Prepared in cooperation with the Sweetwater Authority

Water- and Air-Quality and Surficial Bed-Sediment Monitoring of the Sweetwater Reservoir Watershed, San Diego County, California, 2003–09

Data Series 879

Cover. Views of the Sweetwater Reservoir and its surrounding area. Photography by Gregory O. Mendez, U.S. Geological Survey.

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

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Data Series 879

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U.S. Geological Survey**

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Abbreviations

AOI	anthropogenic organic indicator
BNAs	base neutral acids
CCRMP	Canadian Certified Reference Materials Project
GC/MS	gas chromatography/mass spectrometry
GFF	glass-fiber filter
LFDD	low-flow diversion dam
LLR	Loveland Reservoir
LRL	laboratory reporting level
MTBE	methyl tert-butyl ether
NWIS	National Water Inventory System
NWQL	National Water Quality Laboratory
OC	Organochlorine compound
PAHs	polycyclic aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PSE	pressurized-solvent extraction
PUF	polyurethane foam
QA	quality assurance
QFF	quartz fiber filters
SIM	selected-ion monitoring
SOCs	semivolatile organic compounds
SPE	solid-phase extraction
SR	State Route
SRM	standard reference material
SWR	Sweetwater Reservoir
TSP	total suspended particle
URDS	urban runoff diversion system
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
QC	quality control
VOC	volatile organic compound

Conversion Factors

SI to Inch/Pound

Multiply	By	To obtain
Length		
centimeter (cm)	0.3937	inch (in.)
millimeter (mm)	0.03937	inch (in.)
meter (m)	3.281	foot (ft)
kilometer (km)	0.6214	mile (mi)
meter (m)	1.094	yard (yd)
Area		
square kilometer (km ²)	247.1	acre
square kilometer (km ²)	0.3861	square mile (mi ²)
Volume		
liter (L)	0.2642	gallon (gal)
milliliter (mL)	0.03382	ounce, fluid (fl. oz)
cubic meter (m ³)	264.2	gallon (gal)
cubic meter (m ³)	0.0008107	acre-foot (acre-ft)
cubic hectometer (hm ³)	810.7	acre-foot (acre-ft)
Mass		
gram (g)	0.03527	ounce, avoirdupois (oz)
milligram (mg)	0.00003527	ounce, avoirdupois (oz)
nanogram (ng)	0.0000000003527	ounce, avoirdupois (oz)
Pressure		
kilopascal (kPa)	0.009869	atmosphere, standard (atm)
Density		
milligram per cubic meter (mg/m ³)	0.0000006242	pound per cubic foot (lb/ft ³)
gram per cubic centimeter (g/cm ³)	62.4220	pound per cubic foot (lb/ft ³)

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

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

Temperature in degrees Celsius (°C) may be converted to the Kelvin (K) scale as follows:

$$\text{K} = ^{\circ}\text{C} + 273.15$$

Concentration of a chemical (γ) in the atmosphere in units of nanograms per cubic meter (ng/m³) can be converted to the dimensionless volume-fraction units of parts per billion by volume (ppbv) as follow:

$$\text{Concentration of chemical } \gamma \text{ in ppbv} = (\text{concentration in ng/m}^3) \times (R \times T) / (p \times M_{\gamma})$$

where

p is pressure in Pascal (Pa);

T is temperature in Kelvin (K);

M_{γ} is the molecular weight of the chemical γ in grams per mole; and

R , the gas constant, is 8.314 Pa·m³ per mole·K.

Vertical coordinate information is referenced to the North American Vertical Datum of 1988 (NAVD 88).

Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83).

Altitude, as used in this report, refers to distance above the vertical datum.

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

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

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

Abstract

In 1998, the U.S. Geological Survey, in cooperation with the Sweetwater Authority, began a study to assess the overall health of the Sweetwater watershed in San Diego County, California. This study was designed to provide a data set that could be used to evaluate potential effects from the construction and operation of State Route 125 within the broader context of the water quality and air quality in the watershed. The study included regular sampling of water, air, and surficial bed sediment at Sweetwater Reservoir (SWR) for chemical constituents, including volatile organic compounds (VOCs), base-neutral and acid-extractable organic compounds (BNAs) that include polycyclic aromatic hydrocarbons (PAHs), pesticides, and metals. Additionally, water samples were collected for anthropogenic organic indicator compounds in and around SWR. Background water samples were collected at Loveland Reservoir for VOCs, BNAs, pesticides, and metals. Surficial bed-sediment samples were collected for PAHs, organochlorine pesticides, and metals at Sweetwater and Loveland Reservoirs.

To monitor changes in contaminant concentration in water and air at SWR during the construction and operation of State Route 125, this study was divided into three phases. Phase One sampling (September 1998 to September 2004) was designed to establish baseline conditions for target compounds in terms of detection frequency and concentration in air and water. Phase Two (October 2004 to September 2007) continued sampling at selected monitoring sites during construction of State Route 125 to assess any effect from the construction process and the use of heavy equipment to build the roadway. Phase Three (October 2007 to August 2009) continued sampling for 2 years after the opening of State Route 125 to assess the potential changes in water quality related to vehicle emissions from the roadway alignment. Surficial bed-sediment samples were collected three times during the study—at the beginning of the study, at the start of Phase Two, and at the end of the study.

This report describes the study design and the sampling and analytical methods and presents data from water, air, and surficial bed-sediment samples collected from the sixth to eleventh years of the study (October 2003–August 2009), spanning the last year of Phase one and all of Phases Two and Three. Data collected during the first 5 years of sampling have been previously published.

Three types of quality-control samples were used in this study—matrix spikes, blanks, and replicates. Matrix-spike data are considered to be adequate if the recovery concentration is within 30 percent of the matrix concentration. Replicate data are considered to be adequate if the replicate sample concentration is within 30 percent of the environmental sample concentration. Additionally, surrogate compounds were added to most samples to monitor sample-specific performance of the analytical method.

Most VOC matrix-spike recovery data associated with water samples are within acceptable criteria, but three VOCs had recoveries below the acceptable criteria; these compounds may not have been detected in water samples if they were present at low concentrations. Data for blanks associated with water samples for VOCs and metals showed no detections above their laboratory reporting levels. Most replicate data are within acceptable criteria. Quality-control data for VOC air samples resulted in flagging several reported concentrations for acetone, benzene, ethenylbenzene, and naphthalene because they may be biased high. Acetone, benzene, and toluene were detected at low concentrations in almost every VOC air blank. Some PAH and pesticide concentrations in air samples were designated as estimated because of method performance limitations. PAHs in surficial bed sediment had 83 percent of surrogates below the acceptable criteria. No matrix-spike data for metals in surficial bed sediment were outside the acceptable criteria; only beryllium had a replicate comparison outside the acceptable criteria.

Sampling results show concentrations of the gasoline oxygenate methyl *tert*-butyl ether in water and air samples declined after it was phased out by the State of California in January 2004. The largest concentrations of gasoline hydrocarbons benzene and toluene in water were detected at or near the surface of the SWR. Isophorone and phenol were the two most frequently detected BNA compounds in water. Diuron, prometon, and simazine were the most frequently detected pesticide compounds in water. Concentrations of benzene and toluene in air samples were highest during the cooler months and had a consistent seasonal pattern over time. Ten PAH compounds were detected frequently in air samples. Twelve pesticide compounds were also detected in air samples. Surficial bed-sediment samples were analyzed for 53 PAHs; 22 of the compounds had one or more detections. Surficial bed-sediment samples were analyzed for 22 organic compounds; only 6 compounds had one or more detections. Surficial bed-sediment samples were analyzed for 37 metals.

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 186,900 residential and commercial customers in Chula Vista and National City, California. The Sweetwater Reservoir (SWR) (fig. 1) is about 15 km southeast of San Diego, Calif., and has a storage capacity of 34.6 hm³. The Authority also stores water at Loveland Reservoir (LLR; fig. 1), which is about 30 km east of SWR near Alpine, Calif., and has a storage capacity of 31.3 hm³. 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, in Chula Vista, treats brackish groundwater from the wells along the Sweetwater River. Approximately 70 percent of the water provided by the Authority comes from local supplies that include the Sweetwater River, the Sweetwater alluvium, and the San Diego Formation. The remaining water provided is imported from the Colorado River and the Sacramento/San Joaquin River systems through pipelines and aqueducts. Local reservoir and imported water are treated for use as drinking water at the Robert A. Perdue Treatment Plant at the SWR.

The Sweetwater River watershed covers 466 km² (fig. 1). Although much of the land is undeveloped, the area includes the Sycuan and Viejas Indian Reservations (both having gaming facilities resulting in high vehicle traffic), part of the Cleveland National Forest, agricultural land, rural residential acreage, urban and suburban residential development, mining and industrial land use, commercial recreation, and commercial business development. The watershed also includes three 18-hole golf courses. The Authority started a shore fishing program in 2005 in a restricted area on the south side of the SWR. Shore fishing is allowed at LLR 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. No other boating is allowed at either reservoir.

The Authority is concerned about the impact that the increasing growth and development in the Sweetwater River watershed will have on the quality of the drinking-water supply. Because of this concern, the Authority has initiated a variety of efforts to protect the watershed, including source assessments, total organic carbon assessments (Fram and others, 2001), watershed stakeholders outreach to identify issues of concern, and the construction and operation of an urban runoff diversion system (URDS; fig. 2). The URDS diverts unwanted water from the river and surrounding urban runoff to a point downstream from the SWR. 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. To help improve knowledge of potential watershed issues that will facilitate the Authorities evaluation and management of water resources, the U.S. Geological Survey (USGS), in cooperation with the Authority, began a monitoring study in 1998. Data collected during the first 5 years of sampling are published in Majewski and others (2002) and Mendez and others (2007, 2008).

In addition to the increasing urbanization pressures within the watershed, another Authority concern was the construction and operation of the State Route 125 (SR 125) alignment project. In 1984, the San Diego Association of Governments added SR 125 to the Regional Transportation Plan as part of the future highway system of San Diego. 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; figs. 1 and 2). The project plans included initial construction of a four-lane toll way, completed in 2007. Two additional lanes may be added for dedicated transit purposes such as high-occupancy vehicle and (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 the United States and Mexico, are expected to travel SR 125. The SR 125 alignment is elevated above the reservoir surface and is within about 150 m of the reservoir at its nearest point. Because the SWR is downwind of the alignment, the Authority was 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 affect public health and 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 included a variety of toxic compounds from vehicle emissions and projected 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 to California and Federal maximum contaminant levels. The results of the Ogden study showed drinking-water guidance levels for one or more contaminants could be exceeded in the three freeway construction options. Another modeling study done in 1999 resulted in similar conclusions (Byard, 1999). Sources of uncertainty that could affect the interpretation of these modeling studies include the estimates of vehicle emissions and the roles of regional air pollution and land use in the watershed. The Authority and the U.S. Environmental Protection Agency (EPA) Region IX

concluded that the findings in the Ogden and Byard reports warranted the implementation of a monitoring program to characterize the potential impact that atmospheric deposition of vehicular emissions from the operation of SR 125 might have on the quality of the drinking water stored in SWR. In 1998, the USGS, in cooperation with the Authority, began a study to assess the overall health of the Sweetwater watershed to provide a data set that could be used to evaluate potential effects from the construction and operation of SR 125, within the broader context of the water quality and air quality in the watershed.

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

Figure 2. Water, air, and surficial bed sediment sampling sites and the alignment of State Route 125 near the Sweetwater Reservoir, San Diego County, California.

Purpose and Scope

This report provides data from water, air, and surficial bed-sediment samples that were collected from October 2003 through August 2009 (water years 2004–09). This report is the fourth in a series of reports that describe the monitoring activities, and presents data that will be used to assess the potential effect on water quality in SWR resulting from land-use changes and development in the watershed.

The scope of this study is to provide analytical results collected over time from three environmental media—water, air, and surficial 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 the construction and operation of SR 125.

Study Design

This study was designed to provide a data set that could be used to evaluate potential effects from the construction and operation of SR 125, within the broader context of the water and air quality in the watershed. The study design consisted of three phases: Phase One sampling was performed from October 1998 through September 2004; Phase Two sampling was performed from October 2004 through October 2007; Phase Three sampling was performed from November 2007 through August 2009. The objective of Phase One was to determine the occurrence and concentration of selected organic—volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs)—and inorganic (metal)

compounds in each of the three environmental media (water, air, and surficial bed sediments) in order to establish baseline conditions for these targeted compounds. The objective of Phase Two was to continue monitoring the targeted compounds during construction of SR 125 and to compare the analytical results to those of Phase One. The objective of Phase Three was to continue monitoring the same targeted compounds during operation of SR 125 and, where applicable, to compare the analytical results to those of Phases One and Two. Pesticides and anthropogenic organic indicator (AOI) compounds were sampled to look at the overall health of the watershed and were not sampled as part of the targeted compounds.

Each of the environmental media in the Sweetwater watershed were sampled and analyzed for the following groups of chemical compounds:

- Surface water—Volatile organic compounds (VOCs), semivolatile organic compounds (SOCs) [base-neutral/acid extractable compounds (BNAs), including polycyclic aromatic hydrocarbons (PAHs), pesticides, and anthropogenic organic indicator (AOI) compounds], and metals.
- Air—VOCs, SOC (PAHs and pesticides), and metals.
- Surficial bed sediments—PAHs, organochlorine compounds (OCs), total polychlorinated biphenyls (PCBs), and metals.

At the start of Phase One (October 1998), water samples were collected at seven sampling sites at SWR (sites SWR01–07, fig. 2), two sampling sites at the Perdue

Treatment Plant (SWR08 and 09), and two at LLR (fig. 3). Starting in October 1999, only three of the seven sites at SWR (sites SWR01, 03, and 06), both sites at the Perdue Treatment Plant (SWR08 and 09), and one site at LLR were sampled. Phases Two and Three continued the collecting of water-quality samples for the same three sites at SWR and the one site at LLR.

The SWR atmospheric sampling site was located downwind of the proposed SR125 alignment and upwind of SWR (site AIR01, fig. 2) 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 mean values of wind speed and direction, ambient air temperature and relative humidity at two heights, rainfall, and barometric pressure.

At the beginning of Phase One, surficial bed sediments were sampled at 15 sites (Majewski and others, 2002) including sites in the URDS. A one-time coring of the SWR bed sediments was also completed at the start of Phase One (Majewski and others, 2002). During Phase Two (October 2004), surficial bed-sediment samples were collected at four sites in SWR, two sites in LLR, and in the Sweetwater River near the low-flow diversion dam (site LFDD; figs. 2 and 3). Sediment samples were also collected at the SWR atmospheric site (AIR01). At the end of Phase Three (August 2009), surficial bed-sediment samples were collected at four sites in SWR (two samples at site SWR06 because the site moves with the elevation of the reservoir), two sites in LLR, and at site LFDD (figs. 2 and 3).

Figure 3. Water and surficial bed sediment sampling sites in Loveland Reservoir, San Diego County, California.

Sampling Strategy, Sampling and Analytical Methods, Quality Assurance, and Results

Sampling strategies, methods, quality-assurance steps, and data for water, air, and surficial bed-sediment samples are presented in the following sections. Interpretative analysis of the environmental and quality-control data to address the objectives of the study is not included in this report. All site identification numbers, other identifiers, and sampling site names are listed in table 1. An inventory of samples collected and their associated quality assurance (QA) is listed in table 2.

Water Sampling Strategy

Reporting levels for some constituents vary on the basis of differences in sample volumes or the presence of interferences. All water data are available through the USGS National Water Inventory System (NWIS) database web interface (<http://nwis.waterdata.usgs.gov/nwis>). Beginning in October 1999, the number of water sampling sites at SWR was reduced from seven to three (fig. 2), and the number of sampling sites at LLR was reduced to one (fig. 3). The locations of the Perdue Treatment Plant and Sweetwater River sampling sites did not change. The number of sampling sites in the SWR 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 are:

- SWR01—located near the dam and the pump-tower 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.

Sites SWR01 and SWR03 are within the minimum pool boundary of the reservoir (fig. 2) to ensure that water would always be available for sampling throughout the year. Site SWR06 is in the eastern third of the reservoir in very shallow water. As the water level in the reservoir fell, the water depth at this site decreased, and sometimes the bed sediments were completely exposed. When reservoir water levels fell below 1 m, the sampling site was moved west to where the water depth was over 1 m. Sampling sites at SWR and LLR were marked with stationary buoys anchored to the bottom.

Three additional water-sampling sites (SWR08, SWR09, and LFDD, table 1, fig. 2) were established outside the reservoir boundaries. Site SWR08 monitored the quality of the finished treated water as it left the treatment plant for distribution to customers; this site was sampled because it represents an integrated outflow of lake and imported water. Site SWR09 monitored the quality of the imported raw water

Table 1. Site identification numbers, other identifiers, and corresponding site names, Sweetwater and Loveland Reservoirs, San Diego County, California.

[See figure 2 for site locations near Sweetwater Reservoir. See figure 3 for site locations at Loveland Reservoir. Quality-assurance/quality-control (QA/QC) site is a place holder for the data.]

Site-identification number	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	LFDD	Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir
324703116473101	LLR01	Loveland Reservoir near dam
324737116453501	LLR02	Loveland Reservoir east-end near-source inlet
324141117001601	AIR01	Sweetwater Reservoir atmospheric site at Sweetwater Dam
88888801	QA/QC	Quality-control site for Sacramento Project Office

Table 2. Constituent class, medium, sample type, and numbers of constituents analyzed in the environmental and quality-control samples collected from the Sweetwater Reservoir watershed, San Diego County, California.

Constituent class	Medium	Sample type	Table number	Number of samples	Quality-control type	Quality-control table	Number of quality-control samples
Volatile organic compounds	Water	Whole	4B	211	Matrix spike	A1A	6
Volatile organic compounds	Water	Whole	4B	211	Matrix-spike replicate	A1A	3
Volatile organic compounds	Water	Whole	4B	211	Equipment blank	A1B	4
Volatile organic compounds	Water	Whole	4B	211	Field blank	A1B	3
Volatile organic compounds	Water	Whole	4B	211	Source-solution blank	A1B	1
Volatile organic compounds	Water	Whole	4B	211	Trip blank	A1B	1
Volatile organic compounds	Water	Whole	4B	211	Replicates	A1B and A1C	14
Base neutral acid	Water	Whole	5B	66	Matrix spike	A2A	1
Base neutral acid	Water	Whole	5B	66	Replicates	A2B	3
Pesticides (laboratory schedule 2003)	Water	Filtered	6B	18	Replicates	A3	1
Pesticides (laboratory schedule 2006)	Water	Filtered	7B	35	Replicates	A4	3
Anthropogenic indicator compounds	Water	Filtered	8B	17	Replicates	A5	1
Metals	Water	Whole	9A	153	Matrix spike	A6A	3
Metals	Water	Whole	9A	153	Matrix-spike replicate	A6A	2
Metals	Water	Whole	9A	153	Field blank	A6B	4
Metals	Water	Whole	9A	153	Replicates	A6B and A6C	12
Metals	Water	Filtered	9B	18	None analyzed		0
High-volatility volatile organic compounds	Air	Filtered	10A	166	Replicates	B1A	14
High-volatility volatile organic compounds	Air	Filtered	10A	166	Travel matrix spike	B2A	37
High-volatility volatile organic compounds	Air	Filtered	10A	166	Travel blank	B2B	166
High-volatility volatile organic compounds	Air	Filtered	10A	166	Lot blank	B2C	166
High-volatility volatile organic compounds	Air	Filtered	10A	166	Laboratory blank	B2D	172
Medium/low-volatility volatile organic compounds	Air	Filtered	10B	166	Replicates	B1B and B1C	11
Medium/low-volatility volatile organic compounds	Air	Filtered	10B	166	Travel matrix spike	B3A	36
Medium/low-volatility volatile organic compounds	Air	Filtered	10B	166	Travel blank	B3B	163
Medium/low-volatility volatile organic compounds	Air	Filtered	10B	166	Lot blank	B3C	166
Medium/low-volatility volatile organic compounds	Air	Filtered	10B	166	Laboratory blank	B3D	166
Polycyclic aromatic hydrocarbons	Air	Filtered	11B	144	Reagent spike	B4A	14
Polycyclic aromatic hydrocarbons	Air	Filtered	11B	144	Laboratory blank	B4B	17
Polycyclic aromatic hydrocarbons	Air	Filtered	11B	144	Field blank	B4B	2
Pesticides (Airpest003 method)	Air	Filtered	12B	23	Reagent spike	B5A	6
Pesticides (Airpest003 method)	Air	Filtered	12B	23	Blank	B5B	6
Metals	Air	Filtered	13	142	Reagent spike	B6A	10
Metals	Air	Filtered	13	142	Laboratory blank	B6B	11
Metals	Air	Filtered	13	142	Field blank	B6B	1
Metals	Air	Filtered	13	142	Field blank replicate	B6C	1
Polycyclic aromatic hydrocarbons	Sediment		14	15	Replicates	C1	2
Organochlorine pesticides and polychlorinated biphenyl compounds	Sediment		15	8	Replicates	C2	1
Metals	Sediment		16	16	Matrix spike	C3A	4
Metals	Sediment		16	16	Replicates	C3B and C3C	2

before it entered the treatment plant or SWR. Site LFDD monitored the quality of the water entering SWR from the watershed (fig. 2). During low flows, the water from site LFDD is diverted into the URDS ponds when water quality parameters are below certain criteria levels. Local urban runoff and the first flush from the Sweetwater River are also diverted into the URDS ponds to prevent contaminated water from entering the SWR.

In most cases, imported raw water was pumped directly from the pipeline into the treatment plant. Occasionally this water was pumped into SWR to augment the local supply. When imported raw water is pumped directly into the reservoir, it increases the water level; volume increases can be on the order of tens of thousands of acre-feet (Peter Baranov, Sweetwater Authority, oral commun., 2002).

Baseline water sampling at SWR and LLR began in September 1998 and continued at 2-month intervals through September 1999. From October 1999 to December 2002, the sampling frequency was reduced to once every third month (quarterly). From December 2002 to April 2004, the sampling frequency was increased to every other month (bi-monthly). Starting July 2004, and thereafter, the sampling frequency was once every third month (quarterly). These sampling frequencies allowed monitoring of various operational modes of the reservoirs, such as recharge or drawdown events that substantially changed the water level in the reservoirs. The data showed the spatial variability in chemical occurrence and concentration in each of the two Sweetwater River reservoirs.

Before any reservoir water was sampled, depth profiles of dissolved oxygen, pH, specific conductance, and water temperature were measured at 1-m intervals from the surface to the bottom at each sampling location (table 3). Because LLR is much deeper than SWR, the depth-profile measurements at LLR below 10 m were collected every 2 m. 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 is defined as the layer in a lake extending from the surface to a depth where photosynthesis no longer occurs and has an abrupt change in the slope of the temperature gradient. The hypolimnion is defined as the poorly illuminated lower region of a stratified lake where denser, colder water occurs and currents are minimal. 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. If no thermocline was evident, only one sample set was collected at a point midway between the water surface and the reservoir bottom.

Starting in January 2006, two sets of water samples were collected at each reservoir site; one sample was collected just below the water surface, and the other sample was collected either at the mid epilimnion, if present, or a point midway between the water surface and the reservoir bottom.

Water Methods

Procedures for collecting and processing filtered and unfiltered water samples for chemical determinations were based on protocols outlined in the National Field Manual for the collection of water-quality data (U.S. Geological Survey, variously dated). Reservoir water samples for all analyses were collected by using a 1.2 L Teflon Kemmerer thief sampler (Wildco, Saginaw, Michigan) or were obtained as grab samples. The Kemmerer sampler was opened and lowered to the determined sampling depth; a weighted messenger was sent down to close the sampler. The closed sampler was then brought to the surface, and a drain plug at the bottom was opened to fill appropriate sample bottles. Samples that needed filtering were put into 1 L amber glass bottles and taken back to the Sweetwater Authority laboratory at the Purdue Treatment Plant (Sweetwater laboratory) for processing. These samples were filtered by pulling water from a 1 L glass bottle through a glass-fiber filter (GFF) by using Teflon tubing and a ceramic piston pump. Surface samples from SWR and LLR and samples from the treatment plant (sites SWR08 and SWR09) and site LFDD were collected by the grab method. Grab samples from the reservoirs or the Sweetwater River were collected by submerging the sample bottle, removing the cap, filling the bottle, and recapping the bottle while still submerged. The samples of finished (treated for drinking use) and imported raw water were collected by filling bottles from their appropriate spigots in the Purdue Treatment Plant. The finished water samples were not treated with dechlorinating reagent at the time of sample collection, and measured concentrations of some compounds in these samples could have been affected by chlorination. The water lines are continually running and were well flushed before the sample bottles were filled. All water samples were shipped on ice to the USGS National Water Quality Laboratory (NWQL), and the container temperature was measured and recorded upon arrival. The multi-parameter probe used to measure depth profiles was calibrated for specific conductance, pH, and dissolved oxygen at the Purdue Treatment Plant before sampling. The water temperature sensor is calibrated yearly at the USGS laboratory in San Diego.

Volatile Organic Compounds

Unfiltered water samples were analyzed for 87 VOCs on USGS NWQL schedule 2020 by purge and trap capillary-column, gas chromatography/mass spectrometry (GC/MS) operated in full-scan mode as described in Connor and others (1998). VOC samples were collected in vials at each site then processed in the Sweetwater laboratory by adding the appropriate amount of hydrochloric acid to lower the pH of the sample to less than 2 units.

Table 3. Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and water temperature for each sampling site and period for the Sweetwater Reservoir watershed, San Diego County, California.

[Time is denoted in 24-hour format. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below water surface. Shaded data coincide with reservoir water samples. **Abbreviations:** hh:mm, hour:minute; m, meter; mg/L, milligram per liter; mm/dd/yyyy, month/day/year; na, not applicable; PM, probe malfunction; $\mu\text{S/cm}$, microsiemen per centimeter; $^{\circ}\text{C}$, degree Celsius]

Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S/cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)	Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S/cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Sweetwater Reservoir near pump tower (SWR01)							Sweetwater Reservoir near pump tower (SWR01)—Continued						
10/14/2003	13:26	0.1	9.2	7.8	1,050	24.2	04/13/2004	11:30	13.0	0.2	7.7	1,120	15.1
10/14/2003	13:27	1.0	8.8	8.2	1,070	23.2	07/13/2004	13:28	0.1	9.3	8.5	1,050	26.8
10/14/2003	13:28	2.0	7.3	8.2	1,060	22.9	07/13/2004	13:29	1.0	9.3	8.6	1,050	26.1
10/14/2003	13:29	3.0	6.9	8.2	1,080	22.8	07/13/2004	13:30	2.0	9.8	5.9	1,040	25.8
10/14/2003	13:30	4.0	4.7	8.1	1,100	22.4	07/13/2004	13:31	3.0	9.2	8.4	1,050	25.6
10/14/2003	13:31	5.0	4.0	8.1	1,110	22.4	07/13/2004	13:32	4.0	9.2	8.6	1,050	23.4
10/14/2003	13:32	6.0	3.6	8.1	1,110	22.3	07/13/2004	13:33	5.0	2.2	8.1	1,030	23.1
10/14/2003	13:33	7.0	3.3	8.1	1,110	22.3	07/13/2004	13:34	6.0	0.8	7.9	1,030	22.8
10/14/2003	13:34	7.3	1.1	8.1	1,250	22.3	07/13/2004	13:20	7.0	0.5	7.8	1,030	22.5
12/16/2003	11:56	0.1	10.3	6.8	983	14.7	07/13/2004	13:35	8.0	0.5	7.7	1,020	22.2
12/16/2003	11:57	1.0	9.4	7.5	984	14.2	07/13/2004	13:36	9.0	0.5	7.6	1,020	21.7
12/16/2003	11:58	2.0	8.8	7.3	989	13.7	07/13/2004	13:37	10.0	0.5	7.7	1,110	19.0
12/16/2003	11:59	3.0	8.4	7.2	987	13.7	07/13/2004	13:38	10.4	0.4	7.8	1,240	19.1
12/16/2003	12:00	4.0	8.2	7.9	985	13.6	10/12/2004	12:57	0.1	10.4	7.5	1,050	23.4
12/16/2003	12:01	5.0	8.1	7.9	986	13.6	10/12/2004	12:58	1.0	8.8	7.9	1,050	22.8
12/16/2003	12:02	6.0	8.0	8.1	986	13.6	10/12/2004	12:59	2.0	7.6	8.0	1,050	22.6
12/16/2003	12:03	7.0	8.0	8.1	985	13.6	10/12/2004	13:00	3.0	7.1	8.0	1,050	22.5
12/16/2003	12:04	8.0	7.8	8.2	986	13.6	10/12/2004	13:01	4.0	6.9	8.1	1,050	22.5
12/16/2003	12:05	9.0	7.7	8.2	986	13.6	10/12/2004	13:02	5.0	6.7	8.1	1,050	22.5
12/16/2003	12:06	9.5	2.1	7.9	1,050	13.8	10/12/2004	13:03	6.0	6.6	8.1	1,050	22.5
02/17/2004	15:35	0.1	6.4	8.0	1,020	14.0	10/12/2004	13:04	6.6	0.8	8.1	1,170	22.1
02/17/2004	15:36	1.0	6.5	8.0	1,010	13.8	01/12/2005	11:24	0.1	12.6	6.4	949	14.6
02/17/2004	15:37	2.0	6.6	8.0	1,010	13.6	01/12/2005	11:25	1.0	12.3	6.5	953	14.4
02/17/2004	15:38	3.0	6.5	8.0	1,010	13.6	01/12/2005	11:26	2.0	11.9	6.6	978	14.0
02/17/2004	15:39	4.0	6.5	8.0	1,010	13.5	01/12/2005	11:27	3.0	11.1	6.7	970	13.5
02/17/2004	15:40	5.0	6.5	8.0	1,010	13.4	01/12/2005	11:28	4.0	10.9	6.7	979	13.5
02/17/2004	15:41	6.0	6.5	8.0	1,010	13.3	01/12/2005	11:29	5.0	10.6	6.8	985	13.4
02/17/2004	15:42	7.0	6.5	8.0	1,020	13.3	01/12/2005	11:30	6.0	10.6	6.8	994	13.3
02/17/2004	15:43	8.0	6.4	8.0	1,020	13.2	01/12/2005	11:31	7.0	10.6	6.8	995	13.3
02/17/2004	15:44	9.0	6.3	8.0	1,020	13.2	01/12/2005	11:32	8.0	10.5	6.9	995	13.2
02/17/2004	15:45	10.0	5.9	8.0	1,020	13.1	01/12/2005	11:33	9.0	10.4	6.9	996	13.2
02/17/2004	15:46	11.0	5.5	8.0	1,020	13.1	01/12/2005	11:34	10.0	10.2	7.0	1,000	13.1
02/17/2004	15:47	11.8	1.2	7.7	1,010	13.1	01/12/2005	11:35	11.8	3.7	6.8	1,030	13.3
04/13/2004	11:18	0.1	11.0	8.5	988	21.7	04/12/2005	13:07	0.1	12.0	8.5	933	20.4
04/13/2004	11:19	1.0	11.4	8.5	989	21.4	04/12/2005	13:08	1.0	12.2	8.3	931	19.6
04/13/2004	11:20	2.0	11.4	8.5	998	21.3	04/12/2005	13:09	2.0	12.0	8.3	931	19.2
04/13/2004	11:21	3.0	11.3	8.5	988	21.1	04/12/2005	13:10	3.0	10.8	8.3	932	19.1
04/13/2004	11:22	4.0	11.1	8.5	987	20.8	04/12/2005	13:11	4.0	10.4	8.2	933	19.0
04/13/2004	11:23	5.0	6.3	7.9	993	18.0	04/12/2005	13:12	5.0	9.9	8.2	933	18.9
04/13/2004	11:24	6.0	2.6	7.7	990	17.3	04/12/2005	13:13	6.0	5.0	8.2	934	16.6
04/13/2004	11:25	7.0	1.5	7.5	992	17.1	04/12/2005	13:14	7.0	2.0	8.1	944	15.8
04/13/2004	11:26	8.0	0.9	7.5	996	16.6	04/12/2005	13:15	8.0	0.8	8.1	954	15.4
04/13/2004	11:40	9.0	0.4	7.5	1,000	16.1	04/12/2005	13:16	9.0	0.7	8.0	958	15.2
04/13/2004	11:27	10.0	0.2	7.4	1,000	15.7	04/12/2005	13:17	10.0	0.6	7.9	959	15.2
04/13/2004	11:28	11.0	0.2	7.4	1,010	15.3	04/12/2005	13:18	12.0	0.6	7.8	963	15.2
04/13/2004	11:29	12.0	0.2	7.4	1,010	15.0	04/12/2005	13:19	14.0	0.6	7.8	968	15.0

10 Water- and Air-Quality and Surficial Bed-Sediment Monitoring of the Sweetwater Reservoir Watershed

Table 3. Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and water temperature for each sampling site and period for the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below water surface. Shaded data coincide with reservoir water samples. **Abbreviations:** hh:mm, hour:minute; m, meter; mg/L, milligram per liter; mm/dd/yyyy, month/day/year; na, not applicable; PM, probe malfunction; $\mu\text{S/cm}$, microsiemen per centimeter; $^{\circ}\text{C}$, degree Celsius]

Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S/cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)	Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S/cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Sweetwater Reservoir near pump tower (SWR01)—Continued							Sweetwater Reservoir near pump tower (SWR01)—Continued						
04/12/2005	13:20	15.2	0.6	7.5	1,090	14.9	04/07/2006	11:22	6.0	9.6	8.1	893	16.8
07/12/2005	10:58	0.1	8.7	8.6	1,020	25.5	04/07/2006	11:23	7.0	9.3	8.1	890	16.6
07/12/2005	10:59	1.0	9.0	8.6	1,020	25.5	04/07/2006	11:24	8.0	4.4	7.8	885	14.8
07/12/2005	11:00	2.0	9.2	8.7	1,020	25.2	04/07/2006	11:25	9.0	2.9	7.7	886	14.8
07/12/2005	11:01	3.0	9.2	8.7	1,030	25.2	04/07/2006	11:26	10.0	2.6	7.6	886	14.7
07/12/2005	11:02	4.0	9.1	8.7	1,030	25.0	04/07/2006	11:27	12.0	2.4	7.6	886	14.7
07/12/2005	11:03	5.0	2.1	8.3	991	21.6	04/07/2006	11:28	14.0	2.3	7.5	887	14.6
07/12/2005	11:04	6.0	0.7	8.1	982	21.0	04/07/2006	11:29	14.7	1.3	7.5	908	14.7
07/12/2005	11:05	7.0	0.7	8.0	966	19.7	07/11/2006	11:40	0.1	9.5	8.5	969	28.0
07/12/2005	11:06	8.0	0.6	7.9	961	19.1	07/11/2006	11:29	1.0	9.1	8.6	969	27.7
07/12/2005	11:07	9.0	0.5	7.8	954	18.5	07/11/2006	11:30	2.0	9.1	8.6	968	27.4
07/12/2005	11:08	10.0	0.5	7.7	950	17.5	07/11/2006	11:31	3.0	9.0	8.6	968	27.2
07/12/2005	11:09	11.0	0.5	7.7	949	17.2	07/11/2006	11:32	4.0	8.7	8.6	967	26.8
07/12/2005	11:10	12.0	0.4	7.7	950	16.9	07/11/2006	11:33	5.0	3.1	7.7	943	23.0
07/12/2005	11:11	13.0	0.4	7.6	950	16.8	07/11/2006	11:34	6.0	1.7	7.5	931	21.1
07/12/2005	11:12	14.0	0.4	7.6	987	16.7	07/11/2006	11:35	7.0	1.6	7.5	925	20.1
10/11/2005	10:45	0.1	8.2	8.8	1,080	22.4	07/11/2006	11:36	8.0	1.6	7.5	919	18.6
10/11/2005	10:46	1.0	8.2	8.6	1,080	22.1	07/11/2006	11:37	9.0	1.7	7.5	915	18.0
10/11/2005	10:47	2.0	7.9	8.5	1,080	22.0	07/11/2006	11:38	10.0	1.7	7.5	913	17.3
10/11/2005	10:48	3.0	7.6	8.4	1,080	21.9	07/11/2006	11:39	11.0	1.7	7.5	913	17.0
10/11/2005	10:49	4.0	7.4	8.4	1,080	21.9	07/11/2006	11:41	12.0	1.7	7.5	913	16.9
10/11/2005	10:50	5.0	7.2	8.4	1,080	21.8	07/11/2006	11:42	13.1	1.7	8.0	915	16.8
10/11/2005	10:51	6.0	7.1	8.3	1,080	21.8	08/22/2006	12:49	0.1	10.8	8.5	955	23.4
10/11/2005	10:52	7.0	7.0	8.3	1,080	21.8	08/22/2006	12:50	1.0	10.1	8.5	953	26.2
10/11/2005	10:53	8.0	0.9	8.0	1,050	20.6	08/22/2006	12:51	2.0	9.6	8.5	956	25.9
10/11/2005	10:54	9.0	0.7	8.0	1,030	20.1	08/22/2006	12:52	3.0	9.2	8.5	956	25.8
10/11/2005	10:55	10.0	0.6	7.8	1,020	19.5	08/22/2006	12:53	4.0	8.8	8.5	958	25.7
10/11/2005	10:56	10.6	0.6	7.7	1,260	19.0	08/22/2006	12:54	5.0	5.1	8.1	953	24.6
01/10/2006	11:30	0.1	11.6	7.4	1,130	15.7	10/11/2006	11:00	0.1	PM	7.7	984	22.2
01/10/2006	11:17	1.0	10.6	7.3	1,140	14.4	10/11/2006	11:01	1.0	PM	8.3	987	21.9
01/10/2006	11:18	2.0	9.6	7.3	1,140	14.3	10/11/2006	11:02	2.0	PM	8.2	988	21.8
01/10/2006	11:19	3.0	9.5	7.3	1,140	14.2	10/11/2006	11:03	3.0	PM	8.3	988	21.7
01/10/2006	11:20	4.0	9.3	7.3	1,140	14.2	10/11/2006	11:20	4.0	PM	8.3	988	21.6
01/10/2006	11:21	5.0	8.8	7.3	1,140	14.2	10/11/2006	11:04	5.0	PM	8.3	988	21.6
01/10/2006	11:22	6.0	8.2	7.3	1,140	14.1	10/11/2006	11:05	6.0	PM	8.3	988	21.6
01/10/2006	11:23	7.0	8.0	7.3	1,130	14.1	10/11/2006	11:06	7.0	PM	8.3	989	21.6
01/10/2006	11:24	8.0	7.3	7.3	1,130	14.0	10/11/2006	11:07	8.0	PM	8.0	956	19.8
01/10/2006	11:25	9.0	7.1	7.2	1,130	14.0	10/11/2006	11:08	9.0	PM	7.8	953	19.6
01/10/2006	11:26	9.5	2.9	7.1	1,220	14.4	10/11/2006	11:09	10.0	PM	7.5	949	19.3
04/07/2006	11:30	0.1	9.7	8.1	894	17.2	10/11/2006	11:10	11.0	PM	7.4	1,150	18.1
04/07/2006	11:17	1.0	9.8	8.0	893	17.0	01/09/2007	10:50	0.1	15.5	6.9	993	12.9
04/07/2006	11:18	2.0	8.1	8.1	893	16.9	01/09/2007	10:36	1.0	15.8	7.6	995	12.6
04/07/2006	11:19	3.0	9.7	8.0	893	16.9	01/09/2007	10:37	2.0	14.1	7.9	990	12.3
04/07/2006	11:20	4.0	9.6	8.1	893	16.9	01/09/2007	10:38	3.0	12.9	7.9	990	12.2
04/07/2006	11:21	5.0	9.6	8.1	893	16.8	01/09/2007	10:39	4.0	12.5	8.0	997	12.1

