Dichloroaniline <sup>1</sup>        | 0.08   | Prometryn                                   | 0.14   |
| Dichlorvos <sup>1</sup>                 | 0.22   | Propyzamide                                 | 0.06   |
| Dicrotophos <sup>1</sup>                | 0.19   | Simazine                                    | 0.06   |
| Dieldrin                                | 0.11   | Tebuthiuron <sup>1</sup>                    | 0.11   |
| Dimethoate                              | 0.10   | Terbufos                                    | 0.08   |
| Ethion                                  | 0.13   | Terbufos oxygen analog sulfone <sup>1</sup> | 0.21   |
| Ethion monoxon <sup>1</sup>             | 0.08   | Terbutylazine                               | 0.05   |
| 2-Ethyl-6 methylaniline                 | 0.11   | <i>cis</i> -Permethrin                      | 0.11   |
| Fenamiphos <sup>1</sup>                 | 0.17   | <i>trans</i> -Permethrin                    | 0.11   |
| Fenamiphos sulfone <sup>1</sup>         | 0.06   | Trifluralin <sup>1</sup>                    | 0.30   |
| Fenamiphos sulfoxide <sup>1</sup>       | 0.17   | Diazinon- <i>d</i> 10 (surrogate)           | percent  |
| Fipronil <sup>1</sup>                   | 0.05   | $\alpha$ -HCH- <i>d</i> 6 (surrogate)       | percent  |

<sup>1</sup>Concentration estimated.

**Table 13B.** Analytical results for pesticide concentrations detected using method Airpest003 for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site identification number is 324141117001601. Air sampling concentrations are in nanograms per cubic meter unless noted. µg/m<sup>3</sup>, microgram per cubic meter; g, gram; m<sup>3</sup>, cubic meter; GFF, glass fiber filter; PUF, polyurethane foam; E, estimated value; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | Type       | Set<br>number | Air volume<br>sampled<br>(m <sup>3</sup> ) | Particle<br>weight<br>(g) | Total<br>suspended<br>particulate<br>(µg/m <sup>3</sup> ) | Ben-<br>fluralin | Carbaryl | 4-Chloro-<br>2-methyl-<br>phenol | Chlor-<br>pyrifos | Dacthal<br>(DCPA) |
|----------------------|------------|---------------|--|---------------------------|---|------------------|----------|----------------------------------|-------------------|-------------------|
| 02/05/2002           | GFF        | 02.35009      | 372.7                                      | 0.029                     | 77.3  | —                | E0.04    | —                                | —                 | —                 |
|                      | Top PUF    |               |  |                           |   | E0.08            | —        | —                                | 0.17              | 0.03              |
|                      | Bottom PUF |               |  |                           |   | —                | —        | —                                | —                 | —                 |
|                      | TOTAL      |               |  |                           |   | E0.08            | E0.04    | —                                | 0.17              | 0.03              |
| 03/05/2002           | GFF        | 02.35009      | 329.2                                      | 0.015                     | 46.2  | —                | —        | —                                | —                 | —                 |
|                      | Top PUF    |               |  |                           |   | E0.11            | —        | —                                | 0.21              | 0.04              |
|                      | Bottom PUF |               |  |                           |   | —                | —        | —                                | —                 | —                 |
|                      | TOTAL      |               |  |                           |   | E0.11            | —        | —                                | 0.21              | 0.04              |
| 04/02/2002           | GFF        | 02.35009      | 344.7                                      | 0.015                     | 42.9  | —                | —        | —                                | —                 | —                 |
|                      | Top PUF    |               |  |                           |   | E0.08            | —        | —                                | 0.12              | 0.05              |
|                      | Bottom PUF |               |  |                           |   | —                | —        | —                                | —                 | —                 |
|                      | TOTAL      |               |  |                           |   | E0.08            | —        | —                                | 0.12              | 0.05              |
| 05/07/2002           | GFF        | 02.35009      | 345.8                                      | 0.021                     | 59.6  | —                | —        | —                                | —                 | —                 |
|                      | Top PUF    |               |  |                           |   | E0.08            | —        | 0.06                             | 0.18              | 0.06              |
|                      | Bottom PUF |               |  |                           |   | —                | —        | —                                | —                 | —                 |
|                      | TOTAL      |               |  |                           |   | E0.08            | —        | 0.06                             | 0.18              | 0.06              |
| 06/04/2002           | GFF        | 02.35009      | 317.3                                      | 0.017                     | 54.8  | —                | —        | —                                | —                 | —                 |
|                      | Top PUF    |               |  |                           |   | —                | —        | —                                | 0.20              | 0.06              |
|                      | Bottom PUF |               |  |                           |   | —                | —        | —                                | —                 | —                 |
|                      | TOTAL      |               |  |                           |   | —                | —        | —                                | 0.20              | 0.06              |
| 07/02/2002           | GFF        | 02.35009      | 328.5                                      | 0.019                     | 59.1  | —                | E0.05    | —                                | —                 | —                 |
|                      | Top PUF    |               |  |                           |   | E0.07            | —        | —                                | 0.17              | 0.05              |
|                      | Bottom PUF |               |  |                           |   | —                | —        | —                                | —                 | —                 |
|                      | TOTAL      |               |  |                           |   | E0.07            | E0.05    | —                                | 0.17              | 0.05              |
| 08/06/2002           | GFF        | 02.35009      | 262.4                                      | 0.019                     | 71.6  | —                | —        | —                                | —                 | —                 |
|                      | Top PUF    |               |  |                           |   | E0.10            | —        | —                                | 0.40              | 0.07              |
|                      | Bottom PUF |               |  |                           |   | —                | —        | —                                | —                 | —                 |
|                      | TOTAL      |               |  |                           |   | E0.10            | —        | —                                | 0.40              | 0.07              |

**Table 13B.** Analytical results for pesticide concentrations detected using method Airpest003 for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Air sampling concentrations in nanograms per cubic meter unless noted. µg/m<sup>3</sup>, microgram per cubic meter; g, gram; m<sup>3</sup>, cubic meter; GFF, glass fiber filter; PUF, polyurethane foam; E, estimated value; —, compound not detected at a concentration above the laboratory reporting level]

| Deethyl-<br>atrazine | Diazinon | Diazoxon | Ipro-<br>dione | Mala-<br>oxon | Malathion | Simazine | <i>cis</i> -<br>Per-<br>methrin | <i>trans</i> -<br>Per-<br>methrin | Tri-<br>fluralin | Diazinon- <i>d</i> 10<br>(surrogate)<br>(percent) | <i>α</i> -HCH- <i>d</i> 6<br>(surrogate)<br>(percent) |
|----------------------|----------|----------|----------------|---------------|-----------|----------|---------------------------------|-----------------------------------|------------------|---|---|
| —                    | —        | —        | —              | —             | —         | 0.02     | —                               | —                                 | —                | 59.6  | 44.7  |
| —                    | 0.65     | E0.08    | —              | —             | E0.12     | —        | —                               | —                                 | E0.21            | 85.7  | 67.1  |
| —                    | —        | —        | —              | —             | —         | —        | —                               | —                                 | E0.07            | 78.3  | 59.6  |
| —                    | 0.65     | E0.08    | —              | —             | E0.12     | 0.02     | —                               | —                                 | E0.29            |   |   |
| —                    | —        | —        | —              | E0.09         | —         | —        | —                               | —                                 | —                | 79.0  | 59.3  |
| —                    | 0.99     | E0.07    | —              | —             | E0.16     | —        | —                               | —                                 | E0.60            | 92.2  | 62.5  |
| —                    | —        | —        | —              | —             | —         | —        | —                               | —                                 | E0.07            | 79.0  | 62.5  |
| —                    | 0.99     | E0.07    | —              | E0.09         | E0.16     | —        | —                               | —                                 | E0.67            |   |   |
| —                    | 0.03     | —        | —              | E0.10         | —         | —        | —                               | —                                 | —                | 65.5  | 48.3  |
| —                    | 0.17     | —        | —              | —             | —         | —        | —                               | —                                 | E0.18            | 75.8  | 58.6  |
| —                    | —        | —        | —              | —             | —         | —        | —                               | —                                 | E0.06            | 72.4  | 55.2  |
| —                    | 0.20     | —        | —              | E0.10         | —         | —        | —                               | —                                 | E0.24            |   |   |
| —                    | 0.04     | —        | —              | E0.14         | E0.08     | —        | 0.07                            | 0.07                              | —                | 69.2  | 45.0  |
| —                    | 0.63     | E0.06    | —              | —             | E0.14     | —        | —                               | —                                 | E0.28            | 79.5  | 62.2  |
| —                    | —        | —        | —              | —             | —         | —        | —                               | —                                 | E0.08            | 79.5  | 62.2  |
| —                    | 0.68     | E0.06    | —              | E0.14         | E0.22     | —        | 0.07                            | 0.07                              | E0.36            |   |   |
| —                    | —        | —        | —              | E0.16         | —         | —        | 0.07                            | 0.07                              | —                | 69.8  | 50.8  |
| —                    | 0.27     | —        | —              | —             | E0.09     | —        | —                               | —                                 | E0.15            | 82.5  | 60.3  |
| —                    | —        | —        | —              | —             | —         | —        | —                               | —                                 | E0.11            | 83.3  | 65.5  |
| —                    | 0.27     | —        | —              | E0.16         | E0.09     | —        | 0.07                            | 0.07                              | E0.26            |   |   |
| —                    | —        | —        | —              | E0.19         | E0.06     | —        | 0.07                            | 0.08                              | —                | 75.6  | 55.8  |
| —                    | 0.55     | —        | —              | —             | E0.12     | —        | —                               | —                                 | E0.15            | 74.5  | 55.0  |
| —                    | —        | —        | —              | —             | —         | —        | —                               | —                                 | E0.08            | 82.1  | 59.1  |
| —                    | 0.55     | —        | —              | E0.19         | E0.18     | —        | 0.07                            | 0.08                              | E0.23            |   |   |
| 0.07                 | —        | —        | —              | E0.14         | —         | —        | 0.10                            | 0.11                              | —                | 65.6  | 47.2  |
| —                    | 1.73     | E0.12    | —              | E0.42         | E0.42     | —        | —                               | —                                 | E0.36            | 86.6  | 60.4  |
| —                    | —        | —        | —              | —             | —         | —        | —                               | —                                 | E0.19            | 76.1  | 60.4  |
| 0.07                 | 1.73     | E0.12    | —              | E0.56         | E0.42     | —        | 0.10                            | 0.11                              | E0.55            |   |   |

**Table 13B.** Analytical results for pesticide concentrations detected using method Airpest003 for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Air sampling concentrations are in nanograms per cubic meter unless noted.  $\mu\text{g}/\text{m}^3$ , microgram per cubic meter; g, gram;  $\text{m}^3$ , cubic meter; GFF, glass fiber filter; PUF, polyurethane foam; E, estimated value; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | Type       | Set<br>number | Air volume<br>sampled<br>( $\text{m}^3$ ) | Particle<br>weight<br>(g) | Total<br>suspended<br>particulate<br>( $\mu\text{g}/\text{m}^3$ ) | Ben-<br>fluralin | Carbaryl | 4-Chloro-<br>2-methyl-<br>phenol | Chlor-<br>pyrifos | Dacthal<br>(DCPA) |
|----------------------|------------|---------------|---|---------------------------|---|------------------|----------|----------------------------------|-------------------|-------------------|
| 10/1/2002            | GFF        | 02.35009      | 315.9                                     | 0.020                     | 62.0  | —                | —        | —                                | —                 | —                 |
|                      | Top PUF    |               |   |                           |   | E0.09            | —        | —                                | 0.33              | 0.06              |
|                      | Bottom PUF |               |   |                           |   | —                | —        | —                                | —                 | —                 |
|                      | TOTAL      |               |   |                           |   | —                | —        | —                                | 0.33              | 0.06              |
|                      |            |               |   |                           |   | E0.09            |          |                                  |                   |                   |
| 11/26/2002           | GFF        | 02.35009      | 301.3                                     | 0.014                     | 47.8  | —                | —        | —                                | —                 | —                 |
|                      | Top PUF    |               |   |                           |   | E0.10            | —        | —                                | 0.19              | 0.07              |
|                      | Bottom PUF |               |   |                           |   | —                | —        | —                                | —                 | —                 |
|                      | TOTAL      |               |   |                           |   | E0.10            | —        | —                                | 0.19              | 0.07              |
| 1/7/2003             | GFF        | 03.32308      | 294.8                                     | 0.016                     | 53.6  | —                | —        | —                                | —                 | —                 |
|                      | Top PUF    |               |   |                           |   | E0.07            | —        | —                                | 0.15              | 0.05              |
|                      | Bottom PUF |               |   |                           |   | —                | —        | —                                | —                 | —                 |
|                      | TOTAL      |               |   |                           |   | E0.07            | —        | —                                | 0.15              | 0.05              |
| 2/4/2003             | GFF        | 03.32308      | 312.1                                     | 0.011                     | 36.5  | —                | —        | —                                | —                 | —                 |
|                      | Top PUF    |               |   |                           |   | E0.03            | —        | —                                | 0.06              | 0.03              |
|                      | Bottom PUF |               |   |                           |   | —                | —        | —                                | —                 | —                 |
|                      | TOTAL      |               |   |                           |   | E0.03            | —        | —                                | 0.06              | 0.03              |
| 3/4/2003             | GFF        | 03.32308      | 283.0                                     | 0.015                     | 53.0  | —                | —        | —                                | —                 | —                 |
|                      | Top PUF    |               |   |                           |   | E0.07            | —        | —                                | 0.12              | 0.06              |
|                      | Bottom PUF |               |   |                           |   | E0.03            | —        | —                                | —                 | —                 |
|                      | TOTAL      |               |   |                           |   | E0.10            | —        | —                                | 0.12              | 0.06              |
| 4/1/2003             | GFF        | 03.32308      | 301.1                                     | 0.01                      | 33.2  | —                | —        | —                                | —                 | —                 |
|                      | Top PUF    |               |   |                           |   | E0.03            | —        | —                                | 0.04              | 0.03              |
|                      | Bottom PUF |               |   |                           |   | —                | —        | —                                | —                 | —                 |
|                      | TOTAL      |               |   |                           |   | E0.03            | —        | —                                | 0.04              | 0.03              |
| 4/29/2003            | GFF        | 03.32308      | 315.3                                     | 0.013                     | 40.0  | —                | —        | —                                | —                 | —                 |
|                      | Top PUF    |               |   |                           |   | E0.03            | —        | —                                | 0.06              | 0.05              |
|                      | Bottom PUF |               |   |                           |   | —                | —        | —                                | —                 | —                 |
|                      | TOTAL      |               |   |                           |   | E0.03            | —        | —                                | 0.06              | 0.05              |

**Table 13B.** Analytical results for pesticide concentrations detected using method Airpest003 for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Air sampling concentrations in nanograms per cubic meter unless noted. µg/m<sup>3</sup>, microgram per cubic meter; g, gram; m<sup>3</sup>, cubic meter; GFF, glass fiber filter; PUF, polyurethane foam; E, estimated value; —, compound not detected at a concentration above the laboratory reporting level]

| Deethyl-atrazine | Diazinon | Diazoxon | Ipro-dione | Mala-oxon | Malathion | Simazine | <i>cis</i> -Per-methrin | <i>trans</i> -Per-methrin | Tri-fluralin | Diazinon- <i>d</i> 10 (surrogate) (percent) | α-HCH- <i>d</i> 6 (surrogate) (percent) |
|------------------|----------|----------|------------|-----------|-----------|----------|-------------------------|---------------------------|--------------|---|---|
| —                | 0.04     | —        | —          | E0.13     | E0.08     | —        | 0.09                    | 0.10                      | —            | 63.2  | 44.2                                    |
| —                | 4.17     | E0.10    | —          | —         | E0.37     | —        | —                       | —                         | E0.20        | 85.3  | 60.0                                    |
| —                | —        | —        | —          | —         | —         | —        | —                       | —                         | E0.10        | 72.7  | 53.7                                    |
| —                | 4.21     | E0.10    | —          | E0.13     | E0.45     | —        | 0.09                    | 0.10                      | E0.30        |   |   |
| —                | —        | —        | —          | —         | —         | —        | 0.10                    | 0.12                      | —            | 69.3  | 54.2                                    |
| —                | 1.64     | E0.07    | —          | —         | E0.20     | —        | —                       | —                         | E0.24        | 72.3  | 54.2                                    |
| —                | —        | —        | —          | —         | —         | —        | —                       | —                         | E0.07        | 75.3  | 57.2                                    |
| —                | 1.64     | E0.07    | —          | —         | E0.20     | —        | 0.10                    | 0.12                      | E0.31        |   |   |
| —                | —        | —        | —          | —         | —         | —        | 0.08                    | 0.07                      | —            | 97.1  | 91.9                                    |
| —                | 1.39     | E0.14    | —          | —         | E0.27     | —        | —                       | —                         | E0.27        | 124   | 107                                     |
| —                | —        | —        | —          | —         | —         | —        | —                       | —                         | —            | 91.7  | 83.7                                    |
| —                | 1.39     | E0.14    | —          | —         | E0.27     | —        | 0.08                    | 0.07                      | E0.27        |   |   |
| —                | —        | —        | —          | E0.06     | E0.04     | —        | 0.06                    | 0.06                      | —            | 94.4  | 89.2                                    |
| —                | 0.26     | E0.09    | —          | —         | E0.14     | —        | —                       | —                         | E0.08        | 98.3  | 87.7                                    |
| —                | —        | —        | —          | —         | —         | —        | —                       | —                         | E0.02        | 101   | 89.6                                    |
| —                | 0.26     | E0.09    | —          | E0.06     | E0.18     | —        | 0.06                    | 0.06                      | E0.10        |   |   |
| —                | —        | —        | E0.10      | E0.07     | —         | —        | 0.06                    | 0.05                      | —            | 98.5  | 94.5                                    |
| —                | 0.50     | E0.10    | —          | —         | E0.46     | —        | —                       | —                         | E0.33        | 96.3  | 87.2                                    |
| —                | —        | —        | —          | —         | —         | —        | —                       | —                         | E0.07        | 105   | 90.6                                    |
| —                | 0.50     | E0.10    | E0.10      | E0.07     | E0.46     | —        | 0.06                    | 0.05                      | E0.40        |   |   |
| —                | —        | —        | —          | E0.06     | E0.03     | —        | 0.05                    | 0.04                      | —            | 101   | 98.2                                    |
| —                | 0.28     | E0.07    | —          | —         | E0.06     | —        | —                       | —                         | E0.05        | 63.6  | 49.4                                    |
| —                | —        | —        | —          | —         | —         | —        | —                       | —                         | E0.03        | 103   | 95.4                                    |
| —                | 0.28     | E0.07    | —          | E0.06     | E0.09     | —        | 0.05                    | 0.04                      | E0.08        |   |   |
| —                | —        | —        | —          | E0.12     | E0.05     | —        | —                       | —                         | —            | 125   | 114                                     |
| —                | 0.33     | E0.10    | —          | —         | E0.42     | —        | —                       | —                         | E0.11        | 101   | 94.0                                    |
| —                | —        | —        | —          | —         | —         | —        | —                       | —                         | E0.08        | 102   | 96.1                                    |
| —                | 0.33     | E0.10    | —          | E0.12     | E0.47     | —        | —                       | —                         | E0.19        |   |   |



**Table 13B.** Analytical results for pesticide concentrations detected using method Airpest003 for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Air sampling concentrations are in nanograms per cubic meter unless noted.  $\mu\text{g}/\text{m}^3$ , microgram per cubic meter; g, gram;  $\text{m}^3$ , cubic meter; GFF, glass fiber filter; PUF, polyurethane foam; E, estimated value; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | Type       | Set<br>number | Air volume<br>sampled<br>( $\text{m}^3$ ) | Particle<br>weight<br>(g) | Total<br>suspended<br>particulate<br>( $\mu\text{g}/\text{m}^3$ ) | Ben-<br>fluralin | Carbaryl | 4-Chloro-<br>2-methyl-<br>phenol | Chlor-<br>pyrifos | Dacthal<br>(DCPA) |
|----------------------|------------|---------------|---|---------------------------|---|------------------|----------|----------------------------------|-------------------|-------------------|
| 5/27/2003            | GFF        | 03.32308      | 326.5                                     | 0.018                     | 55.7  | —                | —        | —                                | —                 | —                 |
|                      | Top PUF    |               |   |                           |   | —                | —        | —                                | 0.12              | 0.07              |
|                      | Bottom PUF |               |   |                           |   | —                | —        | —                                | —                 | —                 |
|                      | TOTAL      |               |   |                           |   | —                | —        | —                                | 0.12              | 0.07              |
| 7/22/2003            | GFF        | 03.32308      | 307.8                                     | 0.016                     | 52.6  | —                | —        | —                                | —                 | —                 |
|                      | Top PUF    |               |   |                           |   | E0.03            | —        | —                                | 0.28              | 0.04              |
|                      | Bottom PUF |               |   |                           |   | —                | —        | —                                | —                 | —                 |
|                      | TOTAL      |               |   |                           |   | E0.03            | —        | —                                | 0.28              | 0.04              |
| 8/26/2003            | GFF        | 03.32308      | 311.9                                     | 0.022                     | 71.8  | —                | —        | —                                | —                 | —                 |
|                      | Top PUF    |               |   |                           |   | E0.03            | —        | —                                | 0.18              | 0.08              |
|                      | Bottom PUF |               |   |                           |   | E0.03            | —        | —                                | —                 | —                 |
|                      | TOTAL      |               |   |                           |   | E0.06            | —        | —                                | 0.18              | 0.08              |

**Table 13B.** Analytical results for pesticide concentrations detected using method Airpest003 for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Air sampling concentrations in nanograms per cubic meter unless noted. µg/m<sup>3</sup>, microgram per cubic meter; g, gram; m<sup>3</sup>, cubic meter; GFF, glass fiber filter; PUF, polyurethane foam; E, estimated value; —, compound not detected at a concentration above the laboratory reporting level]

| Deethyl-atrazine | Diazinon | Diazoxon | Ipro-dione | Mala-oxon | Malathion | Simazine | <i>cis</i> -Per-methrin | <i>trans</i> -Per-methrin | Tri-fluralin | Diazinon- <i>d</i> 10 (surrogate) (percent) | $\alpha$ -HCH- <i>d</i> 6 (surrogate) (percent) |
|------------------|----------|----------|------------|-----------|-----------|----------|-------------------------|---------------------------|--------------|---|---|
| —                | —        | —        | —          | E0.14     | E0.02     | —        | 0.04                    | —                         | —            | 86  | 86.5  |
| —                | 0.33     | E0.11    | —          | —         | E0.16     | —        | —                       | —                         | E0.04        | 104   | 87.2  |
| —                | —        | —        | —          | —         | —         | —        | —                       | —                         | E0.05        | 105   | 98.9  |
| —                | 0.33     | E0.11    | —          | E0.14     | E0.18     | —        | 0.04                    | —                         | E0.09        |   |   |
| —                | —        | —        | —          | E0.19     | E0.02     | —        | 0.05                    | 0.05                      | —            | 90.3  | 81.9  |
| —                | 1.32     | E0.16    | —          | E0.21     | E0.66     | —        | —                       | —                         | E0.09        | 112   | 99.4  |
| —                | —        | —        | —          | —         | —         | —        | —                       | —                         | E0.06        | 99.3  | 95.7  |
| —                | 1.32     | E0.16    | —          | E0.40     | E0.68     | —        | 0.05                    | 0.05                      | E0.15        |   |   |
| —                | —        | —        | —          | E0.20     | —         | —        | 0.04                    | 0.05                      | —            | 87.5  | 81.1  |
| —                | 0.75     | E0.27    | —          | E0.36     | E0.59     | —        | —                       | —                         | E0.04        | 94.2  | 88.3  |
| —                | 0.13     | E0.04    | —          | —         | —         | —        | —                       | —                         | E0.04        | 103   | 93.9  |
| —                | 0.88     | E0.31    | —          | E0.56     | E0.59     | —        | 0.04                    | 0.05                      | E0.08        |   |   |

**Table 14A.** Analytical results for special study of trace metals in whole-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.

[See [table 1](#) for site identification number. Time is denoted in 24-hour scale. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized system (National Water Information System) to uniquely identify a specific constituent or property. LRL, laboratory reporting level; E, estimated value; mm/dd/yyyy, month/day/year. All values are reported as micrograms per liter unless noted. <, compound not detected at a concentration above laboratory reporting level]

| Site name                                       | Date<br>(mm/dd/yyyy) | Time              | Sampling<br>depth<br>(meter)<br>(0098) | Aluminum<br>(01105) | Antimony<br>(01097) | Barium<br>(01007)               | Beryllium<br>(01012)  | Cadmium<br>(01027) |
|---|----------------------|-------------------|--|---------------------|---------------------|---------------------------------|-----------------------|--------------------|
| [LRL]   |                      |                   |  | [2.0]               | [0.6]               | [0.16]                          | [0.06]                | [0.04]             |
| Sweetwater Reservoir near<br>pump tower (SWR01) | 08/19/2003           | 1130              | 2.0                                    | 27                  | <0.6                | 60                              | <0.06                 | <0.04              |
|   | 08/19/2003           | 1150              | 8.0                                    | 45                  | <0.6                | 84                              | <0.06                 | <0.04              |
|   | Chromium<br>(01034)  | Cobalt<br>(01037) | Copper<br>(01042)                      | Lead<br>(01051)     | Lithium<br>(01132)  | Manganese<br>(01055)            | Molybdenum<br>(01062) | Nickel<br>(01067)  |
| [LRL]   | [0.8]                | [0.017]           | [0.6]                                  | [0.06]              | [0.5]               | [0.22]                          | [0.18]                | [0.16]             |
| Sweetwater Reservoir near<br>pump tower (SWR01) | <0.8                 | 0.41              | 3.2                                    | 0.07                | 18                  | 22                              | 4.8                   | 3                  |
|   | <0.8                 | 0.60              | 2.4                                    | 0.13                | 17.6                | 1,760                           | 3.4                   | 3                  |
|   | Selenium<br>(01147)  | Silver<br>(01077) | Strontium<br>(01082)                   | Thallium<br>(01059) | Zinc<br>(01092)     | Uranium<br>(natural)<br>(28011) |                       |                    |
| [LRL]   | [0.48]               | [0.16]            | [0.21]                                 | [0.4]               | [2]                 | [0.012]                         |                       |                    |
| Sweetwater Reservoir near<br>pump tower (SWR01) | 0.8                  | <0.16             | 731                                    | <0.4                | E1                  | 4.34                            |                       |                    |
|   | 0.6                  | <0.16             | 722                                    | <0.4                | E1                  | 2.71                            |                       |                    |

**Table 14B.** Analytical results for special study of trace metals in filtered-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.

[See [table 1](#) for site identification number. Time is denoted in 24-hour scale. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized system (National Water Information System) to uniquely identify a specific constituent or property. All values are reported as micrograms per liter unless noted. LRL, Laboratory reporting level; E, estimated value; mm/dd/yyyy, month/day/year. <, compound not detected at a concentration above laboratory reporting level]

| Site name                                       | Date<br>(mm/dd/yyyy) | Time  | Sampling<br>depth<br>(meter)<br>(00098) | Aluminum<br>(01106)  | Antimony<br>(01095)   | Arsenic<br>(01000)              | Barium<br>(01005)   |                   |                      |
|---|----------------------|-------|---|----------------------|-----------------------|---------------------------------|---------------------|-------------------|----------------------|
| [LRL]   |                      |       |   | [1.6]                | [0.2]                 | [0.2]                           | [0.2]               |                   |                      |
| Sweetwater Reservoir near pump tower<br>(SWR01) | 02/14/2003           | 1130  | 5.0                                     | <2                   | E0.29                 | 1.3                             | 70                  |                   |                      |
|   | 04/08/2003           | 1100  | 6.0                                     | <2                   | E0.20                 | 1.9                             | 71                  |                   |                      |
|   | 06/17/2003           | 1130  | 2.0                                     | 2                    | <0.30                 | 1.3                             | 68                  |                   |                      |
|   | 08/19/2003           | 1130  | 2.0                                     | 2                    | E0.21                 | 1.3                             | 56                  |                   |                      |
|   | 08/19/2003           | 1150  | 8.0                                     | <2                   | <0.30                 | 2.2                             | 67                  |                   |                      |
|   |                      |       | Beryllium<br>(01010)                    | Boron<br>(01020)     | Cadmium<br>(01025)    | Chromium<br>(01030)             | Cobalt<br>(01035)   | Copper<br>(01040) | Lead<br>(01049)      |
| [LRL]   |                      |       | [0.06]                                  | [8]                  | [0.04]                | [0.8]                           | [0.014]             | [0.4]             | [0.08]               |
| Sweetwater Reservoir near pump tower<br>(SWR01) | <0.06                | 150   | <0.04                                   | <0.8                 | 0.20                  | 2.3                             | <0.08               |                   |                      |
|   | <0.06                | 149   | <0.04                                   | <0.8                 | 0.24                  | 2.5                             | <0.08               |                   |                      |
|   | <0.06                | 163   | <0.04                                   | E0.4                 | 0.21                  | 5.0                             | <0.08               |                   |                      |
|   | <0.06                | 163   | <0.04                                   | <0.8                 | 0.18                  | 2.0                             | <0.08               |                   |                      |
|   | <0.06                | 138   | <0.04                                   | <0.8                 | 0.32                  | 0.8                             | <0.08               |                   |                      |
|   |                      |       | Lithium<br>(01130)                      | Manganese<br>(01056) | Molybdenum<br>(01060) | Nickel<br>(01065)               | Selenium<br>(01145) | Silver<br>(01075) | Strontium<br>(01080) |
| [LRL]   |                      |       | [0.6]                                   | [0.2]                | [0.4]                 | [0.06]                          | [0.4]               | [0.2]             | [0.4]                |
| Sweetwater Reservoir near pump tower<br>(SWR01) | 20.9                 | 1.8   | 5.2                                     | 3.38                 | 0.9                   | <0.2                            | 752                 |                   |                      |
|   | 20.7                 | 39.4  | 4.6                                     | 3.4                  | 1.1                   | <0.2                            | 724                 |                   |                      |
|   | 17.9                 | 0.4   | 4.7                                     | 1.68                 | 0.7                   | <0.2                            | 746                 |                   |                      |
|   | 17.6                 | 0.7   | 5.1                                     | 3.18                 | 0.6                   | <0.2                            | 756                 |                   |                      |
|   | 16.2                 | 1,490 | 3.5                                     | 2.72                 | E0.3                  | <0.2                            | 700                 |                   |                      |
|   |                      |       | Thallium<br>(01057)                     | Vanadium<br>(01085)  | Zinc<br>(01090)       | Uranium<br>(natural)<br>(22073) |                     |                   |                      |
| [LRL]   |                      |       | [0.04]                                  | [0.14]               | [0.6]                 | [0.4]                           |                     |                   |                      |
| Sweetwater Reservoir near pump tower<br>(SWR01) | <0.04                | 5.9   | 1                                       | 4.72                 |                       |                                 |                     |                   |                      |
|   | <0.04                | 8.5   | 1                                       | 4.02                 |                       |                                 |                     |                   |                      |
|   | <0.04                | 4.1   | 1                                       | 3.62                 |                       |                                 |                     |                   |                      |
|   | <0.04                | 4.9   | E0.9                                    | 3.83                 |                       |                                 |                     |                   |                      |
|   | <0.04                | 2.6   | E1                                      | 2.50                 |                       |                                 |                     |                   |                      |

**Table 15A.** Anthropogenic indicator compounds analyzed in filtered-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.

[The parameter code is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. LRL, laboratory reporting level; LRL values are reported as micrograms per liter unless noted]

| Compound   | Parameter code | LRL  | Compound                             | Parameter code | LRL     |
|--|----------------|------|--------------------------------------|----------------|---------|
| Acetophenone                                       | 62064          | 0.50 | Menthol                              | 62080          | 0.50    |
| Acetylhexamethyl tetrahydronaphthalene             | 62065          | 0.50 | Metalaxyl                            | 50359          | 0.02    |
| Anthracene   | 34221          | 0.50 | 5-Methyl-1(H)-benzotriazole          | 62063          | 2.00    |
| 9,10-Anthraquinone                                 | 62066          | 0.50 | 3-Methyl-1-indole                    | 62058          | 1.00    |
| Benz[a]pyrene                                      | 34248          | 0.50 | 1-Methylnaphthalene                  | 62054          | 0.50    |
| Benzphenone  | 62067          | 0.50 | 2-Methylnaphthalene                  | 62056          | 0.50    |
| Bisphenol A  | 62069          | 1.00 | Methyl salicylate                    | 62081          | 0.50    |
| Bromocil   | 04029          | 0.03 | Naphthalene                          | 34443          | 0.50    |
| Bromoform  | 34288          | 0.08 | 4-Nonylphenol (total)                | 62085          | 5.00    |
| 3- <i>tert</i> -Butyl-4-hydroxyanisole (BHA)       | 62059          | 5.00 | 4-Nonylphenol diethoxylates          | 62083          | 5.00    |
| Caffeine   | 50305          | 0.50 | 4- <i>n</i> -Octylphenol             | 62061          | 1.00    |
| Camphor  | 62070          | 0.50 | 4- <i>tert</i> -Octylphenol          | 62062          | 1.00    |
| Carbaryl   | 82680          | 0.04 | 4-Octylphenol diethoxylates          | 61705          | 1.00    |
| Carbazole  | 62071          | 0.50 | 4-Octylphenol monoethoxylates        | 61706          | 1.00    |
| Chlorpyrifos                                       | 38933          | 0.01 | Pentachlorophenol                    | 34459          | 2.00    |
| Cholesterol  | 62072          | 2.00 | Phenanthrene                         | 34462          | 0.50    |
| 3- $\beta$ -Coprostanol                            | 62057          | 2.00 | Phenol                               | 34466          | 0.50    |
| Cotinine   | 62005          | 1.00 | Prometon                             | 04037          | 0.01    |
| <i>p</i> -Cresol                                   | 62084          | 1.00 | Pyrene                               | 34470          | 0.50    |
| 4-Cumylphenol                                      | 62060          | 1.00 | $\beta$ -Sitosterol                  | 62068          | 2.00    |
| Diazinon   | 39572          | 0.01 | $\beta$ -Stigmastanol                | 62086          | 2.00    |
| 1,4-Dichlorobenzene                                | 34572          | 0.50 | Tetrachloroethene                    | 34476          | 0.50    |
| Dichlorvos   | 38775          | 1.00 | Tribromomethane                      | 34288          | 0.50    |
| <i>N,N</i> -Diethyl- <i>meta</i> -toluamide (DEET) | 62082          | 0.50 | Tributyl phosphate                   | 62089          | 0.50    |
| 2,6-Dimethylnaphthalene                            | 62055          | 0.50 | Triclosan                            | 62090          | 1.00    |
| Fluoranthene                                       | 34377          | 0.50 | Triethylcitrate                      | 62091          | 0.50    |
| Hexahydrohexamethylcyclopenta-benzopyran           | 62075          | 0.50 | Triphenyl phosphate                  | 62092          | 0.50    |
| Indole   | 62076          | 0.50 | Tris(2-butoxyethyl) phosphate        | 62093          | 0.50    |
| Isoborneol   | 62077          | 0.50 | Tris(2-chloroethyl) phosphate        | 62087          | 0.50    |
| Isophorone   | 34409          | 0.50 | Tris(dichloroisopropyl) phosphate    | 62088          | 0.50    |
| Isopropylbenzene                                   | 62078          | 0.50 | Bisphenol A- <i>d</i> 3, surrogate   | 99583          | percent |
| Isoquinoline                                       | 62079          | 0.50 | Caffeine C13, surrogate              | 99584          | percent |
| <i>d</i> -Limonene                                 | 62073          | 0.50 | Decafluorobiphenyl, surrogate        | 99585          | percent |
|  |                |      | Fluoranthene- <i>d</i> 10, surrogate | 99586          | percent |

**Table 15B.** Analytical results from the special study of anthropogenic indicator compounds detected in filtered-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.

[The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. LRL, laboratory reporting level; E, estimated value; na, not applicable; —, compound not detected at a concentration above laboratory reporting level. All values are reported in micrograms per liter unless noted]

| Site name   | Date<br>(mm/dd/yyyy) | Time | Sampling<br>depth<br>(meter)<br>(00098) | Bis-<br>phenol A<br>(62069) | Caffeine<br>(50305) | Camphor<br>(62070) | 3-β-Co-<br>prostanol<br>(62057) | p-Cresol<br>(62084)<br>[1.00] | N,N-Diethyl-<br>meta-<br>toluamide<br>(DEET)<br>(62082) |
|---|----------------------|------|---|-----------------------------|---------------------|--------------------|---------------------------------|-------------------------------|---|
| [LRL]   |                      |      |   | [1.00]                      | [0.50]              | [0.50]             | [2.00]                          | [1.00]                        | [0.50]  |
| Sweetwater Reservoir near pump<br>tower (SWR01)                   | 06/11/2002           | 0930 | 4.0                                     | —                           | —                   | —                  | —                               | —                             | E0.008  |
|   | 09/17/2002           | 1000 | 2.0                                     | E0.32                       | —                   | E0.01              | E0.23                           | E0.02                         | E0.03   |
|   | 02/14/2003           | 1130 | 5.0                                     | —                           | —                   | —                  | —                               | —                             | —   |
|   | 08/19/2003           | 1130 | 2.0                                     | —                           | —                   | —                  | —                               | —                             | —   |
|   | 08/19/2003           | 1150 | 8.0                                     | —                           | —                   | —                  | —                               | E0.05                         | —   |
| Sweetwater River at low-flow<br>diversion dam above SWR<br>(LFDD) | 03/20/2002           | 1200 | 0.1                                     | —                           | E0.2                | —                  | —                               | —                             | —   |
|   | 09/17/2002           | 1330 | 0.1                                     | E0.25                       | E0.4                | E0.01              | E0.61                           | —                             | E0.03   |
|   | 12/12/2002           | 1020 | 0.1                                     | —                           | E0.04               | —                  | —                               | —                             | E0.03   |
|   | 02/11/2003           | 1440 | 0.1                                     | —                           | —                   | —                  | —                               | —                             | —   |
|   | 04/09/2003           | 1530 | 0.1                                     | —                           | —                   | —                  | —                               | —                             | —   |
|   | 08/20/2003           | 1400 | 0.1                                     | —                           | 0.6                 | —                  | —                               | —                             | —   |
| Perdue Treatment Plant—finished<br>water at SWR (SWR08)           | 06/11/2002           | 1230 | na                                      | —                           | —                   | —                  | —                               | —                             | —   |
|   | 09/17/2002           | 1130 | na                                      | —                           | —                   | —                  | E0.82                           | —                             | —   |
|   | 12/11/2002           | 1400 | na                                      | —                           | —                   | —                  | —                               | —                             | E0.02   |
|   | 02/11/2003           | 1440 | na                                      | —                           | —                   | —                  | —                               | —                             | —   |
|   | 04/09/2003           | 0840 | na                                      | —                           | —                   | —                  | —                               | —                             | E0.02   |
|   | 08/20/2003           | 1430 | na                                      | —                           | —                   | —                  | —                               | —                             | —   |
| Perdue Treatment Plant—<br>imported raw water at SWR<br>(SWR09)   | 06/11/2002           | 1250 | na                                      | —                           | —                   | —                  | —                               | —                             | —   |
|   | 09/17/2002           | 1240 | na                                      | —                           | —                   | —                  | —                               | —                             | —   |
|   | 12/11/2002           | 1420 | na                                      | —                           | —                   | —                  | —                               | —                             | —   |
|   | 02/11/2003           | 1500 | na                                      | —                           | —                   | —                  | —                               | —                             | —   |
|   | 04/09/2003           | 0820 | na                                      | —                           | —                   | —                  | —                               | —                             | —   |

**Table 15B.** Analytical results from the special study of anthropogenic indicator compounds detected in filtered-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. LRL, laboratory reporting level; E, estimated value; na, not applicable; —, compound not detected at a concentration above laboratory reporting level. All values are reported in micrograms per liter unless noted]

| Site name  | Date<br>(mm/dd/yyyy) | 1,4-Di-<br>chloro-<br>benzene<br>(34572) | Iso-<br>phorone<br>(34409) | <i>d</i> -Limo-<br>nene<br>(62073) | Methyl<br>sali-<br>cylate<br>(62081) | 4-Nonylphenol<br>(total)<br>(62085) | Phenol<br>(34466) | $\beta$ -Sito-<br>sterol<br>(62068) | Tetra-<br>chloro-<br>ethene<br>(34476) |
|--|----------------------|--|----------------------------|------------------------------------|--------------------------------------|-------------------------------------|-------------------|-------------------------------------|--|
| [LRL]  |                      | [0.50]                                   | [0.50]                     | [0.50]                             | [0.50]                               | [5.00]                              | [0.50]            | [2.00]                              | [0.50]                                 |
| Sweetwater Reservoir near pump<br>tower (SWR01)                | 06/11/2002           | —  | —                          | —                                  | —                                    | —                                   | 0.5               | —                                   | —                                      |
|  | 09/17/2002           | —  | —                          | E0.04                              | —                                    | —                                   | 1.4               | E0.44                               | E0.03                                  |
|  | 02/14/2003           | —  | —                          | —                                  | —                                    | —                                   | —                 | —                                   | —                                      |
|  | 08/19/2003           | —  | —                          | —                                  | —                                    | —                                   | —                 | —                                   | —                                      |
|  | 08/19/2003           | —  | —                          | —                                  | —                                    | —                                   | E0.5              | —                                   | —                                      |
| Sweetwater River at low-flow<br>diversion dam above SWR (LFDD) | 03/20/2002           | —  | —                          | —                                  | —                                    | E7                                  | —                 | —                                   | —                                      |
|  | 09/17/2002           | —  | E0.2                       | —                                  | —                                    | —                                   | —                 | —                                   | —                                      |
|  | 12/12/2002           | —  | —                          | —                                  | E0.1                                 | —                                   | —                 | —                                   | —                                      |
|  | 02/11/2003           | —  | —                          | —                                  | —                                    | —                                   | —                 | —                                   | —                                      |
|  | 04/09/2003           | —  | —                          | —                                  | —                                    | —                                   | —                 | —                                   | —                                      |
|  | 08/20/2003           | —  | —                          | —                                  | —                                    | —                                   | E0.2              | —                                   | —                                      |
| Perdue Treatment Plant—finished<br>water at SWR (SWR08)        | 06/11/2002           | —  | —                          | —                                  | —                                    | —                                   | —                 | —                                   | —                                      |
|  | 09/17/2002           | —  | —                          | —                                  | —                                    | —                                   | —                 | —                                   | —                                      |
|  | 12/11/2002           | —  | —                          | —                                  | —                                    | —                                   | —                 | —                                   | —                                      |
|  | 02/11/2003           | —  | —                          | —                                  | —                                    | —                                   | —                 | —                                   | —                                      |
|  | 04/09/2003           | —  | —                          | —                                  | —                                    | —                                   | —                 | —                                   | —                                      |
|  | 08/20/2003           | E0.1                                     | —                          | —                                  | —                                    | —                                   | —                 | —                                   | —                                      |
| Perdue Treatment Plant—imported<br>raw water at SWR (SWR09)    | 06/11/2002           | —  | —                          | —                                  | —                                    | —                                   | 1.1               | —                                   | —                                      |
|  | 09/17/2002           | —  | —                          | —                                  | —                                    | —                                   | E0.5              | —                                   | —                                      |
|  | 12/11/2002           | —  | —                          | —                                  | —                                    | —                                   | —                 | —                                   | —                                      |
|  | 02/11/2003           | —  | —                          | —                                  | —                                    | —                                   | —                 | —                                   | —                                      |
|  | 04/09/2003           | —  | —                          | —                                  | —                                    | —                                   | —                 | —                                   | —                                      |

**Table 15B.** Analytical results from the special study of anthropogenic indicator compounds detected in filtered-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. LRL, laboratory reporting level; E, estimated value; na, not applicable; —, compound not detected at a concentration above laboratory reporting level. All values are reported in micrograms per liter unless noted]

| Site name   | Tri-bromo-methane<br>(34288) | Tri-butyl phosphate<br>(62089) | Tri-closan<br>(62090) | Tris-(2-buto-xyethyl) phosphate<br>(62093) | Tris-(2-chloro-ethyl) phosphate<br>(62087) | Tris-(dichloro-isopropyl) phosphate<br>(62088) | Bis-phenol A-d3, surrogate<br>(99583)<br>(percent) | Caffeine, C13, surrogate<br>(99584)<br>(percent) | Deca-fluoro-biphenyl, surrogate<br>(99585)<br>(percent) | Fluor-anthene-d10, surrogate<br>(99586)<br>(percent) |
|---|------------------------------|--------------------------------|-----------------------|--|--|--|--|--|---|--|
| [LRL]   | [0.50]                       | [0.50]                         | [1.00]                | [0.50]                                     | [ 0.50]                                    | [0.50]   |  |  |   |  |
| Sweetwater Reservoir near pump tower (SWR01)                | E0.22                        | E0.03                          | —                     | —  | E0.1                                       | E0.02  | 38.6   | 82.8   | 34.3  | 73.2   |
|   | E0.10                        | —                              | —                     | E0.1                                       | E0.2                                       | E0.02  | 86.9   | 92.8   | 60.7  | 67.7   |
|   | E0.16                        | —                              | —                     | —  | —  | —  | 82.2   | 104  | 73.6  | 95.2   |
|   | E0.80                        | —                              | —                     | —  | —  | —  | 130  | 165  | 91.3  | 165  |
|   | —                            | —                              | —                     | —  | —  | —  | 125  | 158  | 66.7  | 167  |
| Sweetwater River at low-flow diversion dam above SWR (LFDD) | —                            | —                              | —                     | E0.2                                       | E0.04                                      | E0.03  | 62.9   | 92.3   | 47.0  | 92.0   |
|   | —                            | —                              | E0.04                 | —  | —  | E0.02  | 67.9   | 80.1   | 66.0  | 65.6   |
|   | —                            | —                              | —                     | —  | —  | —  | 84.1   | 103  | 74.6  | 95.9   |
|   | —                            | —                              | —                     | —  | —  | —  | 94.6   | 98.0   | 91.1  | 100  |
|   | —                            | —                              | —                     | —  | —  | —  | 7.8  | 87.0   | 71.6  | 76.3   |
|   | —                            | —                              | —                     | —  | —  | —  | 126  | 143  | 87.0  | 143  |
| Perdue Treatment Plant—finished water at SWR (SWR08)        | E24                          | E0.01                          | —                     | —  | —  | —  | 13.6   | 78.1   | 44.6  | 66.1   |
|   | E61                          | —                              | —                     | —  | —  | —  | 41.2   | 83.5   | 56.1  | 66.9   |
|   | E14                          | —                              | —                     | —  | —  | —  | 8.9  | 110  | 97.2  | 105  |
|   | E11                          | —                              | —                     | —  | —  | —  | 22.7   | 98.6   | 89.3  | 89.6   |
|   | E8.3                         | —                              | —                     | —  | —  | —  | 19.0   | 92.2   | 68.8  | 78.5   |
|   | E16                          | —                              | —                     | —  | —  | —  | 51.7   | 141  | 75.9  | 134  |
| Perdue Treatment Plant—imported raw water at SWR (SWR09)    | —                            | —                              | —                     | —  | —  | —  | 30.1   | 83.9   | 38.8  | 73.6   |
|   | E0.06                        | —                              | —                     | —  | —  | —  | 55.3   | 77.7   | 57.2  | 63.5   |
|   | E0.02                        | —                              | —                     | —  | —  | —  | 60.1   | 102  | 86.6  | 97.6   |
|   | —                            | —                              | —                     | —  | —  | —  | 39.2   | 93.8   | 87.0  | 89.4   |
|   | —                            | —                              | —                     | —  | —  | —  | 17.9   | 94.6   | 64.8  | 82.9   |



**Table 16.** Analytical results from the special study for pharmaceutical compounds in filtered-water samples collected from Sweetwater Reservoir watershed, San Diego County, California.

[See [table 1](#) for site identification number. Time is denoted in 24-hour scale. LRL, laboratory reporting level; E, estimated or having a higher degree of uncertainty; mL, milliliter; mm/dd/yyyy, month/day/year. All values are reported as micrograms per liter unless noted. na, not applicable; —, compound not detected at a concentration above laboratory reporting level]

| Site name  | Date<br>(mm/dd/yyyy) | Time | Sampling<br>depth<br>(meter)<br>(00098) | Sampling<br>volume<br>(mL) | Acetaminophen<br>(62000) | Albuterol<br>(62020) | Caffeine <sup>1</sup><br>(50305) | Carbamazepine<br>(62793) | Codeine<br>(62002) | Cotinine<br>(62005) |
|--|----------------------|------|---|----------------------------|--------------------------|----------------------|----------------------------------|--------------------------|--------------------|---------------------|
| [LRL]  |                      |      |   |                            | [0.22]                   | [0.19]               | [0.19]                           | [0.18]                   | [0.20]             | [0.19]              |
| Sweetwater Reservoir<br>near pump tower<br>(SWR01)                                     | 03/20/2002           | 1000 | 4.0                                     | 841                        | —                        | —                    | —                                | —                        | —                  | —                   |
|  | 02/14/2003           | 1130 | 5.0                                     | 853                        | —                        | —                    | —                                | —                        | —                  | —                   |
|  | 08/19/2003           | 1130 | 2.0                                     | 974                        | —                        | —                    | —                                | —                        | —                  | —                   |
|  | 08/19/2003           | 1150 | 8.0                                     | 776                        | —                        | —                    | —                                | —                        | —                  | —                   |
| Sweetwater River at low-<br>flow diversion dam<br>above Sweetwater<br>Reservoir (LFDD) | 06/11/2002           | 1340 | 0.1                                     | 972                        | —                        | —                    | —                                | —                        | —                  | —                   |
|  | 12/12/2002           | 1020 | 0.1                                     | 954                        | —                        | —                    | —                                | —                        | —                  | —                   |
|  | 02/11/2003           | 1440 | 0.1                                     | 906                        | —                        | —                    | —                                | —                        | —                  | —                   |
|  | 04/09/2003           | 1530 | 0.1                                     | 924                        | —                        | —                    | —                                | —                        | —                  | —                   |
| Perdue Treatment<br>Plant—finished<br>water at Sweetwater<br>Reservoir (SWR08)         | 03/20/2002           | 1100 | na                                      | 985                        | —                        | —                    | —                                | —                        | —                  | —                   |
|  | 06/11/2002           | 1230 | na                                      | 921                        | —                        | —                    | —                                | —                        | —                  | —                   |
|  | 12/11/2002           | 1400 | na                                      | 958                        | —                        | —                    | —                                | —                        | —                  | —                   |
|  | 02/11/2003           | 1440 | na                                      | 886                        | —                        | —                    | —                                | —                        | —                  | —                   |
|  | 04/09/2003           | 0840 | na                                      | 923                        | —                        | —                    | —                                | —                        | —                  | —                   |
|  | 08/20/2003           | 1430 | na                                      | 825                        | —                        | —                    | —                                | —                        | —                  | E0.01               |
| Perdue Treatment<br>Plant—imported raw<br>water at Sweetwater<br>Reservoir (SWR09)     | 06/11/2002           | 1250 | na                                      | 967                        | —                        | —                    | —                                | —                        | —                  | —                   |
|  | 12/11/2002           | 1420 | na                                      | 934                        | —                        | —                    | —                                | —                        | —                  | —                   |
|  | 02/11/2003           | 1500 | na                                      | 682                        | —                        | —                    | —                                | —                        | —                  | —                   |
|  | 04/09/2003           | 0820 | na                                      | 948                        | —                        | —                    | —                                | —                        | —                  | —                   |

**Table 16.** Analytical results from the special study for pharmaceutical compounds in filtered-water samples collected from Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See [table 1](#) for site identification number. Time is denoted in 24-hour scale. LRL, laboratory reporting level; E, estimated or having a higher degree of uncertainty; mL, milliliter; mm/dd/yyyy, month/day/year. All values are reported as micrograms per liter unless noted. na, not applicable; —, compound not detected at a concentration above laboratory reporting level]

| Site name  | Date<br>(mm/dd/yyyy) | Dehydro-<br>nifedipine<br>(62004) | 1,7 Dimethyl-<br>xanthine<br>(62030) | Diltiazem<br>(62008) | Diphen-<br>hydramine<br>(62796) | Sulfametho-<br>xazole<br>(62021) | Thiaben-<br>dazole<br>(62081) | Tri-<br>methoprim<br>(62023) | Warfarin<br>(62024) | Ethyl-<br>nicotinate-d4,<br>(95571) |
|--|----------------------|-----------------------------------|--------------------------------------|----------------------|---------------------------------|----------------------------------|-------------------------------|------------------------------|---------------------|-------------------------------------|
| [LRL]  |                      | [0.20]                            | [0.22]                               | [0.18]               | [0.18]                          | [0.21]                           | [0.18]                        | [0.17]                       | [0.19]              | (surrogate<br>percent)              |
| Sweetwater Reservoir<br>near pump tower<br>(SWR01)                                     | 03/20/2002           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 90.6                                |
|  | 02/14/2003           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 108                                 |
|  | 08/19/2003           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 85.1                                |
|  | 08/19/2003           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 114                                 |
| Sweetwater River at low-<br>flow diversion dam<br>above Sweetwater<br>Reservoir (LFDD) | 06/11/2002           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 68.0                                |
|  | 12/12/2002           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 65.7                                |
|  | 02/11/2003           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 88.0                                |
|  | 04/09/2003           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 62.1                                |
| Perdue Treatment<br>Plant—finished<br>water at Sweetwater<br>Reservoir (SWR08)         | 03/20/2002           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 82.4                                |
|  | 06/11/2002           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 71.2                                |
|  | 12/11/2002           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 76.0                                |
|  | 02/11/2003           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 112                                 |
|  | 04/09/2003           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 77.2                                |
|  | 08/20/2003           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 102                                 |
| Perdue Treatment<br>Plant—imported raw<br>water at Sweetwater<br>Reservoir (SWR09)     | 06/11/2002           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 78.1                                |
|  | 12/11/2002           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 74.8                                |
|  | 02/11/2003           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 122                                 |
|  | 04/09/2003           | —                                 | —                                    | —                    | —                               | —                                | —                             | —                            | —                   | 72.0                                |

<sup>†</sup> National Water Quality Laboratory schedule 2060 is the preferred method.

**Table 17.** Quality-control results for volatile organic compound concentrations in whole-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.

[See [table 1](#) for site identification number. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. E, estimated value; QC, quality control; QA, quality assurance; SWR, Sweetwater Reservoir; <, compound was not detected at a concentration above laboratory reporting level]

| Site name  | Date<br>(mm/dd/yyyy) | Time | Sample<br>type        | 1,1,1,2-<br>Tetra-<br>chloro-<br>ethane<br>(77562) | 1,1,1-<br>Trichloro-<br>ethane<br>(34506) | 1,1,2,2-<br>Tetrachloro-<br>ethane<br>(34516) | 1,1,2-<br>Trichloro-<br>trifluoro-<br>ethane<br>(77652) | 1,1,2-Tri-<br>chloro-<br>ethane<br>(34511) |
|--|----------------------|------|-----------------------|--|---|---|---|--|
| Sweetwater Reservoir near pump tower<br>(SWR01)        | 12/11/2002           | 1108 | Equipment blank       | <0.03  | <0.03                                     | <0.09   | <0.06   | <0.06                                      |
|  | 04/08/2003           | 1108 | Equipment blank       | <0.03  | <0.03                                     | <0.09   | <0.06   | <0.06                                      |
|  | 06/17/2003           | 1128 | Field blank           | <0.03  | <0.03                                     | <0.09   | <0.06   | <0.06                                      |
| Sweetwater Reservoir center of minimum pool<br>(SWR03) | 03/20/2002           | 1038 | Equipment blank       | <0.03  | <0.03                                     | <0.09   | <0.06   | <0.06                                      |
|  | 08/19/2003           | 1231 | Replicate             | <0.03  | <0.03                                     | <0.09   | <0.06   | <0.06                                      |
| Loveland reservoir near dam (LLR01)                    | 12/11/2001           | 1036 | Source solution blank | <0.03  | <0.03                                     | <0.09   | <0.06   | <0.06                                      |
|  | 12/11/2001           | 1038 | Field blank           | <0.03  | <0.03                                     | <0.09   | <0.06   | <0.06                                      |
|  | 12/11/2001           | 1039 | Trip blank            | <0.03  | <0.03                                     | <0.09   | <0.06   | <0.06                                      |
|  | 06/12/2002           | 1108 | Field blank           | <0.03  | <0.03                                     | <0.09   | <0.06   | <0.06                                      |
|  | 02/12/2003           | 1106 | Source solution blank | <0.03  | <0.03                                     | <0.09   | <0.06   | <0.06                                      |
|  | 02/12/2003           | 1108 | Field blank           | <0.03  | <0.03                                     | <0.09   | <0.06   | <0.06                                      |
|  | 02/12/2003           | 1109 | Trip blank            | <0.03  | <0.03                                     | <0.09   | <0.06   | <0.06                                      |
| QC/QA database site for equipment blank                | 06/12/2002           | 0848 | Equipment blank       | <0.03  | <0.03                                     | <0.09   | <0.06   | <0.06                                      |
|  | 09/17/2002           | 0908 | Source solution blank | <0.03  | <0.03                                     | <0.09   | <0.06   | <0.06                                      |
|  | 09/17/2002           | 1018 | Equipment blank       | <0.03  | <0.03                                     | <0.09   | <0.06   | <0.06                                      |

**Table 17.** Quality-control results for volatile organic compound concentrations in whole-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See [table 1](#) for site identification number. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. E, estimated value; QC, quality control; QA, quality assurance; SWR, Sweetwater Reservoir; <, compound was not detected at a concentration above laboratory reporting level. Concentrations are given in micrograms per liter unless noted]

| Site name  | 1,1-Di-chloro-ethane<br>(34496) | 1,1-Di-chloro-ethylene<br>(34501) | 1,1-Di-chloro-propene<br>(77168) | 1,2,3,4-Tetra-methyl-benzene<br>(49999) | 1,2,3,5-Tetra-methyl-benzene<br>(50000) | 1,2,3-Tri-chloro-benzene<br>(77613) | 1,2,3-Tri-chloro-propane<br>(77443) | 1,2,3-Tri-methyl-benzene<br>(77221) | 1,2,4-Tri-chloro-benzene<br>(34551) |
|--|---------------------------------|-----------------------------------|----------------------------------|---|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Sweetwater Reservoir near pump tower<br>(SWR01)        | <0.04                           | <0.04                             | <0.05                            | <0.2                                    | <0.2                                    | <0.3                                | <0.16                               | <0.1                                | <0.1                                |
|  | <0.04                           | <0.04                             | <0.05                            | <0.2                                    | <0.2                                    | <0.3                                | <0.16                               | <0.1                                | <0.1                                |
|  | <0.04                           | <0.04                             | <0.05                            | <0.2                                    | <0.2                                    | <0.3                                | <0.16                               | <0.1                                | <0.1                                |
| Sweetwater Reservoir center of minimum pool<br>(SWR03) | <0.04                           | <0.04                             | <0.05                            | <0.2                                    | <0.2                                    | <0.3                                | <0.16                               | <0.1                                | <0.1                                |
|  | <0.04                           | <0.04                             | <0.05                            | <0.2                                    | <0.2                                    | <0.3                                | <0.16                               | <0.1                                | <0.1                                |
|  | <0.04                           | <0.04                             | <0.05                            | <0.2                                    | <0.2                                    | <0.3                                | <0.16                               | <0.1                                | <0.1                                |
|  | <0.04                           | <0.04                             | <0.05                            | <0.2                                    | <0.2                                    | <0.3                                | <0.16                               | <0.1                                | <0.1                                |
|  | <0.04                           | <0.04                             | <0.05                            | <0.2                                    | <0.2                                    | <0.3                                | <0.16                               | <0.1                                | <0.1                                |
|  | <0.04                           | <0.04                             | <0.05                            | <0.2                                    | <0.2                                    | <0.3                                | <0.16                               | <0.1                                | <0.1                                |
|  | <0.04                           | <0.04                             | <0.05                            | <0.2                                    | <0.2                                    | <0.3                                | <0.16                               | <0.1                                | <0.1                                |
|  | <0.04                           | <0.04                             | <0.05                            | <0.2                                    | <0.2                                    | <0.3                                | <0.16                               | <0.1                                | <0.1                                |
|  | <0.04                           | <0.04                             | <0.05                            | <0.2                                    | <0.2                                    | <0.3                                | <0.16                               | <0.1                                | <0.1                                |
|  | <0.04                           | <0.04                             | <0.05                            | <0.2                                    | <0.2                                    | <0.3                                | <0.16                               | <0.1                                | <0.1                                |
| QC/QA database site for equipment blank                | <0.04                           | <0.04                             | <0.05                            | <0.2                                    | <0.2                                    | <0.3                                | <0.16                               | <0.1                                | <0.1                                |
|  | <0.04                           | <0.04                             | <0.05                            | <0.2                                    | <0.2                                    | <0.3                                | <0.16                               | <0.1                                | <0.1                                |
|  | <0.04                           | <0.04                             | <0.05                            | <0.2                                    | <0.2                                    | <0.3                                | <0.16                               | <0.1                                | <0.1                                |

**Table 17.** Quality-control results for volatile organic compound concentrations in whole-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See [table 1](#) for site identification number. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. E, estimated value; QC, quality control; QA, quality assurance; SWR, Sweetwater Reservoir; <, compound was not detected at a concentration above laboratory reporting level. Concentrations are given in micrograms per liter unless noted]

| Site name  | 1,2,4-Tri-<br>methyl-<br>benzene<br>(7722) | 1,2-Dibromo-<br>3-chloro-<br>propane<br>(82625) | 1,2-Dibro-<br>moethane<br>(77651) | 1,2-Dichloro-<br>benzene<br>(34536) | 1,2-Dichloro-<br>ethane<br>(32103) | 1,2-Dichloro-<br>propane<br>(34541) | 1,3,5-<br>Trimethyl-<br>benzene<br>(77226) | 1,3-Dichloro-<br>benzene<br>(34566) | 1,3-Dichloro-<br>propane<br>(77173) |
|--|--|---|-----------------------------------|-------------------------------------|------------------------------------|-------------------------------------|--|-------------------------------------|-------------------------------------|
| Sweetwater Reservoir near pump tower<br>(SWR01)        | <0.06                                      | <0.5  | <0.04                             | <0.03                               | <0.1                               | <0.03                               | <0.04                                      | <0.03                               | <0.1                                |
|  | <0.06                                      | <0.5  | <0.04                             | <0.03                               | <0.1                               | <0.03                               | <0.04                                      | <0.03                               | <0.1                                |
|  | <0.06                                      | <0.5  | <0.04                             | <0.03                               | <0.1                               | <0.03                               | <0.04                                      | <0.03                               | <0.1                                |
| Sweetwater Reservoir center of minimum pool<br>(SWR03) | <0.06                                      | <0.5  | <0.04                             | <0.03                               | <0.1                               | <0.03                               | <0.04                                      | <0.03                               | <0.1                                |
|  | <0.06                                      | <0.5  | <0.04                             | <0.03                               | <0.1                               | <0.03                               | <0.04                                      | <0.03                               | <0.1                                |
|  | <0.06                                      | <0.5  | <0.04                             | <0.03                               | <0.1                               | <0.03                               | <0.04                                      | <0.03                               | <0.1                                |
|  | <0.06                                      | <0.5  | <0.04                             | <0.03                               | <0.1                               | <0.03                               | <0.04                                      | <0.03                               | <0.1                                |
|  | <0.06                                      | <0.5  | <0.04                             | <0.03                               | <0.1                               | <0.03                               | <0.04                                      | <0.03                               | <0.1                                |
|  | <0.06                                      | <0.5  | <0.04                             | <0.03                               | <0.1                               | <0.03                               | <0.04                                      | <0.03                               | <0.1                                |
|  | <0.06                                      | <0.5  | <0.04                             | <0.03                               | <0.1                               | <0.03                               | <0.04                                      | <0.03                               | <0.1                                |
|  | <0.06                                      | <0.5  | <0.04                             | <0.03                               | <0.1                               | <0.03                               | <0.04                                      | <0.03                               | <0.1                                |
|  | <0.06                                      | <0.5  | <0.04                             | <0.03                               | <0.1                               | <0.03                               | <0.04                                      | <0.03                               | <0.1                                |
|  | <0.06                                      | <0.5  | <0.04                             | <0.03                               | <0.1                               | <0.03                               | <0.04                                      | <0.03                               | <0.1                                |
| QC/QA database site for equipment blank                | <0.06                                      | <0.5  | <0.04                             | <0.03                               | <0.1                               | <0.03                               | <0.04                                      | <0.03                               | <0.1                                |
|  | <0.06                                      | <0.5  | <0.04                             | <0.03                               | <0.1                               | <0.03                               | <0.04                                      | <0.03                               | <0.1                                |
|  | <0.06                                      | <0.5  | <0.04                             | <0.03                               | <0.1                               | <0.03                               | <0.04                                      | <0.03                               | <0.1                                |

**Table 17.** Quality-control results for volatile organic compound concentrations in whole-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See [table 1](#) for site identification number. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. E, estimated value; QC, quality control; QA, quality assurance; SWR, Sweetwater Reservoir; <, compound was not detected at a concentration above laboratory reporting level. Concentrations are given in micrograms per liter unless noted]

| Site name  | 1,4-Dichloro-<br>benzene<br>(34571) | 2,2-Di-<br>chloro-<br>propane<br>(77170) | 2-Chloro-<br>toluene<br>(77275) | o-Ethyl<br>toluene<br>(77220) | 3-Chloro-<br>propane<br>(78109) | 4-Chloro-<br>toluene<br>(77277) | 4-Isopropyl-1-<br>methyl-<br>benzene<br>(77356) | Acetone<br>(81552) | Acrylon-<br>itrile<br>(34215) |
|--|-------------------------------------|--|---------------------------------|-------------------------------|---------------------------------|---------------------------------|---|--------------------|-------------------------------|
| Sweetwater Reservoir near pump tower<br>(SWR01)        | <0.05                               | <0.05                                    | <0.04                           | <0.06                         | <0.12                           | <0.05                           | <0.12   | <7                 | <1                            |
|  | <0.05                               | <0.05                                    | <0.04                           | <0.06                         | <0.12                           | <0.05                           | <0.12   | <7                 | <1                            |
|  | <0.05                               | <0.05                                    | <0.04                           | <0.06                         | <0.12                           | <0.05                           | <0.12   | <7                 | <1                            |
| Sweetwater Reservoir center of minimum pool<br>(SWR03) | <0.05                               | <0.05                                    | <0.7                            | <0.7                          | <0.07                           | <0.05                           | <0.07   | <7                 | <1                            |
|  | <0.05                               | <0.05                                    | <0.04                           | <0.06                         | <0.12                           | <0.05                           | <0.12   | <7                 | <1                            |
| Loveland reservoir near dam (LLR01)                    | <0.05                               | <0.05                                    | <0.7                            | <0.7                          | <0.07                           | <0.05                           | <0.07   | <7                 | <1                            |
|  | <0.05                               | <0.05                                    | <0.7                            | <0.7                          | <0.07                           | <0.05                           | <0.07   | <7                 | <1                            |
|  | <0.05                               | <0.05                                    | <0.7                            | <0.7                          | <0.07                           | <0.05                           | <0.07   | <7                 | <1                            |
|  | <0.05                               | <0.05                                    | <0.7                            | <0.7                          | <0.07                           | <0.05                           | <0.07   | <7                 | <1                            |
|  | <0.05                               | <0.05                                    | <0.4                            | <0.06                         | <0.12                           | <0.05                           | <0.12   | <7                 | <1                            |
|  | <0.05                               | <0.05                                    | <0.04                           | <0.06                         | <0.12                           | <0.05                           | <0.12   | <7                 | <1                            |
|  | <0.05                               | <0.05                                    | <0.04                           | <0.06                         | <0.12                           | <0.05                           | <0.12   | <7                 | <1                            |
| QC/QA database site for equipment blank                | <0.05                               | <0.05                                    | <0.7                            | <0.7                          | <0.07                           | <0.05                           | <0.07   | <7                 | <1                            |
|  | <0.05                               | <0.05                                    | <0.7                            | <0.7                          | <0.07                           | <0.05                           | <0.07   | <7                 | <1                            |
|  | <0.05                               | <0.05                                    | <0.7                            | <0.7                          | <0.07                           | <0.05                           | <0.07   | <7                 | <1                            |