Table 3. Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and water temperature for each sampling site and period for the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below water surface. Shaded data coincide with reservoir water samples. **Abbreviations:** hh:mm, hour:minute; m, meter; mg/L, milligram per liter; mm/dd/yyyy, month/day/year; na, not applicable; PM, probe malfunction; $\mu\text{S}/\text{cm}$, microsiemen per centimeter; $^{\circ}\text{C}$, degree Celsius]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Sweetwater Reservoir near pump tower (SWR01)—Continued						
01/09/2007	10:40	5.0	11.9	8.0	998	12.1
01/09/2007	10:41	6.0	11.6	8.0	999	12.1
01/09/2007	10:42	7.0	10.2	8.0	1,000	12.1
01/09/2007	10:43	8.0	9.5	8.0	1,000	12.1
01/09/2007	10:44	9.0	8.0	8.0	1,000	12.0
01/09/2007	10:45	10.0	6.5	7.9	1,000	12.2
01/09/2007	10:46	10.2	2.8	7.7	1,020	12.3
04/10/2007	11:30	0.1	11.0	6.8	1,040	19.4
04/10/2007	11:38	1.0	10.6	7.2	1,040	18.9
04/10/2007	11:39	2.0	10.3	7.4	1,040	18.6
04/10/2007	11:40	3.0	10.1	7.5	1,050	18.2
04/10/2007	11:41	4.0	10.0	7.6	1,040	18.1
04/10/2007	11:42	5.0	9.9	7.7	1,040	18.1
04/10/2007	11:43	6.0	5.0	7.5	1,060	17.0
04/10/2007	11:44	7.0	3.4	7.5	1,060	16.4
04/10/2007	11:45	8.0	2.4	7.4	1,060	15.8
04/10/2007	11:46	9.0	1.5	7.4	1,060	15.5
04/10/2007	11:47	10.0	1.2	7.3	1,060	15.3
04/10/2007	11:48	11.0	1.1	7.3	1,190	15.0
07/10/2007	10:30	0.1	6.9	7.4	1,050	25.6
07/10/2007	10:38	1.0	7.1	7.6	1,060	25.6
07/10/2007	10:39	2.0	7.1	7.7	1,060	25.4
07/10/2007	10:40	3.0	7.2	7.7	1,060	25.4
07/10/2007	10:41	4.0	7.2	7.8	1,060	25.3
07/10/2007	10:42	5.0	7.2	7.8	1,060	25.2
07/10/2007	10:43	6.0	1.6	7.4	1,080	22.2
07/10/2007	10:44	7.0	1.6	7.4	1,080	21.9
07/10/2007	10:45	8.0	1.6	7.4	1,090	21.5
07/10/2007	10:46	9.0	1.5	7.4	1,090	21.2
07/10/2007	10:47	10.0	1.6	7.3	1,100	19.4
07/10/2007	10:48	10.8	1.5	7.4	1,160	19.1
10/09/2007	11:30	0.1	10.1	6.6	1,100	21.6
10/09/2007	11:31	1.0	9.0	6.8	1,100	20.8
10/09/2007	11:32	2.0	8.4	6.9	1,100	20.6
10/09/2007	11:40	3.0	7.7	7.0	1,100	20.6
10/09/2007	11:33	4.0	7.3	7.1	1,100	20.5
10/09/2007	11:34	5.0	6.8	7.1	1,100	20.5
10/09/2007	11:35	6.0	6.5	7.2	1,100	20.5
10/09/2007	11:36	6.5	2.2	7.0	1,220	20.6
10/25/2007	12:30	0.1	17.4	8.5	1,100	20.2
01/08/2008	10:30	0.1	11.3	8.2	1,150	12.6
01/08/2008	10:31	1.0	11.4	8.2	1,150	12.3
01/08/2008	10:32	2.0	10.7	8.1	1,150	12.3
01/08/2008	10:33	3.0	9.8	8.1	1,150	12.2
Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Sweetwater Reservoir near pump tower (SWR01)—Continued						
01/08/2008	10:45	4.0	9.6	8.0	1,140	12.2
01/08/2008	10:34	5.0	9.4	7.9	1,140	12.2
01/08/2008	10:35	6.0	8.8	8.0	1,140	12.1
01/08/2008	10:36	7.0	8.6	7.9	1,140	12.1
01/08/2008	10:37	7.4	5.1	7.8	1,140	12.2
04/15/2008	11:30	0.1	12.0	8.6	856	19.9
04/15/2008	11:31	1.0	12.0	8.5	855	19.7
04/15/2008	11:32	2.0	12.0	8.5	856	19.7
04/15/2008	11:33	3.0	11.8	8.4	853	19.4
04/15/2008	11:34	4.0	11.6	8.4	852	19.4
04/15/2008	11:35	5.0	9.3	8.3	837	18.2
04/15/2008	11:36	6.0	5.3	8.1	836	16.9
04/15/2008	11:37	7.0	2.8	8.0	829	16.3
04/15/2008	11:38	8.0	1.5	8.0	825	15.6
04/15/2008	11:39	9.0	1.1	7.9	822	15.3
04/15/2008	11:40	10.0	0.9	7.9	821	15.1
04/15/2008	11:41	11.0	0.9	7.8	819	14.9
04/15/2008	11:42	12.0	0.9	7.8	853	14.8
04/15/2008	11:43	12.2	0.8	7.8	852	14.8
07/15/2008	10:30	0.1	8.2	8.7	1,100	26.2
07/15/2008	10:31	1.0	8.7	8.2	1,100	26.0
07/15/2008	10:32	2.0	8.7	8.2	1,100	25.8
07/15/2008	10:33	3.0	8.6	8.2	1,100	25.6
07/15/2008	10:34	4.0	8.4	8.1	1,100	25.5
07/15/2008	10:35	5.0	3.1	7.8	1,080	21.8
07/15/2008	10:36	6.0	1.4	7.7	1,070	20.7
07/15/2008	10:37	7.0	1.3	7.6	1,070	19.7
07/15/2008	10:38	8.0	1.3	7.5	1,060	18.9
07/15/2008	10:39	9.0	1.3	7.5	1,050	17.6
07/15/2008	10:40	10.0	1.3	7.4	1,050	17.3
07/15/2008	10:41	10.8	1.5	7.3	1,270	17.3
10/14/2008	12:20	0.1	8.9	7.1	1,150	22.4
10/14/2008	12:21	1.0	6.5	7.0	1,150	22.1
10/14/2008	12:22	2.0	5.5	7.0	1,150	22.0
10/14/2008	12:23	3.0	5.0	7.0	1,150	21.9
10/14/2008	12:24	4.0	4.1	7.0	1,150	21.9
10/14/2008	12:25	5.0	3.7	7.0	1,150	21.8
10/14/2008	12:26	5.8	1.9	7.0	1,230	21.8
01/13/2009	11:10	0.1	15.8	7.2	1,080	14.8
01/13/2009	11:11	1.0	16.4	7.3	1,080	13.6
01/13/2009	11:12	2.0	15.1	7.3	1,080	13.4
01/13/2009	11:13	3.0	13.3	7.3	1,070	12.8
01/13/2009	11:14	4.0	12.2	7.3	1,070	12.8
01/13/2009	11:15	5.0	5.0	7.2	1,080	12.3

12 Water- and Air-Quality and Surficial Bed-Sediment Monitoring of the Sweetwater Reservoir Watershed

Table 3. Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and water temperature for each sampling site and period for the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below water surface. Shaded data coincide with reservoir water samples. **Abbreviations:** hh:mm, hour:minute; m, meter; mg/L, milligram per liter; mm/dd/yyyy, month/day/year; na, not applicable; PM, probe malfunction; $\mu\text{S}/\text{cm}$, microsiemen per centimeter; $^{\circ}\text{C}$, degree Celsius]

Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)	Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Sweetwater Reservoir near pump tower (SWR01)—Continued							Sweetwater Reservoir center of minimum pool (SWR03)—Continued						
01/13/2009	11:16	6.0	4.5	7.1	1,080	12.2	12/16/2003	13:02	6.0	7.9	8.3	981	13.5
01/13/2009	11:17	7.0	4.1	7.1	1,080	12.2	12/16/2003	13:03	7.0	7.9	8.3	981	13.5
01/13/2009	11:18	8.0	4.0	7.1	1,080	12.2	12/16/2003	13:04	8.0	7.9	8.3	982	13.4
01/13/2009	11:19	9.0	3.7	7.1	1,080	12.2	12/16/2003	13:05	9.0	7.7	8.3	982	13.4
01/13/2009	11:20	9.2	2.5	7.0	1,040	12.4	12/16/2003	13:06	9.5	7.4	8.3	983	13.4
04/14/2009	11:50	0.1	9.9	8.0	1,060	18.5	02/17/2004	16:34	0.1	6.6	8.1	1,020	14.4
04/14/2009	11:51	1.0	9.8	8.1	1,060	18.5	02/17/2004	16:35	1.0	6.4	8.0	1,020	14.4
04/14/2009	11:52	2.0	8.8	8.1	1,060	18.3	02/17/2004	16:36	2.0	6.3	8.0	1,020	13.8
04/14/2009	11:53	3.0	8.5	8.1	1,060	18.2	02/17/2004	16:37	3.0	6.3	8.0	1,020	13.6
04/14/2009	11:54	4.0	8.4	8.1	1,060	18.2	02/17/2004	16:38	4.0	6.3	8.0	1,020	13.4
04/14/2009	11:55	5.0	8.1	8.1	1,070	18.1	02/17/2004	16:39	5.0	6.3	8.0	1,020	13.3
04/14/2009	11:56	6.0	6.8	8.0	1,050	17.5	02/17/2004	16:40	6.0	6.3	8.0	1,010	13.1
04/14/2009	11:57	7.0	5.4	7.8	1,060	16.9	02/17/2004	16:41	7.0	5.8	8.0	1,020	12.9
04/14/2009	11:58	8.0	4.2	7.7	1,060	16.8	02/17/2004	16:42	8.0	5.5	7.9	1,020	12.9
04/14/2009	11:59	9.0	3.5	7.7	1,060	16.7	02/17/2004	16:43	9.0	5.3	7.9	1,020	12.9
04/14/2009	12:00	10.0	3.1	7.6	1,060	16.6	02/17/2004	16:44	10.0	5.3	7.9	1,020	12.9
07/07/2009	10:40	0.1	10.7	7.8	1,020	24.9	02/17/2004	16:45	11.0	5.0	7.9	1,020	12.9
07/07/2009	10:41	1.0	10.7	8.2	1,060	24.9	02/17/2004	16:46	12.0	4.6	7.8	1,020	12.9
07/07/2009	10:42	2.0	11.1	8.4	1,150	24.9	02/17/2004	16:47	12.3	0.8	7.7	1,020	12.9
07/07/2009	10:43	3.0	11.3	8.5	1,150	24.8	04/13/2004	12:08	0.1	11.2	8.6	992	22.1
07/07/2009	10:44	4.0	11.0	8.5	1,140	24.8	04/13/2004	12:09	1.0	11.6	8.6	992	21.6
07/07/2009	10:45	5.0	10.6	8.5	1,120	24.6	04/13/2004	12:10	2.0	11.6	8.6	987	21.3
07/07/2009	10:46	6.0	2.1	7.7	1,140	22.4	04/13/2004	12:11	3.0	11.3	8.6	983	21.0
07/07/2009	10:47	7.0	1.6	7.7	1,130	21.9	04/13/2004	12:12	4.0	11.2	8.6	987	20.8
07/07/2009	10:48	8.0	1.3	7.6	1,110	21.6	04/13/2004	12:13	5.0	7.5	8.0	983	18.7
07/07/2009	10:49	9.0	1.3	7.6	1,110	21.2	04/13/2004	12:14	6.0	4.8	7.8	986	17.9
07/07/2009	10:50	10.0	1.3	7.7	1,130	20.9	04/13/2004	12:15	7.0	2.8	7.7	992	17.2
07/07/2009	10:51	10.8	1.3	7.7	1,160	20.3	04/13/2004	12:20	8.0	1.0	7.5	996	16.6
Sweetwater Reservoir center of minimum pool (SWR03)							04/13/2004	12:16	9.0	0.5	7.5	998	16.4
10/14/2003	14:06	0.1	10.6	8.8	1,080	23.8	04/13/2004	12:17	10.0	0.3	7.5	1,010	15.5
10/14/2003	14:07	1.0	9.7	8.8	1,090	23.6	04/13/2004	12:18	11.0	0.2	7.4	1,010	15.2
10/14/2003	14:08	2.0	8.1	8.7	1,100	23.0	04/13/2004	12:19	12.0	0.2	7.4	1,010	15.1
10/14/2003	14:09	3.0	7.5	8.6	1,100	22.8	04/13/2004	12:22	13.0	0.2	7.4	1,010	14.9
10/14/2003	14:10	4.0	6.9	8.6	1,100	22.6	04/13/2004	12:23	13.8	0.2	7.4	1,010	14.9
10/14/2003	14:11	5.0	6.5	8.5	1,110	22.5	07/13/2004	13:54	0.1	10.3	8.4	1,040	26.5
10/14/2003	14:12	6.0	5.1	8.5	1,110	22.4	07/13/2004	13:55	1.0	10.2	8.5	1,040	26.5
10/14/2003	14:13	7.0	3.5	8.4	1,110	22.3	07/13/2004	13:56	2.0	10.2	8.5	1,050	26.4
10/14/2003	14:14	8.0	3.1	8.3	1,110	22.3	07/13/2004	13:57	3.0	9.9	8.5	1,040	25.8
10/14/2003	14:15	8.5	3.1	8.3	1,120	22.3	07/13/2004	13:58	4.0	6.3	8.3	1,040	24.3
12/16/2003	12:56	0.1	9.5	8.4	956	14.9	07/13/2004	13:59	5.0	4.0	8.1	1,040	23.7
12/16/2003	12:57	1.0	8.0	8.4	962	14.0	07/13/2004	14:00	6.0	2.4	7.9	1,030	23.2
12/16/2003	12:58	2.0	7.9	8.4	967	13.7	07/13/2004	14:01	7.0	0.9	7.8	1,030	22.7
12/16/2003	12:59	3.0	8.0	8.4	979	13.6	07/13/2004	14:02	8.0	0.7	7.7	1,020	21.6
12/16/2003	13:00	4.0	7.9	8.3	981	13.6	07/13/2004	14:03	9.0	0.6	7.7	1,020	20.7
12/16/2003	13:01	5.0	8.0	8.3	981	13.5	07/13/2004	14:04	10.0	0.6	7.6	1,020	19.3

Table 3. Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and water temperature for each sampling site and period for the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below water surface. Shaded data coincide with reservoir water samples. **Abbreviations:** hh:mm, hour:minute; m, meter; mg/L, milligram per liter; mm/dd/yyyy, month/day/year; na, not applicable; PM, probe malfunction; $\mu\text{S/cm}$, microsiemen per centimeter; $^{\circ}\text{C}$, degree Celsius]

Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S/cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)	Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S/cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Sweetwater Reservoir center of minimum pool (SWR03)—Continued							Sweetwater Reservoir center of minimum pool (SWR03)—Continued						
07/13/2004	14:05	11.0	0.6	7.5	1,020	18.0	07/12/2005	11:50	2.0	9.3	8.8	1,030	25.5
07/13/2004	14:06	12.0	0.5	7.4	1,020	17.6	07/12/2005	11:51	3.0	9.1	8.8	1,020	25.0
07/13/2004	14:07	12.6	0.5	7.3	1,020	17.5	07/12/2005	11:52	4.0	6.9	8.7	1,020	24.6
10/12/2004	13:35	0.1	9.0	8.4	1,040	23.1	07/12/2005	11:53	5.0	1.9	8.4	1,000	22.6
10/12/2004	13:36	1.0	8.9	8.5	1,040	23.1	07/12/2005	11:54	6.0	0.8	8.3	990	21.2
10/12/2004	13:37	2.0	8.3	8.4	1,050	23.0	07/12/2005	11:55	7.0	0.6	8.1	968	19.9
10/12/2004	13:38	3.0	6.6	8.3	1,050	22.5	07/12/2005	11:56	8.0	0.6	8.0	962	19.2
10/12/2004	13:39	4.0	6.0	8.3	1,060	22.4	07/12/2005	11:57	9.0	0.5	7.9	952	18.1
10/12/2004	13:40	5.0	5.7	8.3	1,060	22.4	07/12/2005	11:58	10.0	0.5	7.8	949	17.6
10/12/2004	13:41	6.0	5.6	8.2	1,060	22.4	07/12/2005	11:59	11.0	0.5	7.8	948	17.4
10/12/2004	13:42	7.0	5.6	8.2	1,060	22.3	07/12/2005	12:00	12.0	0.5	7.8	947	17.0
10/12/2004	13:43	8.0	5.2	8.2	1,060	22.2	07/12/2005	12:01	13.0	0.4	7.7	949	16.8
10/12/2004	13:44	9.0	4.3	8.2	1,060	22.2	07/12/2005	12:02	14.0	0.4	7.7	949	16.7
10/12/2004	13:45	9.2	1.6	7.9	1,080	22.1	07/12/2005	12:03	15.0	0.4	7.6	950	16.6
01/12/2005	12:03	0.1	13.4	7.4	884	15.6	10/11/2005	11:24	0.1	9.0	8.4	1,080	22.6
01/12/2005	12:04	1.0	11.2	7.5	922	13.5	10/11/2005	11:25	1.0	8.1	8.3	1,080	22.1
01/12/2005	12:05	2.0	9.7	7.5	972	13.1	10/11/2005	11:26	2.0	7.7	8.3	1,080	21.9
01/12/2005	12:06	3.0	9.4	7.5	986	13.1	10/11/2005	11:27	3.0	7.4	8.3	1,080	21.9
01/12/2005	12:07	4.0	9.3	7.5	993	13.2	10/11/2005	11:28	4.0	7.2	8.3	1,080	21.8
01/12/2005	12:08	5.0	9.3	7.4	1,000	13.1	10/11/2005	11:29	5.0	7.1	8.3	1,080	21.8
01/12/2005	12:09	6.0	9.3	7.5	1,000	13.1	10/11/2005	11:30	6.0	7.0	8.3	1,080	21.7
01/12/2005	12:10	7.0	9.4	7.5	1,010	13.1	10/11/2005	11:31	7.0	6.2	8.3	1,080	21.4
01/12/2005	12:11	8.0	9.3	7.5	1,010	13.0	10/11/2005	11:32	8.0	2.2	8.2	1,060	20.9
01/12/2005	12:12	9.0	9.2	7.5	1,010	12.9	10/11/2005	11:33	9.0	1.1	8.0	1,050	20.6
01/12/2005	12:13	10.0	9.2	7.5	1,010	12.9	10/11/2005	11:34	10.0	0.7	7.9	1,010	19.3
01/12/2005	12:14	12.0	8.5	7.5	1,020	12.8	10/11/2005	11:35	12.0	0.6	7.8	987	18.0
01/12/2005	12:15	13.4	7.2	7.4	1,010	12.7	10/11/2005	11:36	12.5	0.5	7.6	978	17.9
04/12/2005	13:32	0.1	13.3	8.6	932	20.9	01/10/2006	12:10	0.1	13.9	8.0	1,130	14.8
04/12/2005	13:33	1.0	13.3	8.6	933	20.7	01/10/2006	11:56	1.0	11.5	7.9	1,130	14.3
04/12/2005	13:34	2.0	12.5	8.6	934	20.1	01/10/2006	11:57	2.0	10.2	7.8	1,140	14.2
04/12/2005	13:35	3.0	10.8	5.6	934	19.2	01/10/2006	11:58	3.0	9.6	7.8	1,140	14.2
04/12/2005	13:36	4.0	9.7	8.5	932	18.8	01/10/2006	11:59	4.0	9.2	7.8	1,140	14.2
04/12/2005	13:37	5.0	7.1	8.5	934	17.7	01/10/2006	12:00	5.0	9.1	7.8	1,140	14.2
04/12/2005	13:38	6.0	4.6	8.4	928	17.5	01/10/2006	12:01	6.0	8.9	7.7	1,140	14.2
04/12/2005	13:39	7.0	1.9	8.3	924	16.3	01/10/2006	12:02	7.0	8.5	7.8	1,140	14.2
04/12/2005	13:40	8.0	1.0	8.3	946	15.8	01/10/2006	12:03	8.0	7.9	7.7	1,140	14.0
04/12/2005	13:41	9.0	0.8	8.2	949	15.6	01/10/2006	12:04	9.0	7.0	7.7	1,150	14.0
04/12/2005	13:42	10.0	0.6	8.2	952	15.5	01/10/2006	12:05	10.0	6.4	7.5	1,150	13.9
04/12/2005	13:43	12.0	0.6	8.2	971	15.0	01/10/2006	12:06	11.4	5.3	7.6	1,150	13.9
04/12/2005	13:44	14.0	0.6	8.1	977	14.8	04/07/2006	12:00	0.1	9.9	8.1	893	17.2
04/12/2005	13:45	16.0	0.6	8.1	972	14.8	04/07/2006	11:47	1.0	10.0	8.1	893	17.2
07/12/2005	11:48	0.1	9.2	8.8	1,030	26.1	04/07/2006	11:48	2.0	10.0	8.1	893	17.2
07/12/2005	11:49	1.0	9.3	8.8	1,030	26.1	04/07/2006	11:49	3.0	9.8	8.1	893	16.9
							04/07/2006	11:50	4.0	9.6	8.1	892	16.7

14 Water- and Air-Quality and Surficial Bed-Sediment Monitoring of the Sweetwater Reservoir Watershed

Table 3. Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and water temperature for each sampling site and period for the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below water surface. Shaded data coincide with reservoir water samples. **Abbreviations:** hh:mm, hour:minute; m, meter; mg/L, milligram per liter; mm/dd/yyyy, month/day/year; na, not applicable; PM, probe malfunction; $\mu\text{S/cm}$, microsiemen per centimeter; $^{\circ}\text{C}$, degree Celsius]

Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S/cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)	Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S/cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Sweetwater Reservoir center of minimum pool (SWR03)—Continued							Sweetwater Reservoir center of minimum pool (SWR03)—Continued						
04/07/2006	11:51	5.0	9.3	8.1	891	16.6	01/09/2007	11:07	2.0	13.0	8.3	1,000	12.3
04/07/2006	11:52	6.0	9.2	8.1	891	16.6	01/09/2007	11:08	3.0	12.7	8.3	1,000	12.2
04/07/2006	11:53	7.0	9.1	8.1	891	16.6	01/09/2007	11:09	4.0	11.7	8.2	1,000	12.1
04/07/2006	11:54	8.0	6.6	8.0	886	15.4	01/09/2007	11:10	5.0	11.3	8.2	1,000	12.1
04/07/2006	11:55	9.0	7.8	7.9	886	15.0	01/09/2007	11:11	6.0	11.1	8.2	1,000	12.1
04/07/2006	11:56	10.0	4.1	7.8	885	15.0	01/09/2007	11:12	7.0	10.7	8.2	1,000	12.1
04/07/2006	11:57	12.0	3.1	7.8	886	14.7	01/09/2007	11:13	8.0	10.0	8.1	1,010	12.0
04/07/2006	11:58	14.0	2.2	7.7	886	14.6	01/09/2007	11:14	9.0	9.2	8.1	1,010	12.0
04/07/2006	11:59	16.0	1.6	7.6	887	14.6	01/09/2007	11:15	10.0	8.9	8.0	1,000	12.0
07/11/2006	12:10	0.1	9.9	8.6	958	28.2	01/09/2007	11:16	11.0	7.4	7.9	1,000	12.1
07/11/2006	11:58	1.0	9.2	8.6	962	27.6	01/09/2007	11:17	11.3	5.1	7.9	1,000	12.1
07/11/2006	11:59	2.0	8.8	8.6	962	27.2	04/10/2007	12:00	0.1	10.4	8.2	1,040	19.1
07/11/2006	12:00	3.0	8.6	8.6	961	27.0	04/10/2007	12:08	1.0	10.2	8.2	1,040	18.6
07/11/2006	12:01	4.0	8.1	8.6	961	26.8	04/10/2007	12:09	2.0	10.0	8.2	1,040	18.3
07/11/2006	12:02	5.0	1.5	7.7	940	23.7	04/10/2007	12:10	3.0	9.8	8.2	1,030	18.2
07/11/2006	12:03	6.0	1.4	7.6	925	20.8	04/10/2007	12:11	4.0	9.5	8.1	1,030	18.1
07/11/2006	12:04	7.0	1.4	7.5	917	20.0	04/10/2007	12:12	5.0	9.3	8.1	1,040	18.0
07/11/2006	12:05	8.0	1.4	7.5	909	18.7	04/10/2007	12:13	6.0	4.5	7.8	1,050	17.2
07/11/2006	12:06	9.0	1.4	7.5	903	17.9	04/10/2007	12:14	7.0	2.8	7.7	1,050	16.4
07/11/2006	12:07	10.0	1.4	7.5	901	17.3	04/10/2007	12:15	8.0	2.1	7.6	1,050	16.2
07/11/2006	12:08	12.0	1.4	7.5	901	16.9	04/10/2007	12:16	9.0	1.3	7.5	1,050	15.7
07/11/2006	12:09	14.0	1.4	7.5	903	16.6	04/10/2007	12:17	10.0	1.1	7.5	1,060	15.1
07/11/2006	12:11	15.1	1.4	7.5	904	16.6	04/10/2007	12:18	11.0	1.0	7.5	1,060	15.1
08/23/2006	09:49	0.1	9.6	8.5	955	26.4	04/10/2007	12:19	12.0	0.9	7.5	1,060	14.9
08/23/2006	09:50	1.0	9.8	8.5	954	26.2	04/10/2007	12:20	12.2	0.9	7.4	1,060	14.9
08/23/2006	09:51	2.0	9.1	8.5	953	26.0	07/10/2007	11:10	0.1	8.5	8.0	1,050	25.9
08/23/2006	09:52	3.0	9.0	8.5	954	26.0	07/10/2007	11:18	1.0	8.5	8.5	1,050	25.9
08/23/2006	09:53	4.0	8.2	8.4	950	25.6	07/10/2007	11:19	2.0	8.3	8.3	1,050	25.6
08/23/2006	09:54	5.0	4.2	7.9	945	24.4	07/10/2007	11:20	3.0	8.1	8.1	1,050	25.5
10/11/2006	11:30	0.1	PM	8.5	985	21.9	07/10/2007	11:21	4.0	7.8	8.0	1,050	25.3
10/11/2006	11:31	1.0	PM	8.5	985	21.9	07/10/2007	11:22	5.0	6.2	8.0	1,050	24.8
10/11/2006	11:32	2.0	PM	8.4	987	21.8	07/10/2007	11:23	6.0	2.0	7.8	1,070	23.3
10/11/2006	11:33	3.0	PM	8.4	987	21.7	07/10/2007	11:24	7.0	1.7	7.7	1,080	21.9
10/11/2006	11:50	4.0	PM	8.4	987	21.6	07/10/2007	11:25	8.0	1.7	7.6	1,080	21.3
10/11/2006	11:34	5.0	PM	8.4	987	21.5	07/10/2007	11:26	9.0	1.8	7.6	1,090	20.1
10/11/2006	11:35	6.0	PM	8.3	986	21.4	07/10/2007	11:27	10.0	1.8	7.4	1,090	19.8
10/11/2006	11:36	7.0	PM	8.3	986	21.4	07/10/2007	11:28	11.0	1.8	7.3	1,090	19.4
10/11/2006	11:37	8.0	PM	8.1	972	20.6	07/10/2007	11:29	12.0	1.8	7.3	1,090	19.1
10/11/2006	11:38	9.0	PM	7.9	965	20.3	07/10/2007	11:30	13.1	1.8	7.4	1,100	18.7
10/11/2006	11:39	10.0	PM	7.6	938	18.6	10/09/2007	12:10	0.1	10.9	7.8	1,080	21.4
10/11/2006	11:40	11.0	PM	7.5	933	18.2	10/09/2007	12:11	1.0	10.1	7.8	1,080	21.1
10/11/2006	11:41	11.8	PM	7.4	936	17.5	10/09/2007	12:12	2.0	8.7	7.8	1,080	20.6
01/09/2007	11:20	0.1	14.6	8.3	1,000	12.7	10/09/2007	12:13	3.0	8.1	7.8	1,080	20.6
01/09/2007	11:06	1.0	13.8	8.3	1,000	12.4	10/09/2007	12:14	4.0	7.5	7.8	1,080	20.6
							10/09/2007	12:20	5.0	7.2	7.8	1,080	20.6

Table 3. Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and water temperature for each sampling site and period for the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below water surface. Shaded data coincide with reservoir water samples. **Abbreviations:** hh:mm, hour:minute; m, meter; mg/L, milligram per liter; mm/dd/yyyy, month/day/year; na, not applicable; PM, probe malfunction; $\mu\text{S}/\text{cm}$, microsiemen per centimeter; $^{\circ}\text{C}$, degree Celsius]

Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Sweetwater Reservoir center of minimum pool (SWR03)—Continued						
10/09/2007	12:15	6.0	6.9	7.8	1,080	20.5
10/09/2007	12:16	7.0	6.6	7.8	1,080	20.5
10/09/2007	12:17	8.0	6.4	7.8	1,080	20.4
10/09/2007	12:18	9.0	6.3	7.8	1,080	20.4
10/09/2007	12:19	9.6	3.3	7.5	1,100	20.4
10/25/2007	12:40	0.1	15.1	8.3	1,100	20.1
01/08/2008	11:10	0.1	10.9	8.0	1,150	12.9
01/08/2008	11:11	1.0	10.1	7.9	1,150	12.3
01/08/2008	11:12	2.0	9.1	7.9	1,150	12.2
01/08/2008	11:13	3.0	8.9	7.9	1,150	12.2
01/08/2008	11:14	4.0	8.8	7.9	1,150	12.2
01/08/2008	11:20	5.0	8.8	7.9	1,150	12.2
01/08/2008	11:15	6.0	8.8	7.9	1,150	12.2
01/08/2008	11:16	7.0	8.7	8	1,150	12.2
01/08/2008	11:17	8.0	8.7	7.9	1,150	12.2
01/08/2008	11:18	9.0	8.4	7.9	1,150	12.2
01/08/2008	11:19	9.3	3.7	7.8	1,150	12.2
04/15/2008	12:10	0.1	12.3	8.4	825	19.9
04/15/2008	12:11	1.0	12.2	8.4	826	19.8
04/15/2008	12:12	2.0	12	8.4	826	19.8
04/15/2008	12:13	3.0	11.5	8.4	827	19.2
04/15/2008	12:14	4.0	11.2	8.3	826	18.9
04/15/2008	12:15	5.0	8.9	8.2	824	18.2
04/15/2008	12:16	6.0	6.8	8.1	818	12.6
04/15/2008	12:17	7.0	3.9	8.0	808	16.3
04/15/2008	12:18	8.0	2.2	8.0	801	15.6
04/15/2008	12:19	9.0	1.3	7.9	798	15.3
04/15/2008	12:20	10.0	1.0	7.9	797	15.1
04/15/2008	12:21	11.0	0.9	7.8	795	14.8
04/15/2008	12:22	12.0	0.9	7.8	794	14.6
04/15/2008	12:23	13.0	0.8	7.8	793	14.5
04/15/2008	12:24	13.6	0.8	7.8	792	14.4
07/15/2008	11:10	0.1	9.0	8.3	1,100	26.6
07/15/2008	11:11	1.0	9.0	8.2	1,100	26.5
07/15/2008	11:12	2.0	8.8	8.2	1,100	26.0
07/15/2008	11:13	3.0	8.7	8.2	1,100	25.6
07/15/2008	11:14	4.0	6.3	8.1	1,090	24.5
07/15/2008	11:15	5.0	1.9	7.8	1,080	23.1
07/15/2008	11:16	6.0	1.2	7.6	1,060	20.4
07/15/2008	11:17	7.0	1.2	7.5	1,060	19.0
07/15/2008	11:18	8.0	1.2	7.5	1,050	18.4
07/15/2008	11:19	9.0	1.2	7.4	1,050	17.9
07/15/2008	11:20	10.0	1.2	7.4	1,050	17.5
07/15/2008	11:21	11.0	1.2	7.3	1,050	17.3
07/15/2008	11:22	11.9	1.3	7.2	1,060	17.2
Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Sweetwater Reservoir center of minimum pool (SWR03)—Continued						
10/14/2008	13:00	0.1	9.9	7.3	1,130	21.0
10/14/2008	13:01	1.0	7.8	7.3	1,130	20.9
10/14/2008	13:02	2.0	6.7	7.3	1,130	20.7
10/14/2008	13:03	3.0	6.0	7.3	1,130	20.5
10/14/2008	13:04	4.0	5.7	7.4	1,130	20.5
10/14/2008	13:05	5.0	5.2	7.4	1,130	20.4
10/14/2008	13:06	6.0	5.1	7.4	1,130	20.4
10/14/2008	13:07	7.0	4.3	7.4	1,130	20.4
10/14/2008	13:08	8.0	4.0	7.3	1,130	20.2
10/14/2008	13:09	8.7	1.8	7.2	1,130	19.7
01/13/2009	11:50	0.1	15.8	7.6	1,080	14.4
01/13/2009	11:51	1.0	15.1	7.6	1,080	13.2
01/13/2009	11:52	2.0	13.4	7.6	1,080	13.1
01/13/2009	11:53	3.0	11.7	7.6	1,080	12.8
01/13/2009	11:54	4.0	10.7	7.5	1,080	12.7
01/13/2009	11:55	5.0	9.5	7.5	1,080	12.5
01/13/2009	11:56	6.0	8.7	7.5	1,080	12.4
01/13/2009	11:57	7.0	7.4	7.5	1,080	12.3
01/13/2009	11:58	8.0	6.0	7.4	1,080	12.2
01/13/2009	11:59	9.0	3.9	7.3	1,080	12.2
01/13/2009	12:00	10.0	3.4	7.3	1,080	12.3
01/13/2009	12:01	10.7	1.6	7.3	1,080	12.3
04/14/2009	12:20	0.1	8.1	8.2	1,060	18.4
04/14/2009	12:21	1.0	7.0	8.2	1,060	18.4
04/14/2009	12:22	2.0	7.0	8.2	1,060	18.4
04/14/2009	12:23	3.0	7.0	8.2	1,060	18.3
04/14/2009	12:24	4.0	6.9	8.2	1,060	18.3
04/14/2009	12:25	5.0	6.9	8.1	1,060	17.9
04/14/2009	12:26	6.0	6.8	8.1	1,060	17.8
04/14/2009	12:27	7.0	6.5	8	1,050	17.5
04/14/2009	12:28	8.0	5.6	7.9	1,050	17.3
04/14/2009	12:29	9.0	5.2	7.9	1,050	17.2
04/14/2009	12:30	10.0	4.2	7.8	1,050	16.9
04/14/2009	12:31	11.0	3.1	7.6	1,050	16.4
04/14/2009	12:32	12.0	1.8	7.6	1,040	16.2
04/14/2009	12:33	12.7	1.4	7.6	1,040	16.1
07/07/2009	11:30	0.01	10.9	8.5	1,040	25.6
07/07/2009	11:31	1.0	10.8	8.6	1,040	25.6
07/07/2009	11:32	2.0	10.9	8.6	1,040	25.5
07/07/2009	11:33	3.0	11.0	8.6	1,040	25.0
07/07/2009	11:34	4.0	10.7	8.5	1,030	24.8
07/07/2009	11:35	5.0	8.0	8.2	1,030	23.6
07/07/2009	11:36	6.0	4.2	8.0	1,030	22.9
07/07/2009	11:37	7.0	2.3	7.8	1,020	22.2
07/07/2009	11:38	8.0	1.5	7.7	1,020	21.6