**Table 17.** Quality-control results for volatile organic compound concentrations in whole-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See [table 1](#) for site identification number. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. E, estimated value; QC, quality control; QA, quality assurance; SWR, Sweetwater Reservoir; <, compound was not detected at a concentration above laboratory reporting level. Concentrations are given in micrograms per liter unless noted]

| Site name  | Benzene<br>(34030) | Bromo-<br>benzene<br>(81555) | Bromo-<br>chloro-<br>methane<br>(77297) | Bromo-<br>dichloro-<br>methane<br>(32101) | Bromo-<br>methane<br>(50002) | Bromo-<br>methane<br>(34413) | Carbon<br>disulfide<br>(77041) | Chloro-<br>benzene<br>(34301) | Chloro-<br>ethane<br>(34311) |
|--|--------------------|------------------------------|---|---|------------------------------|------------------------------|--------------------------------|-------------------------------|------------------------------|
| Sweetwater Reservoir near pump tower<br>(SWR01)        | <0.04              | <0.04                        | <0.12                                   | <0.05                                     | <0.1                         | <0.3                         | <0.07                          | <0.03                         | <0.1                         |
|  | <0.04              | <0.04                        | <0.12                                   | <0.05                                     | <0.1                         | <0.3                         | <0.07                          | <0.03                         | <0.1                         |
|  | <0.04              | <0.04                        | <0.12                                   | <0.05                                     | <0.1                         | <0.3                         | <0.07                          | <0.03                         | <0.1                         |
| Sweetwater Reservoir center of minimum pool<br>(SWR03) | <0.04              | <0.04                        | <0.07                                   | 0.16                                      | <0.1                         | <0.3                         | <0.07                          | <0.03                         | <0.1                         |
|  | <0.04              | <0.04                        | <0.12                                   | E0.09                                     | <0.1                         | <0.3                         | <0.07                          | <0.03                         | <0.1                         |
| Loveland reservoir near dam (LLR01)                    | <0.04              | <0.04                        | <0.07                                   | <0.05                                     | <0.1                         | <0.3                         | <0.07                          | <0.03                         | <0.1                         |
|  | <0.04              | <0.04                        | <0.07                                   | <0.05                                     | <0.1                         | <0.3                         | <0.07                          | <0.03                         | <0.1                         |
|  | <0.04              | <0.04                        | <0.07                                   | <0.05                                     | <0.1                         | <0.3                         | <0.07                          | <0.03                         | <0.1                         |
|  | <0.04              | <0.04                        | <0.07                                   | <0.05                                     | <0.1                         | <0.3                         | <0.07                          | <0.03                         | <0.1                         |
|  | <0.04              | <0.04                        | <0.12                                   | <0.05                                     | <0.1                         | <0.3                         | <0.07                          | <0.03                         | <0.1                         |
|  | <0.04              | <0.04                        | <0.12                                   | <0.05                                     | <0.1                         | <0.3                         | <0.07                          | <0.03                         | <0.1                         |
| QC/QA database site for equipment blank                | <0.04              | <0.04                        | <0.07                                   | <0.05                                     | <0.1                         | <0.3                         | <0.07                          | <0.03                         | <0.1                         |
|  | <0.04              | <0.04                        | <0.07                                   | <0.05                                     | <0.1                         | <0.3                         | <0.07                          | <0.03                         | <0.1                         |
|  | <0.04              | <0.04                        | <0.07                                   | <0.05                                     | <0.1                         | <0.3                         | <0.07                          | <0.03                         | <0.1                         |

**Table 17.** Quality-control results for volatile organic compound concentrations in whole-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See [table 1](#) for site identification number. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. E, estimated value; QC, quality control; QA, quality assurance; SWR, Sweetwater Reservoir; <, compound was not detected at a concentration above laboratory reporting level. Concentrations are given in micrograms per liter unless noted]

| Site name  | Chloro-<br>methane<br>(34418) | <i>cis</i> -1,2-<br>Dichloro-<br>ethylene<br>(77093) | <i>cis</i> -1,3-<br>Dichloro-<br>propene<br>(34704) | Dibromo-<br>chloro-<br>methane<br>(32105) | Dibromo-<br>methane<br>(30217) | Dichloro-<br>difluoro-<br>methane<br>(34668) | Dichloro-<br>methane<br>(34423) | Diethyl<br>ether<br>(81576) | Diisopropyl<br>ether<br>(81577) |
|--|-------------------------------|--|---|---|--------------------------------|--|---------------------------------|-----------------------------|---------------------------------|
| Sweetwater Reservoir near pump tower (SWR01)           | <0.2                          | <0.04  | <0.09   | <0.2                                      | <0.05                          | <0.18  | <0.2                            | <0.2                        | <0.1                            |
|  | <0.2                          | <0.04  | <0.09   | <0.2                                      | <0.05                          | <0.18  | <0.2                            | <0.2                        | <0.1                            |
|  | <0.2                          | <0.04  | <0.09   | <0.2                                      | <0.05                          | <0.18  | <0.2                            | <0.2                        | <0.1                            |
| Sweetwater Reservoir center of minimum pool<br>(SWR03) | <0.2                          | <0.04  | <0.09   | E0.1                                      | <0.05                          | <0.18  | <0.2                            | <0.2                        | <0.1                            |
|  | <0.2                          | <0.04  | <0.09   | E0.1                                      | <0.05                          | <0.18  | <0.2                            | <0.2                        | <0.1                            |
| Loveland reservoir near dam (LLR01)                    | <0.2                          | <0.04  | <0.09   | <0.2                                      | <0.05                          | <0.18  | <0.2                            | <0.2                        | <0.1                            |
|  | <0.2                          | <0.04  | <0.09   | <0.2                                      | <0.05                          | <0.18  | <0.2                            | <0.2                        | <0.1                            |
|  | <0.2                          | <0.04  | <0.09   | <0.2                                      | <0.05                          | <0.18  | <0.2                            | <0.2                        | <0.1                            |
|  | <0.2                          | <0.04  | <0.09   | <0.2                                      | <0.05                          | <0.18  | <0.2                            | <0.2                        | <0.1                            |
|  | <0.2                          | <0.04  | <0.09   | <0.2                                      | <0.05                          | <0.18  | <0.2                            | <0.2                        | <0.1                            |
|  | <0.2                          | <0.04  | <0.09   | <0.2                                      | <0.05                          | <0.18  | <0.2                            | <0.2                        | <0.1                            |
| QC/QA database site for equipment blank                | <0.2                          | <0.04  | <0.09   | <0.2                                      | <0.05                          | <0.18  | <0.2                            | <0.2                        | <0.1                            |
|  | <0.2                          | <0.04  | <0.09   | <0.2                                      | <0.05                          | <0.18  | <0.2                            | <0.2                        | <0.1                            |
|  | <0.2                          | <0.04  | <0.09   | <0.2                                      | <0.05                          | <0.18  | <0.2                            | <0.2                        | <0.1                            |



**Table 17.** Quality-control results for volatile organic compound concentrations in whole-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See [table 1](#) for site identification number. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. E, estimated value; QC, quality control; QA, quality assurance; SWR, Sweetwater Reservoir; <, compound was not detected at a concentration above laboratory reporting level. Concentrations are given in micrograms per liter unless noted]

| Site name  | Ethyl<br>methacrylate<br>(73570) | 2-Butanone<br>(81595) | Ethyl-<br>benzene<br>(34371) | Hexachloro-<br>butadiene<br>(39702) | Hexachloro-<br>ethane<br>(34396) | Methyl<br>iodide<br>(77424) | 4-Methyl-<br>2-pentanone<br>(78133) | Isopropyl-<br>benzene<br>(77223) | Ethyl<br>acrylonitrile<br>(81593) |
|--|----------------------------------|-----------------------|------------------------------|-------------------------------------|----------------------------------|-----------------------------|-------------------------------------|----------------------------------|-----------------------------------|
| Sweetwater Reservoir near pump tower<br>(SWR01)        | <0.2                             | <5                    | <0.03                        | <0.1                                | <0.2                             | <0.35                       | <0.4                                | <0.06                            | <0.6                              |
|  | <0.2                             | <5                    | <0.03                        | <0.1                                | <0.2                             | <0.35                       | <0.4                                | <0.06                            | <0.6                              |
|  | <0.2                             | <5                    | <0.03                        | <0.1                                | <0.2                             | <0.35                       | <0.4                                | <0.06                            | <0.6                              |
| Sweetwater Reservoir center of minimum pool<br>(SWR03) | <0.2                             | <5                    | <0.03                        | <0.1                                | <0.2                             | <0.25                       | <0.4                                | <0.06                            | <0.6                              |
|  | <0.2                             | <5                    | <0.03                        | <0.1                                | <0.2                             | <0.35                       | <0.4                                | <0.06                            | <0.6                              |
|  | <0.2                             | <5                    | <0.03                        | <0.1                                | <0.2                             | <0.35                       | <0.4                                | <0.06                            | <0.6                              |
| Loveland reservoir near dam (LLR01)                    | <0.2                             | <5                    | <0.03                        | <0.1                                | <0.2                             | <0.25                       | <0.4                                | <0.06                            | <0.6                              |
|  | <0.2                             | <5                    | <0.03                        | <0.1                                | <0.2                             | <0.25                       | <0.4                                | <0.06                            | <0.6                              |
|  | <0.2                             | <5                    | <0.03                        | <0.1                                | <0.2                             | <0.25                       | <0.4                                | <0.06                            | <0.6                              |
|  | <0.2                             | <5                    | <0.03                        | <0.1                                | <0.2                             | <0.25                       | <0.4                                | <0.06                            | <0.6                              |
|  | <0.2                             | <5                    | <0.03                        | <0.1                                | <0.2                             | <0.35                       | <0.4                                | <0.06                            | <0.6                              |
|  | <0.2                             | <5                    | <0.03                        | <0.1                                | <0.2                             | <0.35                       | <0.4                                | <0.06                            | <0.6                              |
| QC/QA database site for equipment blank                | <0.2                             | <5                    | <0.03                        | <0.1                                | <0.2                             | <0.25                       | <0.4                                | <0.06                            | <0.6                              |
|  | <0.2                             | <5                    | <0.03                        | <0.1                                | <0.2                             | <0.25                       | <0.4                                | <0.06                            | <0.6                              |
|  | <0.2                             | <5                    | <0.03                        | <0.1                                | <0.2                             | <0.25                       | <0.4                                | <0.06                            | <0.6                              |

**Table 17.** Quality-control results for volatile organic compound concentrations in whole-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See [table 1](#) for site identification number. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. E, estimated value; QC, quality control; QA, quality assurance; SWR, Sweetwater Reservoir; <, compound was not detected at a concentration above laboratory reporting level. Concentrations are given in micrograms per liter unless noted]

| Site name  | Methyl<br>acrylate<br>(49991) | Methyl<br>meth-<br>acrylate<br>(81597) | tert-Pentyl<br>methyl<br>ether<br>(50005) | m- and<br>p-Xylene<br>(85795) | Naphth-<br>alene<br>(34696) | 2-Hexa-<br>none (77103) | n-Butyl-<br>benzene<br>(77342) | o-Xylene<br>(77135) | sec-<br>Butylbenzene<br>(77350) |
|--|-------------------------------|--|---|-------------------------------|-----------------------------|-------------------------|--------------------------------|---------------------|---------------------------------|
| Sweetwater Reservoir near pump tower (SWR01)           | <2                            | <0.3                                   | <0.08                                     | <0.06                         | <0.5                        | <0.7                    | <0.2                           | <0.07               | <0.06                           |
|  | <2                            | <0.3                                   | <0.08                                     | <0.06                         | <0.5                        | <0.7                    | <0.2                           | 0.07                | <0.06                           |
|  | <2                            | <0.3                                   | <0.08                                     | <0.06                         | <0.5                        | <0.7                    | <0.2                           | 0.07                | <0.06                           |
| Sweetwater Reservoir center of minimum pool<br>(SWR03) | <2                            | <0.3                                   | <0.08                                     | <0.06                         | <0.5                        | <0.7                    | <0.2                           | 0.07                | <0.03                           |
|  | <2                            | <0.3                                   | <0.08                                     | <0.06                         | <0.5                        | <0.7                    | <0.2                           | 0.07                | <0.06                           |
| Loveland reservoir near dam (LLR01)                    | <2                            | <0.3                                   | <0.08                                     | <0.06                         | <0.5                        | <0.7                    | <0.2                           | 0.07                | <0.03                           |
|  | <2                            | <0.3                                   | <0.08                                     | <0.06                         | <0.5                        | <0.7                    | <0.2                           | 0.07                | <0.03                           |
|  | <2                            | <0.3                                   | <0.08                                     | <0.06                         | <0.5                        | <0.7                    | <0.2                           | 0.07                | <0.03                           |
|  | <2                            | <0.3                                   | <0.08                                     | <0.06                         | <0.5                        | <0.7                    | <0.2                           | 0.07                | <0.03                           |
|  | <2                            | <0.3                                   | <0.08                                     | <0.06                         | <0.5                        | <0.7                    | <0.2                           | 0.07                | <0.06                           |
|  | <2                            | <0.3                                   | <0.08                                     | <0.06                         | <0.5                        | <0.7                    | <0.2                           | 0.07                | <0.06                           |
| QC/QA database site for equipment blank                | <2                            | <0.3                                   | <0.08                                     | <0.06                         | <0.5                        | <0.7                    | <0.2                           | 0.07                | <0.03                           |
|  | <2                            | <0.3                                   | <0.08                                     | <0.06                         | <0.5                        | <0.7                    | <0.2                           | 0.07                | <0.03                           |
|  | <2                            | <0.3                                   | <0.08                                     | <0.06                         | <0.5                        | <0.7                    | <0.2                           | 0.07                | <0.03                           |

**Table 17.** Quality-control results for volatile organic compound concentrations in whole-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See [table 1](#) for site identification number. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. E, estimated value; QC, quality control; QA, quality assurance; SWR, Sweetwater Reservoir; <, compound was not detected at a concentration above laboratory reporting level. Concentrations are given in micrograms per liter unless noted]

| Site name  | Styrene<br>(77128) | Ethyl tert-<br>butyl ether<br>(50004) | Methyl tert-<br>butyl ether<br>(MTBE)<br>(78032) | tert-Butyl-<br>benzene<br>(77353) | Tetra-<br>chloro-<br>ethylene<br>(34475) | Tetra-<br>chloro-<br>methane<br>(32102) | Tetra-<br>hydrofuran<br>(81607) | Toluene<br>(34010) | trans-1,2-<br>Dichloro-<br>ethylene<br>(34546) |
|--|--------------------|---------------------------------------|--|-----------------------------------|--|---|---------------------------------|--------------------|--|
| Sweetwater Reservoir near pump tower (SWR01)           | <0.04              | <0.05                                 | <0.2   | <0.1                              | <0.03                                    | <0.06                                   | <2                              | <0.05              | <0.03  |
|  | <0.04              | <0.05                                 | <0.2   | <0.1                              | <0.03                                    | <0.06                                   | <2                              | <0.05              | <0.03  |
|  | <0.04              | <0.05                                 | <0.2   | <0.1                              | <0.03                                    | <0.06                                   | <2                              | <0.05              | <0.03  |
| Sweetwater Reservoir center of minimum pool<br>(SWR03) | <0.04              | <0.05                                 | E0.2   | <0.05                             | <0.03                                    | <0.06                                   | <2                              | <0.05              | <0.03  |
|  | <0.04              | <0.05                                 | <0.2   | <0.1                              | <0.03                                    | <0.06                                   | <2                              | <0.05              | <0.03  |
| Loveland reservoir near dam (LLR01)                    | <0.04              | <0.05                                 | E0.1   | <0.05                             | <0.03                                    | <0.06                                   | <2                              | E0.01              | <0.03  |
|  | <0.04              | <0.05                                 | E0.1   | <0.05                             | <0.03                                    | <0.06                                   | <2                              | <0.05              | <0.03  |
|  | <0.04              | <0.05                                 | <0.2   | <0.05                             | <0.03                                    | <0.06                                   | <2                              | <0.05              | <0.03  |
|  | <0.04              | <0.05                                 | <0.2   | <0.05                             | <0.03                                    | <0.06                                   | <2                              | <0.05              | <0.03  |
|  | <0.04              | <0.05                                 | E0.1   | <0.1                              | <0.03                                    | <0.06                                   | <2                              | E0.03              | <0.03  |
|  | <0.04              | <0.05                                 | E0.1   | <0.1                              | <0.03                                    | <0.06                                   | <2                              | E0.02              | <0.03  |
|  | <0.04              | <0.05                                 | <0.2   | <0.1                              | <0.03                                    | <0.06                                   | <2                              | <0.05              | <0.03  |
| QC/QA database site for equipment blank                | <0.04              | <0.05                                 | <0.2   | <0.05                             | <0.03                                    | <0.06                                   | <2                              | <0.05              | <0.03  |
|  | <0.04              | <0.05                                 | <0.2   | <0.05                             | <0.03                                    | <0.06                                   | <2                              | <0.05              | <0.03  |
|  | <0.04              | <0.05                                 | <0.2   | <0.05                             | <0.03                                    | <0.06                                   | <2                              | <0.05              | <0.03  |

**Table 17.** Quality-control results for volatile organic compound concentrations in whole-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See [table 1](#) for site identification number. The five digit number in parentheses below each compound name, the parameter code, is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. E, estimated value; QC, quality control; QA, quality assurance; SWR, Sweetwater Reservoir; <, compound was not detected at a concentration above laboratory reporting level. Concentrations are given in micrograms per liter unless noted]

| Site name   | <i>trans</i> -1,3-Dichloro-propene (34699) | <i>trans</i> -1,4-Dichloro-2-butene (73547) | Tribromo-methane (32104) | Trichloro-ethylene (39108) | Trichloro-fluoro-methane (34488) | Trichloro-methane (32106) | Vinyl Chloride (39175) | 1,4-Bromo-fluoro-benzene, surrogate (percent) (99834) | 1,2-Di-chloro-ethane- <i>d</i> 4, surrogate (percent) (99832) | Toluene- <i>d</i> 8, surrogate (percent) (99833) |
|---|--|---|--------------------------|----------------------------|----------------------------------|---------------------------|------------------------|---|---|--|
| Sweetwater Reservoir near pump tower (SWR01)        | <0.09                                      | <0.7  | <0.1                     | <0.04                      | <0.09                            | <0.2                      | <0.1                   | 92.6  | 115   | 83.2   |
|   | <0.09                                      | <0.7  | <0.1                     | <0.04                      | <0.09                            | <0.2                      | <0.1                   | 86.2  | 103   | 102  |
|   | <0.09                                      | <0.7  | <0.1                     | <0.04                      | <0.09                            | <0.2                      | <0.1                   | 85  | 127   | 102  |
| Sweetwater Reservoir center of minimum pool (SWR03) | <0.09                                      | <0.7  | <0.06                    | <0.04                      | <0.09                            | 0.17                      | <0.1                   | 105   | 119   | 101  |
|   | <0.09                                      | <0.7  | <0.1                     | <0.04                      | <0.09                            | E0.09                     | <0.1                   | 78.2  | 126   | 99.1   |
| Loveland reservoir near dam (LLR01)                 | <0.09                                      | <0.7  | <0.06                    | <0.04                      | <0.09                            | <0.2                      | <0.1                   | 78.9  | 116   | 98.7   |
|   | <0.09                                      | <0.7  | <0.06                    | <0.04                      | <0.09                            | <0.2                      | <0.1                   | 77.4  | 118   | 98.8   |
|   | <0.09                                      | <0.7  | <0.06                    | <0.04                      | <0.09                            | <0.2                      | <0.1                   | 76.7  | 116   | 97.7   |
|   | <0.09                                      | <0.7  | <0.06                    | <0.04                      | <0.09                            | <0.2                      | <0.1                   | 86.4  | 112   | 100  |
|   | <0.09                                      | <0.7  | <0.1                     | <0.04                      | <0.09                            | <0.2                      | <0.1                   | 89.8  | 98.1  | 97.9   |
|   | <0.09                                      | <0.7  | <0.1                     | <0.04                      | <0.09                            | <0.2                      | <0.1                   | 88.4  | 99.7  | 100  |
|   | <0.09                                      | <0.7  | <0.1                     | <0.04                      | <0.09                            | <0.2                      | <0.1                   | 84.9  | 101   | 98   |
| QC/QA database site for equipment blank             | <0.09                                      | <0.7  | <0.06                    | <0.04                      | <0.09                            | <0.2                      | <0.1                   | 90.2  | 112   | 101  |
|   | <0.09                                      | <0.7  | <0.06                    | <0.04                      | <0.09                            | <0.2                      | <0.1                   | 89.2  | 102   | 96.7   |
|   | <0.09                                      | <0.7  | <0.06                    | <0.04                      | <0.09                            | <0.2                      | <0.1                   | 91  | 105   | 98.8   |

**Table 18.** Quality-control results for pesticide concentrations in filtered-water samples, analyzed using U.S. Geological Survey's National Water Quality Laboratory schedule 2001, from Loveland Reservoir, San Diego County, California.

[See [table 1](#) for site identification number. Time is denoted in 24-hour scale. The five digit number in parentheses below the compound name, the parameter code, is used in the U.S. Geological Survey's computerized data system (National Water Information System) to uniquely identify a specific constituent or property. <, compound not detected at a concentration above laboratory reporting limit; na, not applicable. Concentrations are given in micrograms per liter unless noted]

| Site name                               | Date<br>(mm/dd/yyyy) | Time | Sample<br>type  | Sampling<br>depth<br>(00098)<br>(meter) | Acetochlor<br>(49260) | Alachlor<br>(46342) | Atrazine<br>(39632) |
|---|----------------------|------|-----------------|---|-----------------------|---------------------|---------------------|
| Loveland Reservoir near dam (LLR01)     | 12/11/2001           | 1038 | Field blank     | na                                      | <0.004                | <0.002              | <0.007              |
|   | 06/12/2002           | 1121 | Replicate       | 2.0                                     | <0.006                | <0.004              | <0.007              |
| QA/QC database site for equipment blank | 02/11/2003           | 1538 | Equipment blank | na                                      | <0.006                | <0.004              | <0.007              |

| Site name                               | Azinphos-methyl<br>(82686) | Benfluralin<br>(82673) | Butylate<br>(04028) | Carbaryl<br>(82680) | Carbofuran<br>(82674) | Chlorpyrifos<br>(38933) | Cyanazine<br>(04041) |
|---|----------------------------|------------------------|---------------------|---------------------|-----------------------|-------------------------|----------------------|
| Loveland reservoir near dam (LLR01)     | <0.05                      | <0.01                  | <0.002              | <0.041              | <0.02                 | <0.005                  | <0.018               |
|   | <0.05                      | <0.01                  | <0.002              | <0.041              | <0.02                 | <0.005                  | <0.018               |
| QA/QC database site for equipment blank | <0.05                      | <0.01                  | <0.002              | <0.041              | <0.02                 | <0.005                  | <0.018               |

| Site name                               | Dacthal<br>(DCPA)<br>(82682) | p,p'-DDE<br>(34653) | Deethyl-<br>atrazine<br>(04040) | Diazinon<br>(39572) | Dieldrin<br>(39381) | 2,6-Di-<br>ethylaniline<br>(82660) | Disulfoton<br>(82677) |
|---|------------------------------|---------------------|---------------------------------|---------------------|---------------------|------------------------------------|-----------------------|
| Loveland reservoir near dam (LLR01)     | <0.003                       | <0.003              | <0.006                          | <0.005              | <0.005              | <0.002                             | <0.02                 |
|   | <0.003                       | <0.003              | <0.006                          | <0.005              | <0.005              | <0.006                             | <0.02                 |
| QA/QC database site for equipment blank | <0.003                       | <0.003              | <0.006                          | <0.005              | <0.005              | <0.006                             | <0.02                 |

| Site name                               | EPTC<br>(82668) | Ethal-<br>fluralin<br>(82663) | Ethoprophos<br>(82672) | Fonofos<br>(04095) | α-HCH<br>(34253) | Lindane<br>(39341) | Linuron<br>(82666) |
|---|-----------------|-------------------------------|------------------------|--------------------|------------------|--------------------|--------------------|
| Loveland reservoir near dam (LLR01)     | <0.005          | <0.009                        | <0.005                 | <0.003             | <0.005           | <0.004             | <0.035             |
|   | <0.002          | <0.009                        | <0.005                 | <0.003             | <0.005           | <0.004             | <0.035             |
| QA/QC database site for equipment blank | <0.002          | <0.009                        | <0.005                 | <0.003             | <0.005           | <0.004             | <0.035             |

| Site name                               | Malathion<br>(39532) | Metolachlor<br>(39415) | Metribuzin<br>(82630) | Molinate<br>(82671) | Napropamide<br>(82684) | Parathion<br>(39542) | Para-<br>thion-<br>methyl<br>(82667) |
|---|----------------------|------------------------|-----------------------|---------------------|------------------------|----------------------|--------------------------------------|
| Loveland reservoir near dam (LLR01)     | <0.027               | <0.013                 | <0.006                | <0.002              | <0.007                 | <0.007               | <0.006                               |
|   | <0.027               | <0.013                 | <0.006                | <0.002              | <0.007                 | <0.01                | <0.006                               |
| QA/QC database site for equipment blank | <0.027               | <0.013                 | <0.006                | <0.002              | <0.007                 | <0.01                | <0.006                               |

| Site name                               | Pebulate<br>(82669) | Pendimethalin<br>(82683) | cis-<br>Permethrin<br>(82687) | Phorate<br>(82664) | Prometon<br>(04037) | Propachlor<br>(04024) | Propanil<br>(82679) |
|---|---------------------|--------------------------|-------------------------------|--------------------|---------------------|-----------------------|---------------------|
| Loveland reservoir near dam (LLR01)     | <0.002              | <0.01                    | <0.006                        | <0.011             | <0.01               | <0.01                 | <0.011              |
|   | <0.004              | <0.022                   | <0.006                        | <0.011             | <0.01               | <0.01                 | <0.011              |
| QA/QC database site for equipment blank | <0.004              | <0.022                   | <0.006                        | <0.011             | <0.01               | <0.01                 | <0.011              |

| Site name                               | Propargite<br>(82685) | Propy-<br>zamide (82676) | Simazine<br>(04035) | Tebuthiuron<br>(82670) | Terbacil<br>(82665) | Terbufos<br>(82675) | Thiobencarb<br>(82681) |
|---|-----------------------|--------------------------|---------------------|------------------------|---------------------|---------------------|------------------------|
| Loveland reservoir near dam (LLR01)     | <0.02                 | <0.004                   | <0.011              | <0.02                  | <0.034              | <0.02               | <0.005                 |
|   | <0.02                 | <0.004                   | <0.009              | <0.02                  | <0.034              | <0.02               | <0.005                 |
| QA/QC database site for equipment blank | <0.02                 | <0.004                   | <0.005              | <0.02                  | <0.034              | <0.02               | <0.005                 |

| Site name                               | Triallate<br>(82678) | Trifluralin<br>(82661) | Diazinon-d <sup>10</sup> ,<br>surrogate<br>(91063)<br>(percent) | α-HCH-d <sup>6</sup> ,<br>surrogate<br>(91065)<br>(percent) |
|---|----------------------|------------------------|---|---|
| Loveland reservoir near dam (LLR01)     | <0.002               | <0.009                 | 90.1  | 82.3  |
|   | <0.002               | <0.009                 | 103   | 87.0  |
| QA/QC database site for equipment blank | <0.002               | <0.009                 | 104   | 103   |

**Table 19.** Quality-control results for pesticide concentrations in filtered-water samples, analyzed using U.S. Geological Survey's National Water Quality Laboratory schedule 2060, from Sweetwater Reservoir, San Diego County, California.

[See [table 1](#) for site identification numbers. Time is denoted in 24 hour scale. The number below each compound is the parameter code used in the U.S. Geological Survey computerized data system (National Water Information system) to uniquely identify a specific constituent or property. QC, quality control; QA, quality assurance; na, not applicable; <, compound not detected at a concentration above laboratory reporting level. Concentrations are given in micrograms per liter unless noted]

| Station site  | Date<br>(mm/dd/yyyy)             | Time  | Type                                     | Sampling<br>depth<br>(00098)<br>(meter) | Acifluorfen<br>(49315)                 | Aldicarb<br>(49312)                   | Aldicarb<br>sulfone<br>(49313)  |
|---|----------------------------------|---|--|---|--|---------------------------------------|---|
| Sweetwater Reservoir center of minimum pool (SWR03) | 8/19/2003                        | 1231  | Replicate                                | 2.0                                     | <0.007                                 | <0.04                                 | <0.02   |
| QA/QC database site for equipment blank             | 2/11/2003                        | 1538  | Equipment blank                          | na                                      | <0.007                                 | <0.04                                 | <0.02   |
| Station site  | Aldicarb<br>sulfoxide<br>(46314) | Atrazine<br>(39632)                             | Bendio-<br>carb<br>(50299)               | Benomyl<br>(50300)                      | Bensul-<br>furon-<br>methyl<br>(61693) | Bentazon<br>(38711)                   | Bromacil<br>(04029)   |
| Sweetwater Reservoir center of minimum pool (SWR03) | <0.008                           | <0.009  | <0.03                                    | <0.004                                  | <0.02                                  | E0.01                                 | <0.03   |
| QA/QC database site for equipment blank             | <0.008                           | <0.007  | <0.03                                    | <0.004                                  | <0.02                                  | <0.01                                 | <0.03   |
| Station site  | Bromoxynil<br>(49311)            | Caffeine<br>(50305)                             | Carbaryl<br>(49310)                      | Carbofuran<br>(49309)                   | Chloramben,<br>methyl ester<br>(61188) | Chlori-<br>muron-<br>ethyl<br>(50306) | <i>N</i> -(4-<br>Chloro-<br>phenyl)-<br><i>N</i> -<br>methylurea<br>(61692) |
| Sweetwater Reservoir center of minimum pool (SWR03) | <0.02                            | 0.02  | <0.03                                    | <0.006                                  | <0.02                                  | <0.01                                 | <0.02   |
| QA/QC database site for equipment blank             | <0.02                            | <0.01   | <0.03                                    | <0.006                                  | <0.02                                  | <0.01                                 | <0.02   |
| Station site  | Chloro-<br>thalonil<br>(49306)   | Clopyralid<br>(49305)                           | Cycloate<br>(04031)                      | 2,4-D (39732)                           | 2,4-D methyl<br>ester<br>(50470)       | 2,4-DB<br>(38746)                     | Dacthal<br>monoacid<br>(49304)  |
| Sweetwater Reservoir center of minimum pool (SWR03) | <0.04                            | <0.01   | <0.01                                    | <0.02                                   | <0.009                                 | <0.02                                 | <0.01   |
| QA/QC database site for equipment blank             | <0.04                            | <0.01   | <0.01                                    | <0.02                                   | <0.009                                 | <0.02                                 | <0.01   |
| Station site  | Deethyl-<br>atrazine<br>(04040)  | Deethyl-<br>deisopropyl-<br>atrazine<br>(04039) | De-<br>isopropyl-<br>atrazine<br>(04038) | Dicamba<br>(38442)                      | Dichlorprop<br>(49302)                 | Dinoseb<br>(49301)                    | Diphenamid<br>(04033)   |
| Sweetwater Reservoir center of minimum pool (SWR03) | <0.03                            | <0.01   | <0.04                                    | <0.01                                   | <0.01                                  | <0.01                                 | <0.03   |
| QA/QC database site for equipment blank             | <0.006                           | <0.01   | <0.04                                    | <0.01                                   | <0.01                                  | <0.01                                 | <0.03   |

**Table 19.** Quality-control results for pesticide concentrations in filtered-water samples, analyzed using U.S. Geological Survey's National Water Quality Laboratory schedule 2060, from Sweetwater Reservoir, San Diego County, California.—Continued

[See [table 1](#) for site identification numbers. Time is denoted in 24 hour scale. The number below each compound is the parameter code used in the U.S. Geological Survey computerized data system (National Water Information system) to uniquely identify a specific constituent or property. QC, quality control; QA, quality assurance; na, not applicable; <, compound not detected at a concentration above laboratory reporting level. Concentrations are given in micrograms per liter unless noted]

| Station site  | Diuron<br>(49300)      | Fenuron<br>(49297)      | Flumetsulam<br>(61694)         | Fluometuron<br>(38811)                    | Hydroxy-atrazine<br>(50355)                     | 3-Hydroxy carbofuran<br>(49308)            | Imazaquin<br>(50356)            |
|---|------------------------|-------------------------|--------------------------------|---|---|--|---------------------------------|
| Sweetwater Reservoir center of minimum pool (SWR03) | 0.03                   | <0.03                   | <0.01                          | <0.03                                     | <0.008  | <0.006                                     | <0.02                           |
| QA/QC database site for equipment blank             | <0.01                  | <0.03                   | <0.01                          | <0.03                                     | <0.008  | <0.006                                     | <0.02                           |
| Station site  | Imazethapyr<br>(50407) | Imidacloprid<br>(61695) | 3-Keto-carbofuran<br>(50295)   | Linuron<br>(38478)                        | MCPA<br>(38482)                                 | MCPB<br>(38487)                            | Metalaxyl<br>(50359)            |
| Sweetwater Reservoir center of minimum pool (SWR03) | <0.02                  | <0.007                  | <1.5                           | <0.01                                     | <0.02   | <0.01                                      | <0.02                           |
| QA/QC database site for equipment blank             | <0.02                  | <0.007                  | <1.5                           | <0.01                                     | <0.02   | <0.01                                      | <0.02                           |
| Station site  | Methiocarb<br>(38501)  | Methomyl<br>(49296)     | Met-sulfuron methyl<br>(61697) | Neburon<br>(49294)                        | Nicosulfuron<br>(50364)                         | Nor-flurazon<br>(49293)                    | Oryzalin<br>(49292)             |
| Sweetwater Reservoir center of minimum pool (SWR03) | <0.008                 | <0.004                  | <0.03                          | <0.01                                     | <0.01   | <0.02                                      | <0.02                           |
| QA/QC database site for equipment blank             | <0.008                 | <0.004                  | <0.03                          | <0.01                                     | <0.01   | <0.02                                      | <0.02                           |
| Station site  | Oxamyl<br>(38866)      | Picloram<br>(49291)     | Propham<br>(49236)             | Propi-conazole<br>(50471)                 | Propoxur<br>(38538)                             | Siduron<br>(38548)                         | Sulfo-meturon-methyl<br>(50337) |
| Sweetwater Reservoir center of minimum pool (SWR03) | <0.01                  | <0.02                   | <0.01                          | <0.02                                     | <0.008  | <0.02                                      | <0.009                          |
| QA/QC database site for equipment blank             | <0.01                  | <0.02                   | <0.01                          | <0.02                                     | <0.008  | <0.02                                      | <0.009                          |
| Station site  | Tebuthiuron<br>(82670) | Terbacil<br>(04032)     | Triclopyr<br>(49235)           | Barban, surrogate<br>(90640)<br>(percent) | Caffeine C13, surrogate<br>(99959)<br>(percent) | 2,4,5-T, surrogate<br>(99958)<br>(percent) |                                 |
| Sweetwater Reservoir center of minimum pool (SWR03) | <0.006                 | <0.01                   | <0.02                          | 84.3                                      | 71.6  | 94.6                                       |                                 |
| QA/QC database site for equipment blank             | <0.02                  | <0.01                   | <0.02                          | 137                                       | 142   | 77.6                                       |                                 |

**Table 20A.** Quality-control replicate results for volatile organic compounds with low breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). Time is denoted in 24-hour scale. °C, degree Celsius; mm of Hg, millimeters of mercury; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | Pressure<br>(mm of Hg) | Temperature<br>(°C) | Dichloro-<br>difluoro-<br>methane<br>(CFC-12) | Chloro-<br>methane | Chloro-<br>ethene<br>(vinyl<br>chloride) | Bromo-<br>methane | Chloro-<br>ethane | Bromo-<br>ethene<br>(vinyl<br>bromide) |
|----------------------|------------------------|---------------------|---|--------------------|--|-------------------|-------------------|--|
| 10/22/2001           | 753                    | 17.8                | 0.89  | —                  | —  | —                 | —                 | —                                      |
| 11/15/2001           | 753                    | 15.7                | 0.99  | —                  | —  | —                 | —                 | —                                      |
| 11/27/2001           | 755                    | 11.2                | 0.28  | —                  | —  | —                 | —                 | —                                      |
| 12/09/2001           | 758                    | 11.4                | 0.25  | —                  | —  | —                 | —                 | —                                      |
| 12/21/2001           | 753                    | 10.6                | 0.77  | —                  | —  | —                 | —                 | —                                      |
| 04/20/2002           | 761                    | 13.9                | 0.88  | —                  | —  | —                 | —                 | —                                      |
| 02/14/2003           | 753                    | 14.9                | —   | —                  | —  | —                 | —                 | —                                      |
| 09/18/2003           | 760                    | 19.6                | 0.70  | —                  | —  | —                 | —                 | —                                      |



**Table 20B.** Quality-control replicate results for volatile organic compounds with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). Time is denoted in 24-hour scale. °C, degree Celsius; mm of Hg, millimeters of mercury; E, estimated value; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | Pressure<br>(mm of Hg) | Temperature<br>(°C) | Dibromo-<br>methane | Bromo-<br>dichloro-<br>methane | Carbon<br>tetra-<br>chloride | 1,2-<br>Dichloro-<br>ethane | Bromo-<br>form | Dibromo-<br>chloro-<br>methane | Chloro-<br>form | Toluene | Benzene |
|----------------------|------------------------|---------------------|---------------------|--------------------------------|------------------------------|-----------------------------|----------------|--------------------------------|-----------------|---------|---------|
| 11/15/2001           | 753                    | 15.7                | —                   | —                              | E0.03                        | —                           | —              | —                              | E0.01           | 0.84    | 0.25    |
| 11/27/2001           | 755                    | 11.2                | —                   | —                              | E0.14                        | —                           | —              | —                              | E0.04           | 1.09    | 0.45    |
| 12/21/2001           | 758                    | 11.4                | E0.02               | —                              | —                            | —                           | —              | —                              | —               | 0.36    | 0.20    |
| 01/14/2002           | 753                    | 10.6                | —                   | —                              | E0.23                        | E0.02                       | —              | —                              | E0.04           | 1.51    | 1.04    |
| 04/20/2002           | 761                    | 13.9                | —                   | —                              | E0.10                        | —                           | —              | —                              | E0.02           | 0.44    | —       |
| 02/14/2003           | 753                    | 14.9                | —                   | —                              | E0.09                        | —                           | —              | —                              | —               | 0.32    | —       |
| 09/18/2003           | 760                    | 19.6                | —                   | —                              | E0.01                        | —                           | —              | —                              | E0.01           | E0.07   | —       |

| Date<br>(mm/dd/yyyy) | Pressure<br>(mm of Hg) | Temperature<br>(°C) | 2-Propene-<br>nitrile<br>(Acrylo-<br>nitrile) | Chloro-<br>benzene | Ethyl-<br>benzene | Hexa-<br>chloro-<br>ethane | Methylene<br>chloride | Tetra-<br>chloro-<br>ethene<br>(PCE) | 1,1-<br>Dichloro-<br>ethane | 1,1-<br>Dichloro-<br>ethene | 1,1,1-<br>Trichloro-<br>ethane |
|----------------------|------------------------|---------------------|---|--------------------|-------------------|----------------------------|-----------------------|--------------------------------------|-----------------------------|-----------------------------|--------------------------------|
| 11/15/2001           | 753                    | 15.7                | —   | —                  | 0.08              | —                          | 0.12                  | E0.02                                | —                           | —                           | E0.01                          |
| 11/27/2001           | 755                    | 11.2                | —   | —                  | 0.13              | —                          | 0.21                  | E0.03                                | —                           | —                           | E0.05                          |
| 12/21/2001           | 758                    | 11.4                | —   | E0.01              | E0.02             | —                          | E0.08                 | —                                    | —                           | —                           | —                              |
| 01/14/2002           | 753                    | 10.6                | —   | —                  | 0.37              | —                          | 0.25                  | E0.04                                | —                           | —                           | 0.08                           |
| 04/20/2002           | 761                    | 13.9                | —   | —                  | E0.06             | —                          | E0.08                 | —                                    | —                           | —                           | E0.03                          |
| 02/14/2003           | 753                    | 14.9                | —   | —                  | E0.05             | —                          | E0.04                 | E0.01                                | —                           | —                           | E0.03                          |
| 09/18/2003           | 760                    | 19.6                | —   | E0.03              | E0.01             | —                          | E0.03                 | E0.02                                | —                           | —                           | —                              |

| Date<br>(mm/dd/yyyy) | Pressure<br>(mm of Hg) | Temperature<br>(°C) | 1,1,2-<br>Trichloro-<br>ethane | 1,1,2,2-<br>Tetra-<br>chloro-<br>ethane | 1,2-<br>Dichloro-<br>benzene | 1,2-<br>Dichloro-<br>propane | <i>trans</i> -1,2-<br>Dichloro-<br>ethene | 1,2,4-<br>Trichloro-<br>benzene | 1,3-<br>Dichloro-<br>benzene | 1,4-<br>Dichloro-<br>benzene | Naph-<br>thalene |
|----------------------|------------------------|---------------------|--------------------------------|---|------------------------------|------------------------------|---|---------------------------------|------------------------------|------------------------------|------------------|
| 11/15/2001           | 753                    | 15.7                | —                              | —                                       | E0.01                        | —                            | —   | —                               | —                            | E0.01                        | E0.01            |
| 11/27/2001           | 755                    | 11.2                | —                              | —                                       | E0.01                        | —                            | —   | —                               | —                            | E0.01                        | E0.02            |
| 12/21/2001           | 758                    | 11.4                | —                              | —                                       | —                            | —                            | —   | —                               | —                            | E0.01                        | E0.01            |
| 01/14/2002           | 753                    | 10.6                | —                              | —                                       | —                            | —                            | —   | —                               | —                            | E0.06                        | 0.11             |
| 04/20/2002           | 761                    | 13.9                | —                              | —                                       | —                            | —                            | —   | —                               | —                            | E0.01                        | E0.02            |
| 02/14/2003           | 753                    | 14.9                | —                              | —                                       | —                            | —                            | —   | —                               | —                            | E0.01                        | E0.01            |
| 09/18/2003           | 760                    | 19.6                | —                              | —                                       | —                            | —                            | —   | —                               | —                            | —                            | E0.01            |

| Date<br>(mm/dd/yyyy) | Pressure<br>(mm of Hg) | Temperature<br>(°C) | <i>trans</i> -1,3-<br>Dichloro-<br>propene | <i>cis</i> -1,3-<br>Dichloro-<br>propene | Trichloro-<br>ethene<br>(TCE) | Hexa-<br>chloro-<br>butadiene | Methyl<br>acrylate | 1,2,3,4-<br>Tetra-<br>methyl-<br>benzene | Ethyl<br><i>tert</i> -butyl<br>ether<br>(ETBE) | <i>tert</i> -Amyl<br>methyl ether<br>(TAME) | <i>trans</i> -1,4-<br>Dichloro-<br>2-butene |
|----------------------|------------------------|---------------------|--|--|-------------------------------|-------------------------------|--------------------|--|--|---|---|
| 11/15/2001           | 753                    | 15.7                | —  | —  | E0.02                         | —                             | E0.01              | E0.01                                    | —  | —   | —   |
| 11/27/2001           | 755                    | 11.2                | —  | —  | E0.01                         | —                             | E0.07              | E0.01                                    | —  | —   | —   |
| 12/21/2001           | 758                    | 11.4                | —  | —  | —                             | —                             | —                  | E0.01                                    | —  | —   | —   |
| 01/14/2002           | 753                    | 10.6                | —  | —  | 0.08                          | —                             | E0.13              | E0.02                                    | —  | E0.03                                       | —   |
| 04/20/2002           | 761                    | 13.9                | —  | —  | E0.01                         | —                             | —                  | E0.01                                    | E0.01  | —   | —   |
| 02/14/2003           | 753                    | 14.9                | —  | —  | E0.01                         | —                             | —                  | E0.01                                    | —  | —   | —   |
| 09/18/2003           | 760                    | 19.6                | —  | —  | —                             | —                             | —                  | E0.01                                    | E0.05  | —   | —   |

| Date<br>(mm/dd/yyyy) | Pressure<br>(mm of Hg) | Temperature<br>(°C) | Ethyl-<br>meth-<br>acrylate | Carbon<br>disulfide | <i>cis</i> -1,2-<br>Dichloro-<br>ethene | 2-Hexa-<br>none<br>(MBK) | Ethenyl-<br>benzene<br>(Styrene) | <i>o</i> -Xylene | 1,1-<br>Dichloro-<br>propene | 2,2-<br>Dichloro-<br>propane | 1,3-<br>Dichloro-<br>propane |
|----------------------|------------------------|---------------------|-----------------------------|---------------------|---|--------------------------|----------------------------------|------------------|------------------------------|------------------------------|------------------------------|
| 11/15/2001           | 753                    | 15.7                | —                           | E0.02               | —                                       | —                        | —                                | 0.09             | —                            | —                            | —                            |
| 11/27/2001           | 755                    | 11.2                | —                           | —                   | —                                       | —                        | E0.02                            | 0.16             | —                            | —                            | —                            |
| 12/21/2001           | 758                    | 11.4                | —                           | —                   | —                                       | E0.01                    | E0.01                            | E0.02            | —                            | —                            | —                            |
| 01/14/2002           | 753                    | 10.6                | —                           | E0.02               | —                                       | E0.03                    | 0.09                             | 0.42             | —                            | —                            | —                            |
| 04/20/2002           | 761                    | 13.9                | —                           | —                   | —                                       | E0.01                    | —                                | E0.06            | —                            | —                            | —                            |
| 02/14/2003           | 753                    | 14.9                | —                           | —                   | —                                       | E0.01                    | E0.01                            | E0.07            | —                            | —                            | —                            |
| 09/18/2003           | 760                    | 19.6                | —                           | E0.04               | —                                       | E0.03                    | E0.03                            | E0.01            | —                            | —                            | —                            |

**Table 20B.** Quality-control replicate results for volatile organic compounds with high breakthrough volumes from the Sweetwater Reservoir atmospheric site, San Diego County, California—Continued

[The site identification number is 32414117001601. Concentrations are given in parts per billion by volume (ppbv). Time is denoted in 24-hour scale. °C, degree Celsius; mm of Hg, millimeters of mercury; E, estimated value; —, compound not detected at a concentration above the laboratory reporting level]

| Date<br>(mm/dd/yyyy) | Pressure<br>(mm of Hg) | Temperature<br>(°C) | 2-Ethyl-<br>toluene | 1,2,3-<br>Trimethyl-<br>benzene | 1,2,4-<br>Trimethyl-<br>benzene | Isopropyl-<br>benzene<br>(Cumene) | n-propyl-<br>benzene | 1,3,5-<br>Trimethyl-<br>benzene | 2-Chloro-<br>toluene | 4-Chloro-<br>toluene | Bromo-<br>chloro-<br>methane |
|----------------------|------------------------|---------------------|---------------------|---------------------------------|---------------------------------|-----------------------------------|----------------------|---------------------------------|----------------------|----------------------|------------------------------|
| 11/15/2001           | 753                    | 15.7                | E0.02               | E0.01                           | 0.08                            | E0.01                             | E0.02                | E0.02                           | —                    | —                    | —                            |
| 11/27/2001           | 755                    | 11.2                | E0.03               | E0.03                           | 0.15                            | E0.01                             | E0.02                | E0.04                           | —                    | —                    | —                            |
| 12/21/2001           | 758                    | 11.4                | E0.01               | E0.01                           | E0.03                           | E0.01                             | E0.01                | E0.01                           | —                    | —                    | —                            |
| 01/14/2002           | 753                    | 10.6                | 0.09                | 0.08                            | 0.32                            | E0.02                             | E0.07                | 0.08                            | —                    | —                    | —                            |
| 04/20/2002           | 761                    | 13.9                | E0.01               | E0.01                           | E0.05                           | E0.01                             | E0.01                | E0.01                           | —                    | —                    | —                            |
| 02/14/2003           | 753                    | 14.9                | E0.01               | E0.01                           | E0.05                           | E0.01                             | E0.01                | E0.02                           | —                    | —                    | —                            |
| 09/18/2003           | 760                    | 19.6                | E0.01               | E0.01                           | E0.01                           | E0.01                             | E0.01                | E0.01                           | —                    | —                    | —                            |

| Date<br>(mm/dd/yyyy) | Pressure<br>(mm of Hg) | Temperature<br>(°C) | n-Butyl-<br>benzene | sec-<br>Butyl-<br>benzene | tert-<br>Butyl<br>benzene | 1-<br>Isopropyl-<br>4-methyl<br>benzene | 1,2,3-<br>Trichloro-<br>propene | 1,1,1,2-<br>Tetra-<br>chloro-<br>ethane | 1,2,3-<br>Trichloro-<br>benzene | 1,2-<br>Dibromo-<br>ethane | Methyl<br>tert-butyl<br>ether<br>(MTBE) |
|----------------------|------------------------|---------------------|---------------------|---------------------------|---------------------------|---|---------------------------------|---|---------------------------------|----------------------------|---|
| 11/15/2001           | 753                    | 15.7                | E0.01               | E0.01                     | —                         | E0.02                                   | —                               | —                                       | —                               | —                          | 0.76                                    |
| 11/27/2001           | 755                    | 11.2                | E0.01               | E0.01                     | —                         | E0.02                                   | —                               | —                                       | —                               | —                          | 1.00                                    |
| 12/21/2001           | 758                    | 11.4                | E0.01               | —                         | —                         | E0.01                                   | —                               | —                                       | —                               | —                          | E0.10                                   |
| 01/14/2002           | 753                    | 10.6                | E0.02               | E0.01                     | —                         | E0.04                                   | —                               | —                                       | —                               | —                          | 4.07                                    |
| 04/20/2002           | 761                    | 13.9                | E0.01               | E0.01                     | —                         | E0.01                                   | —                               | —                                       | —                               | —                          | 0.40                                    |
| 02/14/2003           | 753                    | 14.9                | E0.01               | E0.01                     | —                         | E0.02                                   | —                               | —                                       | —                               | —                          | 0.19                                    |
| 09/18/2003           | 760                    | 19.6                | E0.01               | —                         | —                         | E0.01                                   | —                               | —                                       | —                               | —                          | E0.02                                   |

| Date<br>(mm/dd/yyyy) | Pressure<br>(mm of Hg) | Temperature<br>(°C) | 3-Chloro-<br>1-propene | 4-Methyl-2-<br>pentanone<br>(MIBK) | Acetone | Bromo-<br>benzene | Diethyl<br>ether | Diiso-<br>propyl<br>ether<br>(DIPE) | Methyl-<br>acrylo-<br>nitrile | 2-Butanone<br>(Methyl ethyl<br>ketone) | Methyl-<br>meth-<br>acrylate |
|----------------------|------------------------|---------------------|------------------------|------------------------------------|---------|-------------------|------------------|-------------------------------------|-------------------------------|--|------------------------------|
| 11/15/2001           | 753                    | 15.7                | —                      | —                                  | —       | —                 | —                | —                                   | —                             | 0.18                                   | —                            |
| 11/27/2001           | 755                    | 11.2                | —                      | —                                  | 0.95    | —                 | —                | —                                   | —                             | 0.24                                   | —                            |
| 12/21/2001           | 758                    | 11.4                | —                      | E0.01                              | 0.58    | —                 | —                | —                                   | —                             | E0.12                                  | —                            |
| 01/14/2002           | 753                    | 10.6                | —                      | E0.06                              | 3.91    | —                 | —                | —                                   | —                             | 1.21                                   | —                            |
| 04/20/2002           | 761                    | 13.9                | —                      | E0.01                              | 1.25    | —                 | E0.01            | —                                   | —                             | 0.20                                   | —                            |
| 02/14/2003           | 753                    | 14.9                | —                      | E0.01                              | 0.51    | —                 | —                | —                                   | —                             | E0.09                                  | —                            |
| 09/18/2003           | 760                    | 19.6                | —                      | E0.01                              | 1.24    | —                 | —                | —                                   | —                             | 0.24                                   | —                            |

| Date<br>(mm/dd/yyyy) | Pressure<br>(mm of Hg) | Temperature<br>(°C) | Tetra-<br>hydrofuran | 1,2-Dibromo-<br>3-chloro-<br>propane<br>(DBCP) | m and p-<br>Xylene | 1,2,3,5-<br>Tetra-<br>methyl-<br>benzene | 1,2,4,5-<br>Tetra-<br>methyl-<br>benzene | Methyl-<br>acetate | tert-<br>Amyl<br>alcohol | tert-<br>Butyl<br>alcohol |
|----------------------|------------------------|---------------------|----------------------|--|--------------------|--|--|--------------------|--------------------------|---------------------------|
| 11/15/2001           | 753                    | 15.7                | —                    | —  | 0.30               | E0.01                                    | E0.01                                    | —                  | —                        | E0.03                     |
| 11/27/2001           | 755                    | 11.2                | —                    | —  | 0.55               | E0.01                                    | E0.01                                    | —                  | —                        | E0.04                     |
| 12/21/2001           | 758                    | 11.4                | —                    | —  | E0.05              | E0.01                                    | E0.01                                    | —                  | —                        | E0.06                     |
| 01/14/2002           | 753                    | 10.6                | E0.06                | —  | 1.09               | E0.05                                    | E0.03                                    | —                  | E0.11                    | 0.25                      |
| 04/20/2002           | 761                    | 13.9                | —                    | —  | 0.18               | E0.01                                    | E0.01                                    | —                  | E0.02                    | E0.12                     |
| 02/14/2003           | 753                    | 14.9                | —                    | —  | 0.19               | E0.01                                    | E0.01                                    | —                  | E0.01                    | E0.05                     |
| 09/18/2003           | 760                    | 19.6                | —                    | —  | E0.03              | E0.01                                    | E0.01                                    | —                  | E0.09                    | E0.11                     |

**Table 21A.** Quality-control results for volatile organic compounds with low breakthrough volumes in laboratory spikes for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.

[Values are given in percent recovery. Sample volume for quality assurance spike is 1.5 liters. Samples were processed at 20.0 degrees Celsius and 760 millimeters of mercury. Dates are in month/day/year format. NA, not analyzed]

| <b>Sampling date</b> | <b>Analyzed date</b> | <b>Dichloro-difluoro-methane (CFC-12)</b> | <b>Chloro-methane</b> | <b>Chloro-ethene (vinyl chloride)</b> | <b>Bromo-methane</b> | <b>Chloro-ethane</b> | <b>Bromo-ethene (vinyl bromide)</b> |
|----------------------|----------------------|---|-----------------------|---------------------------------------|----------------------|----------------------|-------------------------------------|
| 12/09/2001           | 12/28/2001           | 122                                       | 128                   | 93.2                                  | 53.2                 | 82.3                 | 114                                 |
| 06/07/2002           | 06/28/2002           | 127                                       | 93.8                  | 94.7                                  | NA                   | 112                  | 108                                 |
| 07/25/2002           | 08/08/2002           | 91.9                                      | 73.8                  | 70.2                                  | NA                   | 79.7                 | 71.6                                |
| 10/05/2002           | 10/24/2002           | 103                                       | 74.3                  | 99.2                                  | NA                   | 70.5                 | 123                                 |
| 02/14/2003           | 03/07/2003           | 106                                       | 107                   | 94.0                                  | NA                   | 61.4                 | 96.6                                |

**Table 21B.** Quality-control results for volatile organic compounds with low breakthrough volumes in travel blanks for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.

[Concentrations are given in parts per billion by volume (ppbv). Sample volume for quality assurance travel blank is 1.5 liters. Dates are in month/day/year format. Pairs of samples analyzed on the same date had been frozen and stored at the laboratory before analysis. Samples were processed at 20.0 degrees Celsius and 760 millimeters of mercury. mm of Hg, millimeters of mercury; —, compound not detected at a concentration above laboratory reporting level; °C, degree Celsius; E, estimated value; NA, not analyzed]

| Sampling date | Analyzed date | Pressure (mm of Hg) | Temperature (°C) | Dichloro-difluoro-methane (CFC-12) | Chloro-methane | Chloro-ethene (vinyl chloride) | Bromo-methane | Chloro-ethane | Bromo-ethene (vinyl bromide) |
|---------------|---------------|---------------------|------------------|------------------------------------|----------------|--------------------------------|---------------|---------------|------------------------------|
| 10/10/2001    | 10/26/2001    | 754                 | 18.8             | E0.018                             | E0.070         | —                              | —             | —             | —                            |
| 10/22/2001    | 10/26/2001    | 753                 | 17.8             | E0.010                             | —              | —                              | —             | —             | —                            |
| 11/15/2001    | 11/30/2001    | 753                 | 15.7             | E0.023                             | —              | —                              | —             | —             | —                            |
| 11/27/2001    | 11/30/2001    | 755                 | 11.2             | E0.005                             | —              | —                              | —             | —             | —                            |
| 12/09/2001    | 12/28/2001    | 752                 | 12.3             | E0.013                             | —              | —                              | —             | —             | —                            |
| 12/21/2001    | 12/28/2001    | 758                 | 11.4             | E0.016                             | —              | —                              | —             | —             | —                            |
| 01/03/2002    | 01/22/2002    | 757                 | 11.9             | NA                                 | NA             | NA                             | NA            | NA            | NA                           |
| 01/14/2002    | 01/22/2002    | 753                 | 10.6             | NA                                 | NA             | NA                             | NA            | NA            | NA                           |
| 01/28/2002    | 02/15/2002    | 754                 | 10.6             | 0.421                              | —              | —                              | 0.924         | —             | —                            |
| 02/07/2002    | 02/15/2002    | 761                 | 10.2             | E0.008                             | —              | —                              | E0.465        | —             | E0.002                       |
| 02/19/2002    | 03/08/2002    | 760                 | 10.9             | E0.025                             | —              | —                              | E0.413        | —             | —                            |
| 03/03/2002    | 03/08/2002    | 761                 | 13.9             | E0.011                             | —              | —                              | E0.318        | —             | —                            |
| 03/27/2002    | 05/10/2002    | 755                 | 12.5             | E0.037                             | —              | —                              | E0.371        | —             | —                            |
| 04/20/2002    | 05/10/2002    | 755                 | 14.1             | E0.018                             | —              | —                              | E0.157        | —             | —                            |
| 05/14/2002    | 05/31/2002    | 751                 | 17.0             | —                                  | 1.82           | —                              | —             | —             | —                            |
| 05/26/2002    | 05/31/2002    | 753                 | 13.4             | —                                  | 1.46           | —                              | —             | —             | —                            |
| 06/07/2002    | 06/28/2002    | 750                 | 16.2             | E0.008                             | —              | —                              | —             | —             | —                            |
| 06/19/2002    | 06/28/2002    | 749                 | 16.3             | E0.015                             | —              | —                              | —             | —             | —                            |
| 07/01/2002    | 07/19/2002    | 753                 | 16.9             | E0.022                             | —              | —                              | —             | E0.101        | —                            |
| 07/13/2002    | 07/19/2002    | 751                 | 18.1             | E0.022                             | —              | —                              | —             | —             | —                            |
| 07/25/2002    | 08/08/2002    | 754                 | 18.7             | E0.009                             | —              | —                              | —             | —             | —                            |
| 08/06/2002    | 08/08/2002    | 753                 | 17.2             | E0.022                             | —              | —                              | —             | —             | —                            |
| 08/18/2002    | 09/06/2002    | 752                 | 18.5             | E0.006                             | —              | —                              | —             | —             | —                            |
| 08/30/2002    | 09/06/2002    | 751                 | 20.8             | E0.019                             | —              | —                              | —             | —             | —                            |
| 09/11/2002    | 09/27/2002    | 750                 | 21.8             | E0.013                             | —              | —                              | —             | —             | —                            |
| 09/23/2002    | 09/27/2002    | 749                 | 22.7             | E0.010                             | —              | —                              | —             | —             | —                            |
| 10/05/2002    | 10/24/2002    | 752                 | 19.0             | E0.019                             | —              | —                              | —             | —             | —                            |
| 10/17/2002    | 10/24/2002    | 752                 | 16.2             | E0.014                             | —              | —                              | —             | —             | —                            |
| 10/29/2002    | 11/13/2002    | 752                 | 15.9             | E0.008                             | —              | —                              | —             | —             | —                            |
| 11/10/2002    | 11/13/2002    | 756                 | 16.2             | E0.010                             | —              | —                              | —             | —             | —                            |
| 11/22/2002    | 12/13/2002    | 755                 | 17.0             | E0.014                             | —              | —                              | —             | —             | —                            |
| 12/04/2002    | 12/13/2002    | 758                 | 13.6             | E0.029                             | —              | —                              | —             | —             | —                            |
| 01/20/2003    | 02/07/2003    | 758                 | 14.5             | E0.013                             | —              | —                              | —             | —             | —                            |
| 02/04/2003    | 02/07/2003    | 754                 | 13.8             | E0.008                             | —              | —                              | —             | —             | —                            |
| 02/14/2003    | 03/07/2003    | 753                 | 14.9             | E0.024                             | —              | —                              | —             | —             | —                            |
| 02/14/2003    | 03/07/2003    | 753                 | 14.9             | E0.255                             | —              | 0.126                          | —             | 0.044         | —                            |
| 02/26/2003    | 03/07/2003    | 752                 | 12.6             | E0.013                             | —              | —                              | —             | —             | —                            |
| 03/10/2003    | 03/28/2003    | 753                 | 15.0             | E0.006                             | —              | —                              | —             | —             | —                            |
| 03/22/2003    | 03/28/2003    | 756                 | 15.4             | E0.010                             | —              | —                              | —             | —             | —                            |
| 04/03/2003    | 04/18/2003    | 757                 | 12.4             | E0.019                             | —              | —                              | —             | —             | —                            |
| 04/15/2003    | 04/18/2003    | 757                 | 12.6             | E0.024                             | —              | —                              | —             | —             | —                            |
| 05/09/2003    | 05/15/2003    | 762                 | 13.8             | E0.041                             | —              | —                              | —             | —             | —                            |
| 05/21/2003    | 06/06/2003    | 758                 | 20.2             | E0.036                             | —              | —                              | —             | —             | —                            |
| 06/02/2003    | 06/06/2003    | 758                 | 16.4             | E0.034                             | —              | —                              | —             | —             | —                            |
| 06/14/2003    | 06/30/2003    | 759                 | 19.1             | E0.010                             | —              | —                              | —             | —             | —                            |
| 06/26/2003    | 06/30/2003    | 759                 | 19.2             | E0.014                             | —              | —                              | —             | —             | —                            |

**Table 21B.** Quality-control results for volatile organic compounds with low breakthrough volumes in travel blanks for air samples collected at the Sweetwater Reservoir Atmospheric site, San Diego County, California.—Continued

[Concentrations are given in parts per billion by volume (ppbv). Sample volume for quality assurance travel blank is 1.5 liters. Dates are in month/day/year format. Pairs of samples analyzed on the same date had been frozen and stored at the laboratory before analysis. Samples were processed at 20.0 degrees Celsius and 760 millimeters of mercury. mm of Hg, millimeters of mercury; —, compound not detected at a concentration above laboratory reporting level; °C, degree Celsius; E, estimated value; NA, not analyzed]

| Sampling date | Analyzed date | Pressure (mm of Hg) | Temperature (°C) | Dichloro-difluoro-methane (CFC-12) | Chloro-methane | Chloro-ethene (vinyl chloride) | Bromo-methane | Chloro-ethane | Bromo-ethene (vinyl bromide) |
|---------------|---------------|---------------------|------------------|------------------------------------|----------------|--------------------------------|---------------|---------------|------------------------------|
| 07/09/2003    | 07/25/2003    | 758                 | 18.8             | E0.040                             | —              | —                              | —             | —             | —                            |
| 07/20/2003    | 07/25/2003    | 761                 | 22.9             | E0.017                             | —              | —                              | —             | —             | —                            |
| 08/01/2003    | 08/15/2003    | 762                 | 23.0             | E0.047                             | —              | —                              | —             | —             | —                            |
| 08/13/2003    | 08/15/2003    | 758                 | 23.6             | E0.013                             | —              | —                              | —             | —             | —                            |
| 08/25/2003    | 09/02/2003    | 759                 | 23.0             | E0.011                             | —              | —                              | —             | —             | —                            |
| 09/06/2003    | 09/29/2003    | 759                 | 24.4             | E0.018                             | —              | —                              | —             | —             | —                            |
| 09/18/2003    | 09/29/2003    | 757                 | 19.5             | E0.013                             | —              | —                              | —             | —             | —                            |
| 09/18/2003    | 10/16/2003    | 760                 | 19.6             | E0.015                             | —              | —                              | —             | —             | —                            |

**Table 21C.** Quality-control results for volatile organic compounds with low breakthrough volumes in lot blanks processed with air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.