Table 3. Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and water temperature for each sampling site and period for the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below water surface. Shaded data coincide with reservoir water samples. **Abbreviations:** hh:mm, hour:minute; m, meter; mg/L, milligram per liter; mm/dd/yyyy, month/day/year; na, not applicable; PM, probe malfunction; $\mu\text{S/cm}$, microsiemen per centimeter; $^{\circ}\text{C}$, degree Celsius]

Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S/cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Sweetwater Reservoir center of minimum pool (SWR03)—Continued						
07/07/2009	11:39	9.0	1.2	7.7	1,020	21.6
07/07/2009	11:40	10.0	1.3	7.6	1,010	20.5
07/07/2009	11:41	11.0	1.2	7.6	1,010	20.0
07/07/2009	11:42	12.0	1.2	7.6	1,000	19.6
07/07/2009	11:43	12.5	1.2	7.5	1,000	19.5
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)						
10/14/2003	15:00	0.2	11.0	9.0	1,110	25.1
10/14/2003	15:01	1.0	10.7	8.9	1,110	24.8
12/16/2003	13:30	0.5	12.8	9.0	966	14.4
10/14/2003	13:31	1.0	12.4	8.9	989	13.5
02/17/2004	17:00	0.2	6.7	8.0	1,020	15.6
10/14/2003	17:01	0.6	6.4	8.0	1,020	15.6
04/13/2004	12:39	0.1	10.6	8.5	1,010	22.6
04/13/2004	12:40	1.0	10.8	8.5	1,010	22.6
04/13/2004	12:41	2.0	10.2	8.4	1,020	22.1
04/13/2004	12:42	2.3	8.7	8.1	1,000	20.6
07/13/2004	14:30	0.1	9.1	8.5	1,070	30.0
07/13/2004	14:31	0.3	9.2	8.6	1,070	29.9
10/12/2004	14:00	0.1	17.1	9.1	1,060	25.1
07/13/2004	14:01	0.2	17.2	9.2	1,060	25.1
01/12/2005	12:30	0.1	9.3	7.7	552	14.8
07/13/2004	12:31	0.9	8.3	7.6	506	12.2
04/12/2005	14:28	0.1	11.1	8.6	959	20.9
04/12/2005	14:29	1.0	11.1	8.6	960	20.9
04/12/2005	14:30	2.0	11.0	8.6	965	20.9
04/12/2005	14:31	3.0	7.1	8.5	1,010	19.6
04/12/2005	14:32	3.7	5.4	8.4	968	18.5
07/12/2005	12:29	0.1	9.1	8.8	1,040	26.7
07/12/2005	12:30	1.0	8.8	8.8	1,040	26.5
07/12/2005	12:31	2.0	6.7	8.7	1,060	25.7
07/12/2005	12:32	2.5	5.3	8.6	1,060	25.6
10/11/2005	12:09	0.1	8.5	8.5	1,080	22.8
10/11/2005	12:10	1.0	8.0	8.4	1,080	22.7
10/11/2005	12:11	1.7	5.7	8.3	1,080	22.2
01/10/2006	12:20	0.1	11.7	8	974	14.8
01/10/2006	12:21	0.5	11.4	7.8	995	14.7
04/07/2006	12:20	0.1	9.9	8.4	907	17.8
04/07/2006	12:21	1.0	9.9	8.3	906	17.7
04/07/2006	12:22	2.0	9.8	8.3	905	17.6
Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S/cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)—Continued						
04/07/2006	12:23	3.0	9.7	8.3	904	17.6
04/07/2006	12:24	4.0	9.6	8.3	905	17.4
04/07/2006	12:25	5.0	8.0	8.2	895	16.4
07/11/2006	12:38	0.1	8.5	8.6	969	28.6
07/11/2006	12:39	1.0	8.2	8.6	971	28.5
07/11/2006	12:40	2.0	8.0	8.6	971	28.4
07/11/2006	12:41	3.0	6.3	8.5	973	27.9
07/11/2006	12:42	4.0	2.7	8.0	953	25.7
07/11/2006	12:43	4.3	2.7	8.0	953	25.6
08/23/2006	10:09	0.1	8.5	8.5	964	27.1
08/23/2006	10:10	1.0	8.4	8.5	964	26.9
08/23/2006	10:11	2.0	8.2	8.5	965	26.8
08/23/2006	10:12	2.9	4.8	8.0	962	26.0
10/11/2006	12:00	0.1	PM	8.5	992	23.1
10/11/2006	12:01	1.0	PM	8.4	990	21.8
10/11/2006	12:02	1.2	PM	8.4	990	21.8
01/09/2007	11:30	0.1	13.0	8.3	1,000	13.5
04/10/2007	12:30	0.1	14.0	8.4	1,040	20.5
04/10/2007	12:31	1.0	15.4	8.5	1,040	20.5
07/10/2007	11:30	0.1	8.8	8.0	1,050	26.7
07/10/2007	11:31	1.0	8.6	8.1	1,060	26.6
07/10/2007	11:32	2.0	8.5	8.2	1,060	26.4
10/09/2007	12:30	0.1	10.4	7.8	1,070	22.0
10/09/2007	12:31	0.6	10.3	7.8	1,070	21.9
01/08/2008	11:50	0.1	13.2	8.2	1,130	13.5
01/08/2008	11:52	0.4	13.8	8.2	1,140	13.4
04/15/2008	12:30	0.1	10.1	8.2	824	21.2
04/15/2008	12:31	1.0	10.0	8.2	826	21.1
04/15/2008	12:32	2.0	9.9	8.2	826	21.1
04/15/2008	12:33	2.9	9.7	8.1	822	21.1
07/15/2008	11:30	0.1	10.5	8.2	1,110	27.8
07/15/2008	11:31	1.0	9.2	8.1	1,110	27.4
10/14/2008	13:40	0.1	12.2	8.1	1,110	22.8
10/14/2008	13:41	0.7	17.2	8.2	1,120	23.0
01/13/2009	12:10	0.1	12.4	7.8	1,090	15.5
01/13/2009	12:11	0.6	13.7	7.7	1,070	14.2
04/14/2009	12:40	0.1	7.8	8.2	1,050	19.3
04/14/2009	12:41	1.0	7.0	8.2	1,050	19.3
04/14/2009	12:42	2.0	7.0	8.2	1,050	19.3

Table 3. Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and water temperature for each sampling site and period for the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below water surface. Shaded data coincide with reservoir water samples. **Abbreviations:** hh:mm, hour:minute; m, meter; mg/L, milligram per liter; mm/dd/yyyy, month/day/year; na, not applicable; PM, probe malfunction; $\mu\text{S}/\text{cm}$, microsiemen per centimeter; $^{\circ}\text{C}$, degree Celsius]

Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)—Continued						
07/07/2009	11:50	0.1	9.8	8.5	962	26.6
07/07/2009	11:51	1.0	10.0	8.5	964	26.6
07/07/2009	11:52	1.8	10.0	8.5	964	26.0
Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Perdue Treatment Plant—finished water at Sweetwater Reservoir (SWR08)						
10/15/2003	12:40	na	10.8	8.6	789	24.9
12/17/2003	13:50	na	10.3	9.0	976	14.2
02/18/2004	11:40	na	10.2	7.9	1,060	13.5
04/14/2004	09:30	na	10.3	7.8	1,010	20.3
07/13/2004	15:10	na	8.7	8.7	1,080	25.6
10/12/2004	15:00	na	8.8	8.2	1,040	24.7
01/12/2005	15:00	na	11.9	7.7	846	12.9
04/13/2005	09:30	na	9.8	8.3	986	19.0
07/12/2005	14:10	na	8.1	8.6	1,060	26.1
10/11/2005	13:30	na	9.6	8.4	1,110	21.9
01/10/2006	15:00	na	12.3	7.8	1,180	16.1
04/06/2006	14:10	na	11.4	8.0	713	16.3
07/11/2006	14:50	na	7.7	8.1	1,020	28.7
08/24/2006	14:30	na	9.0	8.2	1,020	26.5
10/11/2006	13:50	na	10.3	8.4	1,050	23.4
01/09/2007	13:30	na	12.9	8.4	735	13.7
04/11/2007	08:30	na	11.8	8.4	777	17.7
07/10/2007	13:10	na	9.3	8.2	885	26.6
10/09/2007	15:10	na	8.8	7.9	1,130	21.9
01/08/2008	14:00	na	13.0	8.2	839	13.0
04/15/2008	13:30	na	12.1	8.5	686	19.4
07/15/2008	14:10	na	10.2	8.1	1,140	27.0
10/15/2009	14:00	na	10.7	7.6	1,180	21.9
01/13/2009	14:00	na	12.0	8.0	915	14.8
04/14/2009	14:30	na	9.2	8.1	869	18.5
07/07/2009	14:00	na	9.7	8.6	675	26.1
Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Perdue Treatment Plant—imported raw water at Sweetwater Reservoir (SWR09)						
10/15/2003	13:00	na	8.3	8.7	778	24.9
12/17/2003	13:30	na	10.5	8.9	834	17.5
02/18/2004	12:00	na	10.9	8.3	442	14.7
04/14/2004	12:20	na	9.5	8.1	774	21.1
10/12/2004	16:30	na	8.3	8.2	775	24.0
01/12/2005	14:40	na	11.2	7.6	821	13.9
04/13/2005	08:40	na	9.3	8.6	707	18.5
07/12/2005	14:00	na	7.4	8.8	872	26.7
10/11/2005	13:50	na	7.8	8.4	880	23.4
01/10/2006	14:50	na	11.9	8.3	845	15.4
04/06/2006	14:20	na	9.9	7.8	692	15.9
07/11/2006	14:40	na	8.3	8.3	720	28.4
10/11/2006	13:40	na	10.0	8.2	714	22.6
01/09/2007	13:20	na	14.4	8.4	693	12.9
04/11/2007	08:50	na	12.5	8.3	747	18.5
07/10/2007	13:00	na	9.7	8.2	863	27.0
10/09/2007	15:00	na	11.5	8.1	736	20.5
01/08/2008	14:10	na	11.2	8.0	806	13.1
04/15/2008	13:40	na	11.4	8.3	672	19.9
07/15/2008	14:00	na	12.5	8.0	895	26.4
01/13/2009	14:10	na	13.6	8.0	893	13.2
04/14/2009	14:20	na	9.5	8.2	848	18.1
07/07/2009	14:20	na	9.5	8.3	662	26.0
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)						
10/15/2003	11:00	0.1	4.4	8.6	3,100	18.6
12/17/2003	13:00	0.1	10.3	8.9	2,800	9.5
02/18/2004	15:10	0.1	9.8	7.9	2,700	12.4

Table 3. Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and water temperature for each sampling site and period for the Sweetwater Reservoir watershed, San Diego County, California.—Continued

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Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)	Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)—Continued							Loveland Reservoir near dam (LLR01)—Continued						
04/14/2004	10:20	0.1	7.3	7.8	2,860	16.8	12/17/2003	10:28	9.0	6.8	8.6	618	12.3
07/14/2004	10:10	0.1	3.6	7.6	3,190	21.2	12/17/2003	10:29	10.0	6.7	8.6	617	12.3
10/13/2004	15:20	0.1	5.8	7.6	3,120	18.9	12/17/2003	10:30	12.0	6.7	8.5	618	12.3
01/13/2005	14:00	0.1	11.7	7.8	1,020	11.5	12/17/2003	10:31	14.0	6.6	8.5	618	12.3
04/13/2005	10:20	0.1	9.7	8.1	1,830	14.9	12/17/2003	10:32	16.0	6.5	8.5	617	12.3
07/13/2005	10:00	0.1	5.2	8.3	2,440	19.5	12/17/2003	10:33	18.0	6.3	8.4	617	12.3
10/12/2005	13:30	0.1	9.5	8.1	2,580	17.2	12/17/2003	10:34	20.0	6.2	8.4	617	12.3
01/10/2006	14:20	0.1	12.2	8.0	620	13.0	12/17/2003	10:35	22.0	6.3	8.4	617	12.2
04/07/2006	13:20	0.1	11.5	7.5	1,780	14.1	12/17/2003	10:36	24.0	6.3	8.4	617	12.2
07/12/2006	12:30	2.0	7.1	7.9	2,580	24.3	12/17/2003	10:37	26.0	6.2	8.4	617	12.2
10/11/2006	13:10	0.1	8.8	7.9	2,630	17.7	02/18/2004	10:39	0.1	11.7	8.3	664	11.7
01/10/2007	13:10	0.1	13.3	7.9	2,790	10.2	02/18/2004	10:40	1.0	11.7	8.3	664	11.6
04/11/2007	10:20	0.1	8.8	7.7	2,730	15.5	02/18/2004	10:41	2.0	11.6	8.3	664	11.5
07/11/2007	14:20	0.1	10.4	7.6	2,910	22.6	02/18/2004	10:42	3.0	11.3	8.2	664	11.5
10/09/2007	14:20	0.1	10.9	7.7	2,860	15.7	02/18/2004	10:43	4.0	11.0	8.2	665	11.4
01/09/2008	13:30	0.1	13.7	7.7	2,370	12.1	02/18/2004	10:44	5.0	10.9	8.2	665	11.4
02/01/2008	13:00	0.1	9.6	7.9	816	9.8	02/18/2004	10:45	6.0	10.8	8.2	665	11.4
04/16/2008	10:10	0.1	10.0	6.8	2,710	15.8	02/18/2004	10:46	7.0	9.9	8.1	665	11.3
07/16/2008	13:20	0.1	8.5	7.4	2,720	23.6	02/18/2004	10:47	8.0	9.7	8.1	666	11.3
10/15/2009	13:30	0.1	9.0	7.2	2,820	15.2	02/18/2004	10:48	9.0	9.1	8.0	666	11.2
01/14/2009	12:40	0.1	11.3	7.7	2,160	11.2	02/18/2004	10:49	10.0	8.8	8.0	666	11.1
04/15/2009	10:20	0.1	8.6	7.9	2,480	13.9	02/18/2004	10:50	12.0	8.6	8.0	666	11.1
07/08/2009	11:00	0.1	7.7	7.8	2,070	19.2	02/18/2004	10:51	14.0	8.5	8.0	666	11.1
Loveland Reservoir near dam (LLR01)							02/18/2004	10:52	16.0	8.4	8.0	666	11.1
12/17/2003	10:19	0.1	7.9	9.1	615	12.6	02/18/2004	10:53	18.0	8.4	8.0	666	11.1
12/17/2003	10:20	1.0	7.3	8.9	617	12.4	02/18/2004	10:54	20.0	8.4	8.0	666	11.1
12/17/2003	10:21	2.0	7.0	8.8	617	12.4	02/18/2004	10:55	22.0	8.4	7.9	666	11.1
12/17/2003	10:22	3.0	7.0	8.8	616	12.4	02/18/2004	10:56	24.0	8.3	8.0	667	11.1
12/17/2003	10:23	4.0	7.0	8.7	617	12.4	02/18/2004	10:57	26.0	1.0	7.4	667	11.2
12/17/2003	10:24	5.0	7.0	8.7	617	12.3	07/14/2004	11:46	0.1	9.2	8.5	712	26.0
12/17/2003	10:25	6.0	6.9	8.7	617	12.3	07/14/2004	11:47	1.0	9.3	8.5	711	25.9
12/17/2003	10:26	7.0	6.9	8.6	617	12.3	07/14/2004	11:48	2.0	9.4	8.5	711	25.9
12/17/2003	10:27	8.0	6.8	8.6	618	12.3	07/14/2004	12:10	3.0	9.3	8.7	711	25.8
							07/14/2004	11:49	4.0	9.3	8.5	711	25.6
							07/14/2004	11:50	5.0	8.6	8.4	710	25.2
							07/14/2004	11:51	6.0	3.8	7.9	702	27.9
							07/14/2004	11:52	7.0	0.9	7.6	688	19.7
							07/14/2004	11:53	8.0	0.7	7.6	683	17.2
							07/14/2004	11:54	9.0	0.7	7.6	676	15.4
							07/14/2004	11:55	10.0	1.0	7.6	676	14.2
							07/14/2004	11:56	12.0	0.7	7.6	673	12.6
							07/14/2004	11:57	14.0	0.4	7.5	672	11.9
							07/14/2004	11:58	16.0	0.4	7.5	675	11.9
							07/14/2004	11:59	18.0	0.3	7.5	675	11.8
							07/14/2004	12:00	20.0	0.3	7.5	675	11.8
							07/14/2004	12:01	22.0	0.3	7.5	675	11.8

Table 3. Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and water temperature for each sampling site and period for the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below water surface. Shaded data coincide with reservoir water samples. **Abbreviations:** hh:mm, hour:minute; m, meter; mg/L, milligram per liter; mm/dd/yyyy, month/day/year; na, not applicable; PM, probe malfunction; $\mu\text{S}/\text{cm}$, microsiemen per centimeter; $^{\circ}\text{C}$, degree Celsius]

Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Loveland Reservoir near dam (LLR01)—Continued						
07/14/2004	12:02	24.0	0.3	7.5	674	11.8
07/14/2004	12:03	26.0	0.3	7.5	675	11.7
07/14/2004	12:04	27.0	0.3	7.3	701	11.8
10/14/2004	10:47	0.1	8.2	8.6	704	21.3
10/14/2004	10:48	1.0	8.0	8.4	704	21.3
10/14/2004	10:49	2.0	7.9	8.4	703	21.3
10/14/2004	10:50	3.0	7.9	8.3	703	21.2
10/14/2004	10:51	4.0	7.8	8.3	703	21.2
10/14/2004	11:20	5.0	7.8	8.3	703	21.2
10/14/2004	10:52	6.0	7.8	8.3	703	21.2
10/14/2004	10:53	7.0	7.8	8.2	703	21.2
10/14/2004	10:54	8.0	7.8	8.2	703	21.2
10/14/2004	10:55	9.0	7.8	8.2	703	21.2
10/14/2004	10:56	10.0	7.7	8.2	703	21.1
10/14/2004	10:57	12.0	3.0	8.1	668	13.8
10/14/2004	10:58	14.0	1.4	8.0	667	12.4
10/14/2004	10:59	16.0	1.0	7.9	668	12.2
10/14/2004	11:00	18.0	0.8	7.8	670	12.1
10/14/2004	11:01	20.0	0.7	7.8	668	12.1
10/14/2004	11:02	22.0	0.6	7.7	668	12.0
10/14/2004	11:03	24.0	0.5	7.7	668	12.0
10/14/2004	11:04	26.0	0.5	7.6	668	12.0
10/14/2004	11:05	27.8	0.5	7.5	671	12.0
01/13/2005	11:07	0.1	10.4	8.2	518	11.7
01/13/2005	11:08	1.0	9.6	8.0	512	11.1
01/13/2005	11:09	2.0	9.3	8.0	511	11.1
01/13/2005	11:10	3.0	9.1	7.9	511	11.0
01/13/2005	11:11	4.0	9.1	7.8	515	11.0
01/13/2005	11:12	5.0	9.0	7.8	521	11.0
01/13/2005	11:13	6.0	9.0	7.8	537	11.0
01/13/2005	11:14	7.0	8.9	7.7	542	11.0
01/13/2005	11:15	8.0	8.9	7.7	542	11.0
01/13/2005	11:16	9.0	8.8	7.7	544	11.0
01/13/2005	11:17	10.0	8.8	7.7	546	11.0
01/13/2005	11:18	12.0	8.8	7.7	550	10.9
01/13/2005	11:19	14.0	8.7	7.6	552	10.9
01/13/2005	11:20	16.0	8.7	7.6	556	10.9
01/13/2005	11:21	18.0	8.4	7.6	571	10.9
01/13/2005	11:22	20.0	8.2	7.6	574	10.8
01/13/2005	11:23	22.0	8.2	7.6	561	10.7
01/13/2005	11:24	24.0	8.4	7.6	507	10.2
01/13/2005	11:25	26.0	8.4	7.6	493	10.1
Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Loveland Reservoir near dam (LLR01)—Continued						
01/13/2005	11:26	28.0	8.4	7.5	505	10.1
01/13/2005	11:27	30.0	6.9	7.5	531	10.3
01/13/2005	11:28	32.0	7.0	7.5	529	10.1
01/13/2005	11:29	33.4	7.4	7.4	558	10.2
10/12/2005	10:42	0.1	8.4	8.7	512	20.5
10/12/2005	10:43	1.0	8.4	8.4	514	20.4
10/12/2005	10:44	2.0	8.3	8.3	514	20.4
10/12/2005	10:45	3.0	8.3	8.2	514	20.3
10/12/2005	11:10	4.0	8.2	8.2	514	20.3
10/12/2005	10:46	5.0	8.1	8.2	514	20.3
10/12/2005	10:47	6.0	8.1	8.2	514	20.3
10/12/2005	10:48	7.0	8.1	8.1	514	20.2
10/12/2005	10:49	8.0	8.1	8.1	514	20.2
10/12/2005	10:50	9.0	1.7	8.0	432	16.6
10/12/2005	10:51	10.0	0.9	7.9	427	15.1
10/12/2005	10:52	12.0	0.7	7.8	421	13.9
10/12/2005	10:53	14.0	0.6	7.7	422	13.2
10/12/2005	10:54	16.0	0.6	7.6	436	12.4
10/12/2005	10:55	18.0	0.5	8.0	442	12.1
10/12/2005	10:56	20.0	0.5	7.6	444	12.0
10/12/2005	10:57	22.0	0.5	7.7	445	11.9
10/12/2005	10:58	24.0	0.5	7.5	445	11.9
10/12/2005	10:59	26.0	0.5	7.8	445	11.8
10/12/2005	11:00	28.0	0.5	7.8	446	11.8
10/12/2005	11:01	30.0	0.4	7.6	447	11.8
10/12/2005	11:02	32.0	0.4	7.4	447	11.8
10/12/2005	11:03	34.0	0.4	7.5	449	11.7
10/12/2005	11:04	36.0	0.4	7.6	450	11.7
10/12/2005	11:05	38.0	0.4	7.3	450	11.7
10/12/2005	11:06	40.0	0.4	7.3	450	11.7
10/12/2005	11:07	42.0	0.4	7.3	452	11.7
10/12/2005	11:08	44.3	0.4	7.2	489	11.7
04/06/2006	11:20	0.1	9.7	5.2	536	15.2
04/06/2006	11:06	1.0	9.6	5.8	535	14.9
04/06/2006	11:07	2.0	9.6	6.1	535	14.7
04/06/2006	11:08	3.0	9.5	6.2	535	14.7
04/06/2006	11:09	4.0	9.4	6.3	536	14.4
04/06/2006	11:10	5.0	9.2	6.4	536	14.4
04/06/2006	11:11	6.0	8.9	6.5	536	14.1
04/06/2006	11:12	7.0	8.6	6.5	535	13.8
04/06/2006	11:13	8.0	8.2	6.5	535	13.4
04/06/2006	11:14	9.0	7.3	6.5	534	12.6
04/06/2006	11:15	10.0	6.6	6.5	533	12.3

Table 3. Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and water temperature for each sampling site and period for the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below water surface. Shaded data coincide with reservoir water samples. **Abbreviations:** hh:mm, hour:minute; m, meter; mg/L, milligram per liter; mm/dd/yyyy, month/day/year; na, not applicable; PM, probe malfunction; $\mu\text{S}/\text{cm}$, microsiemen per centimeter; $^{\circ}\text{C}$, degree Celsius]

Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Loveland Reservoir near dam (LLR01)—Continued						
04/06/2006	11:16	12.0	6.1	6.4	533	12.2
04/06/2006	11:17	14.0	5.6	6.4	533	12.1
04/06/2006	11:18	16.0	5.2	6.4	533	12.1
04/06/2006	11:19	18.0	5.1	6.4	533	12.1
04/06/2006	11:21	20.0	5.1	6.4	533	12.1
04/06/2006	11:22	22.0	5.1	6.4	533	12.1
04/06/2006	11:23	24.0	5.2	6.4	533	12.1
04/06/2006	11:24	26.0	5.3	6.5	532	12.1
04/06/2006	11:25	28.0	5.5	6.4	532	12.0
04/06/2006	11:26	30.0	5.4	6.5	532	12.0
04/06/2006	11:27	32.0	5.3	6.5	532	12.0
04/06/2006	11:28	34.0	5.0	6.5	532	12.0
07/12/2006	10:50	0.1	9.0	8.7	578	26.9
07/12/2006	10:28	1.0	8.4	8.7	576	26.7
07/12/2006	10:29	2.0	8.3	8.7	577	26.7
07/12/2006	10:30	3.0	8.3	8.7	577	26.7
07/12/2006	10:31	4.0	8.2	8.7	577	26.6
07/12/2006	10:32	5.0	8.1	8.7	577	26.5
07/12/2006	10:33	6.0	3.0	7.7	548	20.9
07/12/2006	10:34	7.0	1.9	7.5	538	17.6
07/12/2006	10:35	8.0	1.7	7.5	535	16.2
07/12/2006	10:36	9.0	1.4	7.4	534	14.9
07/12/2006	10:37	10.0	1.3	7.4	532	14.2
07/12/2006	10:38	12.0	1.2	7.4	528	12.8
07/12/2006	10:39	14.0	1.2	7.4	528	12.5
07/12/2006	10:40	16.0	1.2	7.4	527	12.3
07/12/2006	10:41	18.0	1.2	7.4	528	12.3
07/12/2006	10:42	20.0	1.2	7.4	528	12.3
07/12/2006	10:43	22.0	1.2	7.4	527	12.3
07/12/2006	10:44	24.0	1.2	7.4	529	12.2
07/12/2006	10:45	26.0	1.2	7.4	528	12.2
07/12/2006	10:46	28.0	1.2	7.4	528	12.2
07/12/2006	10:47	30.0	1.3	7.4	528	12.2
07/12/2006	10:48	32.0	1.3	7.4	529	12.2
07/12/2006	10:49	34.0	1.3	7.4	537	12.2
07/12/2006	10:51	35.2	1.3	7.3	575	12.2
08/24/2006	09:59	0.1	11.4	8.6	579	26.0
08/24/2006	10:00	1.0	10.9	8.6	579	25.9
08/24/2006	10:01	2.0	10.7	8.7	579	25.8
08/24/2006	10:02	3.0	10.5	8.6	579	25.8
08/24/2006	10:03	4.0	10.4	8.6	579	25.7
Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Loveland Reservoir near dam (LLR01)—Continued						
08/24/2006	10:04	5.0	10.2	8.7	579	25.6
08/24/2006	10:05	6.0	6.5	8.4	576	24.5
01/10/2007	11:00	0.1	11.6	8.4	570	11.5
01/10/2007	11:01	1.0	9.9	8.2	572	11.3
01/10/2007	11:02	2.0	9.5	8.1	572	11.3
01/10/2007	11:03	3.0	9.4	8.0	572	11.3
01/10/2007	11:04	4.0	9.3	7.9	572	11.3
01/10/2007	11:05	5.0	9.2	7.8	571	11.3
01/10/2007	11:06	6.0	9.1	7.8	571	11.3
01/10/2007	11:07	7.0	9.0	7.7	571	11.3
01/10/2007	11:08	8.0	9.0	7.7	571	11.3
01/10/2007	11:09	9.0	8.9	7.7	571	11.3
01/10/2007	11:10	10.0	8.9	7.7	571	11.3
01/10/2007	11:11	12.0	8.9	7.7	572	11.3
01/10/2007	11:12	14.0	8.8	7.7	572	11.3
01/10/2007	11:13	16.0	8.8	7.6	573	11.3
01/10/2007	11:14	18.0	8.8	7.6	573	11.3
01/10/2007	11:15	20.0	8.7	7.6	573	11.3
01/10/2007	11:16	22.0	8.6	7.6	573	11.3
01/10/2007	11:17	24.0	8.5	7.6	573	11.3
01/10/2007	11:18	26.0	8.4	7.6	573	11.2
01/10/2007	11:19	28.0	8.3	7.6	574	11.2
01/10/2007	11:20	30.0	8.3	7.6	574	11.2
01/10/2007	11:21	32.0	8.3	7.6	574	11.2
01/10/2007	11:22	34.0	8.1	7.6	575	11.2
01/10/2007	11:23	34.8	4.4	7.5	593	11.3
07/11/2007	11:10	0.1	10.9	8.5	627	25.3
07/11/2007	10:57	1.0	10.7	8.4	626	25.2
07/11/2007	10:59	2.0	10.5	8.4	625	25.2
07/11/2007	11:00	3.0	10.3	8.3	625	25.1
07/11/2007	11:01	4.0	10.2	8.3	625	25.0
07/11/2007	11:02	5.0	10.0	8.2	625	24.9
07/11/2007	11:03	6.0	6.0	8.0	619	21.5
07/11/2007	11:04	7.0	1.9	7.5	613	18.0
07/11/2007	11:05	8.0	1.8	7.5	610	16.0
07/11/2007	11:06	9.0	1.7	7.4	606	14.7
07/11/2007	11:07	10.0	1.6	7.3	606	13.3
07/11/2007	11:08	12.0	1.7	7.3	602	11.7
07/11/2007	11:09	14.0	1.9	7.2	600	11.2
07/11/2007	11:11	16.0	2.2	7.2	598	11.1
07/11/2007	11:12	18.0	2.1	7.2	598	11.0
07/11/2007	11:13	20.0	1.9	7.2	599	11.0

Table 3. Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and water temperature for each sampling site and period for the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below water surface. Shaded data coincide with reservoir water samples. **Abbreviations:** hh:mm, hour:minute; m, meter; mg/L, milligram per liter; mm/dd/yyyy, month/day/year; na, not applicable; PM, probe malfunction; $\mu\text{S}/\text{cm}$, microsiemen per centimeter; $^{\circ}\text{C}$, degree Celsius]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)	Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Loveland Reservoir near dam (LLR01)—Continued							Loveland Reservoir near dam (LLR01)—Continued						
07/11/2007	11:14	22.0	1.9	7.1	598	11.0	04/16/2008	11:38	8.0	8.4	7.8	572	15.7
07/11/2007	11:15	24.0	2.0	7.1	599	11.0	04/16/2008	11:39	9.0	7.0	7.7	573	13.3
07/11/2007	11:16	26.0	2.1	7.1	599	10.9	04/16/2008	11:40	10.0	5.9	7.6	576	12.2
07/11/2007	11:17	28.0	2.2	7.1	598	10.9	04/16/2008	11:41	12.0	5.1	7.6	580	11.8
07/11/2007	11:18	30.0	2.1	7.1	598	10.9	04/16/2008	11:42	14.0	4.0	7.5	582	11.6
07/11/2007	11:19	32.0	1.7	7.1	598	10.9	04/16/2008	11:43	16.0	3.4	7.5	583	11.5
07/11/2007	11:20	34.0	1.6	7.1	598	10.9	04/16/2008	11:44	18.0	3.0	7.5	585	11.4
07/11/2007	11:21	36.0	1.2	7.1	606	10.9	04/16/2008	11:45	20.0	2.7	7.5	587	11.3
07/11/2007	11:22	38.0	1.1	7.0	640	11.0	04/16/2008	11:46	22.0	2.4	7.4	589	11.3
07/11/2007	11:23	40.0	1.1	7.0	644	11.0	04/16/2008	11:47	24.0	2.1	7.4	590	11.3
01/09/2008	10:50	0.1	13.7	8.1	625	11.6	04/16/2008	11:48	26.0	2.0	7.4	591	11.2
01/09/2008	10:51	1.0	11.3	8.0	625	11.3	04/16/2008	11:49	28.0	2.0	7.4	593	11.2
01/09/2008	10:52	2.0	10.3	8.0	624	11.3	04/16/2008	11:50	30.0	1.8	7.4	595	11.2
01/09/2008	10:53	3.0	9.6	8.1	625	11.2	07/16/2008	11:10	0.1	11.2	8.1	605	26.3
01/09/2008	10:54	4.0	9.4	7.8	625	11.2	07/16/2008	11:11	1.0	10.3	8.1	603	26.2
01/09/2008	10:55	5.0	9.3	7.9	626	11.2	07/16/2008	11:12	2.0	10.1	8.0	602	26.1
01/09/2008	10:56	6.0	9.3	7.8	626	11.2	07/16/2008	11:13	3.0	9.9	8.0	601	26.0
01/09/2008	10:57	7.0	9.2	7.8	625	11.2	07/16/2008	11:14	4.0	9.8	8.0	601	25.9
01/09/2008	10:58	8.0	9.2	7.8	625	11.2	07/16/2008	11:15	5.0	9.8	8.0	601	25.8
01/09/2008	10:59	9.0	9.1	7.7	625	11.2	07/16/2008	11:16	6.0	7.8	7.8	590	24.2
01/09/2008	11:00	10.0	9.1	7.7	625	11.2	07/16/2008	11:17	7.0	5.3	7.5	580	19.9
01/09/2008	11:01	12.0	9.1	7.7	625	11.2	07/16/2008	11:18	8.0	3.3	7.2	577	18.4
01/09/2008	11:02	14.0	9.0	7.7	625	11.2	07/16/2008	11:19	9.0	2.7	7.2	575	16.5
01/09/2008	11:03	16.0	8.8	7.7	626	11.1	07/16/2008	11:20	10.0	2.3	7.1	574	15.3
01/09/2008	11:04	18.0	8.7	7.7	625	11.1	07/16/2008	11:21	12.0	2.1	7.1	576	13.3
01/09/2008	11:05	20.0	8.7	7.7	625	11.1	07/16/2008	11:22	14.0	2.0	7.0	576	12.3
01/09/2008	11:06	22.0	8.7	7.7	626	11.1	07/16/2008	11:23	16.0	2.0	7.0	578	11.9
01/09/2008	11:07	24.0	8.7	7.7	626	11.1	07/16/2008	11:24	18.0	1.9	7.0	579	11.7
01/09/2008	11:08	26.0	8.7	7.6	626	11.1	07/16/2008	11:25	20.0	1.9	6.9	581	11.7
01/09/2008	11:09	28.0	8.7	7.6	626	11.1	07/16/2008	11:26	22.0	1.9	6.9	582	11.6
01/09/2008	11:10	30.0	8.7	7.6	626	11.1	07/16/2008	11:27	24.0	1.9	6.9	583	11.6
01/09/2008	11:11	32.0	8.7	7.6	626	11.1	07/16/2008	11:28	26.0	1.9	6.9	584	11.6
01/09/2008	11:12	34.0	8.6	7.6	627	11.1	07/16/2008	11:29	28.0	1.9	6.9	584	11.6
01/09/2008	11:13	36.0	7.9	7.6	632	11.1	07/16/2008	11:30	30.0	1.8	6.9	585	11.5
04/16/2008	11:30	0.1	12.0	8.0	573	17.9	10/15/2008	10:40	0.1	8.8	8.1	599	20.1
04/16/2008	11:31	1.0	11.7	8.0	569	17.7	10/15/2008	10:41	1.0	8.4	8	605	20.0
04/16/2008	11:32	2.0	11.5	8.0	570	17.4	10/15/2008	10:42	2.0	8.5	7.9	609	19.9
04/16/2008	11:33	3.0	11.3	8.1	569	17.4	10/15/2008	10:43	3.0	8.4	7.8	609	19.9
04/16/2008	11:34	4.0	11.2	8.1	569	17.2	10/15/2008	10:44	4.0	8.4	7.8	611	19.9
04/16/2008	11:35	5.0	11.2	8.1	569	17.0	10/15/2008	10:45	5.0	8.4	7.8	612	19.9
04/16/2008	11:36	6.0	11.2	8.1	569	16.9	10/15/2008	10:46	6.0	8.4	7.8	613	19.9
04/16/2008	11:37	7.0	10.0	8.0	572	15.9	10/15/2008	10:47	7.0	8.4	7.7	613	19.9

Table 3. Water-quality depth-profile data for dissolved oxygen, pH, specific conductance, and water temperature for each sampling site and period for the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[Time is denoted in 24-hour format. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Sampling depth is in meters below water surface. Shaded data coincide with reservoir water samples. **Abbreviations:** hh:mm, hour:minute; m, meter; mg/L, milligram per liter; mm/dd/yyyy, month/day/year; na, not applicable; PM, probe malfunction; $\mu\text{S}/\text{cm}$, microsiemen per centimeter; $^{\circ}\text{C}$, degree Celsius]

Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Loveland Reservoir near dam (LLR01)—Continued						
10/15/2008	10:48	8.0	8.4	7.7	614	19.9
10/15/2008	10:49	9.0	8.4	7.7	615	19.8
10/15/2008	10:50	10.0	8.0	7.7	615	19.6
10/15/2008	10:51	12.0	2.6	7.5	586	14.1
10/15/2008	10:52	14.0	1.4	7.4	579	12.6
10/15/2008	10:53	16.0	1.1	7.2	581	12.0
10/15/2008	10:54	18.0	1.1	7.2	582	11.9
10/15/2008	10:55	20.0	1.0	7.2	582	11.8
10/15/2008	10:56	22.0	1.0	7.2	583	11.8
10/15/2008	10:57	24.0	1.0	7.1	583	11.8
10/15/2008	10:58	26.0	1.0	7.1	583	11.8
10/15/2008	10:59	28.0	0.9	7.1	582	11.7
10/15/2008	11:00	30.0	0.9	7.1	585	11.7
01/14/2009	10:40	0.1	9.6	7.8	605	12.4
01/14/2009	10:41	1.0	8.8	7.8	605	11.9
01/14/2009	10:42	2.0	8.8	7.8	604	11.6
01/14/2009	10:43	3.0	8.6	7.8	604	11.6
01/14/2009	10:44	4.0	8.5	7.7	603	11.5
01/14/2009	10:45	5.0	8.5	7.7	603	11.5
01/14/2009	10:46	6.0	8.5	7.7	603	11.5
01/14/2009	10:47	7.0	8.5	7.7	603	11.5
01/14/2009	10:48	8.0	8.5	7.7	603	11.5
01/14/2009	10:49	9.0	8.4	7.7	603	11.5
01/14/2009	10:50	10.0	8.4	7.7	603	11.5
01/14/2009	10:51	12.0	8.4	7.6	603	11.5
01/14/2009	10:52	14.0	8.1	7.6	603	11.5
01/14/2009	10:53	16.0	8.0	7.7	602	11.5
01/14/2009	10:54	18.0	7.9	7.7	602	11.5
01/14/2009	10:55	20.0	7.9	7.7	602	11.5
01/14/2009	10:56	22.0	8.2	7.7	602	11.4
01/14/2009	10:57	24.0	8.2	7.7	601	11.4
01/14/2009	10:58	26.0	8.2	7.7	601	11.4
01/14/2009	10:59	28.0	8.2	7.7	601	11.4
01/14/2009	11:00	30.0	8.2	7.7	601	11.3
04/15/2009	13:00	0.1	9.8	8.7	554	15.4
04/15/2009	13:01	1.0	8.9	8.7	553	15.4
04/15/2009	13:02	2.0	8.6	8.6	553	15.4
04/15/2009	13:03	3.0	8.2	8.6	554	15.3

Date (mm/dd/ yyyy)	Time (hh:mm)	Sampling depth (m) (00098)	Oxygen, dissolved (mg/L) (00300)	pH, water whole field (standard units) (00400)	Specific conduc- tance ($\mu\text{S}/\text{cm}$) (00095)	Water temper- ature ($^{\circ}\text{C}$) (00010)
Loveland Reservoir near dam (LLR01)—Continued						
04/15/2009	13:04	4.0	8.0	8.5	555	15.3
04/15/2009	13:05	5.0	7.8	8.5	556	15.1
04/15/2009	13:06	6.0	6.4	8.2	558	14.8
04/15/2009	13:07	7.0	4.8	7.9	556	14.1
04/15/2009	13:08	8.0	3.7	7.7	553	13.3
04/15/2009	13:09	9.0	3.1	7.7	552	12.1
04/15/2009	13:10	10.0	2.9	7.7	551	11.8
04/15/2009	13:11	12.0	2.8	7.6	550	11.5
04/15/2009	13:12	14.0	2.8	7.6	542	11.4
04/15/2009	13:13	16.0	2.8	7.6	548	11.4
04/15/2009	13:14	18.0	2.7	7.6	547	11.4
04/15/2009	13:15	20.0	2.4	7.6	546	11.4
04/15/2009	13:16	22.0	2.0	7.6	545	11.3
04/15/2009	13:17	24.0	1.6	7.6	545	11.3
04/15/2009	13:18	26.0	1.3	7.6	545	11.3
07/08/2009	13:00	0.1	10.8	8.7	438	25.5
07/08/2009	13:01	1.0	10.7	8.6	442	25.3
07/08/2009	13:02	2.0	10.8	8.6	443	24.8
07/08/2009	13:03	3.0	10.7	8.6	444	24.6
07/08/2009	13:04	4.0	10.6	8.6	446	24.5
07/08/2009	13:05	5.0	8.6	8.5	449	24.2
07/08/2009	13:06	6.0	5.1	8.1	453	19.9
07/08/2009	13:07	7.0	3.1	8.0	451	17.7
07/08/2009	13:08	8.0	1.7	7.9	450	16.1
07/08/2009	13:09	9.0	1.6	7.8	450	15.1
07/08/2009	13:10	10.0	1.5	7.8	450	14.2
07/08/2009	13:11	12.0	1.5	7.7	452	13.0
07/08/2009	13:12	14.0	1.4	7.7	448	11.9
07/08/2009	13:13	16.0	1.3	7.7	448	11.7
07/08/2009	13:14	18.0	1.3	7.6	447	11.7
07/08/2009	13:15	20.0	1.3	7.6	447	11.6
07/08/2009	13:16	22.0	1.2	7.6	446	11.6
07/08/2009	13:17	24.0	1.2	7.6	446	11.6
07/08/2009	13:18	26.0	1.2	7.6	445	11.5
07/08/2009	13:19	28.0	1.2	7.6	444	11.5
07/08/2009	13:20	29.0	1.1	7.4	451	11.5

Semivolatile Organic Compounds

Unfiltered water samples were analyzed for 57 BNA extractable compounds, including 16 PAHs on NWQL schedule 1383. The analysis included the following modifications to the method originally described in Fishman (1993). Each 1-L water sample was fortified with surrogate compounds (see Quality Control section) and extracted with dichloromethane for 6 hours in a continuous liquid-liquid extractor. The pH of the sample was made acidic (by addition of 2.0 mL of 25 percent sulfuric acid) for the first 3 hours and then adjusted to basic (by addition of 7.0 mL of 37 percent potassium hydroxide) for the remainder of the extraction. The resultant extract was reduced in volume by distillation and then by nitrogen gas evaporation to a final volume of 0.4 mL. The extract was analyzed for 57 BNA compounds by GC/MS operated in the full-scan mode.

Samples collected for methods determining pesticide and AOI compounds were filtered at the Perdue Treatment Plant through 142-mm diameter, 0.7- μ m nominal pore size GFF into sample bottles (Sandstrom, 1995). Filtered water samples were analyzed for pesticides on NWQL schedules 2003 and 2060. Schedule 2003 includes 65 pesticides and degradates that are a subset of those determined by Zaugg and others (1995), Lindley and others (1996), Sandstrom and others (2001), and Madsen and others (2003). Each water sample was passed through a 0.5-g octadecylsilyl (C-18) solid-phase extraction (SPE) column to extract the pesticides dissolved in the water. The pesticides were eluted from the columns with 2 mL of ethyl acetate, and the extracts were reduced in volume, exchanged to toluene to approximately 0.25 mL final volume, and analyzed by GC/MS operated in the selected-ion monitoring (SIM) mode (Sandstrom and others, 2001). Schedule 2060 includes 58 polar pesticides and degradates. Each sample was analyzed by SPE using a graphitized carbon column (Carbopack B, Supelco; Bellefonte, Pennsylvania) and liquid chromatography with mass-spectrometric detection operated in SIM mode as detailed in Furlong and others (2001).

Filtered water samples were analyzed for 63 AOI compounds on NWQL schedule 1433 (Zaugg and others, 2002). Some AOI compounds typically are associated with wastewater effluent, and some are classified as endocrine-disrupting compounds. Approximately 1 L of a filtered water sample was passed through a 1-g Oasis hydrophilic-lipophilic balance (HLB; Waters Corp., Milford, Massachusetts) SPE column. Eluted analytes were determined by GC/MS operated in full-scan mode.

Metals

Metals in unfiltered water samples on NWQL schedule 1080 were analyzed by using inductively coupled plasma-optical emission spectroscopy and inductively coupled plasma-mass spectrometry methods described in Garbarino and Struzeski (1998). Dissolved metals in filtered water

samples on NWQL schedule 2710 were analyzed by using inductively coupled plasma-mass spectrometry methods described in Garbarino and Taylor (1996) and Garbarino (1999). Dissolved metal samples were processed through a 0.45- μ m capsule filter into the appropriate bottle and acidified as needed.

Water-Quality Assurance

The QA and quality control (QC) procedures used for surface-water sampling followed the protocols described in Mueller and others (1997). The QA plan followed by the USGS NWQL is described in Pirkey and Glodt (1998) and Maloney (2005). Additionally, the USGS Branch of Quality Systems QA program (within the USGS Office of Water Quality) maintains a web page with results from the USGS Inorganic Blind Sample Project (U.S. Geological Survey, variously dated) to document bias and variability for the NWQL through the use of blind QA samples.

Three types of QC samples were used for this study—matrix spikes, blanks, and replicates. Spikes and blanks are used to assess result bias, and replicates are used to assess result variability. Spike recoveries are considered to be acceptable if they are within ± 30 percent of a known spike value. Replicates are considered to be acceptable if they are within ± 30 percent of the original value. Additionally, surrogate compounds were added to VOC, BNA, PAH, pesticide, and AOI samples at the laboratory to monitor sample-specific performance of the analytical method. Additional information on water QA methods and QC results are presented in the appendix.

A matrix (replicate environmental sample) spike is prepared by fortifying reagent water with a known concentration of selected analytes and can be used to test the effects of various sampled matrices on the recovery of specific compounds, including matrix interference or matrix-induced analyte degradation. Matrix-spike recoveries are calculated, using the following equation:

$$\text{Recovery} = 100 (C_{\text{spiked}} - C_{\text{env}} / C_{\text{expected}}) \quad (1)$$

where

C_{spiked}	is the measured concentration in the spiked sample, in micrograms per liter;
C_{env}	is the measured concentration in the associated environmental sample or one-quarter of the laboratory reporting level (LRL) if no detection, in micrograms per liter; and
C_{expected}	is the expected concentration of the spike in the spiked sample, in micrograms per liter.

Blanks are intended to 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 interfering constituents during any stage of sample collection, processing, and analysis. Blanks for water samples were 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 through all field-cleaned sampling equipment. Field blanks are used to show that all stages of sample collection and processing have not introduced contamination. Equipment blanks are collected annually and demonstrate that the equipment used to collect and process the samples is not introducing contamination. Source solution blanks are collected to show 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. Travel blanks were processed for VOCs from unopened cartridges sent from the lab and processed with the environmental samples.

Replicate samples are collected and processed identically to the environmental sample to measure the variability in the detected analyte concentration during sample processing and analysis. Replicate samples for VOCs and metals (targeted compounds) were evaluated by calculating the percentage difference of detected analytes from the environmental sample.

The quality of analysis was monitored by adding surrogate compounds to each sample before it was processed. These surrogate compounds are added at the NWQL to monitor sample preparation and analysis, and the results are given in their respective data tables. For VOCs, surrogates 1,4-bromofluorobenzene, 1,2-dichloroethane-*d*4, and toluene-*d*8 were added to each sample. For BNA, surrogates 2-fluorophenyl, nitrobenzene-*d*5, phenol-*d*5, terphenyl, and 2,4,6-tribromophenol were added to each sample. For pesticides on NWQL schedule 2003, diazinon-*d*10 and α -HCH-*d*6 were added to each sample. For pesticides on NWQL schedule 2060, surrogates barban, caffeine C-13, and 2,4,5-T were added to each sample. For AOI compounds, surrogates bisphenol A-*d*3, caffeine C-13, decafluorobiphenyl, and fluoroanthene-*d*10 were added to each sample prior to extraction. Surrogates were not added to the water samples analyzed for metals.

Water Results

VOCs analyzed in unfiltered water samples (along with their applicable LRLs) are given in table 4A, and the compounds detected are given in table 4B. Of the 85 VOC compounds analyzed, 37 compounds were detected at least once. Four compounds (bromodichloromethane, dibromochloromethane, tribromomethane, and

trichloromethane) were detected in 100 percent of the samples at site SWR08. Trichloromethane also was detected in 100 percent of the samples at sites SWR01, SWR08, and SWR09. The highest detections of methyl *tert*-butyl ether (MTBE), benzene, and toluene in the vertical profile of water samples for each sampling event at sites SWR01 and SWR03 are shown in figures 4B, 4C, and 4D, respectively. MTBE was detected in most samples during Phase One until the spring of 2003. MTBE was not detected in Phases Two and Three. Benzene had several detections in Phase One, five detections in Phase Two, and one detection in Phase Three. Toluene was detected many times in Phase One, had the highest concentrations in Phase Two, and was detected five times in Phase Three. To avoid falsely implying trends in figures 4B–4D because of variations in laboratory reporting limits, all non-detections were plotted at a low concentration (0.003 $\mu\text{g/L}$) for a normalized appearance. This normalized concentration was chosen because all laboratory reported detections were above this value.

The BNA compounds analyzed in NWQL schedule 1383 (unfiltered water) are given in table 5A, and the compounds detected are given in table 5B. Of the 56 BNA compounds analyzed, 37 were detected at least once. Isophorone and phenol were detected most frequently (45.5 and 40.6 percent, respectively). Pesticide compounds analyzed in NWQL schedules 2003 (filtered water) and 2060 (filtered water) are given in tables 6A and 7A, respectively, and the compound concentrations detected are given in tables 6B and 7B, respectively. Of the 64 pesticide compounds analyzed in schedule 2003, 21 were detected at least once. Prometon and simazine were detected most frequently (94.4 and 83.3 percent, respectively). Of the 59 pesticide compounds analyzed in schedule 2060, 14 were detected at least once. Caffeine and diuron were detected most frequently (54.3 and 91.4 percent, respectively).

A variety of AOI compounds, some that typically are associated with wastewater effluent, were analyzed (table 8A). Concentrations for AOI compounds detected in filtered water samples at sites SWR01, SWR03, SWR08, SWR09, and LFDD (fig. 2) are given in table 8B. Of the 59 AOI compounds analyzed, 17 were detected at least once.

Metals occur naturally but they are also emitted from vehicle exhaust and are found in tire-wear and road dust. The metal analyses were added to the SWR sampling to help understand the role of atmospheric deposition of metals that might originate from the SR 125 alignment and the potential effect of these metals on water quality. Metal concentrations in unfiltered and filtered water samples are given in tables 9A and 9B, respectively. Of the 19 metals analyzed in unfiltered water samples, only silver and thallium were not detected. Of the 22 metals analyzed in filtered water samples, only beryllium, chromium, and thallium were not detected; silver was only detected once.

Table 4A. Volatile organic compounds analyzed in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, for 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 (µg/L), unless noted.]

Compound	Parameter code	LRL	Compound	Parameter code	LRL
Acetone	81552	6, 4	Hexachlorobutadiene	39702	0.14, 0.10, 0.06
Acrylonitrile	34215	1.2, 0.8, 0.4	Hexachloroethane	34396	0.14
Benzene	34030	0.021, 0.016	2-Hexanone	77103	0.7, 0.4, 0.6
Bromobenzene	81555	0.028, 0.02	Isopropylbenzene	77223	0.038, 0.04
Bromochloromethane	77297	0.12, 0.06	4-Isopropyl-1-methylbenzene	77356	0.08, 0.06
Bromodichloromethane	32101	0.028, 0.04	Methyl acrylate	49991	2, 1.0, 0.4, 0.6
Bromoethene	50002	0.10, 0.12	Methyl acrylonitrile	81593	0.76, 0.40, 0.2
Bromomethane	34413	0.26, 0.33, 0.4	Methyl iodide	77424	0.35, 0.50, 0.4, 0.8
2-Butanone	81595	4, 2, 1.6	Methyl methacrylate	81597	0.35, 0.20
<i>n</i> -Butylbenzene	77342	0.12, 0.14, 0.08	4-Methyl-2-pentanone	78133	0.37, 0.2, 0.4
<i>sec</i> -Butylbenzene	77350	0.06, 0.04, 0.02	Methyl <i>tert</i> -butyl ether (MTBE)	78032	0.17, 0.10
<i>tert</i> -Butylbenzene	77353	0.06, 0.08	Naphthalene	34696	0.52, 0.4, 0.2
Carbon disulfide	77041	0.038, 0.06, 0.04	<i>tert</i> -Pentyl methyl ether	50005	0.08, 0.04, 0.06
Chlorobenzene	34301	0.028, 0.02	<i>n</i> -Propylbenzene	77224	0.042, 0.04
Chloroethane	34311	0.12, 0.10	Styrene	77128	0.042, 0.04
Chloromethane	34418	0.17, 0.10, 0.14	1,1,1,2-Tetrachloroethane	77562	0.030, 0.04
3-Chloropropene	78109	0.5, 0.08	1,1,2,2-Tetrachloroethane	34516	0.16, 0.08, 0.10
2-Chlorotoluene	77275	0.04, 0.02	Tetrachloroethylene	34475	0.06, 0.03, 0.04
4-Chlorotoluene	77277	0.05, 0.04, 0.02	Tetrachloromethane	32102	0.06, 0.08
Dibromochloromethane	32105	0.10, 0.12	Tetrahydrofuran	81607	2.2, 1.0, 1.4
1,2-Dibromo-3-chloropropane	82625	0.51, 0.5, 1	1,2,3,4-Tetramethylbenzene	49999	0.14, 0.08
1,2-Dibromoethane	77651	0.036, 0.04	1,2,3,5-Tetramethylbenzene	50000	0.14, 0.18, 0.12, 0.08
Dibromomethane	30217	0.050, 0.04	Toluene	34010	0.05, 0.02, 0.018
1,2-Dichlorobenzene	34536	0.048, 0.04, 0.02	Tribromomethane	32104	0.1
1,3-Dichlorobenzene	34566	0.03, 0.04, 0.02	1,2,3-Trichlorobenzene	77613	0.27, 0.18, 0.12, 0.08, 0.06
1,4-Dichlorobenzene	34571	0.034, 0.04, 0.02	1,2,4-Trichlorobenzene	34551	0.12, 0.08, 0.04
<i>trans</i> -1,4-Dichloro-2-butene	73547	0.70, 0.6, 0.4	1,1,1-Trichloroethane	34506	0.032, 0.04, 0.02
Dichlorodifluoromethane	34668	0.18, 0.14, 0.1	1,1,2-Trichloroethane	34511	0.064, 0.04, 0.06
1,1-Dichloroethane	34496	0.035, 0.06, 0.04	Trichloroethylene	39180	0.038, 0.02
1,2-Dichloroethane	32103	0.13, 0.10, 0.06	Trichlorofluoromethane	34488	0.16, 0.08
1,1-Dichloroethylene	34501	0.024, 0.02	Trichloromethane (chloroform)	32106	0.024, 0.04, 0.02
<i>cis</i> -1,2-Dichloroethylene	77093	0.024, 0.02	1,2,3-Trichloropropane	77443	0.18, 0.12
<i>trans</i> -1,2-Dichloroethylene	34546	0.032, 0.018	1,1,2-Trichlorotrifluoroethane (Freon 113)	77652	0.038, 0.04
Dichloromethane	34423	0.06, 0.04	1,2,3-Trimethylbenzene	77221	0.06, 0.09, 0.08
1,2-Dichloropropane	34541	0.029, 0.02	1,2,4-Trimethylbenzene	77222	0.056, 0.04
1,3-Dichloropropane	77173	0.06	1,3,5-Trimethylbenzene	77226	0.044, 0.04
2,2-Dichloropropane	77170	0.05, 0.06	Vinyl Chloride	39175	0.06, 0.08
1,1-Dichloropropene	77168	0.026, 0.04	<i>m</i> - and <i>p</i> -Xylene	85795	0.06, 0.08
<i>cis</i> -1,3-Dichloropropene	34704	0.05, 0.06, 0.1	<i>o</i> -Xylene	77135	0.038, 0.04
<i>trans</i> -1,3-Dichloropropene	34699	0.09, 0.10			
Diethyl ether	81576	0.08, 0.12			
Diisopropyl ether	81577	0.10, 0.06			
Ethylbenzene	34371	0.030, 0.02, 0.04	1,4-Bromofluorobenzene, surrogate	99834	percent
Ethyl <i>tert</i> -butyl ether	50004	0.05, 0.030, 0.04	1,2-Dichloroethane- <i>d</i> 4, surrogate	99832	percent
Ethyl methacrylate	73570	0.18, 0.14	Toluene- <i>d</i> 8, surrogate	99833	percent
<i>o</i> -Ethyl toluene	77220	0.06, 0.04, 0.02			

Table 4B. Analytical results for Volatile Organic Compounds detected in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, from the Sweetwater Reservoir watershed, San Diego County, California.

(Table 4B is provided separately as a Microsoft Excel® worksheet.)

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

Figure 4. —Continued

Table 5A. Base-neutral acid compounds analyzed in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1383, for 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. This schedule is not the preferred method for compounds 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Hexachlorobutadiene, Hexachloroethane, Naphthalene, and 1,2,4-Trichlorobenzene. Laboratory reporting level (LRL) values are reported as micrograms per liter (µg/L), unless noted. *, denotes polycyclic aromatic hydrocarbons]

Compound	Parameter code	LRL	Compound	Parameter code	LRL
Acenaphthene*	34205	1.9, 0.28	2,6-Dinitrotoluene	34626	2.3, 0.43
Acenaphthylene*	34200	1.8, 0.30	1,2-Diphenylhydrazine	82626	2.2, 0.30
Anthracene*	34220	2.0, 0.39	bis(2-Ethylhexyl) phthalate	39100	1.8, 1.05, 2
Benz[<i>a</i>]anthracene*	34526	1.6, 0.26	Fluoranthene*	34376	1.4, 0.30
Benzo[<i>a</i>]pyrene*	34247	1.3, 0.33	Fluorene*	34381	1.2, 0.33
Benzo[<i>b</i>]fluoranthene*	34230	1.9, 0.40	Hexachlorobenzene	39700	1.0, 0.30
Benzo[<i>ghi</i>]perylene*	34521	1.6, 0.64, 0.4	Hexachlorobutadiene	39702	1.2, 0.46, 0.2
Benzo[<i>k</i>]fluoranthene*	34242	1.4, 0.45, 0.4	Hexachlorocyclopentadiene	34386	1.2, 0.52, 0.4
Benzyl <i>n</i> -butyl phthalate	34292	1.8, 1.26, 0.4	Hexachloroethane	34396	1.6, 0.66, 0.2
4-Bromophenyl phenyl ether	34636	2.1, 0.36	Indeno[1,2,3- <i>cd</i>]pyrene*	34403	1.8, 0.56, 0.4
bis(2-Chloroethoxy)methane	34278	1.0, 0.35, 0.2	Isophorone*	34408	2.2, 0.60, 0.4
bis(2-Chloroethyl) ether	34273	1.0, 0.30	2-Methyl-4,6-dinitrophenol	34657	1.8, 0.77
bis(2-Chloroisopropyl) ether	34283	1.0, 0.38	Naphthalene	34696	1.6, 0.32
4-Chloro-3-methylphenol	34452	1.6, 0.55	Nitrobenzene	34447	1.4, 0.21
2-Chloronaphthalene*	34581	1, 0.38, 0.20	2-Nitrophenol	34591	1.4, 0.30, 0.6, 0.4
2-Chlorophenol	34586	1.2, 0.42	4-Nitrophenol	34646	2.4, 0.51
4-Chlorophenyl phenyl ether	34641	1.2, 0.34	<i>N</i> -Nitrosodimethylamine	34438	1.6, 0.33, 0.2
Chrysene*	34320	1.2, 0.33	<i>N</i> -Nitrosodi- <i>n</i> -propylamine	34428	1.6, 0.82, 0.4
Dibenz[<i>a,h</i>]anthracene*	34556	2.2, 0.70, 0.4	<i>N</i> -Nitrosodiphenylamine	34433	1.9, 0.81, 0.4
1,2-Dichlorobenzene	34536	1.5, 0.49, 0.20	Pentachlorophenol	39032	1.8, 0.87, 0.4, 1.2
1,3-Dichlorobenzene	34566	1.2, 0.57, 0.20	Phenanthrene*	34461	1.0, 0.32
1,4-Dichlorobenzene	34571	1.4, 0.53, 0.20	Phenol	34694	1.6, 0.44
3,3-Dichlorobenzidine	34631	0.9, 0.65, 0.4	Pyrene*	34469	1.6, 0.35
2,4-Dichlorophenol	34601	2.5, 0.39	1,2,4-Trichlorobenzene	34551	1.2, 0.41, 0.20
Diethyl phthalate	34336	1.6, 0.61	2,4,6-Trichlorophenol	34621	1.4, 0.31, 0.6
2,4-Dimethylphenol	34606	2.0, 0.37, 0.60	2-Fluorophenol, surrogate	L2325	percent
Dimethyl phthalate	34341	1.0, 0.59, 0.4	2-Fluorophenyl, surrogate	91822	percent
Di- <i>n</i> -butyl phthalate	39110	1.7, 0.87, 0.4	Nitrobenzene- <i>d</i> 5, surrogate	91820	percent
Di- <i>n</i> -octyl phthalate	34596	2.3, 1.86, 0.4	Phenol- <i>d</i> 5, surrogate	90630	percent
2,4-Dinitrophenol	34616	3.3, 0.80, 1.4	Terphenyl- <i>d</i> 14, surrogate	91821	percent
2,4-Dinitrotoluene	34611	1.4, 0.43, 0.60	2,4,6-Tribromophenol, surrogate	90652	percent

Table 5B. Analytical results for base-neutral acid compounds detected in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1383, from the Sweetwater Reservoir watershed, San Diego County, California.

(Table 5B is provided separately as a Microsoft Excel® worksheet.)

Table 6A. Pesticide compounds analyzed in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2003, for 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 (µg/L), unless noted.]

Compound	Parameter code	LRL	Compound	Parameter code	LRL
Acetochlor	49260	0.006	Fipronil sulfone	62168	0.024
Alachlor	46342	0.005	Fonofos	04095	0.003
Atrazine	39632	0.007	Fonofos oxygen analog	61649	0.002, 0.003
Azinphos-methyl	82686	0.05	Hexazinone	04025	0.013
Azinphos-methyl oxygen analog	61635	0.031	Iprodione	61593	1.42, 0.538
Benfluralin	82673	0.01	Isofenphos	61594	0.003
Carbaryl	82680	0.041	Malaoxon	61652	0.008, 0.030
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	0.056	Metolachlor	39415	0.013, 0.006
Cyfluthrin	61585	0.008, 0.027	Metribuzin	82630	0.006
Cypermethrin	61586	0.009	Myclobutanil	61599	0.008
Dacthal (DCPA)	82682	0.003	1-Naphthol	49295	0.088
Deethylatrazine	04040	0.014	Paraoxon-methyl	61664	0.03
Desulfinylfipronil	62170	0.012	Parathion-methyl	82667	0.015
Desulfinylfipronil amide	62169	0.029	Pendimethilan	82683	0.022
Diazinon	39572	0.005	cis-Permethrin	82687	0.006
3,4-Dichloroaniline	61625	0.005	Phorate	82664	0.011
Dichlorvos	38775	0.012	Phorate oxygen analog	61666	0.097, 0.105
Dicrotophos	38454	0.084	Phosmet	61601	0.008
Dieldrin	39381	0.009	Phosmet oxygen analog	61668	0.055, 0.051
2,6-Diethylaniline	82660	0.006	Prometon	04037	0.005, 0.010
Dimethoate	82662	0.006	Prometryn	04036	0.005
Ethion	82346	0.004	Propyzamide	82676	0.004
Ethion monoxon	61644	0.034, 0.002	Simazine	04035	0.005
2-Ethyl-6-methylaniline	61620	0.005	Tebuthiuron	82670	0.016
2-[(2-Ethyl-6-methylphenyl)-amino]-1-propanol	61615	0.126	Terbufos	82675	0.017
Fenamiphos	61591	0.029	Terbufos oxygen analog sulfone	61674	0.068
Fenamiphos sulfone	61645	0.008, 0.049	Terbutylazine	04022	0.010
Fenamiphos sulfoxide	61646	0.031, 0.038	Trifluralin	82661	0.009
Fipronil	62166	0.016	Diazinon- <i>d</i> 10, surrogate	99994	percent
Fipronil sulfide	62167	0.013	α -HCH- <i>d</i> 6, surrogate	99995	percent

Table 6B. Analytical results for pesticide compounds detected in filtered-water samples, using U.S. Geological Survey 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 scale. The five-digit parameter code in parentheses below the compound name 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 are listed on table 5A. Concentrations are given in micrograms per liter ($\mu\text{g/L}$), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above laboratory reporting level]

[illegible]

Table 6B. Analytical results for pesticide compounds detected in filtered-water samples, using U.S. Geological Survey 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 scale. The five-digit parameter code in parentheses below the compound name 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 are listed on table 5A. Concentrations are given in micrograms per liter (µg/L), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Malathion (39532)	Metalaxyl (61596)	Metolachlor (39415)	Prometon (04037)	Prometryn (04036)	Simazine (04035)	Tebuthiuron (82670)	Terbutylazine (04022)	Trifluralin (82661)	Diazinon <i>d</i> 10, surrogate (percent) (99994)	<i>α</i> -HCH- <i>d</i> 6, surrogate (percent) (99995)
Sweetwater Reservoir near pump tower (SWR01)													
10/14/2003	13:30	4.0	—	—	—	0.007	—	0.008	—	—	—	100	87.0
12/16/2003	12:00	4.0	—	—	—	E0.005	—	0.005	—	—	—	95.6	87.9
02/17/2004	15:40	5.0	E0.006	—	E0.005	E0.004	E0.003	0.006	—	—	—	97.5	82.8
10/12/2004	13:00	3.0	—	—	—	—	—	0.008	—	—	—	85.0	88.8
01/12/2005	11:30	6.0	—	0.037	0.009	0.014	—	0.014	0.05	—	E0.006	124	102
Sweetwater Reservoir center of minimum pool (SWR03)													
10/14/2003	14:10	4.0	—	—	—	0.010	—	0.01	—	—	—	103	88.1
12/16/2003	13:00	4.0	—	—	—	0.010	—	0.007	—	—	—	98.4	90.6
Perdue Treatment Plant—finished water at Sweetwater Reservoir (SWR08)													
10/15/2003	12:40	na	—	—	E0.007	E0.004	—	0.007	—	—	—	98.2	91.1
12/17/2003	13:50	na	—	—	—	0.006	—	E0.005	—	—	—	87.1	89.5
02/18/2004	11:40	na	—	—	E0.005	E0.004	—	0.006	—	—	—	93.4	83.6
Perdue Treatment Plant—imported raw water at Sweetwater Reservoir (SWR09)													
12/17/2003	13:30	na	—	—	E0.006	E0.005	—	0.007	—	E0.003	—	98.2	87.5
02/18/2004	12:00	na	—	—	E0.005	E0.003	E0.004	0.013	—	E0.002	—	95.3	84.9
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)													
10/15/2003	11:00	0.1	—	—	—	0.006	—	—	—	—	—	100	86.8
12/17/2003	13:00	0.1	—	—	—	0.007	—	E0.004	—	—	—	98.1	87.9
02/18/2004	15:10	0.1	—	—	—	0.013	—	0.006	0.02	—	—	99.1	81.9
10/13/2004	15:20	0.1	—	—	—	E0.005	—	—	—	—	—	84.0	95.0
01/13/2005	14:00	0.1	—	—	—	0.013	—	0.012	0.03	—	E.007	114	98.6
Loveland Reservoir near dam (LLR01)													
12/17/2003	10:30	12	—	—	—	0.006	—	—	—	—	—	91.9	86.8

Table 7A. Pesticide compounds analyzed in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2060, for 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 ($\mu\text{g/L}$), unless noted. This schedule is not the preferred method for compounds atrazine, 2-chloro-4-isopropylamino-6-amino-*s*-triazine, caffeine, and tebuthiuron.]