[Concentrations are given in parts per billion by volume (ppbv). Sample volume for the quality assurance lot blank is 1.5 liters. Dates are in month/day/year format. Pairs of samples analyzed on the same date had been frozen and stored at the laboratory before analysis. Samples were processed at 20.0 degrees Celsius and 760 millimeters of mercury. —, compound not detected at a concentration above laboratory reporting level; E, estimated value; NA, not analyzed]

| Sampling date | Analyzed date | Dichloro-difluoro-methane (CFC-12) | Chloro-methane | Chloro-ethene (vinyl chloride) | Bromo-methane | Chloro-ethane | Bromo-ethene (vinyl bromide) |
|---------------|---------------|------------------------------------|----------------|--------------------------------|---------------|---------------|------------------------------|
| 10/10/2001    | 10/26/2001    | —                                  | —              | —                              | —             | —             | —                            |
| 10/22/2001    | 10/26/2001    | E0.006                             | —              | —                              | —             | —             | —                            |
| 11/15/2001    | 11/30/2001    | E0.006                             | —              | —                              | —             | —             | —                            |
| 11/27/2001    | 11/30/2001    | E0.006                             | —              | —                              | —             | —             | —                            |
| 12/09/2001    | 12/28/2001    | —                                  | —              | —                              | —             | —             | —                            |
| 12/21/2001    | 12/28/2001    | E0.022                             | —              | —                              | —             | —             | —                            |
| 01/03/2002    | 01/22/2002    | —                                  | —              | —                              | —             | —             | —                            |
| 01/14/2002    | 01/22/2002    | —                                  | —              | —                              | —             | —             | —                            |
| 01/28/2002    | 02/15/2002    | E0.017                             | —              | —                              | —             | —             | —                            |
| 02/07/2002    | 02/15/2002    | E0.014                             | —              | —                              | 0.704         | —             | E0.017                       |
| 02/19/2002    | 03/08/2002    | E0.008                             | —              | —                              | E0.098        | —             | —                            |
| 03/03/2002    | 03/08/2002    | E0.011                             | —              | —                              | E0.217        | —             | —                            |
| 03/27/2002    | 05/10/2002    | E0.046                             | —              | —                              | E0.222        | —             | —                            |
| 04/20/2002    | 05/10/2002    | E0.033                             | —              | —                              | E0.188        | —             | —                            |
| 05/14/2002    | 05/31/2002    | —                                  | —              | —                              | —             | —             | —                            |
| 05/26/2002    | 05/31/2002    | E0.007                             | 0.906          | —                              | —             | —             | —                            |
| 06/07/2002    | 06/28/2002    | —                                  | —              | —                              | —             | —             | —                            |
| 06/19/2002    | 06/28/2002    | E0.006                             | —              | —                              | —             | —             | —                            |
| 07/01/2002    | 07/19/2002    | E0.010                             | —              | —                              | —             | —             | —                            |
| 07/13/2002    | 07/19/2002    | E0.032                             | —              | —                              | —             | —             | —                            |
| 07/25/2002    | 08/08/2002    | E0.018                             | —              | —                              | —             | —             | —                            |
| 08/06/2002    | 08/08/2002    | E0.006                             | —              | —                              | —             | —             | —                            |
| 08/18/2002    | 09/06/2002    | —                                  | —              | —                              | —             | —             | —                            |
| 08/30/2002    | 09/06/2002    | E0.010                             | —              | —                              | —             | —             | —                            |
| 09/11/2002    | 09/27/2002    | E0.010                             | —              | —                              | —             | —             | —                            |
| 09/23/2002    | 09/27/2002    | E0.009                             | —              | —                              | —             | —             | —                            |
| 10/05/2002    | 10/24/2002    | —                                  | —              | —                              | —             | —             | —                            |
| 10/17/2002    | 10/24/2002    | E0.015                             | —              | —                              | —             | —             | —                            |
| 10/29/2002    | 11/13/2002    | —                                  | —              | —                              | —             | —             | —                            |
| 11/10/2002    | 11/13/2002    | E0.005                             | —              | —                              | —             | —             | —                            |
| 11/22/2002    | 12/13/2002    | —                                  | —              | —                              | —             | —             | —                            |
| 12/04/2002    | 12/13/2002    | E0.009                             | —              | —                              | —             | —             | —                            |
| 01/20/2003    | 02/07/2003    | —                                  | —              | —                              | —             | —             | —                            |
| 02/04/2003    | 02/07/2003    | E0.005                             | —              | —                              | —             | —             | —                            |
| 02/14/2003    | 03/07/2003    | E0.052                             | —              | —                              | —             | —             | —                            |
| 02/14/2003    | 03/07/2003    | E0.052                             | —              | —                              | —             | —             | —                            |
| 02/26/2003    | 03/07/2003    | E0.025                             | —              | —                              | —             | —             | —                            |
| 03/10/2003    | 03/28/2003    | E0.006                             | —              | —                              | —             | —             | —                            |
| 03/22/2003    | 03/28/2003    | E0.006                             | —              | —                              | —             | —             | —                            |
| 04/03/2003    | 04/18/2003    | —                                  | —              | —                              | —             | —             | —                            |
| 04/15/2003    | 04/18/2003    | NA                                 | NA             | NA                             | NA            | NA            | NA                           |
| 05/09/2003    | 05/15/2003    | —                                  | —              | —                              | —             | —             | —                            |
| 05/21/2003    | 06/06/2003    | E0.026                             | —              | —                              | —             | —             | —                            |
| 06/02/2003    | 06/06/2003    | E0.054                             | —              | —                              | —             | —             | —                            |
| 06/14/2003    | 06/30/2003    | —                                  | —              | —                              | —             | —             | —                            |
| 06/26/2003    | 06/30/2003    | E0.027                             | —              | —                              | —             | —             | —                            |

**Table 21C.** Quality-control results for volatile organic compounds with low breakthrough volumes in lot blanks processed with air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[Concentrations are given in parts per billion by volume (ppbv). Sample volume for the quality assurance lot blank is 1.5 liters. Dates are in month/day/year format. Pairs of samples analyzed on the same date had been frozen and stored at the laboratory before analysis. Samples were processed at 20.0 degrees Celsius and 760 millimeters of mercury. —, compound not detected at a concentration above laboratory reporting level; E, estimated value; NA, not analyzed]

| <b>Sampling date</b> | <b>Analyzed date</b> | <b>Dichloro-difluoro-methane (CFC-12)</b> | <b>Chloro-methane</b> | <b>Chloro-ethene (vinyl chloride)</b> | <b>Bromo-methane</b> | <b>Chloro-ethane</b> | <b>Bromo-ethene (vinyl bromide)</b> |
|----------------------|----------------------|---|-----------------------|---------------------------------------|----------------------|----------------------|-------------------------------------|
| 07/09/2003           | 07/25/2003           | —   | —                     | —                                     | —                    | —                    | —                                   |
| 07/20/2003           | 07/25/2003           | E0.027                                    | —                     | —                                     | —                    | —                    | —                                   |
| 08/01/2003           | 08/15/2003           | E0.016                                    | —                     | —                                     | —                    | —                    | —                                   |
| 08/13/2003           | 08/15/2003           | E0.016                                    | —                     | —                                     | —                    | —                    | —                                   |
| 08/25/2003           | 09/02/2003           | E0.022                                    | —                     | —                                     | —                    | —                    | —                                   |
| 09/06/2003           | 09/29/2003           | E0.013                                    | —                     | —                                     | —                    | —                    | —                                   |
| 09/18/2003           | 09/29/2003           | E0.011                                    | —                     | —                                     | —                    | —                    | —                                   |
| 09/18/2003           | 10/16/2003           | E0.006                                    | —                     | —                                     | —                    | —                    | —                                   |

**Table 21D.** Quality-control results for volatile organic compounds with low breakthrough volumes in laboratory blanks for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.

[Concentrations are given in parts per billion by volume (ppbv). Sample volume for quality assurance laboratory blank is 1.5 liters. Dates are in month/day/year format. Pairs of samples analyzed on the same date had been frozen and stored at the laboratory before analysis. Samples were processed at 20.0 degrees Celsius and 760 millimeters of mercury. —, compound not detected at a concentration above laboratory reporting level; E, estimated value; NA, not analyzed]

| Sampling date | Analyzed date | Dichloro-difluoro-methane (CFC-12) | Chloro-methane | Chloroethene (vinyl chloride) | Bromo-methane | Chloro-ethane | Bromo-ethene (vinyl bromide) |
|---------------|---------------|------------------------------------|----------------|-------------------------------|---------------|---------------|------------------------------|
| 10/10/2001    | 10/26/2001    | E0.010                             | —              | —                             | —             | —             | —                            |
| 10/22/2001    | 10/26/2001    | E0.008                             | —              | —                             | —             | —             | —                            |
| 11/15/2001    | 11/30/2001    | E0.013                             | —              | —                             | —             | —             | —                            |
| 11/27/2001    | 11/30/2001    | E0.010                             | —              | —                             | —             | —             | —                            |
| 12/09/2001    | 12/28/2001    | E0.031                             | —              | —                             | —             | —             | —                            |
| 12/21/2001    | 12/28/2001    | E0.010                             | —              | —                             | —             | —             | —                            |
| 01/03/2002    | 01/22/2002    | NA                                 | NA             | NA                            | NA            | NA            | NA                           |
| 01/14/2002    | 01/22/2002    | NA                                 | NA             | NA                            | NA            | NA            | NA                           |
| 01/28/2002    | 02/15/2002    | E0.008                             | —              | —                             | 0.600         | —             | —                            |
| 02/07/2002    | 02/15/2002    | E0.005                             | —              | —                             | E0.427        | —             | E0.081                       |
| 02/19/2002    | 03/08/2002    | E0.016                             | —              | —                             | E0.400        | —             | —                            |
| 03/03/2002    | 03/08/2002    | E0.011                             | —              | —                             | E0.250        | —             | —                            |
| 03/27/2002    | 05/10/2002    | E0.088                             | —              | —                             | 0.849         | —             | —                            |
| 04/20/2002    | 05/10/2002    | E0.034                             | —              | —                             | E0.276        | —             | —                            |
| 05/14/2002    | 05/31/2002    | E0.007                             | 2.03           | —                             | —             | —             | —                            |
| 05/26/2002    | 05/31/2002    | E0.008                             | 1.74           | —                             | —             | —             | —                            |
| 06/07/2002    | 06/28/2002    | E0.011                             | —              | —                             | —             | —             | —                            |
| 06/19/2002    | 06/28/2002    | E0.009                             | —              | —                             | —             | —             | —                            |
| 07/01/2002    | 07/19/2002    | E0.016                             | —              | —                             | —             | —             | —                            |
| 07/13/2002    | 07/19/2002    | E0.012                             | —              | —                             | —             | —             | —                            |
| 07/25/2002    | 08/08/2002    | E0.010                             | —              | —                             | —             | —             | —                            |
| 08/06/2002    | 08/08/2002    | E0.007                             | —              | —                             | —             | —             | —                            |
| 08/18/2002    | 09/06/2002    | E0.010                             | —              | —                             | —             | —             | —                            |
| 08/30/2002    | 09/06/2002    | E0.008                             | —              | —                             | —             | —             | —                            |
| 09/11/2002    | 09/27/2002    | E0.010                             | —              | —                             | —             | —             | —                            |
| 09/23/2002    | 09/27/2002    | E0.008                             | —              | —                             | —             | —             | —                            |
| 10/05/2002    | 10/24/2002    | E0.010                             | —              | —                             | —             | —             | —                            |
| 10/17/2002    | 10/24/2002    | E0.024                             | —              | —                             | —             | —             | —                            |
| 10/29/2002    | 11/13/2002    | E0.010                             | —              | —                             | —             | —             | —                            |
| 11/10/2002    | 11/13/2002    | E0.010                             | —              | —                             | —             | —             | —                            |
| 11/22/2002    | 12/13/2002    | E0.009                             | —              | —                             | —             | —             | —                            |
| 12/04/2002    | 12/13/2002    | E0.007                             | —              | —                             | —             | —             | —                            |
| 01/20/2003    | 02/07/2003    | E0.010                             | —              | —                             | —             | —             | —                            |
| 02/04/2003    | 02/07/2003    | E0.010                             | —              | —                             | —             | —             | —                            |
| 02/14/2003    | 03/07/2003    | E0.012                             | —              | —                             | —             | —             | —                            |
| 02/14/2003    | 03/07/2003    | E0.012                             | —              | —                             | —             | —             | —                            |
| 02/26/2003    | 03/07/2003    | E0.013                             | —              | —                             | —             | —             | —                            |
| 03/10/2003    | 03/28/2003    | E0.007                             | —              | —                             | —             | —             | —                            |
| 03/22/2003    | 03/28/2003    | —                                  | —              | —                             | —             | —             | —                            |
| 04/03/2003    | 04/18/2003    | E0.007                             | —              | —                             | —             | —             | —                            |
| 04/15/2003    | 04/18/2003    | NA                                 | NA             | NA                            | —             | —             | NA                           |
| 05/09/2003    | 05/15/2003    | —                                  | —              | —                             | —             | —             | —                            |
| 05/21/2003    | 06/06/2003    | E0.040                             | —              | —                             | —             | —             | —                            |
| 06/02/2003    | 06/06/2003    | E0.046                             | —              | —                             | —             | —             | —                            |
| 06/14/2003    | 06/30/2003    | —                                  | —              | —                             | —             | —             | —                            |
| 06/26/2003    | 06/30/2003    | E0.009                             | —              | —                             | —             | —             | —                            |
| 07/09/2003    | 07/25/2003    | E0.072                             | —              | —                             | —             | —             | —                            |



**Table 21D.** Quality-control results for volatile organic compounds with low breakthrough volumes in laboratory blanks for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[Concentrations are given in parts per billion by volume (ppbv). Sample volume for quality assurance laboratory blank is 1.5 liters. Dates are in month/day/year format. Pairs of samples analyzed on the same date had been frozen and stored at the laboratory before analysis. Samples were processed at 20.0 degrees Celsius and 760 millimeters of mercury. —, compound not detected at a concentration above laboratory reporting level; E, estimated value; NA, not analyzed]

| Sampling date | Analyzed date | Dichloro-difluoro-methane (CFC-12) | Chloro-methane | Chloroethene (vinyl chloride) | Bromo-methane | Chloro-ethane | Bromo-ethene (vinyl bromide) |
|---------------|---------------|------------------------------------|----------------|-------------------------------|---------------|---------------|------------------------------|
| 07/20/2003    | 07/25/2003    | E0.015                             | —              | —                             | —             | —             | —                            |
| 08/01/2003    | 08/15/2003    | E0.010                             | —              | —                             | —             | —             | —                            |
| 08/13/2003    | 08/15/2003    | E0.009                             | —              | —                             | —             | —             | —                            |
| 08/25/2003    | 09/2/2003     | E0.010                             | —              | —                             | —             | —             | —                            |
| 09/06/2003    | 09/29/2003    | E0.014                             | —              | —                             | —             | —             | —                            |
| 09/18/2003    | 09/29/2003    | E0.011                             | —              | —                             | —             | —             | —                            |
| 09/18/2003    | 10/16/2003    | E0.010                             | —              | —                             | —             | —             | —                            |

**Table 22A.** Quality-control results for volatile organic compounds with high breakthrough volumes in laboratory spikes for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.

[Values are given in percent recovery. Sample volume for quality assurance spike is 5 liters. Samples were processed at 20.0 degrees Celsius and 760 millimeters of mercury. Dates are in month/day/year format]

| Sampling date | Analyzed date | Dibromo-methane | Bromo-dichloro-methane | Carbon tetra-chloride | 1,2-Dichloro-ethane | Bromo-form | Dibromo-chloro-methane | Chloroform |
|---------------|---------------|-----------------|------------------------|-----------------------|---------------------|------------|------------------------|------------|
| 12/09/2001    | 12/28/2001    | 78.3            | 86.6                   | 129                   | 75.3                | 103        | 99.1                   | 70.4       |
| 06/07/2002    | 06/28/2002    | 70.7            | 99.6                   | 109                   | 128                 | 97.2       | 104                    | 124        |
| 07/25/2002    | 08/08/2002    | 125             | 93.9                   | 95.4                  | 75.3                | 75.2       | 105                    | 66.5       |
| 10/05/2002    | 10/24/2002    | 66.5            | 108                    | 94.3                  | 96.6                | 99.3       | 107                    | 73.1       |
| 02/14/2003    | 03/07/2003    | 71.6            | 84.2                   | 71.7                  | 70.6                | 84.7       | 93.5                   | 85.8       |

| Sampling date | Analyzed date | Toluene | Benzene | 2-Propene-nitrile (Acrylonitrile) | Chloro-benzene | Ethyl-benzene | Hexachloro-ethane | Methylene chloride |
|---------------|---------------|---------|---------|-----------------------------------|----------------|---------------|-------------------|--------------------|
| 12/09/2001    | 12/28/2001    | 106     | 103     | 98.6                              | 69.5           | 96.0          | 75.9              | 88.0               |
| 06/07/2002    | 06/28/2002    | 109     | 95.7    | 96.9                              | 95.1           | 111           | 87.9              | 91.5               |
| 07/25/2002    | 08/08/2002    | 72.4    | 65.7    | 103                               | 91.2           | 106           | 85.8              | 92.3               |
| 10/05/2002    | 10/24/2002    | 63.9    | 98.5    | 107                               | 109            | 100           | 87.4              | 109                |
| 02/14/2003    | 03/07/2003    | 89.2    | 72.6    | 89.8                              | 76.1           | 98.2          | 76.8              | 87.6               |

| Sampling date | Analyzed date | Tetra-chloro-ethene (PCE) | 1,1-Dichloro-ethane | 1,1-Dichloro-ethene | 1,1,1-Trichloro-ethane | 1,1,2-Trichloro-ethane | 1,1,2,2-Tetrachloro-ethane | 1,2-Dichloro-benzene |
|---------------|---------------|---------------------------|---------------------|---------------------|------------------------|------------------------|----------------------------|----------------------|
| 12/09/2001    | 12/28/2001    | 97.5                      | 97.4                | 112                 | 93.5                   | 67.0                   | 78.7                       | 67.8                 |
| 06/07/2002    | 06/28/2002    | 97.3                      | 101                 | 116                 | 99.5                   | 85.2                   | 90.9                       | 94.8                 |
| 07/25/2002    | 08/08/2002    | 101                       | 106                 | 79.4                | 103                    | 73.3                   | 70.9                       | 91.4                 |
| 10/05/2002    | 10/24/2002    | 122                       | 108                 | 72.7                | 108                    | 76.7                   | 85.1                       | 113                  |
| 02/14/2003    | 03/07/2003    | 89.2                      | 90.3                | 103                 | 90.6                   | 73.4                   | 73.3                       | 85.5                 |

| Sampling date | Analyzed date | 1,2-Dichloro-propane | trans-1,2-Dichloro-ethene | 1,2,4-Trichloro-benzene | 1,3-Dichloro-benzene | 1,4-Dichloro-benzene | Naphthalene | trans-1,3-Dichloro-propene |
|---------------|---------------|----------------------|---------------------------|-------------------------|----------------------|----------------------|-------------|----------------------------|
| 12/09/2001    | 12/28/2001    | 75.5                 | 72.3                      | 89.2                    | 90.5                 | 91.2                 | 94.8        | 98.4                       |
| 06/07/2002    | 06/28/2002    | 105                  | 123                       | 91.7                    | 90.4                 | 95.7                 | 69.7        | 99.7                       |
| 07/25/2002    | 08/08/2002    | 103                  | 85.2                      | 99.0                    | 104                  | 107                  | 104         | 113                        |
| 10/05/2002    | 10/24/2002    | 118                  | 87.4                      | 107                     | 107                  | 110                  | 121         | 122                        |
| 02/14/2003    | 03/07/2003    | 84.2                 | 80.8                      | 87.2                    | 89.2                 | 88.5                 | 95.7        | 97.5                       |

| Sampling date | Analyzed date | cis-1,3-Dichloro-propene | Trichloro-ethene (TCE) | Methyl methacrylate | 1,2,3,4-Tetra-methyl-benzene | Ethyl tert-butyl ether (ETBE) | tert-Amyl methyl ether (TAME) | trans-1,4-Dichloro-2-butene |
|---------------|---------------|--------------------------|------------------------|---------------------|------------------------------|-------------------------------|-------------------------------|-----------------------------|
| 12/09/2001    | 12/28/2001    | 71.6                     | 82.0                   | 72.1                | 93.8                         | 70.5                          | 85.6                          | 62.6                        |
| 06/07/2002    | 06/28/2002    | 99.7                     | 101                    | 93.5                | 122                          | 76.2                          | 107                           | 68.4                        |
| 07/25/2002    | 08/08/2002    | 99.0                     | 96.9                   | 107                 | 103                          | 108                           | 82.2                          | 105                         |
| 10/05/2002    | 10/24/2002    | 116                      | 103                    | 109                 | 110                          | 113                           | 92.9                          | 112                         |
| 02/14/2003    | 03/07/2003    | 72.9                     | 91.0                   | 91.2                | 94.9                         | 95.2                          | 75.9                          | 94.7                        |

**Table 22A.** Quality-control results for volatile organic compounds with high breakthrough volumes in laboratory spikes for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[Values are given in percent recovery. Sample volume for quality assurance spike is 5 liters. Samples were processed at 20.0 degrees Celsius and 760 millimeters of mercury. Dates are in month/day/year format]

| Sampling date | Analyzed date | Ethyl methacrylate | Hexachlorobutadiene | Carbon disulfide | <i>cis</i> -1,2-Dichloroethene | 2-Hexanone (MBK) | Ethenylbenzene (Styrene) | <i>o</i> -Xylene |
|---------------|---------------|--------------------|---------------------|------------------|--------------------------------|------------------|--------------------------|------------------|
| 12/09/2001    | 12/28/2001    | 94.8               | 76.9                | 78.5             | 97.4                           | 73.0             | 106                      | 99.8             |
| 06/07/2002    | 06/28/2002    | 97.4               | 60.5                | 92.8             | 100                            | 97.3             | 126                      | 98.3             |
| 07/25/2002    | 08/08/2002    | 101                | 97.7                | 111              | 106                            | 106              | 65.0                     | 101              |
| 10/05/2002    | 10/24/2002    | 113                | 106                 | 110              | 105                            | 107              | 75.6                     | 108              |
| 02/14/2003    | 03/07/2003    | 96.6               | 92.8                | 91.7             | 89.5                           | 89.0             | 82.0                     | 97.7             |

| Sampling date | Analyzed date | 1,1-Dichloropropene | 2,2-Dichloropropane | 1,3-Dichloropropane | 2-Ethyltoluene | 1,2,3-Tri-methylbenzene | 1,2,4-Tri-methylbenzene | Isopropylbenzene (Cumene) |
|---------------|---------------|---------------------|---------------------|---------------------|----------------|-------------------------|-------------------------|---------------------------|
| 12/09/2001    | 12/28/2001    | 71.7                | 75.8                | 93.9                | 95.2           | 96.7                    | 91.2                    | 90.1                      |
| 06/07/2002    | 06/28/2002    | 66.1                | 88.2                | 105                 | 87.8           | 103                     | 89.2                    | 86.8                      |
| 07/25/2002    | 08/08/2002    | 114                 | 101                 | 111                 | 111            | 109                     | 92.5                    | 91.9                      |
| 10/05/2002    | 10/24/2002    | 125                 | 99.8                | 109                 | 115            | 107                     | 96.2                    | 94.3                      |
| 02/14/2003    | 03/07/2003    | 101                 | 84.2                | 91.4                | 95.1           | 92.5                    | 83.6                    | 83.0                      |

| Sampling date | Analyzed date | <i>n</i> -propylbenzene | 1,3,5-Tri-methylbenzene | 1-Chloro-2-methylbenzene | 1-Chloro-4-methylbenzene | Bromo-chloromethane | <i>n</i> -Butylbenzene | <i>sec</i> -Butylbenzene |
|---------------|---------------|-------------------------|-------------------------|--------------------------|--------------------------|---------------------|------------------------|--------------------------|
| 12/09/2001    | 12/28/2001    | 82.6                    | 92.7                    | 90.5                     | 90.9                     | 85.3                | 84.0                   | 90.9                     |
| 06/07/2002    | 06/28/2002    | 58.1                    | 92.0                    | 61.5                     | 91.8                     | 90.4                | 60.7                   | 90.4                     |
| 07/25/2002    | 08/08/2002    | 92.1                    | 95.8                    | 106                      | 92.6                     | 98.6                | 79.3                   | 89.9                     |
| 10/05/2002    | 10/24/2002    | 113                     | 98.0                    | 100                      | 97.5                     | 102                 | 88.0                   | 96.3                     |
| 02/14/2003    | 03/07/2003    | 85.7                    | 85.9                    | 78.6                     | 85.1                     | 84.8                | 69.7                   | 84.7                     |

| Sampling date | Analyzed date | <i>tert</i> -Butylbenzene | 1-Isopropyl-4-methylbenzene | 1,2,3-Tri-chloropropane | 1,1,1,2-Tetra-chloroethane | 1,2,3-Tri-chlorobenzene | 1,2-Dibromoethane | Methyl <i>tert</i> -butyl ether (MTBE) |
|---------------|---------------|---------------------------|-----------------------------|-------------------------|----------------------------|-------------------------|-------------------|--|
| 12/09/2001    | 12/28/2001    | 91.5                      | 91.2                        | 90.7                    | 91.8                       | 93.5                    | 93.4              | 97.2                                   |
| 06/07/2002    | 06/28/2002    | 89.9                      | 92.2                        | 90.5                    | 92.4                       | 95.6                    | 94.1              | 89.7                                   |
| 07/25/2002    | 08/08/2002    | 93.0                      | 95.8                        | 94.2                    | 96.1                       | 97.8                    | 95.4              | 100                                    |
| 10/05/2002    | 10/24/2002    | 98.1                      | 98.8                        | 97.1                    | 97.2                       | 100                     | 101               | 105                                    |
| 02/14/2003    | 03/07/2003    | 85.1                      | 87.7                        | 84.3                    | 85.6                       | 86.1                    | 86.1              | 86.9                                   |

| Sampling date | Analyzed date | 3-Chloro-1-propene | 4-Methyl-2-pentanone (MIBK) | Acetone | Bromo-benzene | Diethyl ether | Diisopropyl ether (DIPE) | Methyl acrylonitrile |
|---------------|---------------|--------------------|-----------------------------|---------|---------------|---------------|--------------------------|----------------------|
| 12/09/2001    | 12/28/2001    | 93.3               | 91.8                        | 92.4    | 89.7          | 94.9          | 94.9                     | 94.3                 |
| 06/07/2002    | 06/28/2002    | 97.5               | 94.2                        | 94.2    | 92.2          | 95.6          | 92.7                     | 93.4                 |
| 07/25/2002    | 08/08/2002    | 100                | 98.2                        | 81.6    | 79.5          | 85.0          | 82.0                     | 82.4                 |
| 10/05/2002    | 10/24/2002    | 99.2               | 99.5                        | 95.2    | 96.4          | 99.9          | 98.9                     | 99.3                 |
| 02/14/2003    | 03/07/2003    | 82.6               | 87.5                        | 82.8    | 83.7          | 83.7          | 84.1                     | 82.7                 |

**Table 22A.** Quality-control results for volatile organic compounds with high breakthrough volumes in laboratory spikes for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[Values are given in percent recovery. Sample volume for quality assurance spike is 5 liters. Samples were processed at 20.0 degrees Celsius and 760 millimeters of mercury. Dates are in month/day/year format]

| Sampling date | Analyzed date | 2-Butanone<br>(Methyl ethyl<br>ketone) | Methyl<br>acrylate | Tetra-<br>hydrofuran | 1,2-Dibromo-<br>3-chloro-<br>propane<br>(DBCP) | <i>m</i> and <i>p</i> -<br>Xylene | 1,2,3,5-Tetra-<br>methyl-<br>benzene | 1,2,4,5-Tetra-<br>methyl-<br>benzene |
|---------------|---------------|--|--------------------|----------------------|--|-----------------------------------|--------------------------------------|--------------------------------------|
| 12/09/2001    | 12/28/2001    | 98.7                                   | 110                | 97.4                 | 112  | 113                               | 119                                  | 113                                  |
| 06/07/2002    | 06/28/2002    | 94.6                                   | 81.7               | 73.3                 | 95.2   | 97.6                              | 93.9                                 | 89.7                                 |
| 07/25/2002    | 08/08/2002    | 88.3                                   | 85.3               | 71.8                 | 92.2   | 91.3                              | 95.0                                 | 97.9                                 |
| 10/05/2002    | 10/24/2002    | 103                                    | 77.1               | 101                  | 100  | 103                               | 102                                  | 108                                  |
| 02/14/2003    | 03/07/2003    | 86.0                                   | 79.7               | 79.8                 | 92.1   | 91.8                              | 88.8                                 | 91.5                                 |

| Sampling date | Analyzed date | Methyl<br>acetate | <i>tert</i> -Amyl<br>alcohol | <i>tert</i> -Butyl<br>alcohol |
|---------------|---------------|-------------------|------------------------------|-------------------------------|
| 12/09/2001    | 12/28/2001    | 114               | 110                          | 115                           |
| 06/07/2002    | 06/28/2002    | 87.8              | 93.8                         | 85.7                          |
| 07/25/2002    | 08/08/2002    | 99.3              | 98.4                         | 102                           |
| 10/05/2002    | 10/24/2002    | 110               | 111                          | 117                           |
| 02/14/2003    | 03/07/2003    | 92.1              | 91.4                         | 95.0                          |

**Table 22B.** Quality-control results for volatile organic compounds with high breakthrough volumes in travel blanks for air samples collected at Sweetwater Reservoir atmospheric site at Sweetwater Dam, San Diego County, California.

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). Sample volume for quality assurance travel blank is 5.0 liters. Dates are in month/day/year format. Pairs of samples analyzed on the same date had been frozen and stored at the laboratory before analysis. °C, degree Celsius; —, compound not detected at a concentration above laboratory reporting level. NA, not analyzed]

| Sampling date | Analyzed date | Pressure (mm of Hg) | Temperature (°C) | Bromo-dichloro-methane | Chloroform | Toluene | Benzene | 2-Propene-nitrile (acrylonitrile) | Chloro-benzene | Ethyl-benzene | Methylene chloride |
|---------------|---------------|---------------------|------------------|------------------------|------------|---------|---------|-----------------------------------|----------------|---------------|--------------------|
| 10/10/01      | 10/26/01      | 754                 | 18.8             | NA                     | NA         | NA      | NA      | NA                                | NA             | NA            | NA                 |
| 10/22/01      | 10/26/01      | 753                 | 17.8             | NA                     | NA         | NA      | NA      | NA                                | NA             | NA            | NA                 |
| 11/15/01      | 11/30/01      | 753                 | 15.7             | —                      | —          | E0.01   | E0.10   | —                                 | —              | E0.01         | —                  |
| 11/27/01      | 11/30/01      | 755                 | 11.2             | —                      | E0.03      | E0.03   | E0.12   | —                                 | —              | E0.01         | E0.03              |
| 12/09/01      | 12/28/01      | 752                 | 12.3             | NA                     | NA         | NA      | NA      | NA                                | NA             | NA            | NA                 |
| 12/21/01      | 12/28/01      | 758                 | 11.4             | —                      | —          | E0.01   | 0.21    | —                                 | —              | —             | NA                 |
| 01/03/02      | 01/22/02      | 757                 | 11.9             | —                      | —          | E0.01   | 0.39    | E0.04                             | —              | —             | E0.05              |
| 01/14/02      | 01/22/02      | 753                 | 10.6             | —                      | —          | E0.02   | 0.33    | E0.02                             | —              | —             | E0.01              |
| 01/28/02      | 02/15/02      | 754                 | 10.6             | —                      | —          | 0.15    | 0.33    | E0.01                             | E0.01          | E0.03         | E0.04              |
| 02/07/02      | 02/15/02      | 761                 | 10.2             | —                      | —          | —       | 0.44    | —                                 | —              | —             | —                  |
| 02/19/02      | 03/08/02      | 760                 | 10.9             | —                      | —          | E0.02   | 0.30    | E0.02                             | —              | E0.01         | —                  |
| 03/03/02      | 03/08/02      | 761                 | 13.9             | —                      | —          | E0.02   | 0.31    | E0.03                             | —              | E0.01         | —                  |
| 03/27/02      | 05/10/02      | 755                 | 12.5             | —                      | —          | E0.01   | 0.19    | E0.02                             | —              | E0.01         | E0.01              |
| 04/20/02      | 05/10/02      | 755                 | 14.1             | —                      | —          | E0.01   | E0.10   | —                                 | —              | E0.01         | —                  |
| 05/14/02      | 05/31/02      | 751                 | 17.0             | —                      | —          | E0.01   | E0.05   | —                                 | —              | —             | —                  |
| 05/26/02      | 05/31/02      | 753                 | 13.4             | —                      | —          | E0.01   | 0.13    | —                                 | —              | —             | —                  |
| 06/07/02      | 06/28/02      | 750                 | 16.2             | —                      | —          | E0.01   | E0.10   | —                                 | —              | —             | —                  |
| 06/19/02      | 06/28/02      | 749                 | 16.3             | —                      | —          | E0.01   | E0.06   | —                                 | —              | —             | —                  |
| 07/01/02      | 07/19/02      | 753                 | 16.9             | —                      | —          | E0.02   | E0.07   | —                                 | E0.01          | E0.01         | —                  |
| 07/13/02      | 07/19/02      | 751                 | 18.1             | —                      | —          | E0.01   | E0.12   | —                                 | E0.01          | E0.01         | —                  |
| 07/25/02      | 08/08/02      | 754                 | 18.7             | —                      | —          | E0.01   | E0.10   | —                                 | —              | —             | —                  |
| 08/06/02      | 08/08/02      | 753                 | 17.2             | —                      | —          | E0.01   | E0.06   | —                                 | —              | —             | —                  |
| 08/18/02      | 09/06/02      | 752                 | 18.5             | —                      | —          | E0.01   | E0.06   | —                                 | —              | E0.01         | —                  |
| 08/30/02      | 09/06/02      | 751                 | 20.8             | —                      | —          | E0.01   | E0.08   | —                                 | —              | E0.01         | —                  |
| 09/11/02      | 09/27/02      | 750                 | 21.8             | —                      | —          | E0.01   | 0.16    | E0.01                             | —              | E0.01         | —                  |
| 09/23/02      | 09/27/02      | 749                 | 22.7             | NA                     | NA         | NA      | NA      | NA                                | NA             | NA            | NA                 |
| 10/05/02      | 10/24/02      | 752                 | 19.0             | —                      | —          | E0.01   | E0.08   | —                                 | —              | E0.01         | —                  |
| 10/17/02      | 10/24/02      | 752                 | 16.2             | —                      | —          | E0.02   | E0.09   | —                                 | —              | E0.01         | —                  |
| 10/29/02      | 11/13/02      | 752                 | 15.9             | —                      | —          | E0.01   | E0.07   | —                                 | —              | E0.01         | —                  |
| 11/10/02      | 11/13/02      | 756                 | 16.1             | —                      | —          | E0.01   | E0.06   | —                                 | —              | E0.01         | —                  |
| 11/22/02      | 12/13/02      | 755                 | 17.0             | —                      | —          | E0.02   | E0.09   | —                                 | —              | E0.01         | —                  |
| 12/04/02      | 12/13/02      | 758                 | 13.6             | —                      | —          | E0.02   | E0.06   | —                                 | —              | E0.01         | —                  |
| 01/20/03      | 02/07/03      | 758                 | 14.5             | —                      | —          | E0.01   | E0.08   | —                                 | —              | E0.01         | —                  |
| 02/04/03      | 02/07/03      | 754                 | 13.8             | —                      | —          | E0.02   | E0.06   | —                                 | —              | E0.01         | —                  |
| 02/14/03      | 03/07/03      | 753                 | 14.9             | —                      | —          | E0.03   | 0.41    | E0.04                             | —              | E0.01         | —                  |
| 02/14/03      | 03/07/03      | NA                  |                  | E0.01                  | —          | —       | —       | —                                 | —              | —             | —                  |
| 02/26/03      | 03/07/03      | 752                 | 12.6             | —                      | —          | E0.01   | E0.08   | E0.01                             | —              | E0.01         | —                  |
| 03/10/03      | 03/28/03      | 753                 | 15.0             | —                      | —          | E0.02   | E0.07   | —                                 | —              | —             | —                  |
| 03/22/03      | 03/28/03      | 756                 | 15.4             | —                      | —          | E0.02   | 0.18    | —                                 | —              | —             | —                  |
| 04/03/03      | 04/18/03      | 757                 | 12.4             | —                      | —          | E0.02   | 0.15    | —                                 | —              | —             | —                  |
| 04/15/03      | 04/18/03      | 757                 | 12.6             | —                      | —          | E0.01   | 0.21    | —                                 | —              | —             | —                  |
| 05/09/03      | 05/15/03      | 762                 | 13.8             | —                      | —          | E0.01   | E0.08   | —                                 | —              | —             | —                  |
| 05/21/03      | 06/06/03      | 758                 | 20.2             | —                      | —          | E0.01   | E0.10   | —                                 | —              | E0.01         | —                  |
| 06/02/03      | 06/06/03      | 758                 | 16.4             | —                      | —          | E0.01   | E0.09   | —                                 | —              | E0.01         | —                  |
| 06/14/03      | 06/30/03      | 759                 | 19.1             | —                      | —          | —       | E0.05   | —                                 | —              | E0.01         | —                  |
| 06/26/03      | 06/30/03      | 759                 | 19.2             | —                      | —          | E0.01   | E0.08   | —                                 | —              | —             | —                  |
| 07/09/03      | 07/25/03      | 758                 | 18.8             | —                      | —          | E0.01   | E0.09   | —                                 | —              | —             | —                  |
| 07/20/03      | 07/25/03      | 761                 | 22.9             | —                      | —          | E0.01   | E0.12   | —                                 | —              | —             | —                  |
| 08/01/03      | 08/15/03      | 762                 | 23.0             | —                      | —          | E0.01   | E0.07   | —                                 | —              | —             | —                  |
| 08/13/03      | 08/15/03      | 758                 | 23.6             | —                      | —          | E0.01   | 0.17    | —                                 | —              | —             | —                  |
| 08/25/03      | 09/02/03      | 759                 | 23.0             | —                      | —          | E0.03   | E0.09   | —                                 | —              | E0.01         | —                  |
| 09/06/03      | 09/29/03      | 759                 | 24.4             | —                      | —          | E0.01   | E0.11   | —                                 | —              | —             | —                  |
| 09/18/03      | 09/29/03      | 757                 | 19.5             | —                      | —          | E0.01   | E0.08   | —                                 | —              | —             | —                  |
| 09/18/03      | 10/16/03      | 760                 | 19.6             | —                      | —          | E0.02   | E0.12   | —                                 | —              | E0.01         | —                  |

**Table 22B.** Quality-control results for volatile organic compounds with high breakthrough volumes in travel blanks for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). Sample volume for quality assurance travel blank is 5.0 liters. Dates are in month/day/year format. Pairs of samples analyzed on the same date had been frozen and stored at the laboratory before analysis. °C, degree Celsius; —, compound not detected at a concentration above laboratory reporting level; NA, not analyzed]

| Sampling date | Analyzed date | 1,1-Dichloroethane | 1,1-Dichloroethene | Naphthalene | <i>trans</i> -1,3-Dichloropropene | <i>cis</i> -1,3-Dichloropropene | Trichloroethene (TCE) | Carbon disulfide | Ethynylbenzene (Styrene) | <i>o</i> -Xylene |
|---------------|---------------|--------------------|--------------------|-------------|-----------------------------------|---------------------------------|-----------------------|------------------|--------------------------|------------------|
| 10/10/01      | 10/26/01      | NA                 | NA                 | NA          | NA                                | NA                              | NA                    | NA               | NA                       | NA               |
| 10/22/01      | 10/26/01      | NA                 | NA                 | NA          | NA                                | NA                              | NA                    | NA               | NA                       | NA               |
| 11/15/01      | 11/30/01      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.01            | —                        | —                |
| 11/27/01      | 11/30/01      | —                  | —                  | —           | —                                 | —                               | —                     | E0.01            | —                        | E0.01            |
| 12/09/01      | 12/28/01      | NA                 | NA                 | NA          | NA                                | NA                              | NA                    | NA               | NA                       | NA               |
| 12/21/01      | 12/28/01      | —                  | —                  | E0.01       | —                                 | —                               | —                     | —                | —                        | —                |
| 01/03/02      | 01/22/02      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.01            | —                        | —                |
| 01/14/02      | 01/22/02      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.01            | —                        | —                |
| 01/28/02      | 02/15/02      | —                  | 0.285              | E0.03       | —                                 | —                               | —                     | E0.02            | E0.02                    | E0.04            |
| 02/07/02      | 02/15/02      | —                  | —                  | —           | —                                 | —                               | —                     | —                | —                        | —                |
| 02/19/02      | 03/08/02      | —                  | E0.04              | E0.01       | —                                 | —                               | —                     | E0.01            | E0.01                    | E0.01            |
| 03/03/02      | 03/08/02      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.02            | E0.01                    | E0.01            |
| 03/27/02      | 05/10/02      | —                  | E0.03              | E0.01       | —                                 | —                               | —                     | E0.01            | E0.01                    | —                |
| 04/20/02      | 05/10/02      | —                  | E0.01              | E0.01       | —                                 | —                               | —                     | E0.01            | E0.01                    | E0.01            |
| 05/14/02      | 05/31/02      | —                  | —                  | —           | —                                 | —                               | —                     | E0.01            | —                        | —                |
| 05/26/02      | 05/31/02      | —                  | —                  | —           | —                                 | —                               | —                     | NA               | —                        | —                |
| 06/07/02      | 06/28/02      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.01            | —                        | —                |
| 06/19/02      | 06/28/02      | —                  | —                  | —           | —                                 | —                               | —                     | —                | —                        | —                |
| 07/01/02      | 07/19/02      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.01            | E0.01                    | E0.01            |
| 07/13/02      | 07/19/02      | —                  | E0.01              | E0.01       | —                                 | —                               | —                     | E0.01            | E0.01                    | —                |
| 07/25/02      | 08/08/02      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.01            | E0.01                    | —                |
| 08/06/02      | 08/08/02      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.01            | —                        | —                |
| 08/18/02      | 09/06/02      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.01            | —                        | —                |
| 08/30/02      | 09/06/02      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.01            | —                        | —                |
| 09/11/02      | 09/27/02      | —                  | —                  | E0.01       | —                                 | —                               | —                     | —                | —                        | E0.01            |
| 09/23/02      | 09/27/02      | NA                 | NA                 | NA          | NA                                | NA                              | NA                    | NA               | NA                       | NA               |
| 10/05/02      | 10/24/02      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.01            | —                        | E0.01            |
| 10/17/02      | 10/24/02      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.01            | —                        | E0.01            |
| 10/29/02      | 11/13/02      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.01            | —                        | E0.01            |
| 11/10/02      | 11/13/02      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.01            | —                        | E0.01            |
| 11/22/02      | 12/13/02      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.01            | —                        | E0.01            |
| 12/04/02      | 12/13/02      | —                  | —                  | —           | —                                 | —                               | —                     | —                | —                        | E0.01            |
| 01/20/03      | 02/07/03      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.01            | —                        | E0.01            |
| 02/04/03      | 02/07/03      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.01            | —                        | E0.01            |
| 02/14/03      | 03/07/03      | —                  | 0.13               | E0.01       | —                                 | —                               | —                     | E0.01            | E0.01                    | E0.01            |
| 02/14/03      | 03/07/03      | 0.41               | —                  | NA          | E0.01                             | E0.01                           | E0.01                 | —                | —                        | —                |
| 02/26/03      | 03/07/03      | —                  | —                  | —           | —                                 | —                               | —                     | E0.01            | —                        | E0.01            |
| 03/10/03      | 03/28/03      | —                  | —                  | —           | —                                 | —                               | —                     | —                | —                        | —                |
| 03/22/03      | 03/28/03      | —                  | —                  | —           | —                                 | —                               | —                     | —                | —                        | —                |
| 04/03/03      | 04/18/03      | —                  | —                  | —           | —                                 | —                               | —                     | —                | —                        | —                |
| 04/15/03      | 04/18/03      | —                  | —                  | —           | —                                 | —                               | —                     | —                | —                        | —                |
| 05/09/03      | 05/15/03      | —                  | —                  | —           | —                                 | —                               | —                     | —                | —                        | —                |
| 05/21/03      | 06/06/03      | —                  | —                  | E0.01       | —                                 | —                               | —                     | E0.01            | —                        | —                |
| 06/02/03      | 06/06/03      | —                  | —                  | E0.01       | —                                 | —                               | —                     | —                | E0.01                    | E0.01            |
| 06/14/03      | 06/30/03      | —                  | —                  | —           | —                                 | —                               | —                     | E0.01            | —                        | —                |
| 06/26/03      | 06/30/03      | —                  | —                  | —           | —                                 | —                               | —                     | E0.01            | —                        | —                |
| 07/09/03      | 07/25/03      | —                  | —                  | —           | —                                 | —                               | —                     | —                | —                        | —                |
| 07/20/03      | 07/25/03      | —                  | —                  | —           | —                                 | —                               | —                     | —                | —                        | —                |
| 08/01/03      | 08/15/03      | —                  | —                  | —           | —                                 | —                               | —                     | —                | —                        | —                |
| 08/13/03      | 08/15/03      | —                  | —                  | —           | —                                 | —                               | —                     | —                | —                        | —                |
| 08/25/03      | 09/02/03      | —                  | —                  | E0.01       | —                                 | —                               | —                     | —                | —                        | E0.01            |
| 09/06/03      | 09/29/03      | —                  | —                  | —           | —                                 | —                               | —                     | E0.01            | —                        | —                |
| 09/18/03      | 09/29/03      | —                  | —                  | E0.01       | —                                 | —                               | —                     | —                | —                        | —                |
| 09/18/03      | 10/16/03      | —                  | —                  | —           | —                                 | —                               | —                     | E0.01            | E0.01                    | E0.01            |

**Table 22B.** Quality-control results for volatile organic compounds with high breakthrough volumes in travel blanks for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). Sample volume for quality assurance travel blank is 5.0 liters. Dates are in month/day/year format. Pairs of samples analyzed on the same date had been frozen and stored at the laboratory before analysis. °C, degree Celsius; —, compound not detected at a concentration above laboratory reporting level; NA, not analyzed]

| Sampling date | Analyzed date | 2-Ethyl-toluene | Methyl <i>tert</i> -butyl ether (MTBE) | 3-Chloro-1-propene | Acetone | 2-Butanone (Methyl ethyl ketone) | <i>m</i> - and <i>p</i> -Xylene | Methyl acetate | <i>tert</i> -Amyl alcohol | <i>tert</i> -Butyl alcohol |
|---------------|---------------|-----------------|--|--------------------|---------|----------------------------------|---------------------------------|----------------|---------------------------|----------------------------|
| 10/10/01      | 10/26/01      | NA              | NA                                     | NA                 | NA      | NA                               | NA                              | NA             | NA                        | NA                         |
| 10/22/01      | 10/26/01      | NA              | NA                                     | NA                 | NA      | NA                               | NA                              | NA             | NA                        | NA                         |
| 11/15/01      | 11/30/01      | —               | —                                      | —                  | 1.02    | NA                               | E0.01                           | —              | —                         | —                          |
| 11/27/01      | 11/30/01      | —               | E0.01                                  | —                  | 0.61    | 0.167                            | E0.01                           | —              | —                         | —                          |
| 12/09/01      | 12/28/01      | NA              | NA                                     | NA                 | NA      | NA                               | NA                              | NA             | NA                        | NA                         |
| 12/21/01      | 12/28/01      | —               | —                                      | —                  | 0.34    | —                                | —                               | —              | —                         | —                          |
| 01/03/02      | 01/22/02      | —               | —                                      | —                  | 0.45    | —                                | —                               | 0.27           | —                         | —                          |
| 01/14/02      | 01/22/02      | —               | —                                      | —                  | 0.48    | —                                | E0.01                           | 0.34           | —                         | —                          |
| 01/28/02      | 02/15/02      | —               | E0.11                                  | —                  | 0.60    | —                                | 0.124                           | 0.20           | —                         | —                          |
| 02/07/02      | 02/15/02      | —               | —                                      | —                  | 0.96    | —                                | —                               | —              | —                         | —                          |
| 02/19/02      | 03/08/02      | —               | —                                      | —                  | 0.49    | —                                | E0.01                           | 0.20           | —                         | —                          |
| 03/03/02      | 03/08/02      | —               | —                                      | —                  | 1.49    | —                                | E0.01                           | 0.36           | —                         | —                          |
| 03/27/02      | 05/10/02      | —               | —                                      | —                  | 0.79    | —                                | E0.01                           | E0.15          | —                         | —                          |
| 04/20/02      | 05/10/02      | —               | —                                      | —                  | 0.65    | —                                | E0.01                           | 0.30           | —                         | —                          |
| 05/14/02      | 05/31/02      | —               | —                                      | —                  | E0.16   | —                                | —                               | E0.11          | —                         | E0.01                      |
| 05/26/02      | 05/31/02      | —               | —                                      | —                  | E0.15   | —                                | —                               | E0.11          | —                         | —                          |
| 06/07/02      | 06/28/02      | —               | —                                      | —                  | 0.34    | —                                | —                               | —              | —                         | —                          |
| 06/19/02      | 06/28/02      | —               | —                                      | —                  | 0.29    | —                                | —                               | —              | —                         | —                          |
| 07/01/02      | 07/19/02      | —               | —                                      | —                  | 0.46    | E0.02                            | E0.01                           | —              | —                         | —                          |
| 07/13/02      | 07/19/02      | —               | —                                      | —                  | 0.52    | —                                | E0.01                           | —              | —                         | —                          |
| 07/25/02      | 08/08/02      | —               | —                                      | —                  | 0.36    | —                                | E0.01                           | —              | —                         | —                          |
| 08/06/02      | 08/08/02      | —               | —                                      | —                  | 0.21    | —                                | E0.01                           | —              | —                         | —                          |
| 08/18/02      | 09/06/02      | —               | —                                      | —                  | 0.23    | —                                | E0.01                           | —              | —                         | —                          |
| 08/30/02      | 09/06/02      | —               | —                                      | —                  | 0.20    | —                                | E0.01                           | —              | —                         | —                          |
| 09/11/02      | 09/27/02      | —               | —                                      | E0.01              | E0.16   | —                                | E0.01                           | —              | —                         | —                          |
| 09/23/02      | 09/27/02      | NA              | NA                                     | NA                 | NA      | NA                               | NA                              | NA             | NA                        | NA                         |
| 10/05/02      | 10/24/02      | —               | —                                      | —                  | E0.09   | —                                | E0.01                           | —              | —                         | —                          |
| 10/17/02      | 10/24/02      | —               | —                                      | —                  | 0.46    | —                                | E0.01                           | —              | —                         | —                          |
| 10/29/02      | 11/13/02      | —               | —                                      | —                  | 0.36    | —                                | E0.01                           | —              | —                         | —                          |
| 11/10/02      | 11/13/02      | —               | —                                      | —                  | E0.10   | —                                | E0.01                           | —              | —                         | —                          |
| 11/22/02      | 12/13/02      | —               | —                                      | —                  | 0.45    | —                                | E0.01                           | —              | —                         | —                          |
| 12/04/02      | 12/13/02      | —               | —                                      | —                  | 0.27    | —                                | E0.01                           | —              | —                         | —                          |
| 01/20/03      | 02/07/03      | —               | —                                      | —                  | 0.19    | —                                | E0.01                           | —              | —                         | —                          |
| 02/04/03      | 02/07/03      | —               | —                                      | —                  | 0.30    | —                                | E0.01                           | —              | —                         | —                          |
| 02/14/03      | 03/07/03      | —               | —                                      | —                  | 0.26    | —                                | E0.01                           | —              | —                         | —                          |
| 02/14/03      | 03/07/03      | E0.01           | —                                      | —                  | —       | —                                | —                               | —              | 0.03                      | —                          |
| 02/26/03      | 03/07/03      | —               | —                                      | —                  | E0.15   | —                                | E0.01                           | —              | —                         | —                          |
| 03/10/03      | 03/28/03      | —               | —                                      | —                  | 0.35    | —                                | —                               | —              | —                         | —                          |
| 03/22/03      | 03/28/03      | —               | —                                      | —                  | 0.46    | —                                | —                               | —              | —                         | —                          |
| 04/03/03      | 04/18/03      | —               | —                                      | —                  | 0.26    | —                                | —                               | —              | —                         | —                          |
| 04/15/03      | 04/18/03      | —               | —                                      | —                  | E0.12   | —                                | —                               | —              | —                         | —                          |
| 05/09/03      | 05/15/03      | —               | —                                      | —                  | E0.11   | —                                | —                               | —              | —                         | —                          |
| 05/21/03      | 06/06/03      | —               | —                                      | —                  | 0.29    | —                                | E0.01                           | —              | —                         | —                          |
| 06/02/03      | 06/06/03      | —               | —                                      | —                  | 0.28    | —                                | E0.01                           | —              | —                         | —                          |
| 06/14/03      | 06/30/03      | —               | —                                      | —                  | 0.59    | —                                | E0.01                           | —              | —                         | —                          |
| 06/26/03      | 06/30/03      | —               | —                                      | —                  | 0.27    | —                                | —                               | —              | —                         | —                          |
| 07/09/03      | 07/25/03      | —               | —                                      | —                  | 0.35    | —                                | —                               | —              | —                         | —                          |
| 07/20/03      | 07/25/03      | —               | —                                      | —                  | 0.23    | —                                | —                               | —              | —                         | —                          |
| 08/01/03      | 08/15/03      | —               | —                                      | —                  | 0.25    | —                                | —                               | —              | —                         | —                          |
| 08/13/03      | 08/15/03      | —               | —                                      | —                  | 0.68    | —                                | —                               | —              | —                         | —                          |
| 08/25/03      | 09/02/03      | —               | —                                      | —                  | 0.61    | —                                | E0.01                           | —              | —                         | —                          |
| 09/06/03      | 09/29/03      | —               | —                                      | —                  | E0.17   | —                                | —                               | —              | —                         | —                          |
| 09/18/03      | 09/29/03      | —               | —                                      | —                  | E0.16   | —                                | E0.01                           | —              | —                         | —                          |
| 09/18/03      | 10/16/03      | —               | —                                      | —                  | 0.61    | —                                | E0.01                           | —              | —                         | —                          |

**Table 22C.** Quality-control detections for volatile organic compounds with high breakthrough volumes in lot blanks for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site identification number is 32414117001601. Concentrations are given in parts per billion by volume (ppbv). Sample volume for the quality assurance lot-blank is 5.0 liters. Samples were processed at 20.0 degrees Celsius and 760 millimeters of mercury. Dates are in month/day/year format. Pairs of samples analyzed on the same date had been frozen and stored at the laboratory before analysis. —, compound not detected at a concentration above reporting level; E, estimated value; NA, not analyzed]

| Sampling date | Analyzed date | 2-Propene- |         |                |               |                     | Methyl-ene chloride | 1,1-Dichloro-ethene | Naph-thalene | Carbon disulfide | o-Xylene | Acetone | m- and p-Xylene | Methyl acetate | tert-Butyl alcohol |
|---------------|---------------|------------|---------|----------------|---------------|---------------------|---------------------|---------------------|--------------|------------------|----------|---------|-----------------|----------------|--------------------|
|               |               | Toluene    | Benzene | Chloro-benzene | Ethyl-benzene | Methyl-ene chloride |                     |                     |              |                  |          |         |                 |                |                    |
| 10/10/01      | 10/26/01      | E0.01      | E0.12   | —              | —             | —                   | —                   | —                   | E0.01        | E0.02            | E0.01    | E0.11   | E0.01           | —              | —                  |
| 10/22/01      | 10/26/01      | E0.01      | E0.11   | —              | —             | —                   | —                   | —                   | E0.01        | E0.01            | E0.01    | E0.03   | E0.01           | —              | —                  |
| 11/15/01      | 11/30/01      | E0.01      | E0.09   | —              | —             | —                   | —                   | —                   | E0.01        | —                | —        | 0.65    | —               | —              | —                  |
| 11/27/01      | 11/30/01      | E0.01      | E0.07   | —              | —             | —                   | —                   | —                   | —            | —                | —        | 2.32    | —               | —              | —                  |
| 12/09/01      | 12/28/01      | —          | 0.21    | —              | —             | —                   | —                   | —                   | —            | —                | —        | 6.71    | —               | —              | —                  |
| 12/21/01      | 12/28/01      | E0.01      | E0.08   | —              | —             | —                   | —                   | —                   | E0.01        | —                | —        | 0.25    | —               | —              | —                  |
| 01/03/02      | 01/22/02      | E0.01      | 0.23    | —              | —             | —                   | —                   | —                   | E0.01        | —                | —        | 0.20    | —               | —              | —                  |
| 01/14/02      | 01/22/02      | E0.01      | 0.27    | —              | —             | E0.02               | —                   | —                   | —            | —                | —        | 1.37    | E0.01           | 0.32           | —                  |
| 01/28/02      | 02/15/02      | —          | E0.01   | E0.05          | —             | —                   | —                   | —                   | —            | E0.01            | —        | 1.02    | —               | 0.58           | —                  |
| 02/07/02      | 02/15/02      | E0.01      | 0.62    | E0.03          | —             | —                   | —                   | —                   | E0.02        | E0.01            | —        | 0.21    | E0.01           | 0.23           | —                  |
| 02/19/02      | 03/08/02      | E0.01      | 0.22    | E0.01          | E0.01         | —                   | —                   | —                   | E0.01        | —                | —        | E0.11   | E0.01           | —              | —                  |
| 03/03/02      | 03/08/02      | E0.01      | E0.11   | —              | —             | —                   | —                   | —                   | —            | —                | —        | E0.17   | E0.01           | 0.22           | —                  |
| 03/27/02      | 05/10/02      | E0.01      | 0.15    | E0.01          | —             | —                   | E0.01               | E0.04               | E0.01        | E0.01            | E0.01    | 0.79    | E0.01           | E0.07          | —                  |
| 04/20/02      | 05/10/02      | E0.01      | E0.08   | —              | —             | —                   | —                   | E0.01               | —            | E0.01            | —        | 0.52    | E0.01           | E0.13          | —                  |
| 05/14/02      | 05/31/02      | E0.01      | E0.05   | —              | —             | —                   | —                   | —                   | E0.01        | —                | —        | E0.12   | —               | —              | E0.01              |
| 05/26/02      | 05/31/02      | E0.01      | 0.20    | —              | —             | —                   | —                   | —                   | E0.01        | E0.01            | —        | E0.17   | —               | E0.09          | —                  |
| 06/07/02      | 06/28/02      | E0.01      | E0.09   | —              | —             | —                   | —                   | —                   | —            | —                | —        | E0.14   | —               | —              | —                  |
| 06/19/02      | 06/28/02      | E0.01      | E0.04   | —              | —             | —                   | —                   | —                   | —            | —                | —        | E0.10   | —               | —              | —                  |
| 07/01/02      | 07/19/02      | E0.01      | E0.08   | —              | —             | —                   | —                   | —                   | E0.01        | —                | —        | 0.27    | —               | —              | —                  |
| 07/13/02      | 07/19/02      | E0.01      | E0.06   | E0.01          | —             | —                   | E0.01               | —                   | E0.01        | —                | —        | E0.13   | E0.01           | —              | —                  |
| 07/25/02      | 08/08/02      | E0.01      | E0.10   | —              | —             | —                   | E0.01               | —                   | E0.01        | E0.01            | E0.01    | 0.28    | E0.01           | —              | —                  |
| 08/06/02      | 08/08/02      | NA         | NA      | NA             | NA            | NA                  | NA                  | NA                  | NA           | NA               | NA       | NA      | NA              | NA             | NA                 |
| 08/18/02      | 09/06/02      | E0.01      | E0.07   | —              | —             | —                   | —                   | —                   | E0.01        | E0.01            | —        | E0.07   | —               | —              | —                  |
| 08/30/02      | 09/06/02      | E0.01      | 0.20    | —              | —             | —                   | E0.01               | —                   | E0.01        | E0.01            | —        | 0.25    | E0.01           | —              | —                  |
| 09/11/02      | 09/27/02      | E0.01      | E0.06   | —              | —             | —                   | —                   | —                   | E0.01        | —                | —        | 0.18    | —               | —              | —                  |
| 09/23/02      | 09/27/02      | NA         | NA      | NA             | NA            | NA                  | NA                  | NA                  | NA           | NA               | NA       | NA      | NA              | NA             | NA                 |
| 10/05/02      | 10/24/02      | —          | E0.07   | —              | —             | —                   | —                   | —                   | —            | —                | —        | E0.05   | —               | —              | —                  |
| 10/17/02      | 10/24/02      | E0.01      | E0.05   | —              | —             | —                   | —                   | —                   | —            | E0.02            | —        | 0.22    | E0.01           | —              | —                  |
| 10/29/02      | 11/13/02      | E0.01      | E0.08   | —              | —             | —                   | —                   | —                   | E0.01        | E0.01            | —        | E0.15   | E0.01           | —              | —                  |
| 11/10/02      | 11/13/02      | E0.01      | E0.07   | —              | —             | —                   | —                   | —                   | E0.01        | E0.01            | —        | E0.15   | E0.01           | —              | —                  |



**Table 22c.** Quality-control results for volatile organic compounds with high breakthrough volumes in lot blanks for air samples collected at the Sweetwater Reservoir atmospheric site, Diego County, California.—Continued.

[The site identification number is 32414117001601. Concentrations are given in parts per billion by volume (ppbv). Sample volume for the quality assurance lot-blank is 5.0 liters. Samples were processed at 20.0 degrees Celsius and 760 millimeters of mercury. Dates are in month/day/year format. Pairs of samples analyzed on the same date had been frozen and stored at the laboratory before analysis. —, compound not detected at a concentration above reporting level; E, estimated value; NA, not analyzed]

| Sampling date | Analyzed date | Toluene | Benzene | 2- Propene-nitrile (acrylonitrile) | Chlorobenzene | Ethylbenzene | Methyl-ene chloride | 1,1-Dichloro-ethene | Naphthalene | Carbon disulfide | o-Xylene | Acetone | m- and p-Xylene | Methyl acetate | tert-Butyl alcohol |
|---------------|---------------|---------|---------|------------------------------------|---------------|--------------|---------------------|---------------------|-------------|------------------|----------|---------|-----------------|----------------|--------------------|
| 11/22/02      | 12/13/02      | E0.01   | E0.04   | —                                  | —             | —            | —                   | —                   | —           | E0.01            | —        | E0.09   | E0.01           | —              | —                  |
| 12/04/02      | 12/13/02      | E0.01   | E0.04   | —                                  | —             | —            | —                   | —                   | —           | —                | —        | E0.08   | E0.01           | —              | —                  |
| 01/20/03      | 02/07/03      | E0.01   | E0.07   | —                                  | —             | —            | —                   | —                   | —           | —                | —        | E0.10   | ND              | —              | —                  |
| 02/04/03      | 02/07/03      | E0.01   | E0.05   | —                                  | —             | —            | —                   | —                   | E0.01       | E0.01            | —        | E0.01   | E0.08           | E0.01          | —                  |
| 02/14/03      | 03/07/03      | E0.03   | 0.65    | —                                  | —             | E0.01        | —                   | E0.01               | E0.01       | E0.01            | —        | E0.01   | E0.17           | E0.01          | —                  |
| 02/14/03      | 03/07/03      | 0.03    | 0.65    | —                                  | —             | E0.01        | —                   | E0.01               | E0.01       | E0.01            | —        | 0.17    | E0.01           | —              | —                  |
| 02/26/03      | 03/07/03      | E0.01   | E0.04   | —                                  | —             | E0.01        | —                   | —                   | E0.01       | —                | —        | E0.01   | E0.12           | E0.01          | —                  |
| 03/10/03      | 03/28/03      | E0.01   | E0.08   | —                                  | —             | —            | —                   | —                   | —           | —                | —        | 0.19    | —               | —              | —                  |
| 03/22/03      | 03/28/03      | E0.01   | 0.22    | —                                  | —             | —            | —                   | —                   | —           | —                | —        | 0.30    | —               | —              | —                  |
| 04/03/03      | 04/18/03      | E0.01   | E0.08   | —                                  | —             | —            | —                   | —                   | —           | —                | —        | E0.11   | —               | —              | —                  |
| 04/15/03      | 04/18/03      | NA      | NA      | NA                                 | NA            | NA           | NA                  | NA                  | NA          | NA               | NA       | NA      | NA              | NA             | NA                 |
| 05/09/03      | 05/15/03      | E0.01   | E0.07   | —                                  | —             | —            | —                   | —                   | —           | ND               | —        | E0.12   | —               | —              | —                  |
| 05/21/03      | 06/06/03      | E0.01   | E0.06   | —                                  | —             | —            | —                   | —                   | —           | E0.01            | —        | 0.22    | —               | —              | —                  |
| 06/02/03      | 06/06/03      | E0.02   | E0.07   | —                                  | —             | E0.01        | —                   | —                   | E0.01       | —                | E0.01    | 0.24    | E0.01           | —              | —                  |
| 06/14/03      | 06/30/03      | —       | E0.11   | —                                  | —             | E0.01        | —                   | —                   | E0.01       | E0.01            | —        | 0.18    | E0.01           | —              | —                  |
| 06/26/03      | 06/30/03      | E0.01   | E0.06   | —                                  | —             | —            | —                   | —                   | —           | E0.01            | —        | 0.40    | —               | —              | —                  |
| 07/09/03      | 07/25/03      | E0.01   | E0.06   | —                                  | —             | —            | —                   | —                   | E0.01       | —                | —        | E0.07   | —               | —              | —                  |
| 07/20/03      | 07/25/03      | E0.01   | E0.06   | —                                  | —             | —            | —                   | —                   | —           | —                | —        | 0.55    | —               | —              | —                  |
| 08/01/03      | 08/15/03      | E0.03   | E0.08   | —                                  | —             | —            | —                   | —                   | E0.01       | —                | —        | 0.58    | —               | —              | —                  |
| 08/13/03      | 08/15/03      | E0.01   | E0.07   | —                                  | —             | —            | —                   | —                   | —           | —                | —        | 0.66    | —               | —              | —                  |
| 08/25/03      | 09/02/03      | E0.01   | E0.07   | —                                  | —             | —            | —                   | —                   | E0.01       | —                | —        | 0.25    | E0.01           | —              | —                  |
| 09/06/03      | 09/29/03      | E0.01   | E0.06   | —                                  | —             | —            | —                   | —                   | E0.01       | —                | —        | 0.19    | —               | —              | —                  |
| 09/18/03      | 09/29/03      | —       | E0.07   | —                                  | —             | —            | —                   | —                   | —           | —                | —        | E0.09   | —               | —              | —                  |
| 09/18/03      | 10/16/03      | E0.01   | E0.04   | —                                  | —             | —            | —                   | —                   | E0.01       | E0.01            | —        | E0.09   | E0.01           | —              | —                  |

**Table 22D.** Quality-control detections for volatile organic compounds with high breakthrough volumes in laboratory blanks for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site identification number is 32414117001601. Concentrations are given in parts per billion by volume (ppbv). Sample volume for the quality assurance lot-blank is 5.0 liters. Samples were processed at 20.0 degrees Celsius and 760 millimeters of mercury. Dates are in month/day/year format. Pairs of samples analyzed on the same date had been frozen and stored at the laboratory before analysis. —, compound not detected at a concentration above reporting level; E, estimated value; NA, not analyzed]

| Sampling date | Analyzed date | Toluene | Benzene | 2-Propene-nitrile (Acrylonitrile) | Chlorobenzene | Ethylbenzene | Methylene chloride | 1,1-Dichloroethene | 1,1,2,2-Tetrachloroethane |
|---------------|---------------|---------|---------|-----------------------------------|---------------|--------------|--------------------|--------------------|---------------------------|
| 10/10/01      | 10/26/01      | NA      | NA      | NA                                | NA            | NA           | NA                 | NA                 | NA                        |
| 10/22/01      | 10/26/01      | NA      | NA      | NA                                | NA            | NA           | NA                 | NA                 | NA                        |
| 11/27/01      | 11/30/01      | E0.01   | E0.10   | —                                 | —             | —            | —                  | —                  | —                         |
| 11/15/01      | 11/30/01      | E0.01   | E0.09   | —                                 | —             | —            | —                  | —                  | —                         |
| 12/09/01      | 12/28/01      | E0.02   | 0.47    | —                                 | —             | E0.01        | —                  | —                  | —                         |
| 12/21/01      | 12/28/01      | E0.01   | 0.14    | —                                 | —             | —            | —                  | —                  | —                         |
| 01/03/02      | 01/22/02      | E0.01   | 0.28    | E0.04                             | —             | —            | 0.12               | —                  | —                         |
| 01/14/02      | 01/22/02      | E0.02   | 0.61    | E0.05                             | —             | —            | 0.10               | —                  | —                         |
| 01/28/02      | 02/15/02      | E0.01   | 0.15    | E0.01                             | —             | —            | —                  | —                  | —                         |
| 02/07/02      | 02/15/02      | E0.01   | 1.14    | ND                                | —             | —            | —                  | —                  | —                         |
| 02/19/02      | 03/08/02      | E0.01   | 0.28    | E0.01                             | —             | E0.01        | —                  | —                  | —                         |
| 03/03/02      | 03/08/02      | E0.01   | 0.17    | E0.01                             | —             | E0.01        | —                  | —                  | —                         |
| 03/27/02      | 05/10/02      | E0.01   | 0.20    | E0.01                             | E0.01         | —            | —                  | E0.01              | —                         |
| 04/20/02      | 05/10/02      | E0.01   | E0.05   | —                                 | —             | —            | —                  | E0.01              | —                         |
| 05/14/02      | 05/31/02      | E0.01   | E0.04   | —                                 | —             | —            | —                  | E0.01              | —                         |
| 05/26/02      | 05/31/02      | E0.01   | 0.26    | —                                 | —             | —            | —                  | —                  | —                         |
| 06/07/02      | 06/28/02      | E0.01   | E0.07   | —                                 | —             | —            | —                  | —                  | —                         |
| 06/19/02      | 06/28/02      | E0.01   | E0.07   | —                                 | —             | —            | —                  | —                  | —                         |
| 07/01/02      | 07/19/02      | E0.01   | E0.11   | —                                 | —             | E0.01        | —                  | —                  | —                         |
| 07/13/02      | 07/19/02      | E0.01   | 0.14    | —                                 | E0.01         | —            | —                  | —                  | —                         |
| 07/25/02      | 08/08/02      | E0.01   | 0.17    | —                                 | —             | E0.01        | —                  | —                  | —                         |
| 08/06/02      | 08/08/02      | E0.01   | 0.18    | —                                 | —             | E0.01        | —                  | —                  | —                         |
| 08/18/02      | 09/06/02      | E0.01   | E0.07   | —                                 | —             | E0.01        | —                  | —                  | E0.01                     |
| 08/30/02      | 09/06/02      | E0.01   | 0.19    | —                                 | —             | E0.01        | —                  | —                  | —                         |
| 09/11/02      | 09/27/02      | E0.01   | 0.13    | E0.01                             | —             | E0.01        | —                  | —                  | —                         |
| 09/23/02      | 09/27/02      | NA      | NA      | NA                                | NA            | NA           | NA                 | NA                 | NA                        |
| 10/05/02      | 10/24/02      | E0.01   | E0.06   | —                                 | —             | E0.01        | —                  | —                  | —                         |
| 10/17/02      | 10/24/02      | E0.01   | E0.08   | —                                 | —             | E0.01        | —                  | —                  | —                         |
| 10/29/02      | 11/13/02      | E0.01   | E0.09   | —                                 | —             | E0.01        | —                  | —                  | —                         |
| 11/10/02      | 11/13/02      | E0.02   | E0.09   | —                                 | —             | E0.01        | —                  | —                  | —                         |
| 11/22/02      | 12/13/02      | E0.01   | E0.12   | —                                 | —             | E0.01        | —                  | —                  | —                         |
| 12/04/02      | 12/13/02      | E0.01   | E0.09   | —                                 | —             | E0.01        | —                  | —                  | —                         |
| 01/20/03      | 02/07/03      | E0.02   | E0.09   | —                                 | —             | E0.01        | —                  | —                  | —                         |
| 02/04/03      | 02/07/03      | E0.01   | E0.09   | —                                 | —             | E0.01        | —                  | —                  | —                         |
| 02/14/03      | 03/07/03      | E0.01   | 0.81    | E0.02                             | —             | E0.01        | —                  | —                  | —                         |
| 02/14/03      | 03/07/03      | E0.01   | 0.81    | E0.02                             | —             | E0.01        | —                  | —                  | —                         |
| 02/26/03      | 03/07/03      | E0.01   | 0.30    | E0.01                             | —             | E0.01        | —                  | —                  | —                         |
| 03/10/03      | 03/28/03      | E0.01   | E0.12   | —                                 | —             | —            | —                  | —                  | —                         |
| 03/22/03      | 03/28/03      | E0.01   | E0.10   | —                                 | —             | —            | —                  | —                  | —                         |
| 04/03/03      | 04/18/03      | E0.01   | 0.13    | —                                 | —             | —            | —                  | —                  | —                         |
| 04/15/03      | 04/18/03      | NA      | NA      | NA                                | NA            | NA           | NA                 | NA                 | NA                        |
| 05/09/03      | 05/15/03      | E0.01   | E0.06   | —                                 | —             | —            | —                  | —                  | —                         |
| 05/21/03      | 06/06/03      | E0.01   | E0.08   | —                                 | —             | E0.01        | —                  | —                  | —                         |
| 06/02/03      | 06/06/03      | E0.01   | E0.08   | —                                 | —             | E0.01        | —                  | —                  | —                         |
| 06/14/03      | 06/30/03      | —       | 0.18    | —                                 | —             | —            | —                  | —                  | —                         |
| 06/26/03      | 06/30/03      | E0.01   | E0.09   | —                                 | —             | —            | —                  | —                  | —                         |
| 07/09/03      | 07/25/03      | E0.01   | 0.15    | —                                 | —             | —            | —                  | —                  | —                         |
| 07/20/03      | 07/25/03      | E0.01   | E0.08   | —                                 | —             | —            | —                  | —                  | —                         |
| 08/01/03      | 08/15/03      | E0.01   | E0.06   | —                                 | —             | —            | —                  | —                  | —                         |
| 08/13/03      | 08/15/03      | E0.01   | E0.08   | —                                 | —             | —            | —                  | —                  | —                         |
| 08/25/03      | 09/02/03      | E0.01   | E0.08   | —                                 | —             | —            | —                  | —                  | —                         |
| 09/06/03      | 09/29/03      | E0.01   | 0.13    | —                                 | —             | —            | —                  | —                  | —                         |
| 09/18/03      | 09/29/03      | E0.01   | E0.06   | —                                 | —             | —            | —                  | —                  | —                         |
| 09/18/03      | 10/16/03      | E0.01   | 0.18    | —                                 | —             | E0.01        | —                  | —                  | —                         |