Compound	Parameter code	LRL	Compound	Parameter code	LRL
Acifluorfen	49315	0.007, 0.028	Flumetsulam	61694	0.011, 0.040
Aldicarb sulfone	49313	0.02, 0.018, 0.08	Fluometuron	38811	0.031, 0.016
Aldicarb sulfoxide	49314	0.008, 0.022	3-Hydroxycarbofuran	49308	0.006, 0.008
Aldicarb	49312	0.04	2-Hydroxy-4-isopropylamino-6-ethylamino- <i>s</i> -triazine	50355	0.008, 0.032
Atrazine	39632	0.009, 0.008	Imazaquin	50356	0.016, 0.036
Bendiocarb	50299	0.025, 0.020	Imazethapyr	50407	0.017, 0.038
Benomyl	50300	0.004, 0.020	Imidacloprid	61695	0.007, 0.020
Bensulfuron	61693	0.016, 0.018	Linuron	38478	0.014
Bentazon	38711	0.011, 0.012	MCPA	38482	0.016, 0.030
Bromacil	04029	0.033, 0.018	MCPB	38487	0.015, 0.010
Bromoxynil	49311	0.017, 0.028	Metalaxyl	50359	0.02, 0.012
Caffeine	50305	0.010, 0.018	Methiocarb	38501	0.008, 0.010
Carbaryl	49310	0.028, 0.018	Methomyl	49296	0.004, 0.020
Carbofuran	49309	0.006, 0.016	Metsulfuron	61697	0.025
Chloramben methylester	61188	0.018, 0.024	Neburon	49294	0.012
Chlorimuron-ethyl	50306	0.035, 0.010, 0.032	Nicosulfuron	50364	0.013, 0.04
2-Chloro-6-ethylamino-4-amino- <i>s</i> -triazine	04038	0.01, 0.044, 0.04	Norflurazon	49293	0.016, 0.020
2-Chloro-4-isopropylamino-6-amino- <i>s</i> -triazine (CIAT)	04040	0.028	Oryzalin	49292	0.018, 0.012
<i>N</i> -(4-Chlorophenyl)- <i>N'</i> -methylurea	61692	0.024, 0.036	Oxamyl	38866	0.012, 0.030
Clopyralid	49305	0.014, 0.024	Picloram	49291	0.020, 0.032
Cycloate	04031	0.013, 0.014	Propham	49236	0.010, 0.030
2,4-D	39732	0.022, 0.038	Propiconazole	50471	0.021, 0.010
2,4-DB	38746	0.016	Propoxur	38538	0.008
2,4-D methyl ester	50470	0.009	Siduron	38548	0.017, 0.020
Dacthal monoacid	49304	0.012, 0.028	Sulfometuron	50377	0.009, 0.038
Dicamba	38442	0.013, 0.036	Tebuthiuron	82670	0.006, 0.026
Dichlorprop	49302	0.014, 0.028	Terbacil	04032	0.010, 0.016
Dinoseb	49301	0.012, 0.038	Triclopyr	49235	0.022, 0.026
Diphenamid	04033	0.026, 0.010	Barban, surrogate	99959	percent
Diuron	49300	0.015, 0.016	Caffeine-C13, surrogate	90640	percent
Fenuron	49297	0.032, 0.019, 0.018	2,4,5-T, surrogate	99958	percent

Table 7B. Analytical results for pesticide compounds detected in filtered-water samples using U.S. Geological Survey 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 parameter code in parentheses below the compound name 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 levels are listed on table 6A. Concentrations are given in micrograms per liter ($\mu\text{g/L}$), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Bentazon (38711)	Bromacil (04029)	Caffeine (50305)	2,4-D (39732)	Diphenamid (04033)	Diuron (49300)	Fluometuron (38811)	Hydroxyatrazine (50355)	Metalaxyl (50359)
Sweetwater Reservoir near pump tower (SWR01)											
10/14/2003	13:30	4.0	E0.01	—	E0.012	—	—	E0.03	—	E0.007	—
12/16/2003	12:00	4.0	—	—	—	—	—	0.02	—	E0.004	—
10/12/2004	13:00	3.0	—	—	—	—	—	0.06	—	—	—
01/12/2005	11:30	6.0	—	—	0.035	—	—	0.10	—	—	0.05
04/12/2005	13:10	3.0	—	—	E0.035	—	—	E0.05	—	—	—
07/12/2005	11:00	2.0	—	—	0.050	—	—	0.05	—	—	—
10/11/2005	10:50	5.0	—	—	E0.039	—	—	E0.05	—	—	—
01/10/2006	11:20	4.0	—	—	—	—	—	E0.04	—	—	E0.01
Sweetwater Reservoir center of minimum pool (SWR03)											
10/14/2003	14:10	4.0	E0.01	—	E0.012	—	—	E0.03	—	E0.006	—
10/11/2005	11:30	6.0	—	—	E0.042	—	—	E0.05	—	—	E0.01
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)											
10/14/2003	15:00	0.2	E0.01	—	E0.011	—	—	E0.03	—	E0.006	—
12/16/2003	13:30	0.5	—	—	—	—	—	0.02	—	E0.004	—
Perdue Treatment Plant—finished water at Sweetwater Reservoir (SWR08)											
10/15/2003	12:40	na	E0.005	—	E0.009	0.03	—	—	—	E0.004	—
12/17/2003	13:50	na	—	—	—	—	—	0.02	—	E0.004	—
10/12/2004	15:00	na	—	—	E0.014	E0.02	—	0.04	—	E0.018	—
01/12/2005	15:00	na	—	—	E0.012	—	—	0.05	—	E0.015	—
04/13/2005	09:30	na	—	—	0.027	—	—	0.08	—	—	0.02
07/12/2005	14:10	na	—	—	0.024	—	—	0.05	—	—	—
10/11/2005	13:30	na	—	—	—	—	—	0.04	—	—	E0.01
01/10/2006	15:00	na	—	—	—	—	—	E0.03	—	—	E0.01
Perdue Treatment Plant—imported raw water at Sweetwater Reservoir (SWR09)											
10/15/2003	13:00	na	E0.01	—	E0.008	0.02	—	0.02	—	E0.005	—
12/17/2003	13:30	na	—	—	E0.008	E0.01	—	0.04	—	—	—
10/12/2004	16:30	na	—	—	—	E0.02	—	0.05	—	E0.014	—
01/12/2005	14:40	na	—	—	E0.013	—	—	0.05	—	E0.011	—
04/13/2005	08:40	na	—	0.03	—	—	—	0.29	—	E0.013	—
07/12/2005	14:00	na	—	—	—	—	—	0.04	—	—	—
01/10/2006	14:50	na	—	—	—	—	—	0.05	—	—	—
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)											
10/15/2003	11:00	0.1	—	—	—	—	E0.004	—	E0.004	E0.012	—
12/17/2003	13:00	0.1	—	—	—	—	E0.004	0.02	—	E0.006	—
07/14/2004	10:10	0.1	—	—	—	—	—	—	—	—	—
10/13/2004	15:20	0.1	—	—	—	—	E0.004	—	—	E0.009	—
01/13/2005	14:00	0.1	—	—	0.037	—	E0.003	0.18	—	—	—
07/13/2005	10:00	0.1	—	—	—	—	—	0.02	—	—	—
Loveland Reservoir near dam (LLR01)											
12/17/2003	10:30	12	—	—	0.022	—	—	0.02	—	—	—
01/13/2005	11:20	16	—	—	0.037	—	—	0.16	—	—	—

Table 7B. Analytical results for pesticide compounds detected in filtered-water samples using U.S. Geological Survey 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 parameter code in parentheses below the compound name 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 levels are listed on table 6A. Concentrations are given in micrograms per liter (µg/L), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Methomyl (49296)	Neburon (49294)	Norflurazon (49293)	Sulfometuron- methyl (50337)	Tebuthiuron (82670)	Barban, surrogate (percent) (90640)	Caffeine-C13, surrogate (percent) (99959)	2,4,5-T, surrogate (percent) (99958)
Sweetwater Reservoir near pump tower (SWR01)										
10/14/2003	13:30	4.0	—	—	—	—	—	0.0	0.0	99.6
12/16/2003	12:00	4.0	—	—	—	—	—	78.7	75.8	97.9
10/12/2004	13:00	3.0	—	—	—	—	—	107	71.4	64.5
01/12/2005	11:30	6.0	—	—	—	—	E0.016	117	81.1	111
04/12/2005	13:10	3.0	—	—	—	—	—	E112	E5.2	74.3
07/12/2005	11:00	2.0	—	—	—	—	—	108	96.8	116
10/11/2005	10:50	5.0	—	—	—	—	—	E88.1	E164	E154
01/10/2006	11:20	4.0	—	—	—	—	E0.014	E182	E105	E175
Sweetwater Reservoir center of minimum pool (SWR03)										
10/14/2003	14:10	4.0	—	—	—	—	E0.004	0.0	0.0	100
10/11/2005	11:30	6.0	—	—	—	—	—	E158	E92.3	E159
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)										
10/14/2003	15:00	0.2	—	—	—	—	E0.003	0.0	0.0	93.7
12/16/2003	13:30	0.5	—	—	—	—	E0.003	83.3	70.4	102
Perdue Treatment Plant—finished water at Sweetwater Reservoir (SWR08)										
10/15/2003	12:40	na	E0.004	—	—	—	—	56.4	132	108
12/17/2003	13:50	na	—	—	—	—	—	77.0	82.3	108
10/12/2004	15:00	na	—	—	—	—	—	115	111	70.2
01/12/2005	15:00	na	—	—	—	—	—	113	109	102
04/13/2005	09:30	na	—	—	—	—	—	95.2	97.0	72.2
07/12/2005	14:10	na	—	—	—	—	—	98.8	123	111
10/11/2005	13:30	na	—	—	—	—	—	E159	89.8	E161
01/10/2006	15:00	na	—	—	—	—	E0.014	E180	E107	E183
Perdue Treatment Plant—imported raw water at Sweetwater Reservoir (SWR09)										
10/15/2003	13:00	na	—	—	—	—	—	55.7	124	101
12/17/2003	13:30	na	—	—	—	—	—	74.9	82.2	97.6
10/12/2004	16:30	na	—	—	—	—	—	104	108	70.7
01/12/2005	14:40	na	—	—	—	—	—	97.4	91.2	89.3
04/13/2005	08:40	na	—	—	—	—	—	96.8	116	70.6
07/12/2005	14:00	na	—	—	—	—	—	95.9	100	95.2
01/10/2006	14:50	na	—	—	—	—	—	137	97.5	155
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)										
10/15/2003	11:00	0.1	—	E0.01	E0.004	—	E0.004	0.0	0.0	93.4
12/17/2003	13:00	0.1	—	—	—	—	E0.006	104	47.4	94.2
07/14/2004	10:10	0.1	—	—	—	—	—	0.0	212	34.0
10/13/2004	15:20	0.1	—	—	—	—	—	124	81.9	E59.0
01/13/2005	14:00	0.1	—	—	—	E0.021	E0.014	116	70.3	79.1
07/13/2005	10:00	0.1	—	—	—	—	—	100	68.6	95.5
Loveland Reservoir near dam (LLR01)										
12/17/2003	10:30	12	—	—	—	—	—	80.9	65.6	94.8
01/13/2005	11:20	16	—	—	—	—	—	81.7	101	110

Table 8A. Anthropogenic organic indicator compounds analyzed in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1433, for 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 (µg/L), unless noted. This schedule is not the preferred method for compounds bromacil, carbaryl, chlorpyrifos, diazinon, metalaxyl, metolachlor, and prometon.]

Compound	Parameter code	LRL	Compound	Parameter code	LRL
Acetophenone	62064	0.5	5-Methyl-1(H)-benzotriazole	62063	2.0
Acetylhexamethyl tetrahydronaphthalene	62065	0.5	3-Methyl-1-indole	62058	1.0
Anthracene	34221	0.5	1-Methylnaphthalene	62054	0.5
9,10-Anthraquinone	62066	0.5	2-Methylnaphthalene	62056	0.5
Benz[<i>a</i>]pyrene	34248	0.5	Methyl salicylate	62081	0.5
Benzophenone	62067	0.5	Metolachlor	39415	0.5
Bromacil	04029	0.5	Naphthalene	34443	0.5
3- <i>tert</i> -Butyl-4-hydroxyanisole (BHA)	62059	5.0	4-Nonylphenol (total)	62085	5.0
Caffeine	50305	0.5	4-Nonylphenol diethoxylates	62083	5.0
Camphor	62070	0.5	4- <i>n</i> -Octylphenol	62061	1.0
Carbaryl	82680	1.0	4- <i>tert</i> -Octylphenol	62062	1.0
Carbazole	62071	0.5	4-Octylphenol diethoxylates	61705	1.0
Chlorpyrifos	38933	0.5	4-octylphenol monothoxylates	61706	1.0
Cholesterol	62072	2.0	Phenanthrene	34462	0.5
3-β-Coprostanol	62057	2.0	Phenol	34466	0.5
Cotinine	62005	1.0	Prometon	04037	0.5
<i>p</i> -Cresol	62084	1.0	Pyrene	34470	0.5
4-Cumylphenol	62060	1.0	β-Sitosterol	62068	2.0
Diazinon	39572	0.5	β-Stigmastanol	62086	2.0
1,4-Dichlorobenzene	34572	0.5	Tetrachloroethene	34476	0.5
<i>N,N</i> -diethyl- <i>m</i> -toluamide (DEET)	62082	0.5	Tribromomethane	34288	0.5
2,6-Dimethylnaphthalene	62055	0.5	Tributyl phosphate	62089	0.5
Fluoranthene	34377	0.5	Triclosan	62090	1.0
Hexahydrohexamethylcyclopentabenzopyran	62075	0.5	Triethylcitrate	62091	0.5
Indole	62076	0.5	Triphenyl phosphate	62092	0.5
Isoborneol	62077	0.5	Tri(2-butoxyethyl) phosphate	62093	0.5
Isophorone	34409	0.5	Tri(2-chloroethyl) phosphate	62087	0.5
Isoquinoline	62079	0.5	Tri(dichloroisopropyl) phosphate	62088	0.5
<i>d</i> -Limonene	62073	0.5	Caffeine-C13, surrogate	99584	percent
Menthol	62080	0.5	Decafluorobiphenyl, surrogate	99585	percent
Metalaxyl	50359	0.5	Fluoranthene- <i>d</i> 10, surrogate	99586	percent

Table 8B. Analytical results for anthropogenic organic indicator compounds detected in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1433, from Sweetwater Reservoir watershed, San Diego County, California.

[See table 1 for site-identification numbers. Time is denoted in 24-hour scale. The five-digit parameter code in parentheses below the compound name 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 levels are listed on table 7A. Concentrations are given in micrograms per liter (µg/L), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Benzophenone (62067)	Caffeine (50305)	Camphor (62070)	Cholesterol (62072)	3-β- Coprostanol (62057)	p-Cresol (62084)	N,N-diethyl- m-toluidide (DEET) (62082)	Isophorone (34409)	Nonylphenol (total) (62085)	Phenol (34466)	β-Sitosterol (62068)	β- Stigmastanol (62086)
Sweetwater Reservoir near pump tower (SWR01)														
10/14/2003	13:30	4.0	—	—	—	E1.4	—	—	E0.11	—	E1.2	E0.26	—	—
12/16/2003	12:00	4.0	—	—	—	—	—	—	—	—	—	—	—	—
02/17/2004	15:40	5.0	—	—	—	—	—	—	—	—	—	0.57	—	—
04/13/2004	11:20	2.0	—	E0.05	—	—	—	—	E0.03	E0.03	—	E0.28	—	—
Sweetwater Reservoir center of minimum pool (SWR03)														
02/17/2004	16:40	6.0	—	—	—	E0.90	E0.53	—	—	—	—	E0.21	E0.6	E0.77
04/13/2004	12:10	2.0	—	E0.05	—	—	—	—	E0.03	E0.03	—	0.53	—	—
Perdue Treatment Plant—finished water at Sweetwater Reservoir (SWR08)														
10/15/2003	12:40	na	—	—	—	—	—	—	—	—	E1.2	—	—	—
12/17/2003	13:50	na	—	—	—	—	—	—	—	—	—	—	—	—
02/18/2004	11:40	na	—	—	—	—	—	—	—	—	—	—	—	—
04/14/2004	09:30	na	—	—	E0.01	E1.3	E0.79	—	E0.03	E0.02	—	—	—	E1.4
Perdue Treatment Plant—imported raw water at Sweetwater Reservoir (SWR09)														
10/15/2003	13:00	na	—	—	—	—	—	E0.02	—	—	E1.2	1.3	—	—
12/17/2003	13:30	na	—	—	—	—	—	—	—	—	—	—	—	—
02/18/2004	12:00	na	E0.14	—	—	—	—	—	—	—	—	—	—	—
04/14/2004	12:20	na	—	—	—	—	—	—	—	—	—	E0.25	—	—
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)														
10/15/2003	11:00	0.1	—	—	—	—	—	—	—	—	E1.2	E0.25	—	—
02/18/2004	15:10	0.1	—	—	—	—	—	—	—	—	—	—	—	—
04/14/2004	10:20	0.1	—	—	E0.01	E1.0	—	—	E0.02	—	—	E0.26	—	—

Table 8B. Analytical results for anthropogenic organic indicator compounds detected in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1433, from Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See table 1 for site-identification numbers. Time is denoted in 24-hour scale. The five-digit parameter code in parentheses below the compound name 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 levels are listed on table 7A. Concentrations are given in micrograms per Liter (µg/L), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Tetrachloroethene (34476)	Tribromomethane (34288)	Tributyl phosphate (62089)	Tri(2-chloroethyl) phosphate (62087)	Tri(dichloroisopropyl) phosphate (62088)	Caffiene-13C, surrogate (percent) (99584)	Decafluorobiphenyl, surrogate (percent) (99585)	Fluoranthene-d10, surrogate (percent) (99586)
Sweetwater Reservoir near pump tower (SWR01)										
10/14/2003	13:30	4.0	—	E0.06	—	E0.12	—	113	79.2	117
12/16/2003	12:00	4.0	—	E0.10	—	—	—	121	95.8	125
02/17/2004	15:40	5.0	—	E0.12	—	E0.11	—	113	66.7	100
04/13/2004	11:20	2.0	—	E0.04	—	E0.33	E0.11	117	83.3	117
Sweetwater Reservoir center of minimum pool (SWR03)										
02/17/2004	16:40	6.0	—	E0.07	—	E0.09	—	108	83.3	95.8
04/13/2004	12:10	2.0	—	E0.04	—	E0.10	E0.09	122	82.6	122
Perdue Treatment Plant—finished water at Sweetwater Reservoir (SWR08)										
10/15/2003	12:40	na	—	E16	—	—	—	104	75.0	104
12/17/2003	13:50	na	—	E31	—	—	—	114	90.9	118
02/18/2004	11:40	na	—	E49	—	—	—	108	84.0	96.0
04/14/2004	09:30	na	E0.01	E7.0	E0.04	—	E0.07	109	86.4	109
Perdue Treatment Plant—imported raw water at Sweetwater Reservoir (SWR09)										
10/15/2003	13:00	na	—	—	—	—	—	104	70.8	100
12/17/2003	13:30	na	—	—	—	—	—	113	78.3	113
02/18/2004	12:00	na	—	—	—	—	—	104	87.5	95.8
04/14/2004	12:20	na	—	E0.05	—	—	—	118	81.8	118
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)										
10/15/2003	11:00	0.1	—	—	—	—	—	108	80.0	108
02/18/2004	15:10	0.1	—	—	—	—	—	108	79.2	100
04/14/2004	10:20	0.1	—	—	—	—	E0.08	118	86.4	123

Table 5A. Analytical results for metals in whole water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1080, from 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 parameter code in parentheses below the compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per liter (µg/L). **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above the laboratory reporting level (LRL)]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Aluminum (01105)	Antimony (01097)	Barium (01007)	Beryllium (01012)	Cadmium (01027)	Chromium (01034)	Cobalt (01037)	Copper (01042)	Lead (01051)	Lithium (01132)
[LRL] [2,4,6] [0.2, 0.14, 0.4] [0.2, 0.6, 0.4] [0.06, 0.04, 0.02] [0.04, 0.18, 0.14, 0.06] [0.04, 0.6, 0.4] [0.6, 1.2, 4] [0.06, 0.1] [0.6, 0.4]												
Sweetwater Reservoir near pump tower (SWR01)												
10/14/2003	13:30	4.0	48.9	E0.156	79.3	—	—	—	0.435	2.52	0.080	17.7
12/16/2003	12:00	4.0	206	E0.163	84.1	—	E0.03	E0.436	0.609	4.09	0.229	21.6
02/17/2004	15:40	5.0	33.2	E0.167	67.6	—	—	—	0.378	2.70	—	20.7
04/13/2004	11:20	2.0	20.5	E0.174	68.7	—	E0.04	—	0.373	3.30	0.070	19.6
07/13/2004	13:30	2.0	28.9	E0.154	64.7	—	—	—	0.356	2.97	E0.05	21.4
10/12/2004	13:00	3.0	111	E0.184	69.5	—	—	—	0.465	3.17	0.179	19.9
01/12/2005	11:30	6.0	515	E0.167	71.1	—	—	E0.591	0.730	4.96	0.603	13.5
04/12/2005	13:10	3.0	50.2	E0.184	50.5	—	—	—	0.525	3.42	0.070	8.43
10/11/2005	11:00	2.0	22.3	0.479	46.4	—	E0.02	—	0.469	2.86	E0.03	6.98
07/12/2005	10:50	5.0	41.3	E0.160	46.4	—	—	0.130	0.120	0.64	0.090	8.25
01/10/2006	11:20	4.0	65.8	0.209	77.8	E0.03	E0.03	0.100	0.342	3.10	0.141	9.16
01/10/2006	11:30	0.1	77.8	0.216	74.3	—	—	0.060	0.400	3.15	0.118	8.65
04/07/2006	11:20	4.0	32.9	E0.108	49.6	—	—	—	0.311	2.29	—	4.76
04/07/2006	11:30	0.1	26.3	E0.112	49.9	—	—	—	0.295	3.03	—	4.66
07/11/2006	11:30	2.0	14.0	E0.174	50.3	—	—	0.190	0.247	4.63	E0.04	4.45
07/11/2006	11:40	0.1	15.0	E0.169	51.0	—	—	0.280	0.248	4.68	E0.05	4.50
10/11/2006	11:00	0.1	34.1	0.209	30.8	—	E0.01	E0.350	0.182	1.53	0.101	4.93
10/11/2006	11:20	4.0	41.4	E0.193	33.9	—	—	E0.320	0.199	4.27	0.100	4.87
01/09/2007	10:40	5.0	105	0.228	71.2	—	E0.02	E0.370	0.319	2.30	0.200	5.53
01/09/2007	10:50	0.1	64.3	0.263	72.5	E0.05	0.07	—	0.351	2.32	0.229	7.61
04/10/2007	11:30	0.1	26.9	0.220	70.8	—	E0.01	—	0.231	2.31	E0.04	8.18
04/10/2007	11:40	3.0	37.2	0.230	71.2	—	E0.01	—	0.240	2.66	0.060	8.31
07/10/2007	10:30	0.1	58.5	0.260	67.8	—	E0.01	—	0.090	1.56	0.080	12.8
07/10/2007	10:40	3.0	59.7	0.320	71.5	E0.03	0.02	E0.510	0.160	2.94	0.090	13.8
10/09/2007	11:30	0.1	46.0	0.325	36.7	—	E0.01	—	0.080	E0.87	0.090	11.3
10/09/2007	11:40	3.0	58.4	0.290	61.5	—	—	E0.212	0.103	7.12	0.106	11.1
10/25/2007	12:30	0.1	69.4	0.315	73.4	—	E0.01	—	0.134	E0.92	0.140	11.1
01/08/2008	10:30	4.0	132	E0.137	85.0	—	E0.01	E0.219	0.167	E0.68	0.290	10.1
01/08/2008	10:45	0.1	164	E0.139	89.1	—	—	E0.301	0.185	E0.90	0.309	10.0
04/15/2008	11:30	0.1	37.8	0.146	65.5	—	E0.01	E0.246	0.140	E1.2	E0.04	5.01
04/15/2008	11:33	3.0	41.6	0.158	66.1	—	0.02	—	0.152	1.24	E0.03	5.02
07/15/2008	10:30	0.1	35.0	E0.107	55.3	—	—	—	0.07	3.19	0.126	6.56

Table 9A. Analytical results for metals in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1080, from 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 parameter code in parentheses below the compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per liter (µg/L). **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above the laboratory reporting level (LRL)]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Manganese (01055)	Molybdenum (01062)	Nickel (01067)	Selenium (01147)	Silver (01077)	Strontium (01082)	Thallium (01059)	Uranium (28011)	Zinc (01092)
Sweetwater Reservoir near pump tower (SWR01)											
[LRL] [0.2, 0.6, 0.8, 0.4]			[0.2, 0.06, 0.08]			[0.08, 0.12, 0.10]			[0.16, 0.02, 0.06]		
[0.0098]			[0.16, 0.12, 2]			[0.08, 0.12, 0.10]			[0.18, 0.08, 0.12]		
10/14/2003	13:30	4.0	305	4.55	2.95	0.54	—	762	—	4.59	E1.62
12/16/2003	12:00	4.0	134	4.96	3.37	1.14	—	768	—	5.24	2.49
02/17/2004	15:40	5.0	18.1	4.61	2.39	0.90	—	780	—	4.25	—
04/13/2004	11:20	2.0	2.88	4.33	2.03	0.78	—	712	—	4.27	—
07/13/2004	13:30	2.0	13.3	4.47	2.22	0.79	—	772	—	4.27	E1.85
10/12/2004	13:00	3.0	159	4.50	2.46	1.46	—	782	—	4.60	2.63
01/12/2005	11:30	6.0	57.1	3.76	1.69	1.45	—	597	—	4.09	5.56
04/12/2005	13:10	3.0	14.8	3.76	1.82	1.56	—	437	—	3.43	2.06
10/11/2005	11:00	2.0	16.6	3.94	3.13	1.22	—	454	—	3.33	E1.80
07/12/2005	10:50	5.0	137	3.27	0.61	0.35	—	500	—	3.85	5.79
01/10/2006	11:20	4.0	146	3.93	1.42	0.34	—	587	—	4.82	E1.78
01/10/2006	11:30	0.1	127	4.14	1.56	0.37	—	572	—	4.82	E1.36
04/07/2006	11:20	4.0	12.0	3.49	1.72	0.38	—	404	—	3.46	—
04/07/2006	11:30	0.1	9.69	3.51	2.00	0.36	—	402	—	3.48	—
07/11/2006	11:30	2.0	6.40	3.98	1.16	0.38	—	433	—	3.85	—
07/11/2006	11:40	0.1	7.03	3.87	1.20	0.38	—	432	—	3.82	—
10/11/2006	11:00	0.1	86.3	3.38	0.53	0.26	—	446	—	3.61	—
10/11/2006	11:20	4.0	105	3.44	0.61	0.30	—	452	—	3.62	5.12
01/09/2007	10:40	5.0	140	3.99	0.99	0.37	—	477	—	4.23	E1.64
01/09/2007	10:50	0.1	191	4.07	1.06	0.47	—	499	—	4.22	E1.35
04/10/2007	11:30	0.1	10.8	4.40	1.48	0.48	—	502	—	4.35	—
04/10/2007	11:40	3.0	15.1	4.40	1.45	0.49	—	509	—	4.40	E1.98
07/10/2007	10:30	0.1	18.6	4.69	0.64	0.61	—	580	—	4.31	—
07/10/2007	10:40	3.0	26.9	4.64	0.82	0.61	—	602	—	4.39	E1.05
10/09/2007	11:30	0.1	238	3.87	0.62	0.37	—	590	—	3.49	—
10/09/2007	11:40	3.0	273	3.79	0.61	0.37	—	591	—	3.54	—
10/25/2007	12:30	0.1	105	4.34	0.75	0.37	—	632	—	4.46	—
01/08/2008	10:30	4.0	246	4.99	0.74	0.39	—	641	—	4.94	—
01/08/2008	10:45	0.1	200	4.96	0.77	0.42	—	641	—	5.01	E1.01
04/15/2008	11:30	0.1	8.02	4.82	0.68	0.37	—	474	—	4.91	—
04/15/2008	11:33	3.0	8.80	4.72	0.68	0.38	—	476	—	4.89	—
07/15/2008	10:30	0.1	21.1	4.99	0.56	0.33	—	537	—	5.40	—

Table 9A. Analytical results for metals in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1080, from 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 parameter code in parentheses below the compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per liter (µg/L). **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above the laboratory reporting level (LRL)]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Aluminum (01105)	Antimony (01097)	Barium (01007)	Beryllium (01012)	Cadmium (01027)	Chromium (01034)	Cobalt (01037)	Copper (01042)	Lead (01051)	Lithium (01132)
[LRL]			[2,4,6]	[0.2, 0.14, 0.4]	[0.2, 0.6, 0.4]	[0.06, 0.04, 0.02]	[0.04, 0.18, 0.14, 0.06]	[0.04, 0.6, 0.4]	[0.04, 0.1]	[0.6, 1.2, 4]	[0.06, 0.1]	[0.6, 0.4]
Sweetwater Reservoir near pump tower (SWR01)—Continued												
07/15/2008	10:32	2.0	33.5	0.154	52.2	—	—	—	0.06	3.30	E0.05	6.68
10/14/2008	12:20	0.1	22.4	E0.229	63.6	—	—	E0.223	E0.09	—	E0.08	6.83
10/14/2008	12:23	3.0	28.7	E0.236	88.7	—	—	E0.270	E0.09	—	E0.09	6.82
01/13/2009	11:10	0.1	63.6	E0.228	89.3	—	—	E0.217	0.107	—	0.109	14.4
01/13/2009	11:12	2.0	65.6	E0.228	89.5	—	—	E0.248	0.109	—	E0.08	14.6
04/14/2009	11:50	0.1	33.0	—	88.1	—	—	—	E0.06	—	—	21.2
04/14/2009	11:52	2.0	39.1	—	86.5	—	—	—	E0.09	—	—	20.6
07/07/2009	10:40	0.1	10.0	E0.219	91.8	—	—	E0.328	—	—	—	26.2
07/07/2009	10:43	3.0	16.8	—	77.5	—	—	—	—	—	E0.06	19.8
Sweetwater Reservoir center of minimum pool (SWR03)												
10/14/2003	14:10	4.0	3.09	E0.191	62.3	—	—	E0.428	0.374	2.91	—	17.4
12/16/2003	13:00	4.0	210	E0.170	79.8	—	E0.03	—	0.561	4.14	0.227	21.2
02/17/2004	16:40	6.0	41.5	E0.135	67.3	—	E0.02	—	0.379	2.60	—	22.5
04/13/2004	12:10	2.0	50.6	E0.169	69.7	—	E0.02	—	0.422	3.34	0.109	20.1
10/12/2004	13:40	5.0	154	E0.180	71.2	—	—	—	0.484	2.96	0.242	19.7
01/12/2005	12:10	7.0	301	E0.166	72.7	—	—	E0.575	0.599	4.75	0.360	14.5
07/12/2005	11:50	2.0	30.1	0.266	47.6	—	—	—	0.387	2.97	E0.06	7.93
10/11/2005	11:30	6.0	50.3	E0.167	46.4	—	—	0.140	0.311	1.75	0.08	9.05
01/10/2006	12:00	5.0	119	0.212	73.3	—	—	0.290	0.427	2.54	0.167	8.29
01/10/2006	12:10	0.1	84.5	0.208	76.4	—	—	0.290	0.419	2.51	0.136	8.51
04/07/2006	11:50	4.0	31.8	E0.174	50.2	—	—	0.120	0.311	2.18	—	4.77
04/07/2006	12:00	0.1	34.3	E0.183	50.1	—	—	0.100	0.304	2.22	—	4.86
07/11/2006	12:00	3.0	18.5	E0.176	50.3	—	—	0.160	0.252	4.68	0.070	4.60
07/11/2006	12:10	0.1	21.6	E0.168	50.7	—	—	0.170	0.238	4.45	E0.04	4.47
10/11/2006	11:30	0.1	35.2	E0.165	31.0	—	—	—	0.138	1.59	0.123	5.44
10/11/2006	11:50	4.0	49.7	E0.185	34.1	—	E0.01	E0.400	0.192	1.70	0.114	4.83
01/09/2007	11:10	5.0	119	0.234	70.3	—	E0.01	E0.330	0.313	2.18	0.208	5.56
01/09/2007	11:20	0.1	97.6	0.206	80.2	—	0.02	—	0.326	2.35	0.218	5.44
04/10/2007	12:00	0.1	54.1	0.220	69.6	—	E0.01	—	0.253	2.04	E0.05	7.62
04/10/2007	12:10	3.0	45.6	0.250	71.4	—	E0.01	—	0.245	2.49	E0.04	8.37
07/10/2007	11:10	0.1	55.0	0.250	67.1	—	0.02	—	0.09	1.54	0.070	12.5
07/10/2007	11:20	3.0	65.0	0.290	67.8	—	0.02	—	0.100	1.59	0.090	12.7

Table 9A. Analytical results for metals in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1080, from 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 parameter code in parentheses below the compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per liter (µg/L). **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above the laboratory reporting level (LRL)]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Manganese (01055)	Molybdenum (01062)	Nickel (01067)	Selenium (01147)	Silver (01077)	Strontium (01082)	Thallium (01059)	Uranium (28011)	Zinc (01092)
[LRL] [0.2, 0.6, 0.8, 0.4] [0.2, 0.06, 0.08] [0.16, 0.12, 2] [0.08, 0.12, 0.10] [0.16, 0.02, 0.06] [0.2, 1.6] [0.18, 0.08, 0.12] [0.012, 0.02] [2]											
Sweetwater Reservoir near pump tower (SWR01)—Continued											
07/15/2008	10:32	2.0	20.2	4.96	0.64	0.37	—	522	—	5.28	—
10/14/2008	12:20	0.1	537	3.83	0.59	0.30	—	564	—	5.15	58.3
10/14/2008	12:23	3.0	521	3.84	0.64	0.29	—	566	—	5.18	E1.31
01/13/2009	11:10	0.1	207	4.93	1.03	0.53	—	653	—	5.23	—
01/13/2009	11:12	2.0	194	4.91	0.99	0.53	—	650	—	5.20	—
04/14/2009	11:50	0.1	20.1	5.12	0.70	0.69	—	765	—	5.12	—
04/14/2009	11:52	2.0	21.7	4.99	0.71	0.67	—	768	—	5.01	—
07/07/2009	10:40	0.1	13.8	4.93	0.83	1.04	—	839	—	4.92	—
07/07/2009	10:43	3.0	11.4	5.15	0.58	0.68	—	788	—	5.31	—
Sweetwater Reservoir center of minimum pool (SWR03)											
10/14/2003	14:10	4.0	46.0	4.50	2.25	1.03	—	770	—	4.56	3.84
12/16/2003	13:00	4.0	111	4.77	3.26	1.08	—	745	—	5.06	E1.92
02/17/2004	16:40	6.0	18.9	4.54	2.40	0.95	—	772	—	4.21	—
04/13/2004	12:10	2.0	9.54	4.43	2.11	0.82	—	718	—	4.32	—
10/12/2004	13:40	5.0	172	4.38	2.35	1.32	—	775	—	4.55	2.24
01/12/2005	12:10	7.0	41.9	4.10	1.58	1.52	—	646	—	4.25	2.99
07/12/2005	11:50	2.0	19.3	4.03	2.96	1.09	—	463	—	3.91	2.35
10/11/2005	11:30	6.0	139	3.27	1.89	0.29	—	526	—	3.22	E1.98
01/10/2006	12:00	5.0	127	4.07	1.68	0.33	—	564	—	4.82	E1.45
01/10/2006	12:10	0.1	147	4.13	1.66	0.35	—	573	—	4.91	E1.46
04/07/2006	11:50	4.0	12.0	3.57	1.37	0.36	—	405	—	3.46	—
04/07/2006	12:00	0.1	11.2	3.61	1.32	0.34	—	404	—	3.50	—
07/11/2006	12:00	3.0	6.91	4.03	1.09	0.41	—	429	—	3.87	—
07/11/2006	12:10	0.1	7.55	3.98	1.10	0.37	—	431	—	3.84	—
10/11/2006	11:30	0.1	92.90	3.27	E0.15	0.24	—	455	—	4.24	2.58
10/11/2006	11:50	4.0	107	3.39	0.58	0.28	—	445	—	3.63	4.66
01/09/2007	11:10	5.0	134	4.00	0.93	0.39	—	479	—	4.25	E1.55
01/09/2007	11:20	0.1	198	4.01	0.96	0.59	—	483	—	4.25	E1.49
04/10/2007	12:00	0.1	20.1	4.38	1.83	0.41	—	508	—	4.33	—
04/10/2007	12:10	3.0	17.9	4.43	1.53	0.43	—	508	—	4.33	—
07/10/2007	11:10	0.1	17.6	4.70	0.65	0.59	—	570	—	4.43	—
07/10/2007	11:20	3.0	17.9	4.79	0.63	0.55	—	580	—	4.45	—

Table 9A. Analytical results for metals in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1080, from 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 parameter code in parentheses below the compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per liter (µg/L). **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above the laboratory reporting level (LRL)]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Aluminum	Antimony	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Lithium
			(01105)	(01097)	(01007)	(01012)	(01027)	(01034)	(01037)	(01042)	(01051)	(01132)
			[LRL]	[0.2, 0.14, 0.4]	[0.2, 0.6, 0.4]	[0.06, 0.04, 0.02]	[0.04, 0.18, 0.14, 0.06]	[0.04, 0.6, 0.4]	[0.04, 0.1]	[0.6, 1.2, 4]	[0.06, 0.1]	[0.6, 0.4]
Sweetwater Reservoir center of minimum pool (SWR03)—Continued												
10/09/2007	12:10	0.1	59.2	0.298	39.1	—	0.01	—	0.103	E0.91	0.106	11.2
10/09/2007	12:20	5.0	67.4	0.274	52.4	—	—	E0.243	0.096	5.49	0.109	10.9
10/25/2007	12:40	0.1	88.2	0.329	72.9	—	0.02	—	0.141	E0.97	0.156	11.1
01/08/2008	11:10	0.1	151	0.152	82.9	—	—	E0.237	0.175	E0.73	0.292	10.3
01/08/2008	11:20	5.0	206	E0.130	89.6	—	E0.01	E0.393	0.203	E0.95	0.353	10.2
04/15/2008	12:10	0.1	37.0	0.149	64.8	—	E0.01	—	0.151	E1.2	—	4.98
04/15/2008	12:13	3.0	39.7	0.167	65.3	—	0.02	—	0.144	1.34	0.070	5.02
07/15/2008	11:10	0.1	47.8	0.182	52.7	—	E0.01	—	0.080	3.31	0.060	6.54
07/15/2008	11:12	2.0	41.4	0.172	52.6	—	E0.01	—	0.070	3.55	0.080	6.54
10/14/2008	13:00	0.1	30.4	E0.238	75.4	—	—	E0.229	E0.09	—	E0.07	6.87
10/14/2008	13:04	4.0	57.9	E0.236	75.0	—	—	E0.263	E0.09	—	0.106	6.71
01/13/2009	11:50	0.1	73.6	E0.224	87.8	—	—	E0.227	0.121	—	E0.09	13.9
01/13/2009	11:52	2	82.4	E0.219	89.3	—	—	E0.231	0.115	—	E0.10	14.2
04/14/2009	12:20	0.1	33.6	—	85.2	—	—	—	E0.06	—	—	20.3
04/14/2009	12:23	3.0	33.8	—	86.3	—	—	—	E0.09	—	—	20.6
07/07/2009	11:33	3.0	20.9	—	76.9	—	—	—	E0.05	—	—	19.4
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)												
04/13/2004	12:40	1.0	155	E0.169	67.9	—	—	E0.538	0.534	3.55	0.193	19.6
04/07/2006	12:20	0.1	49.4	E0.181	50.4	—	—	0.070	0.358	3.13	E0.04	4.85
07/07/2009	11:50	0.1	184	E0.200	79.0	—	—	E0.262	0.135	—	0.202	19.8
Perdue Treatment Plant—finished water (SWR08)												
10/15/2003	12:40	na	—	E0.131	93.5	—	—	—	0.249	2.34	—	30.3
12/17/2003	13:50	na	E1.160	E0.156	68.1	—	E0.02	—	0.421	3.39	—	23.4
02/18/2004	11:40	na	E1.115	E0.110	67.4	—	—	—	0.345	2.61	—	22.6
04/14/2004	09:30	na	E1.303	E0.166	64.6	—	—	—	0.331	3.03	—	19.6
07/13/2004	15:10	na	—	E0.124	61.5	—	—	—	0.261	2.86	—	24.2
10/12/2004	15:00	na	E1.077	E0.149	77.9	—	—	—	0.262	3.24	—	24.5
01/12/2005	15:00	na	E1.690	E0.188	105	—	E0.02	—	0.316	7.02	E0.04	28.7
04/13/2005	09:30	na	E1.953	E0.141	45.3	—	—	—	0.698	4.22	—	8.50
07/12/2005	14:10	na	E1.684	0.235	44.5	—	—	—	0.698	3.54	0.250	8.05
10/11/2005	13:30	na	E1.038	0.203	31.2	—	—	0.080	0.300	1.70	—	8.65
01/10/2006	15:00	na	—	E0.194	57.4	—	—	0.180	0.309	3.40	—	8.58

Table 9A. Analytical results for metals in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1080, from 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 parameter code in parentheses below the compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per liter (µg/L). **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above the laboratory reporting level (LRL)]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Manganese (01055)	Molybdenum (01062)	Nickel (01067)	Selenium (01147)	Silver (01077)	Strontium (01082)	Thallium (01059)	Uranium (28011)	Zinc (01092)
[LRL] [0.2, 0.6, 0.8, 0.4] [0.2, 0.06, 0.08] [0.16, 0.12, 2] [0.08, 0.12, 0.10] [0.16, 0.02, 0.06] [0.2, 1.6] [0.18, 0.08, 0.12] [0.012, 0.02] [2]			Sweetwater Reservoir center of minimum pool (SWR03)—Continued								
10/09/2007	12:10	0.1	239	3.87	0.55	0.40	—	583	—	3.50	—
10/09/2007	12:20	5.0	259	3.82	1.40	0.35	—	581	—	3.50	—
10/25/2007	12:40	0.1	111	4.23	0.62	0.37	—	628	—	4.39	—
01/08/2008	11:10	0.1	249	4.94	0.90	0.40	—	642	—	5.08	—
01/08/2008	11:20	5.0	201	5.00	0.80	0.42	—	638	—	5.00	E1.09
04/15/2008	12:10	0.1	8.21	4.74	0.66	0.37	—	474	—	4.77	—
04/15/2008	12:13	3.0	8.43	4.71	0.81	0.36	—	469	—	4.78	—
07/15/2008	11:10	0.1	18.8	4.95	0.60	0.36	—	524	—	5.29	—
07/15/2008	11:12	2.0	18.9	4.96	0.65	0.36	—	529	—	5.29	—
10/14/2008	13:00	0.1	520	3.78	0.54	0.30	—	568	—	5.19	—
10/14/2008	13:04	4.0	448	3.86	0.64	0.28	—	556	—	5.09	—
01/13/2009	11:50	0.1	200	4.91	0.77	0.51	—	639	—	5.17	—
01/13/2009	11:52	2	196	4.89	0.79	0.54	—	637	—	5.14	—
04/14/2009	12:20	0.1	19.3	5.01	0.66	0.70	—	747	—	5.00	—
04/14/2009	12:23	3.0	20.3	4.97	0.66	0.73	—	778	—	5.10	—
07/07/2009	11:33	3.0	12.5	5.34	0.48	0.63	—	773	—	5.27	—
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)											
04/13/2004	12:40	1.0	25.5	4.40	2.17	0.82	—	708	—	4.39	—
04/07/2006	12:20	0.1	19.0	3.57	1.54	0.40	—	403	—	3.56	—
07/07/2009	11:50	0.1	49.1	5.37	0.61	0.68	—	785	—	5.49	—
Perdue Treatment Plant—finished water (SWR08)											
10/15/2003	12:40	na	0.69	3.92	2.60	1.53	—	758	—	3.42	E1.01
12/17/2003	13:50	na	4.75	4.85	3.62	1.37	—	765	—	4.94	E1.26
02/18/2004	11:40	na	0.74	4.47	2.72	1.09	—	777	—	4.07	—
04/14/2004	09:30	na	1.03	4.37	2.52	0.50	—	710	—	3.99	—
07/13/2004	15:10	na	1.58	4.30	2.42	0.78	—	781	—	3.69	E1.52
10/12/2004	15:00	na	1.67	3.95	3.30	1.49	—	657	—	3.24	—
01/12/2005	15:00	na	2.05	4.44	1.93	2.10	—	781	—	3.77	E1.83
04/13/2005	09:30	na	52.7	3.62	3.40	2.10	—	439	—	2.59	E1.20
07/12/2005	14:10	na	77.3	3.87	4.02	0.99	—	463	—	3.48	E1.40
10/11/2005	13:30	na	28.8	3.31	2.09	0.23	—	524	—	3.06	—
01/10/2006	15:00	na	2.21	3.78	2.64	0.21	—	554	—	4.16	E1.13

Table 9A. Analytical results for metals in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1080, from 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 parameter code in parentheses below the compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per liter (µg/L). **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above the laboratory reporting level (LRL)]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Perdue Treatment Plant—finished water (SWR08)—Continued									
			[LRL]	[2,4,6]	[0.2, 0.14, 0.4]	[0.2, 0.6, 0.4]	[0.06, 0.04, 0.02]	[0.04, 0.18, 0.14, 0.06]	[0.04, 0.6, 0.4]	[0.04, 0.1]	[0.6, 1.2, 4]	[0.06, 0.1]
04/07/2006	14:10	na	E1.03	E0.163	73.6	—	—	0.070	0.156	2.68	—	18.9
07/11/2006	14:50	na	7.77	0.263	89.6	—	—	0.180	0.154	12.4	E0.05	22.9
10/11/2006	13:50	na	—	E0.176	23.1	—	—	E0.300	0.191	2.63	—	4.83
01/09/2007	13:30	na	—	0.225	72.8	—	E0.01	—	0.151	2.33	—	21.0
04/11/2007	08:30	na	E1.99	0.230	82.5	—	E0.01	—	0.154	2.37	—	23.3
07/10/2007	13:10	na	—	0.310	102	—	—	—	0.060	E1.06	—	31.2
10/09/2007	15:10	na	—	0.232	15.3	—	—	—	0.040	1.56	—	11.0
01/08/2008	14:00	na	—	0.172	90.6	—	—	0.407	—	E0.69	—	28.9
04/15/2008	13:30	na	—	0.323	112	—	E0.01	0.447	E0.04	E1.11	—	31.1
07/15/2008	14:10	na	—	E0.128	45.8	—	—	—	0.060	2.67	—	6.53
10/15/2008	14:00	na	—	—	26.8	—	—	E0.317	—	—	—	7.05
01/13/2009	14:00	na	—	E0.297	119	—	—	E0.342	0.114	—	E0.06	37.4
04/14/2009	14:30	na	—	E0.272	124	—	—	—	—	—	—	38.6
07/07/2009	14:00	na	—	E0.260	107	—	—	E0.285	—	—	—	36.0
Perdue Treatment Plant—imported raw water (SWR09)												
10/15/2003	13:00	na	13.0	E0.165	95.7	—	—	—	0.231	6.61	0.204	29.4
12/17/2003	13:30	na	92.3	E0.164	112	—	E0.03	—	0.441	9.49	0.315	37.1
02/18/2004	12:00	na	21.7	E0.146	88.0	—	—	—	0.267	3.06	E0.04	28.1
04/14/2004	12:20	na	14.7	E0.185	88.6	—	—	E0.496	0.233	4.20	E0.05	25.1
10/12/2004	16:30	na	18.8	1.56	82.3	—	—	—	0.292	38.3	95.8	24.5
01/12/2005	14:40	na	628	E0.196	117	—	E0.03	0.914	0.626	18.6	0.462	28.2
04/13/2005	08:40	na	40.1	0.201	69.5	—	—	—	0.260	6.30	0.108	18.3
07/12/2005	14:00	na	10.1	0.349	119	—	—	—	0.218	4.99	—	33.7
10/11/2005	13:50	na	2.03	0.236	104	—	—	0.090	0.172	18.3	—	32.1
01/10/2006	14:50	na	14.5	0.278	112	—	—	0.260	0.210	4.00	—	29.0
04/07/2006	14:20	na	16.6	0.263	79.0	—	—	0.070	0.153	5.22	—	18.7
07/11/2006	14:40	na	E1.68	E0.149	44.4	—	—	0.170	0.225	3.58	—	4.60
10/11/2006	13:40	na	6.91	0.234	80.6	—	E0.01	—	0.112	6.83	E0.03	19.6
01/09/2007	13:20	na	21.7	0.24	77.3	—	E0.01	—	0.150	4.93	E0.04	20.7
04/11/2007	08:50	na	16.3	0.27	87.6	—	E0.01	—	0.160	10.9	0.120	23.1
07/10/2007	13:00	na	4.99	0.33	106	—	0.02	—	E0.03	9.41	0.060	29.2
10/09/2007	15:00	na	4.94	0.228	62.3	—	E0.01	—	E0.02	15.6	E0.04	20.0

Table 9A. Analytical results for metals in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1080, from 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 parameter code in parentheses below the compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per liter (µg/L). **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above the laboratory reporting level (LRL).]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Manganese (01055)	Molybdenum (01062)	Nickel (01067)	Selenium (01147)	Silver (01077)	Strontium (01082)	Thallium (01059)	Uranium (28011)	Zinc (01092)
			[LRL] [0.2, 0.6, 0.8, 0.4]	[0.2, 0.06, 0.08]	[0.16, 0.12, 2]	[0.08, 0.12, 0.10]	[0.16, 0.02, 0.06]	[0.2, 1.6]	[0.18, 0.08, 0.12]	[0.012, 0.02]	[2]
Perdue Treatment Plant—finished water (SWR08)—Continued											
04/07/2006	14:10	na	1.72	3.58	1.75	0.67	—	568	—	2.91	6.02
07/11/2006	14:50	na	2.29	4.20	1.07	1.01	—	676	—	3.17	—
10/11/2006	13:50	na	39.3	3.42	1.73	0.23	—	449	—	3.21	—
01/09/2007	13:30	na	E0.52	3.53	1.68	0.65	—	594	—	3.09	—
04/11/2007	08:30	na	E0.47	4.16	1.87	0.82	—	624	—	3.41	—
07/10/2007	13:10	na	—	4.73	0.98	1.10	—	763	—	4.08	—
10/09/2007	15:10	na	2.23	3.83	2.60	0.32	—	574	—	3.12	—
01/08/2008	14:00	na	—	4.44	1.30	1.07	—	741	—	3.81	—
04/15/2008	13:30	na	—	5.30	0.93	1.36	—	819	—	4.99	—
07/15/2008	14:10	na	3.59	5.05	1.30	0.23	—	508	—	4.92	E1.27
10/15/2008	14:00	na	24.8	3.62	1.40	0.28	—	561	—	4.28	—
01/13/2009	14:00	na	0.44	5.41	1.60	1.33	—	944	—	4.90	—
04/14/2009	14:30	na	—	5.42	1.10	1.47	—	1,010	—	4.90	—
07/07/2009	14:00	na	—	4.71	0.84	1.27	—	863	—	4.50	—
Perdue Treatment Plant—imported raw water (SWR09)											
10/15/2003	13:00	na	3.75	3.85	1.90	1.45	—	758	—	3.64	4.65
12/17/2003	13:30	na	28.0	4.51	3.71	2.00	—	849	—	4.34	5.48
02/18/2004	12:00	na	2.00	3.84	2.29	1.43	—	722	—	3.59	—
04/14/2004	12:20	na	1.61	3.76	2.28	1.16	—	687	—	3.67	—
10/12/2004	16:30	na	6.31	3.95	3.92	1.20	—	652	—	3.56	8.43
01/12/2005	14:40	na	14.0	4.49	2.01	1.96	—	762	—	3.98	3.79
04/13/2005	08:40	na	2.62	3.72	2.44	1.78	—	520	—	3.04	E1.29
07/12/2005	14:00	na	0.99	4.89	3.21	1.91	—	871	—	4.17	—
10/11/2005	13:50	na	1.00	4.80	1.94	1.10	—	845	—	3.41	E1.39
01/10/2006	14:50	na	1.37	4.31	1.76	0.94	—	730	—	4.31	—
04/07/2006	14:20	na	2.22	3.56	1.59	0.80	—	564	—	3.17	E1.01
07/11/2006	14:40	na	23.9	3.97	2.26	0.24	—	431	—	3.36	—
10/11/2006	13:40	na	1.33	3.62	1.53	0.83	—	605	—	3.03	E1.54
01/09/2007	13:20	na	2.58	3.59	1.44	0.82	—	600	—	3.39	E1.09
04/11/2007	08:50	na	3.07	4.28	1.91	0.97	—	612	—	3.48	E1.75
07/10/2007	13:00	na	2.70	4.73	0.88	1.18	—	786	—	4.18	—
10/09/2007	15:00	na	4.36	3.43	1.70	0.77	—	568	—	2.63	E1.97

Table 9A. Analytical results for metals in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1080, from 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 parameter code in parentheses below the compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per liter (µg/L). **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above the laboratory reporting level (LRL)]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Aluminum	Antimony	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Lithium
			(01105)	(01097)	(01007)	(01012)	(01027)	(01034)	(01037)	(01042)	(01051)	(01132)
			[LRL] [2,4,6]	[0.2, 0.14, 0.4]	[0.2, 0.6, 0.4]	[0.06, 0.04, 0.02]	[0.04, 0.18, 0.14, 0.06]	[0.04, 0.6, 0.4]	[0.04, 0.1]	[0.6, 1.2, 4]	[0.06, 0.1]	[0.6, 0.4]
Perdue Treatment Plant—imported raw water (SWR09)—Continued												
01/08/2008	14:10	na	20.4	0.168	94.2	—	E0.01	E0.209	—	3.55	0.060	29.6
04/15/2008	13:40	na	15.2	0.308	115	—	E0.01	0.450	0.050	3.63	E0.03	31.9
07/15/2008	14:00	na	E2.73	0.222	110	—	E0.01	—	—	2.58	—	34.6
01/13/2009	14:10	na	19.4	E0.291	122	—	—	—	—	6.45	0.103	38.0
04/14/2009	14:20	na	16.9	E0.274	126	—	—	—	—	7.31	0.106	38.9
Sweetwater River at low-flow diversion upstream from Sweetwater Reservoir (LFDD)												
10/15/2003	11:00	0.1	E2.27	—	122	—	—	E0.458	1.15	5.63	—	5.53
02/18/2004	15:10	0.1	16.8	—	80.0	—	E0.03	—	1.16	2.87	—	5.81
04/14/2004	10:20	0.1	87.3	E0.240	88.6	—	—	—	1.12	3.55	0.130	5.11
04/13/2005	10:20	0.1	68.3	E0.123	61.4	—	E0.03	—	1.04	3.91	0.123	6.39
07/13/2005	10:00	0.1	107	E0.110	98.5	—	0.06	—	0.990	1.85	0.221	6.06
04/06/2006	13:20	0.1	89.6	0.282	63.5	—	—	0.170	0.715	2.73	0.145	5.13
07/12/2006	12:30	0.1	292	—	109	—	—	0.560	1.10	3.61	0.630	6.27
02/01/2008	13:00	0.1	633	0.100	43.9	—	0.02	0.600	0.538	65.4	0.700	1.7
07/08/2009	11:00	0.1	119	—	117	—	—	—	E0.183	—	0.388	5.46
Loveland Reservoir near dam (LLR01)												
12/17/2003	10:30	12	54.3	—	55.7	—	—	—	0.325	1.53	E0.06	0.718
02/18/2004	10:50	12	75.9	—	52.5	—	—	—	0.303	1.13	0.060	0.814
01/13/2005	11:20	16	1,190	—	54.5	E0.03	—	0.923	1.06	3.19	1.08	1.17
10/12/2005	11:10	4.0	11.3	—	33.0	—	—	0.170	0.100	E0.48	0.070	2.23
04/06/2006	11:10	5.0	42.5	E0.132	44.0	—	—	0.040	0.257	1.36	0.066	1.74
04/06/2006	11:20	0.1	50.9	—	43.9	—	—	0.150	0.255	1.23	0.083	1.72
07/12/2006	10:30	3.0	13.0	—	42.6	—	—	0.190	0.221	1.11	—	1.38
07/12/2006	10:50	0.1	11.3	E0.100	42.3	—	—	0.190	0.243	1.00	E0.06	1.50
01/10/2007	11:00	0.1	54.9	E0.113	45.1	—	E0.01	—	0.188	E1.01	E0.05	1.56
07/11/2007	11:00	3.0	12.7	E0.180	42.0	—	E0.01	—	0.060	—	E0.04	1.11
01/09/2008	10:50	0.1	56.9	—	52.7	—	0.01	—	0.050	—	0.060	1.23
04/16/2008	11:30	0.1	67.3	E0.102	50.2	—	—	—	0.184	—	E0.04	1.49
07/16/2008	11:10	0.1	10.5	E0.079	52.0	—	E0.01	—	0.080	E0.95	0.060	1.47
01/14/2009	10:40	0.1	92.3	—	58.0	—	—	E0.220	E0.09	—	E0.08	1.18
07/08/2009	13:03	3.0	14.0	—	45.8	—	—	—	E0.05	—	—	1.12

Table 9A. Analytical results for metals in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1080, from 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 parameter code in parentheses below the compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per liter (µg/L). **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above the laboratory reporting level (LRL).]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Manganese (01055)	Molybdenum (01062)	Nickel (01067)	Selenium (01147)	Silver (01077)	Strontium (01082)	Thallium (01059)	Uranium (28011)	Zinc (01092)
[LRL] [0.2, 0.6, 0.8, 0.4] [0.2, 0.06, 0.08] [0.16, 0.12, 2] [0.08, 0.12, 0.10] [0.16, 0.02, 0.06] [0.2, 1.6] [0.18, 0.08, 0.12] [0.012, 0.02] [2]											
Perdue Treatment Plant—imported raw water (SWR09)—Continued											
01/08/2008	14:10	na	2.52	4.47	1.20	1.06	—	743	—	4.10	—
04/15/2008	13:40	na	2.67	5.27	0.89	1.28	—	817	—	5.13	—
07/15/2008	14:00	na	2.35	4.92	0.80	1.20	—	885	—	4.73	—
01/13/2009	14:10	na	3.55	5.28	1.30	1.29	—	945	—	4.99	—
04/14/2009	14:20	na	2.32	5.29	1.20	1.45	—	1,020	—	4.91	—
Sweetwater River at low-flow diversion upstream from Sweetwater Reservoir (LFDD)											
10/15/2003	11:00	0.1	282	5.63	7.14	2.29	—	854	—	9.68	5.48
02/18/2004	15:10	0.1	127	9.63	6.04	0.78	—	755	—	14.9	—
04/14/2004	10:20	0.1	365	8.51	4.03	—	—	769	—	15.0	E3.33
04/13/2005	10:20	0.1	147	6.89	3.55	4.04	—	511	—	12.5	2.11
07/13/2005	10:00	0.1	484	6.93	6.10	1.68	—	676	—	10.8	2.02
04/06/2006	13:20	0.1	144	6.28	3.06	1.06	—	481	—	12.7	3.26
07/12/2006	12:30	0.1	543	5.31	2.60	0.22	—	681	—	8.50	4.02
02/01/2008	13:00	0.1	64.1	3.70	0.75	0.3	—	248	—	3.21	3.40
07/08/2009	11:00	0.1	272	5.39	0.91	—	—	912	—	10.1	E2.41
Loveland Reservoir near dam (LLR01)											
12/17/2003	10:30	12	81.4	2.28	1.96	0.62	—	235	—	2.07	—
02/18/2004	10:50	12	82.5	2.31	1.44	0.44	—	229	—	1.91	—
01/13/2005	11:20	16	40.9	2.18	1.42	1.10	—	179	—	1.83	4.52
10/12/2005	11:10	4.0	7.94	2.31	0.49	0.47	—	183	—	1.36	—
04/06/2006	11:10	5.0	37.2	2.49	1.19	0.33	—	194	—	1.72	—
04/06/2006	11:20	0.1	34.2	2.47	1.25	0.32	—	193	—	1.71	E1.33
07/12/2006	10:30	3.0	4.14	2.82	0.90	0.31	—	211	—	1.85	—
07/12/2006	10:50	0.1	4.16	2.88	0.76	0.32	—	209	—	1.90	—
01/10/2007	11:00	0.1	30.8	2.62	0.67	0.31	—	219	—	1.67	—
07/11/2007	11:00	3.0	4.95	3.05	0.41	0.23	—	224	—	2.08	—
01/09/2008	10:50	0.1	30.8	2.87	1.50	0.22	—	246	—	2.02	—
04/16/2008	11:30	0.1	8.32	3.06	0.49	0.41	—	212	—	2.07	—
07/16/2008	11:10	0.1	2.86	3.33	0.70	0.41	—	225	—	2.41	—
01/14/2009	10:40	0.1	46.5	3.19	0.54	0.32	—	229	—	2.42	E1.13
07/08/2009	13:03	3.0	4.23	3.38	0.37	0.23	—	227	—	2.60	—

Table 9B. Analytical results for metals in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2710, from Sweetwater Reservoir watershed, San Diego County, California.

[See table 1 for site-identification number. Time is denoted in 24-hour scale. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per liter (µg/L). **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above the laboratory reporting level (LRL)]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Sweetwater Reservoir near pump tower (SWR01)											
			Aluminum (01106)	Antimony (01095)	Arsenic (01000)	Barium (01005)	Beryllium (01010)	Boron (01020)	Cadmium (01025)	Chromium (01030)	Cobalt (01035)	Copper (01040)	Lead (01049)	
			[LRL]	[1.6]	[0.2]	[0.12]	[0.2]	[0.06]	[8]	[0.04]	[0.04]	[0.4]	[0.08]	
10/14/2003	13:30	4.0		—	0.20	3.0	65	—	210	—	0.231	1.1	—	
12/16/2003	12:00	4.0		—	0.23	2.2	69	—	194	—	0.251	1.4	—	
02/17/2004	15:40	5.0		2.4	0.21	4.0	66	—	319	—	0.345	2.3	—	
04/13/2004	11:20	2.0		—	E0.17	1.5	70	—	144	—	0.264	2.4	—	
07/13/2004	13:30	2.0		E0.8	E0.17	1.2	61	—	143	E0.02	0.238	2.0	—	
10/12/2004	13:00	3.0		9.5	0.23	1.9	65	—	155	E0.03	0.233	1.8	—	
01/12/2005	11:30	6.0		16.8	E0.19	1.1	65	—	143	—	0.240	2.3	E0.07	
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)														
12/16/2003	13:30	0.5		E0.9	0.21	1.7	66	—	203	—	0.224	1.5	—	
Perdue Treatment Plant—finished water (SWR08)														
10/15/2003	12:40	na		—	0.22	1.4	91	—	344	—	0.141	1.4	—	
12/17/2003	13:50	na		—	0.22	E0.5	67	—	161	—	0.204	1.7	—	
02/18/2004	11:40	na		—	E0.18	E0.5	73	—	156	1.6	0.189	2.5	—	
04/14/2004	09:30	na		3.6	E0.17	E0.8	65	—	158	—	0.227	2.5	—	
07/13/2004	15:10	na		—	E0.18	E0.6	61	—	150	—	0.249	2.2	—	
10/12/2004	15:00	na		E1.3	E0.17	E0.5	82	—	123	—	0.146	2.5	—	
01/12/2005	15:00	na		4.1	0.23	E0.4	110	—	135	—	0.167	5.0	—	
Perdue Treatment Plant—imported raw water (SWR09)														
10/12/2004	16:30	na		1.8	1.95	5.8	83	—	137	0.07	0.200	16	22	
Sweetwater River at low-flow diversion upstream from Sweetwater Reservoir (LFDD)														
12/17/2003	13:00	0.1		—	—	1.1	95	—	272	0.05	0.660	2.0	E0.08	
01/13/2005	14:00	0.1		410	E0.19	1.1	84	—	135	E0.04	0.666	3.5	0.75	

Table 9B. Analytical results for metals in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2710, from 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 parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per liter (µg/L). **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; na, not applicable; —, compound was not detected at a concentration above the laboratory reporting level (LRL)]

Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	LRL	[0.6]	[0.2]	[0.4]	[0.06]	[0.08]	[0.2]	[0.4]	[0.04]	[0.10]	[0.04]	[0.6]
Sweetwater Reservoir near pump tower (SWR01)														
10/14/2003	13:30	4.0		15.7	255	4.4	2.09	1.3	—	771	—	15.0	3.96	E0.5
12/16/2003	12:00	4.0		23.6	40.5	4.5	1.44	1.4	—	762	—	10.3	4.58	0.8
02/17/2004	15:40	5.0		24.3	15.6	5.0	4.47	2.6	—	762	—	166	4.05	1.9
04/13/2004	11:20	2.0		21.1	1.0	4.5	1.78	1.1	—	777	—	5.4	4.18	0.6
07/13/2004	13:30	2.0		19.0	0.7	4.4	2.00	E0.8	—	732	—	4.4	3.99	1.3
10/12/2004	13:00	3.0		20.2	14.7	4.7	2.31	1.1	—	776	—	6.4	4.21	1.2
01/12/2005	11:30	6.0		14.3	1.6	4.1	1.44	E0.6	—	604	—	4.2	4.03	10.4
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)														
12/16/2003	13:30	0.5		23.5	3.3	4.5	1.19	1.0	—	770	—	8.0	4.58	0.7
Perdue Treatment Plant—finished water (SWR08)														
10/15/2003	12:40	na		18.4	0.4	3.7	2.71	3.1	—	773	—	34.3	3.07	E0.5
12/17/2003	13:50	na		25.1	1.7	4.6	1.35	E0.6	—	781	—	0.90	4.53	0.7
02/18/2004	11:40	na		23.1	0.5	4.8	1.77	E0.6	0.5	797	—	0.80	3.98	0.7
04/14/2004	09:30	na		21.9	0.7	4.5	2.37	1.1	—	756	—	2.6	3.96	17.6
07/13/2004	15:10	na		19.7	1.4	4.5	2.49	E0.7	—	770	—	0.20	3.75	2.3
10/12/2004	15:00	na		24.9	1.5	4.1	3.20	1.3	—	657	—	0.60	3.16	E0.5
01/12/2005	15:00	na		29.5	0.5	4.7	1.79	1.3	—	776	—	0.90	3.92	9.6
Perdue Treatment Plant—imported raw water (SWR09)														
10/12/2004	16:30	na		21.0	1.2	3.9	4.27	3.1	—	629	—	63.1	3.38	6.0
Sweetwater River at low-flow diversion upstream from Sweetwater Reservoir (LFDD)														
12/17/2003	13:00	0.1		6.7	173	7.9	2.00	E0.7	—	814	—	24.6	14.1	2.9
01/13/2005	14:00	0.1		3.8	56	3.8	1.69	0.8	—	271	—	8.3	5.32	27.1

Air Sampling Strategy

The following section presents the sampling strategy used for the collection of air samples. Air samples were collected for the analysis of VOCs, SOC, and metals. SOC analysis consisted of PAHs and pesticides (pesticides were sampled through August 2004). Beginning in November 2003, air samples also were collected for analysis of metals. All the air sampling methods are documented in this or the previous SWR project reports or in other publications as noted below. Most air data have not been entered into the USGS NWIS database, except for data from a limited number of samples for the AirPAH method described below.

Air data collected at the SWR atmospheric sampling site may be used to determine the occurrence, temporal patterns, and ambient concentration levels of selected airborne organic compounds (VOCs, PAHs, and pesticides) and metals. Site AIR01 was installed downwind of the SR 125 alignment and upwind of SWR (fig. 2) along the predominant wind direction. The South Coast Air Pollution Control Board (William Brick, oral commun., 1999) helped with the siting and establishment of this atmospheric-sampling station following guidelines outlined by the National Atmospheric Deposition Program (Bigelow, 1984). Air samples were not collected at LLR because its foothill location (30 km east of SWR) was considered sufficiently downwind of SR 125 such that water quality at LLR would be expected to be minimally affected by any airborne contaminants originating from SR 125.

SOC air samples were collected by using a sampler referred to as the SOC air sampler. Collection times for the SOC air samples were modified several times during this reporting period; the goal was to match the collection periods used for the air samples for VOCs, as well as those used by the California Air Resources Board Air Toxics Program at their sampling station in Chula Vista, Calif. Initially for this reporting period, the SOC air sample was a 24-hour, 7-day weekly composite collected every fourth week, with a 3-week time span between sample collection periods. Beginning November 17, 2003, the collection time was changed to a 24-hour composite collected every 12th day to coincide with the air sample collection period for VOCs. The 24-hour period of active air flow collection was from midnight to midnight; the air sampler was deployed at the sampling site typically between 10 a.m. and 2 p.m. the day before sample collection and was retrieved from the site between 10 a.m. and 2 p.m. the day sample collection ended. Although the air-flow rate was increased to compensate for the change from a weekly to a 24-hour period, air volumes for the SOC air samples were lower (mean volume of 125 m³; range 112–150 m³) than for previous sample dates (mean volume of 330 m³; range 220–584 m³) and lower than desired. Therefore, beginning March 28, 2004, the collection time was increased to a 48-hour composite (midnight to midnight), with initiation of sample collection matching the dates of VOC sample collection (mean volume of 382 m³; range 253–412 m³).

The SOC collection period returned to a 24-hour composite beginning October 5, 2004, but with a slightly increased air flow that provided a mean volume of 185 m³ (range 159–209 m³), and remained at this frequency for the duration of the reporting period. Beginning with the September 2, 2006, SOC sample, wider outlet tubing was installed on the sampler to provide greater sample volumes (mean volume of 437 m³; range 237–522 m³) for the 24-hour period. The increased sample volume was desired to help lower method detection levels for the PAHs.

Air Methods

Volatile Organic Compounds

The air sampling and analytical methods for VOCs 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 sampling and analytical methods are detailed in Pankow and others (1998, 2003). All VOC air samples were analyzed by using adsorption/thermal desorption GC/MS. Concentrations of VOCs in air are reported in parts per billion by volume (ppbv). These air methods were also used in several other USGS studies that investigated the occurrence and distribution of VOCs in air (Baehr and others, 1999a, 1999b; Bender and others, 2000). Ambient gas-phase atmospheric concentrations of VOCs were collected by using two programmable low-volume air sampling pumps (224-PCXR8, SKC® Inc., Eighty Four, Pa.), each attached to a cartridge containing different sorbent materials. One pump pulled approximately 1.5 L of air through a glass cartridge containing 50 mg of Carbotrap B in series with 280 mg of Carboxen 1000 (Supelco, Bellefonte, Pa.). These samples were analyzed for compounds with the highest volatilities (high-volatility VOCs). The second pump 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 VOCs with lower volatilities (medium/low-volatility VOCs). Air samples were analyzed for 85 VOCs, which range in volatility from that of chloromethane (vapor pressure of 506 Kilopascal [kPa] at 20 °C) to 1,2,3-trichlorobenzene (subcooled liquid-phase vapor pressure of 58.2 kPa at 25 °C) (Mackay and others, 1993).

Semivolatile Organic Compounds

The air sampling and analytical methods for SOC were comparable to those described in Foreman and others (2000) for pesticides and to the EPA methods TO-4A for pesticides (U.S. Environmental Protection Agency, 1999a) and TO-13A for PAHs (Foreman and others, 1995; U.S. Environmental Protection Agency, 1999b). The air methods were developed

to complement those methods for pesticides in water (Zaugg and others, 1995; Sandstrom and others, 2001) and for PAHs/alkyl PAHs in sediment (Olson and others, 2004) that were used in the SWR monitoring program. The sampling and analytical methods used for the air samples for SOC_s have been used in several other 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 and can be converted to parts per billion by volume.

The high-volume air samples for SOC_s were collected by drawing air through a 90-mm diameter GFF (type A/E, Pall Corp, East Hills, New York) 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 collected the operationally defined gas-phase concentration of an SOC. Before being used, the GFFs were cleaned by baking them at 450 °C and allowing them to cool in a desiccator for at least 2 hours. The GFFs were then weighed to the nearest 0.2 mg, wrapped in baked aluminum 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 perfluoroalkoxy fluoropolymer (Teflon-PFA) filter holder (series 90, Savillex Corp., Minnetonka, Minnesota) that was modified in the following 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 better collect atmospheric particles; and (2) the inner closure piece of the filter holder was machined to include a 3.8-cm female National Pipe Thread to allow a direct connection to the 3.8-cm male National Pipe Thread on the inlet of the PUF cartridge.

PUF plugs were 5 cm in diameter by 7.6 cm long and were prepared from open-cell foam that contained no polybrominated diphenyl ether flame retardants. For samples collected through June 15, 2005, the average PUF density was 0.043 g/cm³ (Netherland Rubber Company, Cincinnati, Ohio). However, the manufacture of this PUF material was discontinued. Beginning with the July 21, 2005, sample, PUF plugs had an average density of 0.022 g/cm³ (Tisch Environmental, Village of Cleves, Ohio), corresponding to the density prescribed by EPA Method TO-4A. 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. Beginning July 26, 2004, only acetone was used as the final extraction solvent to clean PUF plugs because it provides a cleaner PUF plug based on the results from a related atmospheric contaminants study (Garrison and others, 2006). Residual solvent was squeezed from the PUF plugs using an acetone-rinsed stainless-steel 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 SWR laboratory, 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 Corporation); the bottom PUF was held in place against a Teflon-PFA screen. The 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. At the atmospheric sampling site, the PUF cartridge was 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 EPA method TO-4A (U.S. Environmental Protection Agency, 1999a). The outlet of the PUF cartridge was connected by 0.95-cm outer diameter Teflon tubing to a blower motor. Beginning in September 2006, wider (3.9-cm internal diameter) outlet tubing was installed that nearly doubled the flow rate. Air samples were collected at the sampling sites by pulling ambient air through the GFF-PUF sampling train. Sampling periods were controlled by a timer, and sample volume was calculated by multiplying the sample collection time by the air-flow rate measured at the beginning and at the end of the sampling period using a calibrated flow meter. After the samples were collected and returned to the SWR laboratory, the GFF was removed from the holder using clean forceps, returned to the aluminum 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 plug along with other relevant information and were tightly sealed with the lids. The GFF and PUF plugs were stored at -5 °C (maximum), if necessary, before being shipped overnight on ice packs to the USGS NWQL.

At the NWQL, the air-sample components were stored at -5 °C (maximum) until analyzed. The GFFs were warmed to room temperature then desiccated for 24 hours and weighed to the nearest 0.2 mg to determine particle weight based with comparison with the GFF weight before sample collection. This particle weight was divided by the air volume of the sample to determine the total suspended particle (TSP) concentration in micrograms of particles per cubic meter of air.

Air-sample components were extracted using one of two procedures during this reporting period. Top and bottom PUF plugs were extracted together for all samples from this reporting period except the November 17, 2003, sample, which also is shown as a combined top and bottom PUF result in the data table. The combined PUF extraction was done, in part, to reduce analytical costs, and because results from the separate analysis of PUF plugs from prior samples

provided sufficient characterization of collection efficiency for the SOC_s for the air volumes collected in this study. The GFF and PUF plugs for samples collected from November 2003 through August 19, 2004, were extracted by using pressurized-solvent extraction (PSE) described previously (Mendez and others, 2008). PSE relies primarily on the elevated temperature of a pressurized solvent to achieve rapid extraction (U.S. Environmental Protection Agency, 1999a; Alexandrou and others, 2001). Each GFF was placed into an 11 mL stainless-steel cell, and top and bottom PUF plugs for a sample were placed into a 100 mL cell before the compounds were extracted. Surrogate compounds added to the environmental samples were extracted by use of an accelerated solvent extractor 200 or 300 (Dionex Corporation, Salt Lake City, Utah), using two 15-minute static cycles at 100–120 °C (GFF) or 100 °C (PUF) under pressurized conditions (10,342 kPa). Although PSE provides excellent extraction efficiency for SOC_s, the heated PSE produced greater amounts of coextracted interfering compounds from the PUF plugs compared to traditional solvent extraction procedures previously used in this study (Mendez and others, 2007, 2008). Therefore, PUF plugs for all samples collected after August 19, 2004, as well as many, but not all GFFs, were extracted by traditional solvent extraction. For this approach, top and bottom PUF plugs for a sample were placed in a Soxhlet apparatus. The GFF was placed in a separate 500-mL, flat-bottom flask. The GFFs or PUF plugs were fortified with the surrogate compounds (see the QA section) and extracted with 100mL (GFF) or 300mL (PUF) of 30-percent ethyl acetate in hexane for at least 12 hours. All extracts were dried with sodium sulfate and reduced in volume using Kuderna-Danish distillation to about 4–6 mL.

For samples collected through August 19, 2004, the extract from each sample was reduced by nitrogen gas evaporation to about 2 mL and quantitatively (by weight) split in half before column cleanup. One portion (PAH fraction) was introduced to a 0.5-g C-18 SPE column positioned above a 1-g florisil SPE column (Biotage, Charlottesville, Virginia; the columns were pre-rinsed with acetone, dichloromethane, and ethyl acetate). Analytes were eluted with 6 mL of ethyl acetate, which was then reduced to about 0.15 mL by nitrogen gas evaporation, and transferred with a 0.1-mL ethyl acetate rinse to a GC vial containing 500 ng of 1,4-dichlorobenzene and five perdeuterated PAHs (naphthalene-*d*8, acenaphthene-*d*10, phenanthrene-*d*10, chrysene-*d*12, and perylene-*d*12) in ethyl acetate as injection internal standards. Air extracts for PAHs and alkyl PAHs were analyzed by GC/MS in full-scan mode. Analysis of these compounds used instrumental procedures comparable to those described by Olson and others (2004). All samples except one collected after July 11, 2007, were analyzed in a combined SIM/Scan mode to lower analyte detection levels. The PAH analysis is referred to as the “AirPAH” method in this report. GFF and PUF sample components for samples collected on November 17, 2003, and QC samples processed on November 19, 2003 (sample preparation set 03.32308) were analyzed by GC/MS

operated in the SIM mode as used for previously reported samples (Mendez and others, 2007, 2008). Concentrations for any detected alkyl PAH were estimated on the basis of the responses from the calibration curves for the corresponding parent PAHs because alkyl PAH standards were not available when calibration standards were prepared (Olson and others, 2004). Numerical results for all these alkyl PAHs were reported as estimated (“E” code), meaning they have a higher degree of uncertainty. Dilution of some extracts from the PUF component was necessary to quantify the results for several PAHs that were greater than the highest calibration standard at typical final extract volumes.

The remaining extract portion (pesticide fraction) for each sample 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 eluent was reduced using micro-Kuderna-Danish distillation to about 1 mL. A procedural internal standard solution of three perdeuterated PAHs (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 (comparable to analytical methodology on NWQL water schedule 2003) for the 66 compounds that are a subset of the high- and moderate-use pesticides and degradates determined using water methods described by Zaugg and others (1995), Sandstrom and others (2001), and Madsen and others (2003). Analysis of pesticide and related degradate compounds is referred to as the “Airpest003” method in this report. Some analytes included in NWQL schedule 2003 were not amenable to the Airpest003 method because the compounds were inadequately collected by the PUF or recovered during the SPE cleanup step; therefore, these compounds were not reported for the air samples.