**Table 22D.** Quality-control results for volatile organic compounds with high breakthrough volumes in laboratory blanks for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in parts per billion by volume (ppbv). Sample volume for the quality assurance laboratory-blank is 5.0 liters. Samples were processed at 20.0 degrees Celsius and 760 millimeters of mercury. Dates are in month/day/year format. Pairs of samples analyzed on the same date had been frozen and stored at the laboratory before analysis. —, compound not detected at a concentration above reporting level; E, estimated value; NA, not analyzed]

| Sampling date | Analyzed date | Naphthalene | Carbon disulfide | Ethenylbenzene (Styrene) | <i>o</i> -Xylene | 3-Chloro-1-propene | Acetone | 2-Butanone (Methyl ethyl ketone) | <i>m</i> - and <i>p</i> -Xylene | Methyl acetate |
|---------------|---------------|-------------|------------------|--------------------------|------------------|--------------------|---------|----------------------------------|---------------------------------|----------------|
| 10/10/01      | 10/26/01      | NA          | NA               | NA                       | NA               | NA                 | NA      | NA                               | NA                              | NA             |
| 10/22/01      | 10/26/01      | NA          | NA               | NA                       | NA               | NA                 | NA      | NA                               | NA                              | NA             |
| 11/27/01      | 11/30/01      | —           | E0.01            | —                        | —                | —                  | 0.69    | —                                | —                               | —              |
| 11/15/01      | 11/30/01      | —           | E0.01            | —                        | —                | —                  | 1.66    | —                                | —                               | —              |
| 12/09/01      | 12/28/01      | E0.01       | E0.02            | E0.01                    | E0.01            | —                  | 0.37    | —                                | E0.01                           | —              |
| 12/21/01      | 12/28/01      | E0.01       | —                | —                        | —                | —                  | 0.28    | —                                | —                               | —              |
| 01/03/02      | 01/22/02      | E0.01       | —                | —                        | —                | —                  | 0.69    | —                                | —                               | 0.41           |
| 01/14/02      | 01/22/02      | E0.01       | E0.02            | E0.01                    | —                | —                  | 0.47    | —                                | E0.01                           | 0.31           |
| 01/28/02      | 02/15/02      | —           | —                | —                        | E0.01            | —                  | 1.00    | —                                | —                               | 0.23           |
| 02/07/02      | 02/15/02      | E0.01       | —                | —                        | —                | —                  | 1.11    | —                                | —                               | E0.10          |
| 02/19/02      | 03/08/02      | E0.01       | —                | —                        | E0.01            | —                  | E0.12   | —                                | E0.01                           | E0.10          |
| 03/03/02      | 03/08/02      | —           | —                | —                        | E0.01            | —                  | 0.79    | —                                | E0.01                           | 0.19           |
| 03/27/02      | 05/10/02      | E0.01       | —                | —                        | E0.01            | —                  | E0.17   | —                                | E0.01                           | 0.17           |
| 04/20/02      | 05/10/02      | E0.01       | E0.01            | —                        | —                | —                  | E0.11   | —                                | E0.01                           | E0.14          |
| 05/14/02      | 05/31/02      | —           | E0.01            | —                        | —                | —                  | 0.20    | —                                | —                               | E0.09          |
| 05/26/02      | 05/31/02      | E0.01       | E0.01            | —                        | —                | —                  | 0.24    | —                                | —                               | 0.19           |
| 06/07/02      | 06/28/02      | E0.01       | E0.02            | —                        | —                | —                  | E0.15   | —                                | —                               | —              |
| 06/19/02      | 06/28/02      | —           | —                | —                        | —                | —                  | E0.15   | —                                | —                               | —              |
| 07/01/02      | 07/19/02      | E0.01       | E0.01            | E0.01                    | E0.01            | —                  | 0.46    | E0.02                            | E0.01                           | —              |
| 07/13/02      | 07/19/02      | E0.01       | E0.01            | E0.01                    | —                | —                  | 0.40    | —                                | E0.01                           | —              |
| 07/25/02      | 08/08/02      | E0.01       | E0.01            | E0.01                    | E0.01            | —                  | 0.37    | —                                | E0.01                           | —              |
| 08/06/02      | 08/08/02      | E0.01       | —                | —                        | E0.01            | —                  | 0.25    | —                                | E0.01                           | —              |
| 08/18/02      | 09/06/02      | E0.01       | —                | —                        | —                | —                  | 0.20    | —                                | E0.01                           | —              |
| 08/30/02      | 09/06/02      | E0.01       | E0.01            | —                        | E0.01            | —                  | E 0.17  | —                                | E0.01                           | —              |
| 09/11/02      | 09/27/02      | E0.01       | —                | —                        | E0.01            | E0.01              | E0.10   | —                                | E0.01                           | —              |
| 09/23/02      | 09/27/02      | NA          | NA               | NA                       | NA               | NA                 | NA      | NA                               | NA                              | NA             |
| 10/05/02      | 10/24/02      | E0.01       | E0.01            | —                        | E0.01            | —                  | E0.16   | —                                | E0.01                           | —              |
| 10/17/02      | 10/24/02      | E0.01       | —                | —                        | E0.01            | —                  | E0.09   | —                                | E0.01                           | —              |
| 10/29/02      | 11/13/02      | E0.01       | E0.01            | —                        | E0.01            | —                  | 0.70    | —                                | E0.01                           | —              |
| 11/10/02      | 11/13/02      | E0.02       | E0.02            | E0.01                    | E0.01            | —                  | E0.08   | —                                | E0.02                           | —              |
| 11/22/02      | 12/13/02      | E0.01       | E0.01            | —                        | E0.01            | —                  | 0.52    | —                                | E0.01                           | —              |
| 12/04/02      | 12/13/02      | —           | —                | —                        | —                | —                  | E0.11   | —                                | E0.01                           | —              |
| 01/20/03      | 02/07/03      | E0.01       | E0.01            | E0.01                    | E0.01            | —                  | 0.22    | —                                | E0.01                           | —              |
| 02/04/03      | 02/07/03      | E0.01       | —                | —                        | E0.01            | —                  | E0.08   | —                                | E0.01                           | —              |
| 02/14/03      | 03/07/03      | E0.01       | E0.01            | —                        | E0.01            | —                  | E0.11   | —                                | E0.01                           | —              |
| 02/14/03      | 03/07/03      | E0.01       | E0.01            | —                        | E0.01            | —                  | E0.11   | —                                | E0.01                           | —              |
| 02/26/03      | 03/07/03      | E0.01       | E0.01            | —                        | E0.01            | —                  | 0.55    | —                                | E0.01                           | —              |
| 03/10/03      | 03/28/03      | —           | —                | —                        | —                | —                  | 0.27    | —                                | —                               | —              |
| 03/22/03      | 03/28/03      | —           | —                | —                        | —                | —                  | 0.25    | —                                | —                               | —              |
| 04/03/03      | 04/18/03      | —           | —                | —                        | —                | —                  | E0.10   | —                                | —                               | —              |
| 04/15/03      | 04/18/03      | NA          | NA               | NA                       | NA               | NA                 | NA      | NA                               | NA                              | NA             |
| 05/09/03      | 05/15/03      | E0.01       | —                | —                        | —                | —                  | E0.10   | —                                | —                               | —              |
| 05/21/03      | 06/06/03      | E0.01       | E0.01            | E0.01                    | —                | —                  | 0.26    | —                                | E0.01                           | —              |
| 06/02/03      | 06/06/03      | E0.01       | E0.01            | —                        | E0.01            | —                  | 0.26    | —                                | E0.01                           | —              |
| 06/14/03      | 06/30/03      | E0.01       | E0.01            | —                        | —                | —                  | 0.19    | —                                | E0.01                           | —              |
| 06/26/03      | 06/30/03      | E0.01       | E0.01            | —                        | —                | —                  | 0.31    | —                                | —                               | —              |
| 07/09/03      | 07/25/03      | —           | —                | —                        | —                | —                  | E0.18   | —                                | —                               | —              |
| 07/20/03      | 07/25/03      | —           | —                | —                        | —                | —                  | 0.19    | —                                | —                               | —              |
| 08/01/03      | 08/15/03      | —           | —                | —                        | —                | —                  | E0.07   | —                                | —                               | —              |
| 08/13/03      | 08/15/03      | —           | —                | —                        | —                | —                  | 0.45    | —                                | —                               | —              |
| 08/25/03      | 09/02/03      | E0.01       | —                | —                        | —                | —                  | E0.16   | —                                | E0.01                           | —              |
| 09/06/03      | 09/29/03      | E0.01       | —                | —                        | —                | —                  | E0.13   | —                                | —                               | —              |
| 09/18/03      | 09/29/03      | E0.01       | E0.01            | —                        | —                | —                  | 0.30    | —                                | E0.01                           | —              |
| 09/18/03      | 10/16/03      | E0.01       | —                | —                        | E0.01            | —                  | E0.14   | —                                | E0.01                           | —              |



**Table 23A.** Quality-control results for laboratory and field reagent blanks and laboratory solvent blanks for polycyclic aromatic hydrocarbon (PAH) compound concentrations from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[All blank analyses by gas chromatography/mass spectrometry with selected ion monitoring (SIM). Field blank identification number is 324141117001601. Concentrations are given in nanograms per cubic meter (ng/m<sup>3</sup>) assuming a 315-m<sup>3</sup> sample volume, unless noted. GFF, glass fiber filter; PSE, pressurized solvent extraction; PUF, polyurethane foam plug; —, compound not detected at a concentration above laboratory reporting level]

| Begin date<br>(mm/dd/yyyy) | C1-178<br>Isomers,<br>methylated<br>phen-<br>anthrenes/<br>anthracenes | C1-202<br>Isomers,<br>methylated<br>fluoranthenes/<br>pyrenes | C1-228<br>Isomers,<br>methylated<br>benz[a]<br>anthracenes/<br>chrysenes | C1-252 Isomers,<br>methylated<br>benz-<br>pyrenes/<br>perylene | C2-178<br>Isomers,<br>alkylated<br>phenanthrenes/<br>anthracenes | C2-202<br>Isomers,<br>alkylated<br>fluoranthenes/<br>pyrenes | C2-228<br>Isomers,<br>alkylated<br>benz[a]-<br>anthracenes/<br>chrysenes | C2-252<br>Isomers,<br>alkylated<br>benz-<br>pyrenes/<br>perylene |
|----------------------------|--|---|--|--|--|--|--|--|
| 08/25/2002                 | 0.104  | —   | —  | —  | —  | —  | —  | —  |
| 08/25/2002                 | —  | —   | —  | —  | —  | —  | —  | —  |
| 12/16/2002                 | —  | —   | —  | —  | —  | —  | —  | —  |
| 12/16/2002                 | 0.034  | —   | —  | —  | —  | —  | —  | —  |
| 11/19/2003                 | —  | —   | —  | —  | —  | —  | —  | —  |
| 11/19/2003                 | —  | —   | —  | —  | —  | —  | —  | —  |
| 06/03/2003                 | —  | —   | —  | —  | —  | —  | —  | —  |
| 06/03/2003                 | —  | —   | —  | —  | —  | —  | —  | —  |
| 06/03/2003                 | —  | —   | —  | —  | —  | —  | —  | —  |

| Begin date<br>(mm/dd/yyyy) | C3-178<br>Isomers,<br>alkylated<br>phen-<br>anthrenes/<br>anthracenes | C3-202 Isomers,<br>alkylated<br>fluoranthenes/<br>pyrenes | C3-228 I<br>somers,<br>alkylated<br>benz[a]<br>anthracenes/<br>chrysenes | C3-252 Isomers,<br>alkylated benz-<br>pyrenes/<br>perylene | C4-178<br>Isomers,<br>alkylated<br>phenanthrenes/<br>anthracenes | C4-202<br>Isomers,<br>alkylated<br>fluoranthenes/<br>pyrenes | C4-228<br>Isomers,<br>alkylated<br>benz[a]<br>anthracenes/<br>chrysenes | C4-252<br>Isomers,<br>alkylated<br>benz-<br>pyrenes/<br>perylene |
|----------------------------|---|---|--|--|--|--|---|--|
| 08/25/2002                 | —   | —   | —  | —  | —  | —  | —   | —  |
| 08/25/2002                 | —   | —   | —  | —  | —  | —  | —   | —  |
| 12/16/2002                 | —   | —   | —  | —  | —  | —  | —   | —  |
| 12/16/2002                 | —   | —   | —  | —  | —  | —  | —   | —  |
| 11/19/2003                 | —   | —   | —  | —  | —  | —  | —   | —  |
| 11/19/2003                 | —   | —   | —  | —  | —  | —  | —   | —  |
| 06/03/2003                 | —   | —   | —  | —  | —  | —  | —   | —  |
| 06/03/2003                 | —   | —   | —  | —  | —  | —  | —   | —  |
| 06/03/2003                 | —   | —   | —  | —  | —  | —  | —   | —  |

| Begin date<br>(mm/dd/yyyy) | C5-178<br>Isomers,<br>alkylated<br>phen-<br>anthrenes/<br>anthracenes | C5-202 Isomers,<br>alkylated<br>fluoranthenes/<br>pyrenes | C5-228<br>Isomers,<br>alkylated<br>benz[a]<br>anthracenes/<br>chrysenes | C5-252<br>Isomers,<br>alkylated<br>benz-pyrenes/<br>perylene | 2-Fluoro-biphenyl,<br>surrogate<br>(percent) | Nitro-<br>benzene- <i>d</i> 5,<br>surrogate<br>(percent) | Terphenyl- <i>d</i> 14,<br>surrogate<br>(percent) |
|----------------------------|---|---|---|--|--|--|---|
| 08/25/2002                 | —   | —   | —   | —  | 89.1   | 61.6   | 117   |
| 08/25/2002                 | —   | —   | —   | —  | 32.6   | 20.4   | 117   |
| 12/16/2002                 | —   | —   | —   | —  | 33.0   | 23.0   | 76.7  |
| 12/16/2002                 | —   | —   | —   | —  | 68.0   | 62.3   | 83.1  |
| 11/19/2003                 | —   | —   | —   | —  | 29.4   | 24.2   | 83.8  |
| 11/19/2003                 | —   | —   | —   | —  | 94.6   | 95.8   | 103   |
| 06/03/2003                 | —   | —   | —   | —  | 77.6   | 68.2   | 89.2  |
| 06/03/2003                 | —   | —   | —   | —  | 87.2   | 90.2   | 96.8  |
| 06/03/2003                 | —   | —   | —   | —  | 88.8   | 86.4   | 98.6  |

**Table 23B.** Quality-control results for polycyclic aromatic hydrocarbon (PAH) compound laboratory reagent-spikes for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.

[All laboratory spike samples were analyzed using gas chromatography/mass spectrometry with selected ion monitoring (SIM). Alkylated PAHs were not spiked, so are not listed in this table. Values for compounds are in percent recovery. PUF, polyurethane foam; GFF, glass fiber filter; PSE, pressurized solvent extraction]

| Begin date<br>(mm/dd/yyyy) | Sample<br>component<br>spiked | Sample<br>preparation<br>set number | Extraction<br>by | Extract<br>split | Anthracene | Benz[a]<br>anthracene | Benz[ghi]<br>perylene | Benz[a]<br>pyrene |
|----------------------------|-------------------------------|-------------------------------------|------------------|------------------|------------|-----------------------|-----------------------|-------------------|
| 8/25/2002                  | PUF                           | 02.237                              | Soxhlet          | No               | 100        | 116                   | 96.7                  | 114               |
| 8/25/2002                  | GFF                           | 02.237                              | Soxhlet          | No               | 60.0       | 98.8                  | 98.0                  | 98.0              |
| 8/25/2002                  | Solvent only (no<br>matrix)   | 02.237                              | Soxhlet          | No               | 54.6       | 93.4                  | 98.3                  | 88.5              |
| 12/16/2002                 | GFF                           | 02.35009                            | PSE              | No               | 63.7       | 64.8                  | 79.5                  | 71.4              |
| 12/16/2002                 | PUF                           | 02.35009                            | PSE              | No               | 68.3       | 71.5                  | 59.8                  | 71.2              |
| 11/19/2003                 | GFF                           | 03.32308                            | PSE              | Yes              | 68.7       | 67.5                  | 84.7                  | 68.7              |
| 11/19/2003                 | PUF                           | 03.32308                            | PSE              | Yes              | 85.0       | 85.3                  | 91.3                  | 85.2              |

| Begin date<br>(mm/dd/yyyy) | Benz[e]<br>pyrene | Benz[k]<br>fluoranthene | Chrysene | Coronene | Dibenzo[a,h]<br>anthracene | Fluoranthene | Indeno-<br>[1,2,3-cd]<br>pyrene | 2-Methyl-<br>anthracene |
|----------------------------|-------------------|-------------------------|----------|----------|----------------------------|--------------|---------------------------------|-------------------------|
| 8/25/2002                  | 74.0              | 120                     | 96.0     | 120      | 124                        | 104          | 91.7                            | 110                     |
| 8/25/2002                  | 85.3              | 119                     | 93.9     | 118      | 125                        | 87.0         | 85.0                            | 69.9                    |
| 8/25/2002                  | 87.0              | 125                     | 93.3     | 116      | 124                        | 87.4         | 65.8                            | 63.8                    |
| 12/16/2002                 | 82.1              | 84.9                    | 68.1     | 77.5     | 81.1                       | 70.0         | 75.8                            | 68.2                    |
| 12/16/2002                 | 62.5              | 66.5                    | 66.7     | 51.2     | 64.1                       | 71.7         | 63.6                            | 75.5                    |
| 11/19/2003                 | 97.0              | 91.5                    | 81.7     | 86.0     | 73.8                       | 78.2         | 62.3                            | 65.3                    |
| 11/19/2003                 | 95.7              | 101                     | 92.0     | 87.2     | 86.7                       | 96.8         | 80.2                            | 85.0                    |

| Begin date<br>(mm/dd/yyyy) | 1-Methyl-<br>phenanthrene | 1-Methyl-<br>pyrene | Perylene | Phenanthrene | Pyrene | 2-Fluoro-<br>biphenyl,<br>surrogate<br>(percent) | Nitro-<br>benzene-d5,<br>surrogate<br>(percent) | Terphenyl-d14,<br>surrogate<br>(percent) |
|----------------------------|---------------------------|---------------------|----------|--------------|--------|--|---|--|
| 8/25/2002                  | 93.6                      | 107                 | 98.5     | 95.5         | 99.3   | 97.2   | 82.4  | 117                                      |
| 8/25/2002                  | 73.1                      | 100                 | 83.4     | 65.0         | 86.1   | 60.5   | 38.8  | 111                                      |
| 8/25/2002                  | 77.0                      | 99.9                | 74.4     | 67.9         | 87.3   | 65.8   | 33.0  | 109                                      |
| 12/16/2002                 | 66.4                      | 69.7                | 63.4     | 63.6         | 69.0   | 55.7   | 51.5  | 75.5                                     |
| 12/16/2002                 | 66.3                      | 74.0                | 62.2     | 64.6         | 71.4   | 54.2   | 46.5  | 79.4                                     |
| 11/19/2003                 | 80.8                      | 76.8                | 78.5     | 79.0         | 79.3   | 73.8   | 99.8  | 86.2                                     |
| 11/19/2003                 | 91.8                      | 96.3                | 84.7     | 93.3         | 96.8   | 97.8   | 108   | 99.6                                     |

**Table 24A.** Quality-control results for pesticide blanks using U.S. Geological Survey's National Water Quality Laboratory method Airpest001 for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.

[Concentrations are given in nanograms per cubic meter unless noted. —, compound not detected at a concentration above laboratory reporting level. A sample volume of 315 cubic meters was assumed]

| Begin date | QC sample type          | Sample component used  | Sample preparation set number | Acetochlor             | Alachlor                          | Atrazine                              | Azinphos-methyl (estimated) |
|------------|-------------------------|------------------------|-------------------------------|------------------------|-----------------------------------|---------------------------------------|-----------------------------|
| 8/25/2002  | Laboratory PUF blank    | 1 clean used field PUF | 02.037                        | —                      | —                                 | —                                     | —                           |
| 8/25/2002  | Solvent Blank           | Solvent only           | 02.037                        | —                      | —                                 | —                                     | —                           |
| Begin date | Benfluralin (estimated) | Carbaryl (estimated)   | Carbofuran (estimated)        | Chlorpyrifos           | Cyanazine                         | Dacthal (DCPA)                        | p,p' DDE                    |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | 0.036                                 | 0.042                       |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| Begin date | Deethylatrazine         | Diazinon               | Dieldrin                      | Disulfoton (estimated) | Ethalfuralin (estimated)          | Ethion                                | Ethoprophos                 |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| Begin date | Fonofos                 | $\alpha$ -HCH          | Lindane                       | Linuron                | Malathion                         | Metolachlor                           | Metribuzin                  |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| Begin date | Molinate (estimated)    | Napropamide            | Parathion                     | Parathion-methyl       | Pendi-methalin (estimated)        | cis-Permethrin                        | Phorate (estimated)         |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| Begin date | Prometon (estimated)    | Propyzamide            | Propachlor                    | Propanil               | Propargite I & II                 | Simazine                              | Tebuthiuron (estimated)     |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| Begin date | Terbufos (estimated)    | Thiobencarb            | Triallate                     | Trifluralin            | Diazinon-d10, surrogate (percent) | $\alpha$ -HCH-d6, surrogate (percent) |                             |
| 8/25/2002  | —                       | —                      | —                             | E0.040                 | 98.0                              | 84.4                                  |                             |
| 8/25/2002  | —                       | —                      | —                             | —                      | 55.0                              | 40.0                                  |                             |

**Table 24A.** Quality-control results for pesticide blanks using U.S. Geological Survey's National Water Quality Laboratory method Airpest001 for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.— Continued

[Concentrations are given in nanograms per cubic meter unless noted. —, compound not detected at a concentration above laboratory reporting level. A sample volume of 315 cubic meters was assumed]

| Begin date | QC sample type          | Sample component used  | Sample preparation set number | Acetochlor             | Alachlor                          | Atrazine                              | Azinphos-methyl (estimated) |
|------------|-------------------------|------------------------|-------------------------------|------------------------|-----------------------------------|---------------------------------------|-----------------------------|
| 8/25/2002  | Laboratory PUF blank    | 1 clean used field PUF | 02.037                        | —                      | —                                 | —                                     | —                           |
| 8/25/2002  | Solvent Blank           | Solvent only           | 02.037                        | —                      | —                                 | —                                     | —                           |
| Begin date | Benfluralin (estimated) | Carbaryl (estimated)   | Carbofuran (estimated)        | Chlorpyrifos           | Cyanazine                         | Dacthal (DCPA)                        | p,p' DDE                    |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | 0.036                                 | 0.042                       |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| Begin date | Deethylatrazine         | Diazinon               | Dieldrin                      | Disulfoton (estimated) | Ethalfuralin (estimated)          | Ethion                                | Ethoprophos                 |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| Begin date | Fonofos                 | $\alpha$ -HCH          | Lindane                       | Linuron                | Malathion                         | Metolachlor                           | Metribuzin                  |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| Begin date | Molinate (estimated)    | Napropamide            | Parathion                     | Parathion-methyl       | Pendi-methalin (estimated)        | cis-Permethrin                        | Phorate (estimated)         |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| Begin date | Prometon (estimated)    | Propyzamide            | Propachlor                    | Propanil               | Propargite I & II                 | Simazine                              | Tebuthiuron (estimated)     |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| 8/25/2002  | —                       | —                      | —                             | —                      | —                                 | —                                     | —                           |
| Begin date | Terbufos (estimated)    | Thiobencarb            | Triallate                     | Trifluralin            | Diazinon-d10, surrogate (percent) | $\alpha$ -HCH-d6, surrogate (percent) |                             |
| 8/25/2002  | —                       | —                      | —                             | E0.040                 | 98.0                              | 84.4                                  |                             |
| 8/25/2002  | —                       | —                      | —                             | —                      | 55.0                              | 40.0                                  |                             |



**Table 24B.** Quality-control results for pesticide laboratory reagent-spikes using U.S. Geological Survey's National Water Quality Laboratory method Airpest001 for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.

[Concentrations are given in nanograms per cubic meter unless noted. A sample volume of 315 cubic meters was assumed]

| Begin date | QC sample type          | Sample component used      | Sample preparation set number | Acetochlor              | Alachlor                          | Atrazine                              | Azinphos-methyl (estimated) |
|------------|-------------------------|----------------------------|-------------------------------|-------------------------|-----------------------------------|---------------------------------------|-----------------------------|
| 8/25/2002  | Laboratory blank        | PUF 1 clean used field PUF | 02.037                        | 97.2                    | 105                               | 91.9                                  | 121                         |
| 8/25/2002  | Solvent Blank           | Solvent only               | 02.037                        | 66.5                    | 74.2                              | 81.3                                  | 97.5                        |
| Begin date | Benfluralin (estimated) | Carbaryl (estimated)       | Carbofuran (estimated)        | Chlorpyrifos            | Cyanazine                         | Dacthal (DCPA)                        | p,p' DDE                    |
| 8/25/2002  | 71.8                    | 108                        | 102                           | 79.0                    | 74.9                              | 107                                   | 112                         |
| 8/25/2002  | 19.2                    | 67.9                       | 132                           | 72.6                    | 73.0                              | 77.9                                  | 88.1                        |
| Begin date | Deethylatrazine         | Diazinon                   | Dieldrin                      | Disulfoton (estimated)  | Ethalfuralin (estimated)          | Ethion                                | Ethoprophos                 |
| 8/25/2002  | 95.8                    | 89.7                       | 105                           | 55.0                    | 66.7                              | 96.2                                  | 78.0                        |
| 8/25/2002  | 86.5                    | 70.2                       | 86.3                          | 8.5                     | 12.9                              | 87.0                                  | 59.5                        |
| Begin date | Fonofos                 | $\alpha$ -HCH              | Lindane                       | Linuron                 | Malathion                         | Metolachlor                           | Metribuzin                  |
| 8/25/2002  | 88.6                    | 84.4                       | 94.8                          | 119                     | 91.4                              | 95.2                                  | 81.1                        |
| 8/25/2002  | 69.8                    | 61.2                       | 60.3                          | 117                     | 83.8                              | 79.8                                  | 72.0                        |
| Begin date | Molinate (estimated)    | Napropamide                | Parathion                     | Parathion-methyl        | Pendimethalin (estimated)         | cis-Permethrin                        | Phorate (estimated)         |
| 8/25/2002  | 71.2                    | 113                        | 80.0                          | 97.7                    | 85.9                              | 102                                   | 77.9                        |
| 8/25/2002  | 52.6                    | 81.6                       | 50.2                          | 47.9                    | 38.2                              | 90.2                                  | 34.5                        |
| Begin date | Prometon (estimated)    | Propyzamide                | Propachlor                    | Propanil                | Propargite I & II                 | Simazine                              | Tebuthiuron (estimated)     |
| 8/25/2002  | 87.5                    | 90.3                       | 89.0                          | 104                     | 93.0                              | 66.2                                  | 65.5                        |
| 8/25/2002  | 76.9                    | 74.3                       | 67.3                          | 89.8                    | 79.3                              | 54.1                                  | 62.3                        |
| Begin date | Terbufos (estimated)    | Thiobencarb                | Triallate                     | Trifluralin (estimated) | Diazinon-d10, surrogate (percent) | $\alpha$ -HCH-d6, surrogate (percent) |                             |
| 8/25/2002  | 68.4                    | 122                        | 87.9                          | 80.6                    | 93.5                              | 79.8                                  |                             |
| 8/25/2002  | 39.5                    | 78.0                       | 71.6                          | 24.3                    | 83.0                              | 56.4                                  |                             |

**Table 25A.** Quality-control laboratory blank results using pesticide method Airpest002 for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.