Starting with the air sample collected on August 31, 2004, the samples were no longer analyzed for pesticides to reduce analytical costs; therefore, the entire sample-component extract was reduced to approximately 1 mL using nitrogen evaporation then cleaned up and analyzed using the AirPAH procedure as described previously. The final extract volumes ranged from 0.35–0.50 mL for GC/MS analysis. The SOC concentrations are reported in nanograms per cubic meter of air.

Metals

The Quartz Fiber Filters (QFF) were purchased and handled in the same manner as the GFFs except that nylon forceps were used to handle the filters instead of stainless-steel forceps. The filters were baked at 400 °C and stored in a desiccant until cool, then individually weighed and placed in a plastic petri dish. QFFs were installed into the sampling

cartridge in the same way as the GFFs. At the end of sampling, the QFFs were removed from the sampler, folded in half, and placed back into the petri dish. They did not need to be chilled, so they were stored in the shipping container (a Pelican case) at the SWR laboratory until about 15–20 samples were collected; samples were then shipped to the laboratory where they were reweighed and prepared for analysis.

The environmental samples and blanks for metals in air were analyzed at the USGS Crustal Geophysics and Geochemistry Science Center (Geologic Division Laboratory) in Denver, Colorado, using inductively coupled plasma mass-spectroscopy (ICP-MS; Briggs and Meier, 2002; Lamothe and others, 2002). The QFF samples were analyzed in batches consisting of about 15 samples, each including one laboratory blank QFF. The mean laboratory-blank result was subtracted from the result of each field sample to obtain the final mass of analyte per sample. These values were then divided by the total volume of air sampled to obtain the concentration in nanograms per cubic meter of air. The method detection limits (MDLs) were estimated as three times the standard deviation of determined concentrations in three replicate reagent blanks (not QFF blanks) that were prepared along with the QFF samples. Thus, the reported MDL value for each metal is defined here as the minimum concentration of that element that can be measured and reported with 95-percent confidence that the concentration is greater than zero.

Air-Quality Assurance

The QC air methods used were comparable to the water methods for assessing the analytical method efficiency. Groups of VOC or SOC air samples had one or more associated laboratory-prepared matrix or reagent spike and laboratory blank samples analyzed along with the environmental samples. Additionally, surrogate compounds were added to BNA and pesticide samples at the laboratory to monitor sample-specific performance of the analytical method. No surrogates were added to the VOC air samples. The GFF or PUFs were fortified with surrogate compounds nitrobenzene-*d*5, 2-fluorobiphenyl, and terphenyl-*d*14 for the PAH analysis. For the pesticide analysis, surrogate compounds diazinon-*d*10 and α -HCH-*d*6 were added. Additional information on air QA methods and QC results are presented in the appendix.

Air VOC matrix spikes were prepared by fortifying the air sampling media (VOC cartridge) with a known concentration of selected analytes. Matrix spikes also can be used to test the effects of various sampled matrices on the recovery of specific compounds, including matrix interference or matrix-induced analyte degradation. Lot blanks are processed at the lab on a subset of the air VOC cartridges sent for environmental samples; these lot blanks are used to test the matrix that was used during the manufacture of the cartridges. Laboratory blanks are used to assess whether the sample processing steps in the laboratory have introduced contamination. A laboratory blank was processed with every environmental air sample.

Each VOC air sample collected had a travel blank, lot blank, and laboratory blank and about a quarter of the air samples collected had a travel matrix-spike associated with it as described in Pankow and others (1998). Travel matrix-spike cartridges were fortified at the laboratory with a known concentration of the VOC analytes, sent to the field, and subsequently analyzed at the laboratory to assess recovery bias and reproducibility at the spike concentration. Travel (trip) blank-sample cartridges were shipped with the field sample cartridges, kept with the field sample cartridges, and shipped back to the laboratory but was not exposed to the air. Travel blanks were shipped with every VOC air sample and were used to identify contamination that may have occurred during sample transport, storage, and analysis rather than as a result of sample collection. Lot blanks consisted of a randomly selected cartridge from a group of simultaneously manufactured (conditioned) air VOC cartridges that were analyzed at the laboratory to test for contaminants derived from the cartridge sorbents or conditioning steps. Similarly, laboratory blanks were randomly selected from conditioned cartridge groups, fortified with the internal standards, and stored at the laboratory until analysis along with associated field samples; the laboratory blanks were used to assess contamination introduced at the laboratory. Blank sample data in this report are presented in concentration units comparable to field sample data by assuming sample volumes of 1.5 L (high-volatility VOCs) and 5 L (medium/low-volatility VOCs). Replicate VOC air samples were taken by attaching a Teflon “Y” connector to the pump intake hose, attaching two of the same type sampling cartridges to it, and adjusting the flow through each cartridge to either 1 or 5 Lpm depending on the type of cartridge. Fourteen replicate high-volatility and eleven replicate medium/low-volatility air samples were collected to assess sample reproducibility.

All VOC results for air samples have been blank-corrected at the laboratory before the data were released. Travel blanks (50–60) from previous and current sets of samples were averaged to obtain the mean blank level plus standard deviation. If the amount in a sample was less than the sum of the mean blank level and three times the standard deviation, the concentration was reported as not detected. If the amount in a sample was larger than the sum of the mean blank level and three times the standard deviation, the mean blank level was subtracted from the amount in the sample and the difference was the reported concentration.

Separate GFF and PUF laboratory blank and laboratory matrix-spike samples were analyzed for each set of prepared SOC environmental samples. They were prepared using one or more of the same lots of GFFs or PUF media used to collect the field samples. Storage conditions for these blank media were comparable to storage conditions at the Sweetwater laboratory. Reported concentrations of PAHs and pesticides in laboratory (and field) blanks were calculated assuming an air volume of 315 m³ to simplify comparison with field sample data. Field sample air data for PAHs and pesticides were not corrected for laboratory blank concentrations. Laboratory

matrix-spike samples were prepared by fortifying the parent PAH and pesticide compounds (until pesticide analysis was discontinued) directly to the media just prior to extraction. Replicate air samples for PAHs and pesticides were not collected during this study. Each air-sample component (GFF and top and bottom PUF plugs) was fortified with surrogate compounds at the NWQL to monitor performance during sample preparation and analysis.

Two types of field blank samples were collected and analyzed for PAHs during this reporting period. One type, referred to as “Field blank,” was used to examine possible contamination resulting from field handling of the GFF-PUF sampling components and from post-collection sample processing steps. This Field 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, returning the train to the field laboratory, and unloading the GFF and PUF plugs for storage and shipping in the same manner as the environmental samples. No air was drawn through the sampling train. This type of blank was collected in October 2004 and June 2009. The second type, referred to as “Exposed field blank,” was handled identically to the Field blank, except it also included a 24-hour exposure period when the train was positioned at the sampling site but no air was drawn through the train. The Exposed field blank simulates the approximately 24-hour period of time that the air sampling train was deployed in the field beyond the active air-flow collection period and was used to assess potential passive sampling of PAH by the sampler. An Exposed field blank was collected in January 2007 and June 2009. Ideally, additional field blanks should have been collected during this reporting period to assess SOC contamination potential relative to laboratory blank results. Field blank samples from this reporting period were collected after August 2004 and, thus, were not analyzed for pesticides.

Two types of soil standard reference material (SRM) were used as QC checks of the digestion process and instrument calibration for the analysis of metals in air samples—the National Institute of Standards and Technology (NIST) 2710 (National Institute of Standards and Technology, 1991b) and the Canadian Certified Reference Materials Project (CCRMP) SO-2 and SO-4 standards (Potts and others, 1992). The NIST 2710 material is a certified SRM. The CCRMP standards are not “certified” to the same extent as the NIST standards. They have, however, consensus values from results obtained by about 80 internationally recognized geochemical laboratories and are used in conjunction with the NIST standards to look for systematic biases in the data set. The soil SRM was a solid-phase material that could be processed in the same manner as the QFF substrate used to collect the air samples. If all three percent recovery values of the SRM for a given element were biased by more than 10 percent in the same direction, the data were reviewed and reanalyzed. If the SRM analytical results were less than 10 times the MDL, any lack of agreement was considered statistically insignificant and was ignored. The Potts standards were used in conjunction with the

NIST standards because even though some of the SO-2 and SO-4 results can be more variable than the NIST standards, in some cases no NIST values are available. Including the SO-2 and SO-4 results gives a better indication of the maximum bias that may exist in the data set. Not every major and trace metal in every SRM has values in the certificate of analysis provided by the original suppliers. Therefore, if neither the original supplier of the SRM or the data compilations, such as by Potts and others (1992), provide values for an element, that element is listed as not analyzed.

The percent recovery for metals in the QC samples is the ratio of the analyzed concentration to the expected concentration times 100. The laboratory reports the total mass of each element measured on the QFF. This enables the easy calculation of airborne concentrations for each element in units of nanograms per cubic meter of air. The QC calculations were performed similarly by calculating a recovery of the total mass of a given element from a QC sample. The laboratory also chose a QC sample weight of 0.1 g. For each element reported in the QC sample, the expected mass recovered after the digestion procedure was 0.1 times the known concentration of that element in the QC sample. Therefore, values from this study have to be multiplied by 10 to be comparable to literature values.

Air Results

The VOC air method was used to analyze 85 compounds, and the results are presented in tables 10A and 10B. Chloroethane was the only high-volatility volatile organic compound detected in air samples. Twenty-eight medium/low-volatility volatile organic compounds had no detections in air samples. Acetone, benzene, ethenylbenzene, and naphthalene had blank detections greater than 30 percent of the adjusted environmental sample concentrations and were flagged as suspect. Because VOC results for air samples were blank corrected (adjusted environmental sample) at the laboratory before the data were released, the true blank value is unknown. The concentration in the current blank associated with each sample was added to the environmental sample, and if the blank was larger than 30 percent of the adjusted environmental sample plus the blank, the compound was considered to be biased high (table 10B). Benzene was detected in the laboratory blank above the acceptable criteria (30 percent of the adjusted environmental sample) in about 30 percent of the environmental samples. Detections of MTBE, benzene, and toluene in air samples at the atmospheric sampling site (fig. 2) during the entire study period are shown in figure 4A for comparison to these compounds in water. These data show a strong correlation between concentrations of these compounds in air throughout the study until MTBE was phased out in January 2004. Concentrations of benzene and toluene continued to have a strong correlation to each other, although toluene was detected at a higher concentration. A detailed analysis of VOCs in air and water is beyond the scope of this report.

Table 10A. Analytical results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site-identification number is 324141117001601. Concentrations are given in part per billion by volume (ppbv). **Abbreviations:** LRL, laboratory reporting level; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed; °C, degree Celsius; —, compound was not detected at a concentration above the laboratory reporting level]

Date (mm/dd/yyyy)	Pressure (mm of Hg)	Temperature (°C)	Chloromethane		Chloroethene (vinyl chloride)	Bromomethane	Chloroethane	Bromoethene (vinyl bromide)
			[LRL]	[0.30]	[0.30]	[0.50]	[0.30]	[0.30]
10/12/2003	759.7	20.7		—	—	—	—	—
10/24/2003	759.0	18.2		—	—	—	—	—
11/05/2003	761.7	12.7		—	—	—	—	—
11/17/2003	763.0	13.3		—	—	—	—	—
11/29/2003	761.9	15.0		—	—	—	—	—
12/11/2003	761.6	12.0		—	—	—	—	—
12/23/2003	760.7	15.4		—	—	—	—	—
01/04/2004	764.9	9.5		—	—	—	—	—
01/14/2004	758.0	12.9		—	—	—	—	—
01/28/2004	763.5	12.3		—	—	—	—	—
02/09/2004	762.5	12.4		—	—	—	—	—
02/21/2004	757.9	11.7		—	—	—	—	—
03/04/2004	758.8	13.8		—	—	—	—	—
03/16/2004	760.6	15.0		—	—	—	—	—
03/28/2004	760.2	20.8		—	—	—	—	—
04/09/2004	760.3	16.6		—	—	—	—	—
04/21/2004	760.8	16.0		—	—	—	—	—
05/03/2004	758.1	18.2		—	—	—	—	—
05/15/2004	757.5	18.2		—	—	—	1.25	—
05/27/2004	761.2	17.5		—	—	—	—	—
06/08/2004	757.3	17.1		—	—	—	—	—
06/20/2004	760.7	19.2		—	—	—	—	—
07/02/2004	761.7	18.9		—	—	—	—	—
07/14/2004	759.7	22.9		—	—	—	—	—
07/26/2004	758.9	21.2		—	—	—	—	—
08/19/2004	759.9	20.7		—	—	—	—	—
08/31/2004	759.1	22.2		—	—	—	—	—
09/12/2004	757.7	22.5		—	—	—	—	—
09/23/2004	759.2	22.1		—	—	—	—	—
10/06/2004	759.0	17.9		—	—	—	—	—
10/18/2004	758.9	18.7		—	—	—	—	—
10/30/2004	761.7	15.0		—	—	—	—	—
11/23/2004	763.3	11.2		—	—	—	—	—
12/05/2004	754.7	10.5		—	—	—	—	—
12/28/2004	758.4	13.4		—	—	—	—	—
01/10/2005	762.2	15.3		—	—	—	—	—
01/22/2005	762.3	13.6		—	—	—	—	—
02/03/2005	762.4	15.7		—	—	—	—	—
02/15/2005	762.4	12.8		—	—	—	—	—
02/27/2005	764.0	14.0		—	—	—	—	—
03/11/2005	760.6	15.0		—	—	—	—	—
03/23/2005	760.0	13.5		—	—	—	—	—
04/04/2005	762.7	14.0		—	—	—	—	—
04/16/2005	759.3	16.0		—	—	—	—	—
04/28/2005	762.0	15.1		—	—	—	—	—
05/10/2005	759.9	16.0		—	—	—	—	—
06/03/2005	756.7	18.2		—	—	—	—	—
06/15/2005	758.1	17.8		—	—	—	—	—

Table 10A. Analytical results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). **Abbreviations:** LRL, laboratory reporting level; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed; °C, degree Celsius; —, compound was not detected at a concentration above the laboratory reporting level]

Date (mm/dd/yyyy)	Pressure (mm of Hg)	Temperature (°C)	Chloromethane		Chloroethene (vinyl chloride)	Bromomethane	Chloroethane	Bromoethene (vinyl bromide)
			[LRL]	[0.30]	[0.30]	[0.50]	[0.30]	[0.30]
07/09/2005	759.2	18.7		—	—	—	—	—
07/25/2005	757.0	25.4		—	—	—	—	—
08/02/2005	758.9	20.6		—	—	—	—	—
08/14/2005	757.9	19.4		—	—	—	—	—
08/26/2005	759.2	25.9		—	—	—	—	—
09/07/2005	758.9	20.3		—	—	—	—	—
09/19/2005	760.1	19.2		—	—	—	—	—
10/01/2005	756.7	20.5		—	—	—	—	—
10/13/2005	759.5	20.3		—	—	—	—	—
10/25/2005	763.4	16.4		—	—	—	—	—
11/06/2005	759.0	15.0		—	—	—	—	—
11/18/2005	762.4	20.2		—	—	—	—	—
12/12/2005	762.7	12.3		—	—	—	—	—
12/24/2005	762.8	13.3		—	—	—	—	—
01/06/2006	765.0	18.1		—	—	—	—	—
01/17/2006	768.0	11.8		—	—	—	—	—
01/29/2006	765.2	11.5		—	—	—	—	—
02/10/2006	764.0	12.9		—	—	—	—	—
02/22/2006	763.3	11.2		—	—	—	—	—
03/05/2006	764.7	13.2		—	—	—	—	—
03/30/2006	761.8	13.4		—	—	—	—	—
04/11/2006	760.8	15.6		—	—	—	—	—
04/23/2006	762.2	13.4		—	—	—	—	—
05/05/2006	761.1	15.7		—	—	—	—	—
06/10/2006	757.5	17.8		—	—	—	—	—
06/22/2006	760.2	19.7		—	—	—	—	—
07/04/2006	760.7	21.9		NA	NA	NA	NA	NA
07/28/2006	759.6	25.1		—	—	—	—	—
08/09/2006	758.4	23.8		—	—	—	—	—
08/21/2006	758.5	21.7		—	—	—	—	—
09/02/2006	755.5	23.2		—	—	—	—	—
09/14/2006	756.1	18.8		—	—	—	—	—
09/26/2006	761.0	19.3		—	—	—	—	—
10/08/2006	759.4	16.5		—	—	—	—	—
10/20/2006	756.8	19.4		—	—	—	—	—
11/01/2006	761.6	16.5		—	—	—	—	—
11/13/2006	715.9	16.9		—	—	—	—	—
11/25/2006	706.9	14.5		—	—	—	—	—
12/07/2006	762.7	15.7		—	—	—	—	—
12/31/2006	765.7	10.1		—	—	—	—	—
01/12/2007	760.5	9.4		—	—	—	—	—
01/24/2007	764.2	13.4		—	—	—	—	—
02/05/2007	763.2	17.3		—	—	—	—	—
02/17/2007	761.7	19.1		—	—	—	—	—
03/01/2007	763.3	9.9		—	—	—	—	—
03/13/2007	761.4	16.2		—	—	—	—	—
03/25/2007	763.0	15.5		—	—	—	—	—
04/06/2007	758.9	14.9		—	—	—	—	—
04/18/2007	761.6	14.1		—	—	—	—	—

Table 10A. Analytical results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). **Abbreviations:** LRL, laboratory reporting level; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed; °C, degree Celsius; —, compound was not detected at a concentration above the laboratory reporting level]

Date (mm/dd/yyyy)	Pressure (mm of Hg)	Temperature (°C)	Chloromethane	Chloroethene (vinyl chloride)	Bromomethane	Chloroethane	Bromoethene (vinyl bromide)
			[LRL]	[0.30]	[0.30]	[0.50]	[0.30]
04/30/2007	759.8	16.6	—	—	—	—	—
05/12/2007	761.1	15.5	—	—	—	—	—
05/24/2007	759.0	17.3	—	—	—	—	—
06/05/2007	759.0	16.4	—	—	—	—	—
06/17/2007	758.2	18.0	—	—	—	—	—
06/29/2007	758.9	19.8	—	—	—	—	—
07/11/2007	745.0	20.8	NA	NA	NA	NA	NA
07/23/2007	758.3	20.9	—	—	—	—	—
08/04/2007	701.1	20.7	—	—	—	—	—
08/16/2007	699.5	22.9	—	—	—	—	—
08/28/2007	756.0	24.6	—	—	—	—	—
09/09/2007	758.7	20.6	—	—	—	—	—
09/21/2007	757.6	17.4	—	—	—	—	—
10/03/2007	758.3	20.7	—	—	—	—	—
10/15/2007	758.0	17.1	—	—	—	—	—
10/27/2007	762.5	20.3	—	—	—	—	—
11/08/2007	761.9	15.2	—	—	—	—	—
11/20/2007	759.9	13.2	—	—	—	—	—
12/02/2007	769.0	11.3	—	—	—	—	—
12/14/2007	765.5	10.2	—	—	—	—	—
12/26/2007	762.4	9.7	—	—	—	—	—
01/07/2008	NA	NA	NA	NA	NA	NA	NA
01/19/2008	707.0	10.7	—	—	—	—	—
01/31/2008	766.8	10.9	—	—	—	—	—
02/12/2008	710.6	16.0	—	—	—	—	—
02/24/2008	716.2	12.2	—	—	—	—	—
03/07/2008	706.1	15.9	—	—	—	—	—
03/19/2008	763.9	12.8	—	—	—	—	—
03/31/2008	763.3	12.3	—	—	—	—	—
04/12/2008	708.7	22.8	—	—	—	—	—
04/24/2008	705.5	15.2	—	—	—	—	—
05/06/2008	704.8	13.8	—	—	—	—	—
05/18/2008	699.5	24.1	—	—	—	—	—
05/30/2008	703.2	17.2	—	—	—	—	—
06/11/2008	701.3	17.1	—	—	—	—	—
06/23/2008	700.3	21.8	—	—	—	—	—
07/05/2008	702.1	20.8	—	—	—	—	—
07/17/2008	704.2	20.7	—	—	—	—	—
07/29/2008	705.3	21.4	—	—	—	—	—
08/10/2008	704.8	22.4	—	—	—	—	—
08/22/2008	703.9	20.7	—	—	—	—	—
09/03/2008	702.3	23.1	—	—	—	—	—
09/15/2008	709.2	21.9	—	—	—	—	—
09/27/2008	719.1	20.9	—	—	—	—	—
10/09/2008	704.0	18.7	—	—	—	—	—
10/21/2008	761.5	16.6	—	—	—	—	—
11/02/2008	763.3	17.5	—	—	—	—	—
11/14/2008	760.0	21.3	—	—	—	—	—
11/26/2008	758.5	16.2	—	—	—	—	—
12/08/2008	765.3	13.3	—	—	—	—	—
12/20/2008	766.1	9.2	—	—	—	—	—

Table 10A. Analytical results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). **Abbreviations:** LRL, laboratory reporting level; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed; °C, degree Celsius; —, compound was not detected at a concentration above the laboratory reporting level]

Date (mm/dd/yyyy)	Pressure (mm of Hg)	Temperature (°C)	Chloromethane		Chloroethene (vinyl chloride)	Bromomethane	Chloroethane	Bromoethene (vinyl bromide)
			[LRL]	[0.30]	[0.30]	[0.50]	[0.30]	[0.30]
01/01/2009	762.0	11.4		—	—	—	—	—
01/13/2009	765.3	17.8		—	—	—	—	—
01/25/2009	762.8	11.6		—	—	—	—	—
02/06/2009	761.0	13.2		—	—	—	—	—
02/18/2009	766.3	11.0		—	—	—	—	—
03/02/2009	763.0	18.3		—	—	—	—	—
03/14/2009	759.5	12.9		—	—	—	—	—
03/26/2009	759.0	12.7		—	—	—	—	—
04/07/2009	762.5	13.7		—	—	—	—	—
04/19/2009	760.5	25.2		—	—	—	—	—
05/01/2009	761.8	16.9		—	—	—	—	—
05/13/2009	758.3	16.6		—	—	—	—	—
05/25/2009	759.7	16.0		—	—	—	—	—
06/06/2009	760.5	17.1		—	—	—	—	—
06/18/2009	756.7	17.9		—	—	—	—	—
06/30/2009	757.3	20.8		—	—	—	—	—
07/12/2009	760.2	24.8		—	—	—	—	—
07/24/2009	759.0	16.7		—	—	—	—	—

Table 10B. Analytical results for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

(Table 10B is provided separately as a Microsoft Excel® worksheet.)

Individual PAH compounds and alkylated PAH homologs determined by the AirPAH method, along with estimated reporting levels, are given in table 11A. Concentrations of PAH and alkyl PAH detected in air samples are given in table 11B, of which, nineteen compounds were detected. Typically, the PUFs had better recoveries than the GFFs, and most blank detections were an order of magnitude lower than the LRL.

Pesticide and related degradate compounds analyzed in air samples by the Airpest003 method are given in table 12A, and concentrations for the 10 pesticides detected in air samples are given in table 12B. About 10 percent of spike recoveries for Airpest003 were below the acceptable criteria; carbaryl, fenamiphos, phorate, and terbufos had one spike with no recovery. The low spike recoveries may indicate the compound was under-detected and may be reported at lower concentrations than actually occurred.

Concentrations for 32 metals analyzed in air samples are presented in table 13, along with determined TSP concentrations for these samples. Niobium and thallium were the least frequently detected metals in air samples. Ten samples were not collected during this time frame because of

mechanical problems or torn filters. Most laboratory-blank metal samples had detections above their LRLs, but the detections vary. Detections near the LRL for these compounds may be caused by the sampling or processing steps.

Surficial Bed-Sediment Sampling Strategy

Surficial bed-sediment samples were collected for PAHs and metals at the three water sampling sites in SWR (sites SWR01, SWR03, and SWR06), at site LFDD, and at both LLR water sampling sites (sites LLR01 and LLR02) in October 2004 (figs. 2 and 3). Surficial bed-sediment samples were analyzed for PAHs, OC pesticides, and metals at the five water sampling sites in the SWR (sites SWR01, SWR02, SWR03, SWR04, and SWR06), at site LFDD, and at both LLR water sampling sites (sites LLR01 and LLR02) in August 2009 (figs. 2 and 3). All surficial bed sediment data have been entered into the USGS NWIS database, except for metals. Sediment samples for metals also were collected near the atmospheric sampling site (AIR01) in October 2004 (fig. 2).

Table 11A. Polycyclic aromatic hydrocarbons (PAHs) and alkylated-PAH compounds analyzed in air samples, processed at the U.S. Geological Survey National Water Quality Laboratory, from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site-identification number is 324141117001601. 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. Estimated reporting level: for split extract analyzed in full scan mode assuming 315 cubic meters average air volume. Calculated sum of the concentration determined in glass-fiber filter sample component plus the concentration in the combined top and bottom polyurethane foam plug sample components. Estimated analyte reporting levels were 0.05 nanograms per cubic meter (ng/m³) for GFF and 0.1 ng/m³ for polyurethane foam plug sample components that were analyzed by combined selected ion monitoring and full scan (SIM/Scan) mass spectrometry. Alkylated PAH homolog concentrations are estimated.]

Compound	Parameter code for the analysis of the glass-fiber filter sample component only	Parameter code for the analysis of both top and bottom polyurethane foam plug sample components	Parameter code for calculated sum of all sample components	Estimated reporting level (ng/m ³)
Anthracene	65308	65470	64231	0.5
Benzo[a] anthracene	65309	65471	64237	0.5
Benzo[a] pyrene	65310	65472	64238	0.5
Benzo[b] fluoranthene	65311	65473	64239	0.5
Benzo[e] pyrene	65312	65474	64240	0.5
Benzo[ghi] perylene	65313	65475	64241	0.5
Benzo[k] fluoranthene	65314	65476	64242	0.5
Chrysene	65315	65477	64285	0.5
Coronene	65316	65478	64290	0.5
4H-Cyclopenta[def]phenanthrene	65304	65466	64218	0.5
Dibenzo[a,h] anthracene	65317	65479	64302	0.5
Fluoranthene	65318	65480	64335	0.5
Indeno[1,2,3-cd] pyrene	65319	65481	64343	0.5
2-Methylanthracene	65303	65465	64206	0.5
1-Methylphenanthrene	65298	65460	64193	0.5
1-Methylpyrene	65299	65461	64194	0.5
Perylene	65321	65483	64421	0.5
Phenanthrene	65322	65484	64422	0.5
Pyrene	65323	65485	64437	0.5
Alkylated polycyclic aromatic hydrocarbons homologs				
C1-178 Isomers, methylated phenanthrenes/anthracenes	65325	65487	64253	0.5
C1-202 Isomers, methylated fluoranthenes/pyrenes	65326	65488	64254	0.5
C1-228 Isomers, methylated benzo[a]anthracenes/chrysenes	65327	65489	64255	0.5
C1-252 Isomers, methylated benzopyrenes/perylenes	65328	65490	64256	0.5
C2-178 Isomers, alkylated phenanthrenes/anthracenes	65330	65492	64258	0.5
C2-202 Isomers, alkylated fluoranthenes/pyrenes	65331	65493	64259	0.5
C2-228 Isomers, alkylated benzo[a]anthracenes/chrysenes	65332	65494	64260	0.5
C2-252 Isomers, alkylated benzopyrenes/perylenes	65333	65495	64261	0.5
C3-178 Isomers, alkylated phenanthrenes/anthracenes	65335	65497	64263	0.5
C3-202 Isomers, alkylated fluoranthenes/pyrenes	65336	65498	64264	0.5
C3-228 Isomers, alkylated benzo[a]anthracenes/chrysenes	65337	65499	64265	0.5
C3-252 Isomers, alkylated benzopyrenes/perylenes	65338	65500	64266	0.5
C4-178 Isomers, alkylated phenanthrenes/anthracenes	65340	65502	64268	0.5
C4-202 Isomers, alkylated fluoranthenes/pyrenes	65341	65503	64269	0.5
C4-228 Isomers, alkylated benzo[a]anthracenes/chrysenes	65342	65504	64270	0.5
C4-252 Isomers, alkylated benzopyrenes/perylenes	65343	65505	64271	0.5
C5-178 Isomers, alkylated phenanthrenes/anthracenes	65345	65507	64273	0.5
C5-202 Isomers, alkylated fluoranthenes/pyrenes	65346	65508	64274	0.5
C5-228 Isomers, alkylated benzo[a]anthracenes/chrysenes	65347	65509	64275	0.5
C5-252 Isomers, alkylated benzopyrenes/perylenes	65348	65510	64276	0.5
2-Fluorobiphenyl (surrogate)	91866	91875	90761	percent
Nitrobenzene-d5 (surrogate)	91867	91876	90768	percent
Terphenyl-d14 (surrogate)	91868	91877	90770	percent

Table 11B. Analytical results for Polycyclic Aromatic Hydrocarbon (PAH) and alkylated PAH compounds detected in air samples, processed at the U.S. Geological Survey's National Water Quality Laboratory, from the Sweetwater Reservoir atmospheric site, San Diego County, California.

(Table 11B is provided separately as a Microsoft Excel® worksheet.)

Table 12A. Pesticide compounds analyzed in air samples, processed at the U.S. Geological Survey National Water Quality Laboratory, 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. **Abbreviation:** ng/m³, nanograms per cubic meter]

Compound	Estimated reporting level (ng/m ³)
Acetochlor	0.05
Alachlor	0.05
Atrazine	0.05
Benfluralin ¹	0.30
Carbaryl ¹	0.10
2-Chloro-2,6-diethylacetanilide	0.08
2-Chloro-4-isopropylamino-6-amino- <i>s</i> -triazine (CIAT)	0.11
Chlorpyrifos	0.06
Dacthal (DCPA)	0.05
Desulfinyl-fipronil	0.05
Diazinon	0.06
Dieldrin	0.11
Dimethoate	0.10
Ethion	0.13
2-Ethyl-6-methylaniline	0.11
Fenamiphos ¹	0.17
Fenamiphos sulfone ¹	0.06
Fenamiphos sulfoxide ¹	0.17
Fipronil ¹	0.05
Fipronil sulfide	0.06
Fipronil sulfone	0.06
Fonofos	0.06
Hexazinone ¹	0.06
Isofenphos	0.10
Metalaxyl	0.08
Methidathion	0.11
Metolachlor	0.05
Metribuzin	0.10
Myclobutanil	0.11
Parathion-methyl	0.06
Pendi-methilan	0.06
<i>cis</i> -Permethrin	0.11
<i>trans</i> -Permethrin	0.11
Phorate ¹	0.13
Phorate oxon ¹	0.14
Prometon	0.05
Prometryn	0.14
Propyzamide	0.06
Simazine	0.06
Terbufos	0.08
Terbuthylazine	0.05
Trifluralin ¹	0.30
Diazinon- <i>d</i> 10 (surrogate)	percent
α -HCH- <i>d</i> 6 (surrogate)	percent

¹Concentration estimated. Compound has poor recovery on the basis of laboratory set spikes.

Table 12B. Analytical results for pesticide compounds detected in air samples, processed at the U.S. Geological Survey National Water Quality Laboratory, from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Air sampling concentrations in nanogram per cubic meter (ng/m³) unless noted. Laboratory reporting levels are listed on table 11A. Abbreviations: E, estimated or having a higher degree of uncertainty; g, gram; m³, cubic meter; GFF, glass fiber filter; mm/dd/yyyy, month/day/year; PUF, polyurethane foam; NA, not analyzed; vol., volume; —, compound was not detected at a concentration above the laboratory reporting level; &, and]

Date (mm/dd/yyyy)	Type	Extraction set number	Air vol. (m ³)	Particle weight (g)	Total suspended particulate (ng/m ³)	Ben- fluoranthene	Carbaryl	Chlor- pyrifos	Dacthal (DCPA)	Desulfinyl- fipronil	Diazinon	cis- Permethrin	trans- Permethrin	Simazine	Tri- fluralin	α-HCH- δδ, surrogate (percent)	Diazinon- d10, surrogate (percent)
11/17/2003	GFF	03.32308	127.4	0.0054	42.4	—	—	—	—	—	0.11	—	—	—	—	79.4	89.6
11/17/2003	Top PUF	03.32308	—	—	—	E0.16	—	0.12	0.06	—	0.84	—	—	—	E0.26	97.5	115
11/17/2003	Bottom PUF	03.32308	—	—	—	—	—	—	—	—	—	—	—	—	E0.07	87.1	94.5
	TOTAL					E0.16	—	0.12	0.06	—	0.95	—	—	—	0.33	—	—
11/29/2003	GFF	04.07205	112.3	0.0085	75.7	—	—	—	E0.02	—	0.06	0.24	0.25	—	—	65.2	75.6
11/29/2003	Top & bottom PUF	04.07205	—	—	—	E0.12	—	—	E0.04	—	0.32	—	—	—	E0.19	77.9	88.5
	TOTAL					E0.12	—	—	0.06	—	0.38	0.24	0.25	—	E0.19	—	—
12/11/2003	GFF	04.07205	126.2	0.0070	55.5	—	—	—	—	—	0.08	0.11	0.11	—	—	58.4	71.2
12/11/2003	Top & bottom PUF	04.07205	—	—	—	E0.18	—	0.11	E0.04	—	0.47	—	—	—	E0.27	73.4	86.7
	TOTAL					E0.18	—	0.11	E0.04	—	0.55	0.11	0.11	—	E0.27	—	—
12/23/2003	GFF	04.07205	124.7	0.0068	54.5	—	—	—	—	—	E0.05	E0.01	0.11	—	—	62.0	70.3
12/23/2003	Top & bottom PUF	04.07205	—	—	—	E0.13	—	0.09	E0.04	—	0.35	—	—	—	E0.22	77.9	90.0
	TOTAL					E0.13	—	0.09	E0.04	—	0.40	E0.01	0.11	—	E0.22	—	—
01/04/2004	GFF	04.07205	125.2	0.0058	46.3	—	—	—	—	—	—	E0.08	E0.09	—	—	64.4	70.4
01/04/2004	Top & bottom PUF	—	—	—	—	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TOTAL					—	—	—	—	—	—	E0.08	E0.09	—	—	—	—
01/16/2004	GFF	04.07205	122.9	0.0130	105.8	—	—	—	—	—	—	—	—	0.11	—	58.0	68.2
01/16/2004	Top & bottom PUF	04.07205	—	—	—	E0.12	—	—	0.05	—	0.27	—	—	—	E0.21	77.8	94.8
	TOTAL					E0.12	—	—	0.05	—	0.27	—	—	—	E0.21	—	—
01/28/2004	GFF	04.07205	123.0	0.0042	34.2	—	—	—	—	—	—	—	—	—	—	57.6	65.6
01/28/2004	Top & bottom PUF	04.07205	—	—	—	E0.11	—	—	E0.04	—	0.24	—	—	—	E0.18	67.9	79.9
	TOTAL					E0.11	—	—	E0.04	—	0.24	—	—	—	E0.18	—	—
02/09/2004	GFF	04.07205	125.6	0.0062	49.4	—	—	—	—	—	0.12	—	—	—	—	62.4	75.2
02/09/2004	Top & bottom PUF	04.07205	—	—	—	E0.08	—	—	E0.02	—	—	—	—	—	E0.12	83.4	97.6
	TOTAL					E0.08	—	—	E0.02	—	0.12	—	—	—	E0.12	—	—
02/21/2004	GFF	04.07205	121.1	0.0054	44.6	—	—	—	—	—	0.08	0.11	0.12	—	—	66.1	76.2
02/21/2004	Top & bottom PUF	04.07205	—	—	—	E0.09	—	0.08	E0.03	—	0.13	—	—	—	E0.14	77.5	87.2
	TOTAL					E0.09	—	0.08	E0.03	—	0.21	0.11	0.12	—	E0.14	—	—
03/04/2004	GFF	04.07205	122.0	0.0076	62.3	—	—	—	—	—	0.10	—	—	—	—	48.4	57.6
03/04/2004	Top & bottom PUF	04.07205	—	—	—	E0.08	—	0.07	—	—	0.10	—	—	—	E0.13	81.5	90.5
	TOTAL					E0.08	—	0.07	—	—	0.10	—	—	—	E0.13	—	—
03/16/2004	GFF	04.24305	149.8	0.0110	73.4	—	—	—	—	—	—	—	—	0.09	—	92.0	113
03/16/2004	Top & bottom PUF	—	—	—	—	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	TOTAL					—	—	—	—	—	—	—	—	0.09	—	—	0.09

Table 12B. Analytical results for pesticide compounds detected in air samples, processed at the U.S. Geological Survey National Water Quality Laboratory, from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Air sampling concentrations in nanogram per cubic meter (ng/m³) unless noted. Laboratory reporting levels are listed on table 11A. **Abbreviations:** E, estimated or having a higher degree of uncertainty; g, gram; m³, cubic meter; GFF, glass fiber filter; mm/dd/yyyy, month/day/year; PUF, polyurethane foam; NA, not analyzed; vol., volume; —, compound was not detected at a concentration above the laboratory reporting level; &, and]