[Concentrations are given in nanograms per cubic meter unless noted. Sample volume was assumed to be 315 cubic meters. QC, quality control; —, compound not detected at a concentration above laboratory reporting level]

| QC sample type           | Sample component used               | Sample preparation set number | 2-Amino- <i>N</i> -isopropylbenzamide | Azinphos-methyl oxon (estimated) | Bifenthrin                          | 2-(4- <i>tert</i> -Butylphenoxy) cyclohexanol | 4-Chlorobenzylmethylsulfone     | 2-Chloro-2',6'-diethylacetanilide |
|--------------------------|-------------------------------------|-------------------------------|---------------------------------------|----------------------------------|-------------------------------------|---|---------------------------------|-----------------------------------|
| Laboratory blank         | Clean, used field PUF               | 02.037                        | —                                     | —                                | —                                   | —   | —                               | —                                 |
| Laboratory solvent blank | Solvent only                        | 02.037                        | —                                     | —                                | —                                   | —   | —                               | —                                 |
| QC sample type           | 4-Chloro-2-methylphenol (estimated) | Cycloate                      | $\lambda$ -Cyhalothrin                | Cyfluthrin (estimated)           | Cypermethrin (estimated)            | 2,5-Dichloroaniline                           | 3,4-Dichloroaniline (estimated) | 3,5-Dichloroaniline               |
| Laboratory blank         | —                                   | —                             | —                                     | —                                | —                                   | —   | —                               | —                                 |
| Laboratory solvent blank | —                                   | —                             | —                                     | —                                | —                                   | —   | —                               | —                                 |
| QC sample type           | 4,4'-Dichlorobenzophenone           | Dimethoate                    | <i>E</i> -Dimethomorph                | <i>Z</i> -Dimethomorph           | Disulfoton sulfone                  | $\alpha$ -Endosulfan                          | $\beta$ -Endosulfan             | Endosulfan ether                  |
| Laboratory blank         | —                                   | —                             | —                                     | —                                | —                                   | —   | —                               | —                                 |
| Laboratory solvent blank | —                                   | —                             | —                                     | —                                | —                                   | —   | —                               | —                                 |
| QC sample type           | Endosulfan sulfate                  | Ethion                        | Ethion monoxon                        | Ethoprophos                      | 2-Ethyl-6-methylaniline (estimated) | Fenthion                                      | Fenthion sulfone                | Fenthion sulfone oxygen analog    |
| Laboratory blank         | —                                   | —                             | —                                     | —                                | —                                   | —   | —                               | —                                 |
| Laboratory solvent blank | —                                   | —                             | —                                     | —                                | —                                   | —   | —                               | —                                 |
| QC sample type           | Fenthion sulfoxide                  | Flumetralin (estimated)       | Fonofos oxygen analog (estimated)     | Iprodione (estimated)            | Isofenphos                          | Malaoxon                                      | Methidathion                    | 1,4-Naphthoquinone (estimated)    |
| Laboratory blank         | —                                   | —                             | —                                     | —                                | —                                   | —   | —                               | —                                 |
| Laboratory solvent blank | —                                   | —                             | —                                     | —                                | —                                   | —   | —                               | —                                 |
| QC sample type           | Myclobutanil                        | Oxyfluorfen                   | Paraoxon-ethyl                        | Paraoxon-methyl (estimated)      | Profenofos                          | Prometryn                                     | Propetamphos                    | <i>cis</i> -Propiconazole         |
| Laboratory blank         | —                                   | —                             | —                                     | —                                | —                                   | —   | —                               | —                                 |
| Laboratory solvent blank | —                                   | —                             | —                                     | —                                | —                                   | —   | —                               | —                                 |

**Table 25A.** Quality-control laboratory blank results using pesticide method Airpest002 for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[Concentrations are given in nanograms per cubic meter unless noted. Sample volume was assumed to be 315 cubic meters. QC, quality control; —, compound not detected at a concentration above laboratory reporting level]

| QC sample type           | trans-Propiconazole | <i>O</i> -ethyl- <i>O</i> -methyl- <i>S</i> -Propyl-phosphorthioate | Sulfotepp | Tebupirimphos | Tebupirimphos oxygen analog | Tefluthrin | Temephos (estimated) | Terbufos oxygen analog sulfone |
|--------------------------|---------------------|---|-----------|---------------|-----------------------------|------------|----------------------|--------------------------------|
| Laboratory blank         | —                   | —   | —         | —             | —                           | —          | —                    | —                              |
| Laboratory solvent blank | —                   | —   | —         | —             | —                           | —          | —                    | —                              |

| QC sample type           | Terbuthylazine | Tribufos | 3-Trifluoro-methylaniline (estimated) | Diazinon- <i>d</i> 10, surrogate (percent) | $\alpha$ -HCH- <i>d</i> 6, surrogate (percent) |
|--------------------------|----------------|----------|---------------------------------------|--|--|
| Laboratory blank         | —              | —        | —                                     | 102  | 83.4   |
| Laboratory solvent blank | —              | —        | —                                     | 50.8                                       | 47.2   |

**Table 25B.** Quality-control results for pesticide laboratory reagent spikes using method Airpest002 for samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site identification number is 324141117001601. Concentrations are given in percent recovered. PUF, polyurethane foam plug; NS, not spiked]

| Sample component used  | Sample preparation set number       | 2-Amino- <i>N</i> -isopropylbenzamide | Azinphos-methyl oxon (estimated) | Bifenthrin                      | 2-(4- <i>tert</i> -Butylphenoxy) cyclohexanol | 4-Chloro-benzylmethyl sulfone     | 2-Chloro-2',6'-diethyl-acetanilide |
|------------------------|-------------------------------------|---------------------------------------|----------------------------------|---------------------------------|---|-----------------------------------|------------------------------------|
| 1 clean used field PUF | 02.037                              | 51.0                                  | 85.6                             | 106                             | 97.4  | NS                                | 101                                |
| Solvent only           | 02.037                              | 43.5                                  | 53.4                             | 78.4                            | 59.7  | NS                                | 72.4                               |
| Solvent only           | 02.037                              | 26.4                                  | 0.00                             | 72.5                            | 90.2  | NS                                | 67.1                               |
| Sample component used  | 4-Chloro-2-methylphenol (estimated) | Cycloate                              | $\lambda$ -Cyhalothrin           | Cyfluthrin (estimated)          | Cypermethrin (estimated)                      | 2,5-Dichloro-aniline              | 3,4-Dichloro-aniline (estimated)   |
| 1 clean used field PUF | 87.7                                | 84.7                                  | 117                              | 0.0                             | 163   | 75.7                              | 62.5                               |
| Solvent only           | 37.9                                | 70.9                                  | 60.2                             | 81.3                            | 72.5  | 66.5                              | 50.3                               |
| Solvent only           | 19.4                                | 62.9                                  | 52.6                             | 0.0                             | 50.4  | 56.9                              | 42.9                               |
| Sample component used  | 3,5-Dichloro-aniline                | 4,4'-Dichloro-benzophenone            | Dimethoate                       | <i>E</i> -Dimetho-morph         | <i>Z</i> -Dimetho-morph                       | Disulfoton sulfone                | $\alpha$ -Endosulfan               |
| 1 clean used field PUF | 83.1                                | 76.7                                  | 75.6                             | 146                             | 136   | 79.2                              | 94.5                               |
| Solvent only           | 62.8                                | 56.1                                  | 59.8                             | 68.3                            | 68.6  | 64.3                              | 80.7                               |
| Solvent only           | 52.8                                | 62.3                                  | 43.4                             | 61.7                            | 56.9  | 51.0                              | 73.0                               |
| Sample component used  | Fenthion                            | Fenthion sulfone                      | Fenthion sulfone oxygen analog   | Fenthion sulfoxide              | Flumetralin (estimated)                       | Fonofos oxygen analog (estimated) | Iprodione (estimated)              |
| 1 clean used field PUF | 81.6                                | 93.5                                  | 71.8                             | 48.7                            | 77.0  | 45.8                              | 70.2                               |
| Solvent only           | 34.0                                | 72.5                                  | 44.4                             | 67.8                            | 21.7  | 37.3                              | 42.5                               |
| Solvent only           | 29.4                                | 53.6                                  | 36.8                             | 58.9                            | 17.5  | 33.0                              | 142                                |
| Sample component used  | Isofenphos                          | Malaoxon (estimated)                  | Methidathion                     | 1,4-Naphtho-quinone (estimated) | Myclobutanil                                  | Oxyfluorfen                       | Paraoxon-ethyl                     |
| 1 clean used field PUF | 84.6                                | 95.2                                  | 80.7                             | 26.7                            | 78.4  | 97.0                              | 88.0                               |
| Solvent only           | 56.0                                | 52.5                                  | 57.2                             | 13.8                            | 54.2  | 59.1                              | 44.3                               |
| Solvent only           | 39.8                                | 55.6                                  | 59.8                             | 17.7                            | 35.8  | 69.3                              | 55.4                               |

**Table 25B.** Quality-control results for pesticide laboratory reagent spikes using method Airpest002 for samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in percent recovered. PUF, polyurethane foam plug; NS, not spiked]

| Sample component used  | Paraoxon-methyl (estimated) | Profenofos                            | Prometryn                                  | Propetamphos                                   | cis-Propiconazole    | trans-Propiconazole                        | O-ethyl-O-methyl-S-Propyl-phosphor-thioate |
|------------------------|-----------------------------|---------------------------------------|--|--|----------------------|--|--|
| 1 clean used field PUF | 49.2                        | 90.2                                  | 97.0                                       | 93.8   | 124                  | 109  | 89.4                                       |
| Solvent only           | 28.0                        | 60.0                                  | 71.9                                       | 70.9   | 59.2                 | 71.4                                       | 59.5                                       |
| Solvent only           | 0.00                        | 52.1                                  | 48.8                                       | 46.4   | 40.0                 | 55.6                                       | 48.7                                       |
| Sample component used  | Sulfotepp                   | Tebupirimphos                         | Tebupirimphos oxygen analog                | Tefluthrin                                     | Temephos (estimated) | Terbufos oxygen analog sulfone (estimated) | Terbuthylazine                             |
| 1 clean used field PUF | 89.4                        | 94.0                                  | 84.9                                       | 100  | 134.0                | 85.3                                       | 99.1                                       |
| Solvent only           | 59.5                        | 68.8                                  | 56.7                                       | 77.8   | 61.4                 | 47.4                                       | 81.7                                       |
| Solvent only           | 48.7                        | 59.2                                  | 55.6                                       | 80.1   | 0.00                 | 45.3                                       | 57.9                                       |
| Sample component used  | Tribufos                    | 3-Trifluoromethyl-aniline (estimated) | Diazinon- <i>d</i> 10, surrogate (percent) | $\alpha$ -HCH- <i>d</i> 6, surrogate (percent) |                      |  |  |
| 1 clean used field PUF | 88.4                        | 45.3                                  | 78.8                                       | 89.8   |                      |  |  |
| Solvent only           | 54.7                        | 49.3                                  | 125  | 130  |                      |  |  |
| Solvent only           | 46.3                        | 43.9                                  | 57.6                                       | 49.8   |                      |  |  |

**Table 26A.** Quality-control laboratory blank results using pesticides method Airpest003 for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site identification number is 324141117001601. Concentrations are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Sample volume is assumed to be 315 m<sup>3</sup>. GFF, glass fiber filter; PSE, pressurized solvent extraction; PUF, polyurethane foam plug; —, compound not detected at a concentration above laboratory reporting level]

| Sample date<br>(mm/dd/yyyy) | Quality control<br>sample type | Sample components<br>spiked | Sample preparation<br>set number | Extraction<br>method | Extract split<br>before<br>cleanup | Cleanup<br>column<br>used for<br>pesticides | Acetochlor | Alachlor |
|-----------------------------|--------------------------------|-----------------------------|----------------------------------|----------------------|------------------------------------|---|------------|----------|
| 12/16/2002                  | GFF Blank                      | GFF                         | 02.35009                         | PSE                  | no                                 | C18/ Florisil                               | —          | —        |
| 12/16/2002                  | PUF Blank                      | PUF                         | 02.35009                         | PSE                  | no                                 | C18/ Florisil                               | —          | —        |
| 11/19/2003                  | GFF Blank                      | GFF                         | 03.32308                         | PSE                  | yes                                | Carbo-prep                                  | —          | —        |
| 11/19/2003                  | PUF Blank                      | PUF                         | 03.32308                         | PSE                  | yes                                | Carbo-prep                                  | —          | —        |
| 06/03/2003                  | Field blank GFF                | GFF                         | 03.32308                         | PSE                  | yes                                | Carbo-prep                                  | —          | —        |
| 06/03/2003                  | Field blank top<br>PUF         | Top PUF                     | 03.32308                         | PSE                  | yes                                | Carbo-prep                                  | —          | —        |
| 06/03/2003                  | Field blank<br>bottom PUF      | Bottom PUF                  | 03.32308                         | PSE                  | yes                                | Carbo-prep                                  | —          | —        |

| Sample date<br>(mm/dd/yyyy) | Atrazine | Azinphos-<br>methyl<br>(estimated) | Azinphos-<br>methyl<br>oxon<br>(estimated) | Benfluralin<br>(estimated) | Carbaryl<br>(estimated) | 2-Chloro-2,6-<br>diethyl-<br>acet-<br>anilide | 4-Chloro-2-<br>methyl-<br>phenol | Chlorpyrifos |
|-----------------------------|----------|------------------------------------|--|----------------------------|-------------------------|---|----------------------------------|--------------|
| 12/16/2002                  | —        | —                                  | —  | —                          | —                       | —   | —                                | —            |
| 12/16/2002                  | —        | —                                  | —  | —                          | —                       | —   | —                                | —            |
| 11/19/2003                  | —        | —                                  | —  | —                          | —                       | —   | —                                | —            |
| 11/19/2003                  | —        | —                                  | —  | —                          | —                       | —   | —                                | —            |
| 06/03/2003                  | —        | —                                  | —  | —                          | —                       | —   | —                                | —            |
| 06/03/2003                  | —        | —                                  | —  | —                          | —                       | —   | —                                | —            |
| 06/03/2003                  | —        | —                                  | —  | —                          | —                       | —   | —                                | —            |

| Sample date<br>(mm/dd/yyyy) | Chlorpyrifos<br>oxygen<br>analog<br>(estimated) | Cyfluthrin<br>(estimated) | Cyper-<br>methrin<br>(estimated) | Dacthal<br>(DCPA) | Deethyl-<br>atrazine | Desulfinyl-<br>fipronil | Desulfinyl-<br>fipronil<br>amide<br>(estimated) | Diazinon |
|-----------------------------|---|---------------------------|----------------------------------|-------------------|----------------------|-------------------------|---|----------|
| 12/16/2002                  | —   | —                         | —                                | —                 | —                    | —                       | —   | —        |
| 12/16/2002                  | —   | —                         | —                                | —                 | —                    | —                       | —   | —        |
| 11/19/2003                  | —   | —                         | —                                | —                 | —                    | —                       | —   | —        |
| 11/19/2003                  | —   | —                         | —                                | —                 | —                    | —                       | —   | —        |
| 06/03/2003                  | —   | —                         | —                                | —                 | —                    | —                       | —   | —        |
| 06/03/2003                  | —   | —                         | —                                | —                 | —                    | —                       | —   | —        |
| 06/03/2003                  | —   | —                         | —                                | —                 | —                    | —                       | —   | —        |

**Table 26A.** Quality-control laboratory blank results using pesticide method Airpest003 for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Sample volume is assumed to be 315 m<sup>3</sup>. GFF, glass fiber filter; PSE, pressurized solvent extraction; PUF, polyurethane foam plug; —, compound not detected at a concentration above laboratory reporting level]

| Sample date<br>(mm/dd/yyyy) | Diazoxon | 3,4-Dichloro-aniline | Dichlorvos | Dicrotophos | Dieldrin | Dimethoate | Ethion | Ethion monoxon |
|-----------------------------|----------|----------------------|------------|-------------|----------|------------|--------|----------------|
| 12/16/2002                  | —        | —                    | —          | —           | —        | —          | —      | —              |
| 12/16/2002                  | —        | —                    | —          | —           | —        | —          | —      | —              |
| 11/19/2003                  | —        | —                    | —          | —           | —        | —          | —      | —              |
| 11/19/2003                  | —        | —                    | —          | —           | —        | —          | —      | —              |
| 06/03/2003                  | —        | —                    | —          | —           | —        | —          | —      | —              |
| 06/03/2003                  | —        | —                    | —          | —           | —        | —          | —      | —              |
| 06/03/2003                  | —        | —                    | —          | —           | —        | —          | —      | —              |

| Sample date<br>(mm/dd/yyyy) | 2-Ethyl-6 methyl-aniline | Fena-miphos | Fenamiphos sulfone | Fenamiphos sulfoxide | Fipronil | Fipronil sulfide | Fipronil sulfone | Fonofos |
|-----------------------------|--------------------------|-------------|--------------------|----------------------|----------|------------------|------------------|---------|
| 12/16/2002                  | —                        | —           | —                  | —                    | —        | —                | —                | —       |
| 12/16/2002                  | —                        | —           | —                  | —                    | —        | —                | —                | —       |
| 11/19/2003                  | —                        | —           | —                  | —                    | —        | —                | —                | —       |
| 11/19/2003                  | —                        | —           | —                  | —                    | —        | —                | —                | —       |
| 06/03/2003                  | —                        | —           | —                  | —                    | —        | —                | —                | —       |
| 06/03/2003                  | —                        | —           | —                  | —                    | —        | —                | —                | —       |
| 06/03/2003                  | —                        | —           | —                  | —                    | —        | —                | —                | —       |

| Sample date<br>(mm/dd/yyyy) | Fonofos oxygen analog | Hexazinone | Iprodione | Isofen-phos | Malaoxon | Malathion | Metalaxyl | Methi-dathion |
|-----------------------------|-----------------------|------------|-----------|-------------|----------|-----------|-----------|---------------|
| 12/16/2002                  | —                     | —          | —         | —           | —        | —         | —         | —             |
| 12/16/2002                  | —                     | —          | —         | —           | —        | —         | —         | —             |
| 11/19/2003                  | —                     | —          | —         | —           | —        | —         | —         | —             |
| 11/19/2003                  | —                     | —          | —         | —           | —        | —         | —         | —             |
| 06/03/2003                  | —                     | —          | —         | —           | —        | —         | —         | —             |
| 06/03/2003                  | —                     | —          | —         | —           | —        | —         | —         | —             |
| 06/03/2003                  | —                     | —          | —         | —           | —        | —         | —         | —             |

| Sample date<br>(mm/dd/yyyy) | Metolachlor | Metribuzin | Myclo-butanil | Paraoxon-methyl | Parathion-methyl | Pendi-methilan | Phorate | Phorate oxon |
|-----------------------------|-------------|------------|---------------|-----------------|------------------|----------------|---------|--------------|
| 12/16/2002                  | —           | —          | —             | —               | —                | —              | —       | —            |
| 12/16/2002                  | —           | —          | —             | —               | —                | —              | —       | —            |
| 11/19/2003                  | —           | —          | —             | —               | —                | —              | —       | —            |
| 11/19/2003                  | —           | —          | —             | —               | —                | —              | —       | —            |
| 06/03/2003                  | —           | —          | —             | —               | —                | —              | —       | —            |
| 06/03/2003                  | —           | —          | —             | —               | —                | —              | —       | —            |
| 06/03/2003                  | —           | —          | —             | —               | —                | —              | —       | —            |

**Table 26A.** Quality-control laboratory blank results using pesticide method Airpest003 for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 324141117001601. Concentrations are given in nanograms per cubic meter (ng/m<sup>3</sup>) unless noted. Sample volume is assumed to be 315 m<sup>3</sup>. GFF, glass fiber filter; PSE, pressurized solvent extraction; PUF, polyurethane foam plug; —, compound not detected at a concentration above laboratory reporting level]

| Sample date<br>(mm/dd/yyyy) | Prometon | Prometryn | Propyzamide | Simazine | Tebuthiuron | Terbufos | Terbufos oxygen analog sulfone | Terbuthylazine |
|-----------------------------|----------|-----------|-------------|----------|-------------|----------|--------------------------------|----------------|
| 12/16/2002                  | —        | —         | —           | —        | —           | —        | —                              | —              |
| 12/16/2002                  | —        | —         | —           | —        | —           | —        | —                              | —              |
| 11/19/2003                  | —        | —         | —           | —        | —           | —        | —                              | —              |
| 11/19/2003                  | —        | —         | —           | —        | —           | —        | —                              | —              |
| 06/03/2003                  | —        | —         | —           | —        | —           | —        | —                              | —              |
| 06/03/2003                  | —        | —         | —           | —        | —           | —        | —                              | —              |
| 06/03/2003                  | —        | —         | —           | —        | —           | —        | —                              | —              |

| Sample date<br>(mm/dd/yyyy) | <i>cis</i> -Permethrin | <i>trans</i> -Permethrin | Trifluralin | Diazinon- <i>d</i> 10, surrogate<br>(percent) | $\alpha$ -HCH- <i>d</i> 6, surrogate<br>(percent) |
|-----------------------------|------------------------|--------------------------|-------------|---|---|
| 12/16/2002                  | —                      | —                        | —           | 52.0  | 38.0  |
| 12/16/2002                  | —                      | —                        | —           | 62.0  | 55.0  |
| 11/19/2003                  | —                      | —                        | —           | 70.8  | 44.6  |
| 11/19/2003                  | —                      | —                        | —           | 101   | 93.7  |
| 06/03/2003                  | —                      | —                        | —           | 83.8  | 70.8  |
| 06/03/2003                  | —                      | —                        | —           | 106   | 99.1  |
| 06/03/2003                  | —                      | —                        | —           | 95.2  | 88.7  |



**Table 26B.** Quality-control laboratory reagent-spike results using pesticide method Airpest003 for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site identification number is 32414117001601. Values for compounds are in percent recovery. QC, quality control; E, estimated values; na, not applicable; PSE, pressurized solvent extraction; <, compound not detected at a concentration above reporting level]

| Sample date<br>(mm/dd/yyyy) | QC sample type | Sample components spiked | Sample preparation set number | Extraction method | Extract split before cleanup | Cleanup column used for pesticides | Acetochlor | Alachlor |
|-----------------------------|----------------|--------------------------|-------------------------------|-------------------|------------------------------|------------------------------------|------------|----------|
| 12/16/2002                  | GFF Spike      | GFF                      | 02.35009                      | PSE               | no                           | C18/ Florisil                      | 66.0       | E 75.3   |
| 12/16/2002                  | PUF Spike      | PUF                      | 02.35009                      | PSE               | no                           | C18/ Florisil                      | 76.0       | E 84.5   |
| 11/19/2003                  | GFF Spike      | GFF                      | 03.32308                      | PSE               | yes                          | Carbo-prep                         | 104        | 98.1     |
| 11/19/2003                  | PUF Spike      | PUF                      | 03.32308                      | PSE               | yes                          | Carbo-prep                         | 115        | 115      |

| Sample date<br>(mm/dd/yyyy) | Atrazine | Azinphos-methyl (estimated) | Azinphos-methyl oxon (estimated) | Benfluralin (estimated) | Carbaryl (estimated) | 2-Chloro-2,6-diethyl-acetanilide | 4-Chloro-2-methyl-phenol | Chlorpyrifos |
|-----------------------------|----------|-----------------------------|----------------------------------|-------------------------|----------------------|----------------------------------|--------------------------|--------------|
| 12/16/2002                  | 57.3     | <40                         | 0.0                              | 47.9                    | 14.8                 | 63.6                             | E 39.2                   | 54.2         |
| 12/16/2002                  | 59.3     | <175                        | 0.0                              | 57.3                    | 69.3                 | 67.3                             | E 60.4                   | 68.5         |
| 11/19/2003                  | 110      | 31.7                        | 0.0                              | 89.3                    | 0.0                  | 110                              | 0.0                      | 99.8         |
| 11/19/2003                  | 109      | 53.0                        | 48.0                             | 95.1                    | 73.9                 | 128                              | 102                      | 104          |

| Sample date<br>(mm/dd/yyyy) | Chlorpyrifos oxygen analog (estimated) | Cyfluthrin (estimated) | Cypermethrin (estimated) | Dacthal (DCPA) | Deethyl-atrazine | Desulfinyl-fipronil | Desulfinyl fipronil amide (estimated) | Diazinon |
|-----------------------------|--|------------------------|--------------------------|----------------|------------------|---------------------|---------------------------------------|----------|
| 12/16/2002                  | 0.0                                    | 0.0                    | 0.0                      | 64.7           | E 59.1           | 62.1                | <35                                   | 57.3     |
| 12/16/2002                  | 0.0                                    | 128                    | 84.4                     | 67.2           | E 56.1           | 70.3                | E 64.1                                | 66.0     |
| 11/19/2003                  | 0.0                                    | 0.0                    | 0.0                      | 113            | 74               | 107                 | 40.5                                  | 96.1     |
| 11/19/2003                  | 85.7                                   | 97.1                   | 95.2                     | 104            | 101              | 101                 | 95.3                                  | 101      |

| Sample date<br>(mm/dd/yyyy) | Diazoxon (estimated) | 3,4-Dichloro-aniline (estimated) | Dichlorvos (estimated) | Dicrotophos (estimated) | Dieldrin | Dimethoate | Ethion | Ethion monoxon (estimated) |
|-----------------------------|----------------------|----------------------------------|------------------------|-------------------------|----------|------------|--------|----------------------------|
| 12/16/2002                  | 0.0                  | 51.9                             | 0.0                    | 0.0                     | 69.3     | E 30.8     | 41.6   | <30                        |
| 12/16/2002                  | 48.7                 | 59.0                             | 6.2                    | 0.0                     | 67.9     | E 63.7     | 69.5   | 61.6                       |
| 11/19/2003                  | 29.9                 | 4.9                              | 0.0                    | 55.7                    | 98.4     | 94.2       | 73.6   | 26.0                       |
| 11/19/2003                  | 110                  | 39.2                             | 76.1                   | 119                     | 119      | 78.9       | 144    | 158                        |

| Sample date<br>(mm/dd/yyyy) | 2-Ethyl-6 methyl-aniline | Fenamiphos (estimated) | Fenamiphos sulfone (estimated) | Fenamiphos sulfoxide (estimated) | Fipronil (estimated) | Fipronil sulfide | Fipronil sulfone | Fonofos |
|-----------------------------|--------------------------|------------------------|--------------------------------|----------------------------------|----------------------|------------------|------------------|---------|
| 12/16/2002                  | E 53.7                   | 0.0                    | 0.0                            | 0.0                              | 36.3                 | 60.2             | 55.5             | 50.2    |
| 12/16/2002                  | E 46.5                   | 49.8                   | 0.0                            | 0.0                              | 73.4                 | 74.9             | 23.1             | 57.8    |
| 11/19/2003                  | E 13.9                   | 59.0                   | 46.6                           | 76.8                             | 41.6                 | 98.9             | 52.6             | 92.3    |
| 11/19/2003                  | 69.0                     | 211                    | 86.8                           | 82.3                             | 112                  | 103              | 72.0             | 97.2    |

**Table 26B.** Quality-control laboratory reagent-spike results using pesticide method Airpest003 for air samples collected at the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site identification number is 32414117001601. Values for compounds are in percent recovery. QC, quality control; E, estimated values; na, not applicable; PSE, pressurized solvent extraction; <, compound not detected at a concentration above reporting level]

| Sample date<br>(mm/dd/yyyy) | Fonofos<br>oxygen<br>analog<br>(estimated) | Hexazinone<br>(estimated) | Iprodione<br>(estimated) | Isofenphos | Malaoxon<br>(estimated) | Malathion<br>(estimated) | Metalaxyl | Methidathion |
|-----------------------------|--|---------------------------|--------------------------|------------|-------------------------|--------------------------|-----------|--------------|
| 12/16/2002                  | 0.0  | 0.0                       | 0.0                      | 42.8       | 0.0                     | 0.0                      | 0.0       | 43.3         |
| 12/16/2002                  | 23.1                                       | 0.0                       | 159                      | 71.4       | 56.2                    | 68.3                     | 0.0       | 82.7         |
| 11/19/2003                  | 41.2                                       | 78.8                      | 0.0                      | 99.0       | 0.0                     | 0.0                      | 116       | 73           |
| 11/19/2003                  | 108  | 67.2                      | 42.2                     | 125        | 138                     | 109                      | 121       | 133          |

| Sample date<br>(mm/dd/yyyy) | Metolachlor | Metribuzin | Myclobutanil | Paraoxon-<br>methyl<br>(estimated) | Parathion-<br>methyl | Pendi-<br>methilan | Phorate<br>(estimated) | Phorate<br>oxon<br>(estimated) |
|-----------------------------|-------------|------------|--------------|------------------------------------|----------------------|--------------------|------------------------|--------------------------------|
| 12/16/2002                  | 58.0        | 43.8       | 0.0          | 0.0                                | E 56.0               | 49.6               | 40.7                   | 0.0                            |
| 12/16/2002                  | 66.9        | 64.3       | 52.9         | 30                                 | E 70.6               | 67.2               | 77.4                   | 88.8                           |
| 11/19/2003                  | 107         | 41.0       | 78.6         | 21                                 | 87.7                 | 91.4               | 75.7                   | 55.4                           |
| 11/19/2003                  | 97.7        | 99.9       | 128          | 83.8                               | 81.5                 | 88.2               | 100                    | 152                            |

| Sample date<br>(mm/dd/yyyy) | Prometon | Prometryn | Propyzamide | Simazine | Tebuthiuron<br>(estimated) | Terbufos | Terbufos<br>oxygen<br>analog<br>sulfone<br>(estimated) | Terbuthyl-<br>azine |
|-----------------------------|----------|-----------|-------------|----------|----------------------------|----------|--|---------------------|
| 12/16/2002                  | 44.3     | 45.4      | 63.6        | 66.6     | 0.0                        | <125     | 0.0  | 62.2                |
| 12/16/2002                  | 55.3     | 72.7      | 71.4        | 71.8     | 32                         | 134      | 0.0  | 67.8                |
| 11/19/2003                  | 81.9     | 84.0      | 66.4        | 104      | 0.0                        | 71.2     | 0.0  | 110                 |
| 11/19/2003                  | 118      | 109       | 98.3        | 103      | 59                         | 108      | 142  | 109                 |

| Sample date<br>(mm/dd/yyyy) | <i>cis</i> -<br>Permethrin | <i>trans</i> -<br>Permethrin | Trifluralin<br>(estimated) | Diazinon- <i>d</i> 10,<br>surrogate<br>(percent) | $\alpha$ -HCH- <i>d</i> 6,<br>surrogate<br>(percent) |
|-----------------------------|----------------------------|------------------------------|----------------------------|--|--|
| 12/16/2002                  | 67.0                       | 59.2                         | 50.1                       | 63.9   | 46.4   |
| 12/16/2002                  | 100                        | 90.6                         | 60.6                       | 72.5   | 56.5   |
| 11/19/2003                  | 95.8                       | 70.3                         | 93.3                       | 102  | 62.9   |
| 11/19/2003                  | 102                        | 85.3                         | 110                        | 99.8   | 92.4   |

**Table 27A.** Quality-control laboratory reagent-water blank results for the special study of pharmaceutical compounds in the Sweetwater Reservoir watershed, San Diego County, California.

[LRL, Laboratory reporting level; —, compound not detected at a concentration above laboratory reporting level; mL, milliliter. All values were reported as micrograms per liter (µg/L) unless noted]

| Date<br>(mm/dd/yyyy) | Sample<br>volume (mL) | Acetaminophen<br>(62000) | Albuterol<br>(62020) | Caffeine<br>(50305) | Carbamazapine<br>(62793) | Codeine<br>(62002) |
|----------------------|-----------------------|--------------------------|----------------------|---------------------|--------------------------|--------------------|
| [LRL]                |                       | [0.22]                   | [0.19]               | [0.19]              | [0.18]                   | [0.20]             |
| 03/20/2002           | 918                   | —                        | —                    | —                   | —                        | —                  |
| 06/11/2002           | 901                   | —                        | —                    | —                   | —                        | —                  |
| 12/12/2002           | 912                   | —                        | —                    | —                   | —                        | —                  |
| 02/11/2003           | 944                   | —                        | —                    | —                   | —                        | —                  |
| 04/09/2003           | 933                   | —                        | —                    | —                   | —                        | —                  |
| 08/20/2003           | 921                   | —                        | —                    | —                   | —                        | —                  |

| Date<br>(mm/dd/yyyy) | Cotinine<br>(62005) | Dehydro-<br>nifedipine<br>(62004) | 1,7 Dimethyl-<br>xanthine<br>(62030) | Diltiazem<br>(62008) | Diphen-<br>hydramine<br>(62796) | Sulfameth-<br>oxazole<br>(62021) |
|----------------------|---------------------|-----------------------------------|--------------------------------------|----------------------|---------------------------------|----------------------------------|
| [LRL]                | [0.19]              | [0.20]                            | [0.22]                               | [0.18]               | [0.18]                          | [0.21]                           |
| 03/20/2002           | —                   | —                                 | —                                    | —                    | —                               | —                                |
| 06/11/2002           | —                   | —                                 | —                                    | 0.001                | —                               | —                                |
| 12/12/2002           | —                   | —                                 | —                                    | 0.002                | 0.003                           | —                                |
| 02/11/2003           | —                   | —                                 | —                                    | —                    | 0.002                           | —                                |
| 04/09/2003           | —                   | —                                 | —                                    | —                    | —                               | —                                |
| 08/20/2003           | —                   | —                                 | —                                    | —                    | —                               | —                                |

| Date<br>(mm/dd/yyyy) | Thiabendazole<br>(62081) | Trimethoprim<br>(62023) | Warfarin<br>(62024) | Ethylnico-<br>tinate- <i>d4</i> ,<br>surrogate<br>(95571)<br>(percent) |
|----------------------|--------------------------|-------------------------|---------------------|--|
| [LRL]                | [0.18]                   | [0.17]                  | [0.19]              |  |
| 03/20/2002           | —                        | —                       | —                   | 105  |
| 06/11/2002           | —                        | 0.002                   | —                   | 85   |
| 12/12/2002           | —                        | —                       | —                   | 73   |
| 02/11/2003           | —                        | —                       | —                   | 74   |
| 04/09/2003           | —                        | —                       | —                   | 74   |
| 08/20/2003           | —                        | —                       | —                   | 96   |

**Table 27B.** Quality-control laboratory reagent-water spike results for the special study of pharmaceutical compounds in the Sweetwater Reservoir watershed, San Diego County, California.

[LRL, Laboratory reporting level; mL, milliliter. All values were reported as percent recovered]

| Date<br>(mm/dd/yyyy) | Sample<br>volume<br>(mL) | Acetaminophen<br>(62000) | Albuterol<br>(62020) | Caffeine<br>(50305) | Carbamazapine<br>(62793) | Codeine<br>(62002) |
|----------------------|--------------------------|--------------------------|----------------------|---------------------|--------------------------|--------------------|
| [LRL]                |                          | [0.22]                   | [0.19]               | [0.19]              | [0.18]                   | [0.20]             |
| 03/20/2002           | 918                      | 85                       | 81                   | 100                 | 70                       | 92                 |
| 06/11/2002           | 872                      | 71                       | 76                   | 84                  | 67                       | 69                 |
| 12/12/2002           | 930                      | 66                       | 88                   | 89                  | 89                       | 180                |
| 02/11/2003           | 952                      | 68                       | 87                   | 98                  | 86                       | 195                |
| 04/09/2003           | 933                      | 54                       | 65                   | 82                  | 70                       | 139                |
| 08/20/2003           | 912                      | 85                       | 63                   | 81                  | 103                      | 101                |

| Date<br>(mm/dd/yyyy) | Cotinine<br>(62005) | Dehydro-<br>nifedipine<br>(62004) | 1,7 Dimethyl-<br>xanthine<br>(62030) | Diltiazem<br>(62008) | Diphen-<br>hydramine<br>(62796) | Sulfameth-<br>oxazole<br>(62021) |
|----------------------|---------------------|-----------------------------------|--------------------------------------|----------------------|---------------------------------|----------------------------------|
| [LRL]                | [0.19]              | [0.20]                            | [0.22]                               | [0.18]               | [0.18]                          | [0.21]                           |
| 03/20/2002           | 78                  | 95                                | 188                                  | 59                   | 60                              | 68                               |
| 06/11/2002           | 74                  | 71                                | 119                                  | 46                   | 57                              | 50                               |
| 12/12/2002           | 92                  | 90                                | 80                                   | 64                   | 61                              | 31                               |
| 02/11/2003           | 92                  | 77                                | 90                                   | 35                   | 56                              | 45                               |
| 04/09/2003           | 75                  | 61                                | 76                                   | 30                   | 2                               | 11                               |
| 08/20/2003           | 109                 | 100                               | 86                                   | 68                   | 80                              | 98                               |

| Date<br>(mm/dd/yyyy) | Thiabendazole<br>(62081) | Trimethoprim<br>(62023) | Warfarin<br>(62024) | Ethylnico-<br>tinate- <i>d</i> 4,<br>surrogate<br>(95571)<br>(percent) |
|----------------------|--------------------------|-------------------------|---------------------|--|
| [LRL]                | [0.18]                   | [0.17]                  | [0.19]              |  |
| 03/20/2002           | 84                       | 75                      | 79                  | 105  |
| 06/11/2002           | 76                       | 69                      | 56                  | 85   |
| 12/12/2002           | 75                       | 86                      | 77                  | 73   |
| 02/11/2003           | 65                       | 86                      | 62                  | 74   |
| 04/09/2003           | 68                       | 74                      | 43                  | 74   |
| 08/20/2003           | 17                       | 68                      | 88                  | 96   |