Date (mm/dd/yyyy)	Type	Extraction set number	Air vol. (m ³)	Particle weight (g)	Total suspended particulate (ng/m ³)	Ben- fluoranthene	Carbaryl	Chlor- pyrifos	Dacthal (DCPA)	Desulfinyl- fipronil	Diazinon	cis- permethrin	trans- permethrin	Simazine	Tri- fluralin	α-HCH-δδ, surrogate (percent)	Diazinon- d10, surrogate (percent)
03/28/2004	GFF	04.24305	253.4	0.0156	61.6	—	E0.06	—	E0.04	—	—	0.24	0.28	0.09	—	85.5	112
03/28/2004	Top & bottom PUF	04.24305	—	—	—	E0.08	—	0.18	0.06	—	0.38	E0.10	E0.08	—	E0.19	76.0	103
	TOTAL					E0.08	E0.06	0.18	0.10	—	0.38	0.34	0.36	0.09	E0.19		
04/09/2004	GFF	04.24305	364.0	0.0200	54.9	—	E0.04	—	—	—	—	—	—	E0.05	—	87.4	119
04/09/2004	Top & bottom PUF	04.24305	—	—	—	E0.05	—	0.10	0.09	—	0.11	—	—	—	—	83.8	116
	TOTAL					E0.05	E0.04	0.10	0.09	—	0.11	—	—	—	—		
04/21/2004	GFF	04.24305	401.9	0.0152	37.8	—	—	—	E0.02	—	E0.03	E0.04	E0.02	E0.03	—	84.9	114
04/21/2004	Top & bottom PUF	04.24305	—	—	—	E0.05	—	0.08	0.09	—	0.11	—	—	—	E0.10	78.3	109
	TOTAL					E0.05	—	0.08	0.11	—	0.14	E0.04	E0.02	E0.03	E0.10		
05/03/2004	GFF	04.24305	380.5	0.0234	61.5	—	—	—	—	E0.03	—	E0.09	0.16	E0.05	—	80.7	111
05/03/2004	Top & bottom PUF	04.24305	—	—	—	E0.05	—	0.19	0.05	—	0.64	0.06	—	—	E0.08	68.4	102
	TOTAL					E0.05	E0.04	0.19	0.05	E0.03	0.64	0.14	0.16	E0.05	E0.08		
05/15/2004	GFF	04.24305	393.4	0.0224	56.9	—	E0.04	—	—	—	—	E0.04	E0.02	E0.03	—	72.7	99.7
05/15/2004	Top & bottom PUF	04.24305	—	—	—	E0.04	—	0.11	0.06	—	0.20	—	—	—	E0.09	84.4	121
	TOTAL					E0.04	E0.04	0.11	0.06	—	0.20	E0.04	E0.02	E0.03	E0.09		
05/27/2004	GFF	04.24305	412.2	0.0138	33.5	—	—	—	E0.02	E0.03	—	E0.04	—	—	—	76.9	104
05/27/2004	Top & bottom PUF	04.24305	—	—	—	E0.04	—	0.08	0.07	E0.03	0.15	—	—	—	E0.12	84.9	114
	TOTAL					E0.04	—	0.08	0.09	0.06	0.15	E0.04	—	—	E0.12		
06/08/2004	GFF	04.24305	391.9	0.0154	39.3	—	—	—	E0.02	—	—	—	—	—	—	67.7	96.3
06/08/2004	Top & bottom PUF	04.24305	—	—	—	E0.04	—	0.06	0.07	—	0.08	—	—	—	E0.07	82.7	112
	TOTAL					E0.04	—	0.06	0.09	—	0.08	—	—	—	E0.07		
06/20/2004	GFF	04.24305	396.2	0.0150	37.9	—	E0.04	—	E0.02	E0.03	—	—	—	—	—	79.1	98.2
06/20/2004	Top & bottom PUF	04.24305	—	—	—	E0.04	—	0.07	0.06	—	0.08	—	—	—	E0.06	58.2	81.3
	TOTAL					E0.04	E0.04	0.07	0.08	E0.03	0.08	—	—	—	E0.06		
07/02/2004	GFF	04.24305	401.7	0.0138	34.4	—	—	—	—	E0.03	—	—	—	—	—	77.5	99.2
07/02/2004	Top & bottom PUF	04.24305	—	—	—	E0.04	—	0.09	0.06	—	0.18	—	—	—	E0.08	99.8	136
	TOTAL					E0.04	—	0.09	0.06	E0.03	0.18	—	—	—	E0.08		
07/14/2004	GFF	04.24305	401.3	0.0184	45.9	—	E0.04	—	—	E0.03	—	E0.06	0.09	—	—	82.5	116
07/14/2004	Top & bottom PUF	04.24305	—	—	—	E0.04	—	0.17	0.06	—	E0.03	—	—	—	E0.08	89.3	125
	TOTAL					E0.04	E0.04	0.17	0.06	E0.03	E0.03	E0.06	0.09	—	E0.08		
07/26/2004	GFF	04.24305	386.9	0.0170	43.9	—	E0.04	—	—	E0.03	—	E0.05	0.09	—	—	77.2	102
07/26/2004	Top & bottom PUF	04.24305	—	—	—	E0.04	—	0.11	0.07	—	0.31	E0.05	0.04	—	E0.06	69.4	94.8
	TOTAL					E0.04	E0.04	0.11	0.07	E0.03	0.31	0.11	0.13	—	E0.06		
08/19/2004	GFF	04.24305	396.7	0.0166	41.8	—	E0.04	—	—	E0.03	—	E0.05	0.06	—	—	78.3	112
08/19/2004	Top & bottom PUF	04.24305	—	—	—	E0.04	—	0.12	0.05	E0.03	0.12	—	—	—	E0.08	83.6	117
	TOTAL					E0.04	E0.04	0.12	0.05	0.06	0.12	E0.05	0.06	—	E0.08		

Table 13. Analytical results for metals in air samples, processed at the U.S. Geological Survey Geologic Division laboratory, collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

(Table 13 is provided separately as a Microsoft Excel® worksheet.)

Surficial Bed-Sediment Methods

Surficial bed-sediment samples were collected by using a stainless steel 15 by 15 by 15 cm Ekman grab sampler (Wildco, Saginaw, Mich.). The sampler was cleaned with a mild soap solution and rinsed with deionized water prior to sampling and between samples. After the boat was anchored (connected to a buoy at the surface) at each sampling site, the sampler was lowered to the bottom of the reservoir; a messenger was then lowered to close the sampler. The sampler was brought to the surface, and the top 1 cm was subsampled for analysis. The sample from site LFDD was collected by wading into the river and scooping a sample into the appropriate bottle. Surficial bed-sediment samples were analyzed for 37 metals using methods described in Fishman (1993) and Garbarino and others (2006) at the USGS Crustal Geophysics and Geochemistry Science Center (Geologic Division Laboratory) in Denver, Colorado. Surficial bed-sediment samples were also analyzed for organic constituents—22 parent PAHs, 10 specific alkyl-PAH isomers, a homologous series of 25 alkyl-PAH isomers, total PCBs, and 16 OC pesticides—using methods described by Noriega and others (2004) and Olson and others (2004).

Surficial Bed-Sediment Quality Assurance

Two types of QC samples were used for quality assuring bed sediment data—matrix spikes and replicates. Additionally, surrogate compounds were added to PAH and OC samples at the laboratory to monitor sample-specific performance of the analytical method. For PAHs, surrogates 2-fluorobiphenyl, nitrobenzene-*d*5, and *p*-terphenyl-*d*14 were added. For OCs, surrogates *a*-HCH-*d*6, isodrin, and nonachlorobiphenyl were added.

Replicate samples were processed for PAHs, OCs, and metals. Two types of soil standard reference material (SRM) were used as QC checks of the digestion process and instrument calibration for the analysis of metals in surficial bed sediment for 2004 samples; they are the NIST 2709 (National Institute of Standards and Technology, 1991a) and the Canadian Certified Reference Materials Project (CCRMP) SO-2 and SO-4 standards (Potts and others, 1992). Only the NIST 2709 soil SRM was used for the 2009 sampling.

Surficial Bed-Sediment Results

Surficial bed-sediment samples collected for PAHs in October 2004 and August 2009 are given in table 14. Of the 53 compounds analyzed for PAHs, 22 compounds had 1 or more detections, of which, 10 were detected in about

½ of the samples. Surficial bed-sediment samples collected for OCs in August 2009 are given in table 15. Of the 22 compounds analyzed for OCs, only 6 compounds had 1 or more detections. Surficial bed-sediment samples collected for 37 metals in October 2004 and August 2009 are given in table 16; silver was the only metal not detected.

Summary

The primary objective of this study was to monitor changes in composition and concentration of compounds in the air and water before, during, and after the construction of a major thoroughfare (State Route 125) being built upwind of the Sweetwater Reservoir. To accomplish this, the study was divided into three phases. Phase One sampling started in September 1998 and was designed to establish baseline conditions for target compounds (primary sampling) in terms of detection frequency and concentration of select organic and inorganic compounds in air and water. Phase Two sampling began October 2004 and lasted 3 years. Phase Two was designed to monitor the air and water quality in and around the Sweetwater Reservoir during construction of State Route 125. Phase Three sampling began in October 2007, after construction of the roadway was completed, to assess the effect this alignment project may have on the water quality in the Sweetwater Reservoir. Phase Three sampling ended in August 2009. This report provides data from water, air, and surficial bed-sediment samples that were collected from October 2003 through August 2009 (water years 2004–09). This report is the fourth in a series of reports that describe the monitoring activities and present the data. Interpretative analysis of the environmental and quality-control data for targeted compounds to address the objectives of the study is not included in this data report.

Prior to any reservoir water sampling, depth profiles of dissolved oxygen, pH, specific conductance, and water temperature were recorded at each reservoir sampling location. Compounds analyzed in water samples and their results are in tables 4A to 9B. Compounds analyzed in air samples and their results are in tables 10A through 13. Compounds analyzed in surficial bed-sediment samples are given in tables 14 through 16. Quality-control data for all compounds are located in appendixes A–C. Quality-control data for compounds in water samples are in tables A1A to A6C. Quality-control data for compounds in air samples are in tables B1A to B6C. Quality-control data for surficial bed-sediment samples are in tables C1 to C3C.

Table 14. Analytical results for polycyclic aromatic hydrocarbon (PAHs) compounds in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 2506, 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 data parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; LRL, laboratory reporting level; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight (grams) (62597)	Acenaphthene (62549)	Acenaphthylene (62550)	Anthracene (62551)	Benzo[a]anthracene (62552)	Benzo[a]pyrene (62553)	Benzo[b]fluoranthene (62554)	Benzo[e]pyrene (62555)	Benzo[g,h,i]perylene (62556)
[LRL]	[90,30,10]	[90,10]	[90,10]	[90,10]	[90,10]	[90,10]	[90,10]	[90,10]	[90,10]	[90,10]
Sweetwater Reservoir near pump tower (SWR01)										
10/13/2004	11:00	2.8	—	—	—	—	—	—	—	—
08/10/2009	12:45	3.2	—	—	—	—	—	—	—	—
Sweetwater Reservoir near Vista del Lago station (SWR02)										
08/10/2009	13:00	12.9	—	—	—	—	E10	E5.8	—	—
Sweetwater Reservoir center minimum pool (SWR03)										
10/13/2004	11:40	8.9	—	—	—	—	—	—	—	—
08/10/2009	13:15	8.4	—	—	—	—	E20	—	—	—
Sweetwater Reservoir near recreation area (SWR04)										
08/10/2009	13:30	9.1	—	—	—	—	E20	—	—	—
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)										
10/13/2004	12:20	19.2	—	—	—	—	—	—	—	—
10/13/2004	16:20	25.0	—	—	—	—	—	—	—	—
08/10/2009	14:00	19.9	—	—	—	—	E4.6	—	—	—
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)										
10/13/2004	15:30	19.1	—	—	—	—	—	—	—	—
08/10/2009	14:30	13.5	—	—	—	E8.5	—	—	—	—
Loveland Reservoir near dam (LLR01)										
10/14/2004	11:10	8.7	—	—	—	—	—	—	—	—
08/11/2009	11:45	8.3	—	—	—	—	E20	—	—	—
Loveland Reservoir east-end near inlet (LLR02)										
10/14/2004	12:00	22.7	—	—	—	—	—	—	—	—
08/11/2009	12:00	10.9	—	—	—	20	20	40	20	—

Table 14. Analytical results for polycyclic aromatic hydrocarbon (PAHs) compounds in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 2506, 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 data parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; LRL, laboratory reporting level; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight (grams) (62597)	Benzo[k] fluoranthene (62557)	Chrysene (62558)	1,2- Dimethylnaphthalene (62538)	1,6- Dimethylnaphthalene (62539)	4H- Cyclopenta[def] phenanthrene (62547)	Dibenzo[a,h] anthracene (62560)	2,6- Dimethylnaphthalene (62544)	2- Ethynaphthalene (62545)
[LRL]	[90, 10]	[90, 10]	[90, 10]	[90, 10]	[90, 10]	[90, 10]	[90, 10]	[90, 10]	[90, 10]	[90, 10]
Sweetwater Reservoir near pump tower (SWR01)										
10/13/2004	11:00	2.8	—	—	—	130	—	—	510	—
08/10/2009	12:45	3.2	—	—	—	20	—	—	140	—
Sweetwater Reservoir near Vista del Lago station (SWR02)										
08/10/2009	13:00	12.9	—	E3.3	—	E7.5	—	—	60	—
Sweetwater Reservoir center minimum pool (SWR03)										
10/13/2004	11:40	8.9	—	—	—	40	—	—	170	—
08/10/2009	13:15	8.4	—	E3.3	—	30	—	—	270	—
Sweetwater Reservoir near recreation area (SWR04)										
08/10/2009	13:30	9.1	—	—	—	E10	—	—	100	—
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)										
10/13/2004	12:20	19.2	—	—	—	—	—	—	30	—
10/13/2004	16:20	25.0	—	—	—	—	—	—	—	—
08/10/2009	14:00	19.9	—	E1.4	—	—	—	—	—	—
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)										
10/13/2004	15:30	19.1	—	—	—	—	—	—	90	—
08/10/2009	14:30	13.5	—	E5.7	E3.4	E20	—	—	E30	E5.5
Loveland Reservoir near dam (LLR01)										
10/14/2004	11:10	8.7	—	—	—	50	—	—	200	—
08/11/2009	11:45	8.3	—	E4.1	—	—	—	—	260	—
Loveland Reservoir east-end near inlet (LLR02)										
10/14/2004	12:00	22.7	—	—	—	—	—	—	—	—
08/11/2009	12:00	10.9	—	20	—	10	—	—	—	—

Table 14. Analytical results for polycyclic aromatic hydrocarbon (PAHs) compounds in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 2506, 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 data parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; LRL, laboratory reporting level; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight (grams) (62597)	Fluoranthene (62561)	9H- Fluorene (62548)	Indeno[1,2,3-cd]pyrene (62562)	1-Methyl-9H- fluorene (62540)	2- Methylanthracene (62546)	1- Methylphenanthrene (62541)	1- Methylpyrene (62542)	Naphthalene (62563)
			[LRL] [90, 10]	[90, 10]	[90, 10]	[90, 10]	[90, 10]	[90, 10]	[90, 10]	[90, 10]
Sweetwater Reservoir near pump tower (SWR01)										
10/13/2004	11:00	2.8	—	—	—	—	—	—	—	—
08/10/2009	12:45	3.2	E20	—	—	—	—	—	—	20
Sweetwater Reservoir near Vista del Lago station (SWR02)										
08/10/2009	13:00	12.9	E10	—	—	—	—	—	—	E3.4
Sweetwater Reservoir center minimum pool (SWR03)										
10/13/2004	11:40	8.9	E20	—	—	—	—	—	—	—
08/10/2009	13:15	8.4	E10	—	—	—	—	—	—	E3.7
Sweetwater Reservoir near recreation area (SWR04)										
08/10/2009	13:30	9.1	E10	—	—	—	—	—	—	E4.2
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)										
10/13/2004	12:20	19.2	—	—	—	—	—	—	—	—
10/13/2004	16:20	25.0	E9.2	—	—	—	—	—	—	—
08/10/2009	14:00	19.9	E4.1	—	—	—	—	—	—	—
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)										
10/13/2004	15:30	19.1	—	—	—	—	—	—	—	—
08/10/2009	14:30	13.5	E10	—	—	—	—	—	—	E40
Loveland Reservoir near dam (LLR01)										
10/14/2004	11:10	8.7	E30	—	—	—	—	—	—	—
08/11/2009	11:45	8.3	E10	—	—	—	—	—	—	E2.9
Loveland Reservoir east-end near inlet (LLR02)										
10/14/2004	12:00	22.7	—	—	—	—	—	—	—	—
08/11/2009	12:00	10.9	30	—	—	—	—	—	—	E10

Table 14. Analytical results for polycyclic aromatic hydrocarbon (PAHs) compounds in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 2506, 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 data parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; LRL, laboratory reporting level; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight (grams)	Perylene (62565)	Phenanthrene (62566)	Pyrene (62568)	2,3,6- Trimethylnaphthalene (62543)	C1-128 Isomers (62569)	C1-178 Isomers (62570)	C1-202 Isomers (62571)	C1-228 Isomers (62572)
			[90, 10]	[90, 10]	[90, 10]	[90, 10]	[90, 10]	[210, 10]	[130, 10]	[90, 10]
Sweetwater Reservoir near pump tower (SWR01)										
10/13/2004	11:00	2.8	—	—	—	—	E190	—	—	—
08/10/2009	12:45	3.2	—	E30	E10	—	E220	E170	—	—
Sweetwater Reservoir near Vista del Lago station (SWR02)										
08/10/2009	13:00	12.9	90	E10	E10	—	E110	E50	—	—
Sweetwater Reservoir center minimum pool (SWR03)										
10/13/2004	11:40	8.9	160	—	E20	—	E40	—	—	—
08/10/2009	13:15	8.4	240	—	E10	—	E290	E130	—	—
Sweetwater Reservoir near recreation area (SWR04)										
08/10/2009	13:30	9.1	160	—	E10	—	E200	E60	—	—
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)										
10/13/2004	12:20	19.2	30	—	—	—	E9	—	—	—
10/13/2004	16:20	25.0	—	—	E7.2	—	—	—	—	—
08/10/2009	14:00	19.9	E4.3	E3.7	E3.6	—	E20	E10	—	—
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)										
10/13/2004	15:30	19.1	—	—	—	—	E20	—	—	—
08/10/2009	14:30	13.5	—	E30	E10	E4.3	E120	E70	E10	—
Loveland Reservoir near dam (LLR01)										
10/14/2004	11:10	8.7	80	—	E20	—	E50	—	—	—
08/11/2009	11:45	8.3	E70	E7.8	E10	—	E300	E160	—	—
Loveland Reservoir east-end near inlet (LLR02)										
10/14/2004	12:00	22.7	—	—	—	—	—	—	—	—
08/11/2009	12:00	10.9	30	30	30	—	E220	E80	E20	—

Table 14. Analytical results for polycyclic aromatic hydrocarbon (PAHs) compounds in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 2506, 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 data parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; LRL, laboratory reporting level; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight (grams) (62597)	[LRL]									
			C1-252 Isomers (62573)	C2-128 Isomers (62574)	C2-178 Isomers (62575)	C2-202 Isomers (62576)	C2-228 Isomers (62577)	C2-252 Isomers (62578)	C3-128 Isomers (62579)	C3-178 Isomers (62580)		
10/13/2004	11:00	2.8	—	E650	—	—	—	—	—	—	—	—
08/10/2009	12:45	3.2	—	E190	—	—	—	—	—	—	—	—
Sweetwater Reservoir near Vista del Lago station (SWR02)												
08/10/2009	13:00	12.9	—	E80	—	—	—	—	—	—	—	—
Sweetwater Reservoir center minimum pool (SWR03)												
10/13/2004	11:40	8.9	—	E210	—	—	—	—	—	—	—	—
08/10/2009	13:15	8.4	—	E310	—	—	—	—	—	—	—	—
Sweetwater Reservoir near recreation area (SWR04)												
08/10/2009	13:30	9.1	—	E120	—	—	—	—	—	—	—	—
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)												
10/13/2004	12:20	19.2	—	E40	—	—	—	—	—	—	—	—
10/13/2004	16:20	25.0	—	—	—	—	—	—	—	—	—	—
08/10/2009	14:00	19.9	—	E10	—	—	—	—	—	—	—	—
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)												
10/13/2004	15:30	19.1	—	E100	—	—	—	—	—	—	—	—
08/10/2009	14:30	13.5	—	E80	—	E80	—	—	—	E180	—	—
Loveland Reservoir near dam (LLR01)												
10/14/2004	11:10	8.7	—	E260	—	—	—	—	—	E100	—	—
08/11/2009	11:45	8.3	—	E280	—	—	—	—	—	—	—	—
Loveland Reservoir east-end near inlet (LLR02)												
10/14/2004	12:00	22.7	—	—	—	—	—	—	—	—	—	—
08/11/2009	12:00	10.9	—	E100	—	—	—	—	—	—	—	—

Table 14. Analytical results for polycyclic aromatic hydrocarbon (PAHs) compounds in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 2506, 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 data parameter code in parentheses below each compound name is used in the U.S. Geological Survey computer-processed data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level]

Date (mm/dd/yyyy) (hh:mm)	Time	Sample weight (grams) (62597)	C3-202 Isomers (62581)	C3-228 Isomers (62582)	C3-252 Isomers (62583)	C4-128 Isomers (62584)	C4-178 Isomers (62585)	C4-202 Isomers (62586)	C4-228 Isomers (62587)	C4-252 Isomers (62588)
			[130, 10]	[130, 10]	[180, 10]	[400, 10]	[90, 10]	[120, 10]	[300, 10]	[200, 10]
			Sweetwater Reservoir near pump tower (SWR01)							
10/13/2004	11:00	2.8	—	—	—	—	—	—	—	—
08/10/2009	12:45	3.2	—	—	—	—	—	—	—	—
			Sweetwater Reservoir near Vista del Lago station (SWR02)							
08/10/2009	13:00	12.9	—	—	—	—	—	—	—	—
			Sweetwater Reservoir center minimum pool (SWR03)							
10/13/2004	11:40	8.9	—	—	—	—	—	—	—	—
08/10/2009	13:15	8.4	—	—	—	—	—	—	—	—
			Sweetwater Reservoir near recreation area (SWR04)							
08/10/2009	13:30	9.1	—	—	—	—	—	—	—	—
			Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)							
10/13/2004	12:20	19.2	—	—	—	—	—	—	—	—
10/13/2004	16:20	25.0	—	—	—	—	—	—	—	—
08/10/2009	14:00	19.9	—	—	—	—	—	—	—	—
			Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)							
10/13/2004	15:30	19.1	—	—	—	—	—	—	—	—
08/10/2009	14:30	13.5	E120	—	—	—	—	—	—	—
			Loveland Reservoir near dam (LLR01)							
10/14/2004	11:10	8.7	—	—	—	—	—	—	—	—
08/11/2009	11:45	8.3	—	—	—	—	—	—	—	—
			Loveland Reservoir east-end near inlet (LLR02)							
10/14/2004	12:00	22.7	—	—	—	—	—	—	—	—
08/11/2009	12:00	10.9	—	—	—	—	—	—	—	—

Table 14. Analytical results for polycyclic aromatic hydrocarbon (PAHs) compounds in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 2506, 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 data parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are reported as micrograms per kilogram (µg/kg), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; LRL, laboratory reporting level; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight (grams) (62597)	C5-128 Isomers (62589)		C5-178 Isomers (62590)	C5-202 Isomers (62591)	C5-228 Isomers (62592)	C5-252 Isomers (62593)	2-Fluorobiphenyl, surrogate (percent) (62594)	Nitrobenzene-d5, surrogate (percent) (62595)	p-Terphenyl-d14, surrogate (percent) (62596)
			[LRL]	[200, 10]	[200, 10]	[100, 10]	[500, 10]	[200, 10]			
Sweetwater Reservoir near pump tower (SWR01)											
10/13/2004	11:00	2.8	—	—	—	—	—	—	58.7	61.3	E38.3
08/10/2009	12:45	3.2	—	—	—	—	—	—	66.4	70.1	65.1
Sweetwater Reservoir near Vista del Lago station (SWR02)											
08/10/2009	13:00	12.9	—	—	—	—	—	—	65.5	67.9	70.0
Sweetwater Reservoir center minimum pool (SWR03)											
10/13/2004	11:40	8.9	—	—	—	—	—	—	61.1	49.1	58.7
08/10/2009	13:15	8.4	—	—	—	—	—	—	67.9	69.4	70.3
Sweetwater Reservoir near recreation area (SWR04)											
08/10/2009	13:30	9.1	—	—	—	—	—	—	55.7	59.5	61.3
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)											
10/13/2004	12:20	19.2	—	—	—	—	—	—	59.3	57.5	75.5
10/13/2004	16:20	25.0	—	—	—	—	—	—	62.1	53.2	63.1
08/10/2009	14:00	19.9	—	—	—	—	—	—	62.8	66.0	78.9
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)											
10/13/2004	15:30	19.1	—	—	—	—	—	—	63.2	59.3	65.1
08/10/2009	14:30	13.5	—	—	—	—	—	—	67.4	69.3	71.4
Loveland Reservoir near dam (LLR01)											
10/14/2004	11:10	8.7	—	—	—	—	—	—	64.9	65.2	55.2
08/11/2009	11:45	8.3	—	—	—	—	—	—	66.4	68.9	68.2
Loveland Reservoir east-end near inlet (LLR02)											
10/14/2004	12:00	22.7	—	—	—	—	—	—	52.9	45.5	73.2
08/11/2009	12:00	10.9	—	—	—	—	—	—	74.7	74.5	76.9

Table 15. Analytical results for organochlorine (OCs) and polychlorinated biphenyl (PCBs) compounds in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 5504, 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 data parameter code, is used in the U.S. Geological Survey National Water Information System (National Water Information System) to uniquely identify a specific constituent or property. All values are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time weight (hh:mm)	Aldrin (39333) (62597)	Aroclor 1016 plus Aroclor 1242 (46343)	Aroclor 1254 (39507)	Aroclor 1260 (39511)	cis-Chlordane (62802)	trans-Chlordane (62803)	p,p'-DDD (39363)	p,p'-DDE (39368)	p,p'-DDT (39373)
Sweetwater Reservoir near pump tower (SWR01)	08/10/2009	12:45	— 3.2	—	—	52	—	—	—	—	—
Sweetwater Reservoir near Vista del Lago station (SWR02)	08/10/2009	13:00	12.9	E2.2	—	E5	—	—	—	1.9	—
Sweetwater Reservoir center minimum pool (SWR03)	08/10/2009	13:15	8.4	—	—	—	—	—	—	—	—
Sweetwater Reservoir near recreation area (SWR04)	08/10/2009	13:30	9.1	—	—	—	—	—	—	—	—
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	08/10/2009	14:00	19.9	—	—	—	—	—	—	E0.8	—
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)	08/10/2009	14:30	13.5	—	E3	8	—	E0.4	—	—	—
Loveland Reservoir near dam (LLR01)	08/11/2009	11:45	8.3	—	—	—	—	—	—	—	—
Loveland Reservoir east-end near inlet (LLR02)	08/11/2009	12:00	10.9	—	—	—	—	—	—	—	—

Table 15. Analytical results for organochlorine (OCs) and polychlorinated biphenyl (PCBs) compounds in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 5504, 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 data 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. All values are reported as micrograms per kilogram ($\mu\text{g}/\text{kg}$), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight (grams) (62597)	Dieldrin (39383)	α -Endosulfan (39389)	Endrin (39393)	α -HCH (39076)	β -HCH (34257)	Heptachlor (39413)	Heptachlor epoxide (39423)	Hexa- chlorobenzene (39701)
Sweetwater Reservoir near pump tower (SWR01)	08/10/2009	12:45	3.2	—	—	—	—	—	—	—	—
Sweetwater Reservoir near Vista del Lago station (SWR02)	08/10/2009	13:00	12.9	—	—	—	—	—	—	—	—
Sweetwater Reservoir center minimum pool (SWR03)	08/10/2009	13:15	8.4	—	—	—	—	—	—	—	—
Sweetwater Reservoir near recreation area (SWR04)	08/10/2009	13:30	9.1	—	—	—	—	—	—	—	—
Sweetwater Reservoir east- end reservoir-fill boundary (SWR06)	08/10/2009	14:00	19.9	—	—	—	—	—	—	—	—
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)	08/10/2009	14:30	13.5	—	—	—	—	—	—	—	—
Loveland Reservoir near dam (LLR01)	08/11/2009	11:45	8.3	—	—	—	—	—	—	—	—
Loveland Reservoir east-end near inlet (LLR02)	08/11/2009	12:00	10.9	—	—	—	—	—	—	—	—

Table 15. Analytical results for organochlorine (OCs) and polychlorinated biphenyl (PCBs) compounds in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 5504, 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 data 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. All values are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight (grams) (62597)	Lindane (39343)	<i>p,p'</i> - Methoxychlor (39481)	Mirex (39758)	<i>trans</i> - Nonachlor (62804)	Toxaphene (39403)	α -HCH- δ 6, surrogate (percent) (62837)	Isodrin, surrogate (percent) (62836)	Nonachlorobiphenyl, surrogate (percent) (62838)
Sweetwater Reservoir near pump tower (SWR01)	08/10/2009	12:45	3.2	—	—	—	—	—	59.6	71.1	69.1
Sweetwater Reservoir near Vista del Lago station (SWR02)	08/10/2009	13:00	12.9	—	—	—	—	—	93.8	108	112
Sweetwater Reservoir center minimum pool (SWR03)	08/10/2009	13:15	8.4	—	—	—	—	—	59.5	69.2	70.7
Sweetwater Reservoir near recreation area (SWR04)	08/10/2009	13:30	9.1	—	—	—	—	—	66.7	89.4	79.6
Sweetwater Reservoir east- end reservoir-fill boundary (SWR06)	08/10/2009	14:00	19.9	—	—	—	—	—	74.4	37.7	38.2
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)	08/10/2009	14:30	13.5	—	—	—	E0.7	—	68.2	67.9	72.6
Loveland Reservoir near dam (LLR01)	08/11/2009	11:45	8.3	—	—	—	—	—	59.5	51.6	72.0
Loveland Reservoir east-end near inlet (LLR02)	08/11/2009	12:00	10.9	—	—	—	—	—	50.0	69.6	70.2

Table 16. Analytical results for metals in surficial bed-sediment samples, using the U.S. Geological Survey Geologic Division laboratory, collected from the Sweetwater Reservoir watershed, San Diego County, California.

[See table 1 for site-identification number. Time is denoted in 24-hour scale. Concentrations are reported as milligrams per kilogram (mg/kg). **Abbreviations:** hh:mm, hour:minute; LRL, laboratory reporting level; mm/dd/yyyy, month/day/year; NA, not analyzed; —, compound was not detected at a concentration above the laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Aluminum		Antimony	Arsenic	Barium	Beryllium	Bismuth	Cadmium
			[LRL]	[50]						
Sweetwater Reservoir near pump tower (SWR01)	10/13/2004	11:00		22,500	1.8	NA	570	0.41	0.08	0.14
Sweetwater Reservoir near pump tower (SWR01)	08/10/2009	12:45		19,900	0.91	64.7	466	0.58	0.06	0.07
Sweetwater Reservoir near Vista del Lago station (SWR02)	08/10/2009	13:00		86,400	0.58	6.9	450	1.3	0.18	0.24
Sweetwater Reservoir center minimum pool (SWR03)	10/13/2004	11:40		110,000	0.70	NA	457	1.3	0.19	0.23
Sweetwater Reservoir center minimum pool (SWR03)	08/10/2009	13:15		95,000	0.34	7.2	472	1.4	0.15	0.27
Sweetwater Reservoir near recreation area (SWR04)	08/10/2009	13:30		89,900	0.34	6.8	480	1.4	0.14	0.24
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	12:20		90,800	0.23	NA	487	1.1	0.07	0.14
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	16:20		92,300	0.25	NA	467	0.99	0.06	0.17
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	08/10/2009	14:00		95,800	—	2.5	600	1.7	—	0.15
Sweetwater River at low-flow diversion upstream from Sweetwater Reservoir (LFDD)	10/13/2004	15:30		80,400	0.23	NA	407	0.77	—	0.10
Sweetwater River at low-flow diversion upstream from Sweetwater Reservoir (LFDD)	08/10/2009	14:30		74,800	0.66	13.7	490	1.3	0.07	0.26
Loveland Reservoir near dam (LLR01)	10/14/2004	11:10		112,000	0.71	NA	598	1.3	0.16	0.27
Loveland Reservoir near dam (LLR01)	08/11/2009	11:45		121,000	0.10	7.3	586	1.5	0.14	0.24
Loveland Reservoir east-end near source inlet (LLR02)	10/14/2004	12:00		91,500	0.2	NA	355	0.81	—	0.08
Loveland Reservoir east-end near source inlet (LLR02)	08/11/2009	12:00		109,000	—	4.9	470	1.3	0.11	0.27
Sweetwater Reservoir atmospheric site at Sweetwater Dam (AIR01)	10/14/2004	14:30		88,700	0.78	NA	370	0.65	0.09	0.26

Table 16. Analytical results for metals in surficial bed-sediment samples, using the U.S. Geological Survey Geologic Division laboratory, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. Concentrations are reported as milligrams per kilogram (mg/kg). **Abbreviations:** hh:mm, hour:minute; LRL, laboratory reporting level; mm/dd/yyyy, month/day/year; NA, not analyzed; —, compound was not detected at a concentration above the laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Calcium [100]	Cerium [0.1]	Cesium [0.003]	Chromium [0.5]	Cobalt [0.03]	Copper [2]
Sweetwater Reservoir near pump tower (SWR01)	10/13/2004	11:00	27,400	14.6	0.97	62.7	22.4	102
Sweetwater Reservoir near pump tower (SWR01)	08/10/2009	12:45	25,600	13.7	0.94	78.0	13.8	198
Sweetwater Reservoir near Vista del Lago station (SWR02)	08/10/2009	13:00	36,400	44.4	3.1	50.7	22.3	86.1
Sweetwater Reservoir center minimum pool (SWR03)	10/13/2004	11:40	27,600	59.1	5.3	69.9	22.3	113
Sweetwater Reservoir center minimum pool (SWR03)	08/10/2009	13:15	38,700	54.0	5.0	64.4	20.1	114
Sweetwater Reservoir near recreation area (SWR04)	08/10/2009	13:30	38,700	51.9	4.3	56.6	23.0	106
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	12:20	38,400	41.2	3.9	65.2	21.8	26.2
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	16:20	42,800	32.0	3.6	62.3	21.1	29.0
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	08/10/2009	14:00	36,800	44.2	5.0	69.5	24.6	36.4
Sweetwater River at low-flow diversion upstream from Sweetwater Reservoir (LFDD)	10/13/2004	15:30	44,100	17.8	1.1	31.5	11.5	9.2
Sweetwater River at low-flow diversion upstream from Sweetwater Reservoir (LFDD)	08/10/2009	14:30	27,500	30.7	4.1	24.1	9.9	23.8
Loveland Reservoir near dam (LLR01)	10/14/2004	11:10	28,700	87.6	5.8	50.3	21.7	59.6
Loveland Reservoir near dam (LLR01)	08/11/2009	11:45	17,800	74.9	6.2	56.5	22.3	62.7
Loveland Reservoir east-end near source inlet (LLR02)	10/14/2004	12:00	39,900	17.6	1.6	31.2	12.4	12.5
Loveland Reservoir east-end near source inlet (LLR02)	08/11/2009	12:00	25,700	49.7	5.5	71.8	30.8	71.3
Sweetwater Reservoir atmospheric site at Sweetwater Dam (AIR01)	10/14/2004	14:30	44,400	44.2	4.7	56.9	34.1	102

Table 16. Analytical results for metals in surficial bed-sediment samples, using the U.S. Geological Survey Geologic Division laboratory, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. Concentrations are reported as milligrams per kilogram (mg/kg). **Abbreviations:** hh:mm, hour:minute; LRL, laboratory reporting level; mm/dd/yyyy, month/day/year; NA, not analyzed; —, compound was not detected at a concentration above the laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Gallium [0.02] [LRL]	Iron [50]	Lanthanum [0.05]	Lead [0.4]	Lithium [0.3]	Magnesium [6]
Sweetwater Reservoir near pump tower (SWR01)	10/13/2004	11:00	7.2	295,000	7.9	7.46	8.8	4,580
Sweetwater Reservoir near pump tower (SWR01)	08/10/2009	12:45	6.1	205,000	7.1	7.82	13.0	3,880
Sweetwater Reservoir near Vista del Lago station (SWR02)	08/10/2009	13:00	16.9	57,600	22.6	17.4	34.9	13,600
Sweetwater Reservoir center minimum pool (SWR03)	10/13/2004	11:40	22.5	74,600	32.3	20.1	54.6	15,200
Sweetwater Reservoir center minimum pool (SWR03)	08/10/2009	13:15	20.7	67,600	28.2	20.6	52.2	14,300
Sweetwater Reservoir near recreation area (SWR04)	08/10/2009	13:30	18.4	55,900	27.0	20.4	43.1	13,500
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	12:20	18.2	58,900	21.6	9.72	21.4	21,600
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	16:20	18.2	57,600	16.6	10.2	21.8	23,600
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	08/10/2009	14:00	19.5	59,600	22.4	11.7	31.8	22,400
Sweetwater River at low-flow diversion upstream from Sweetwater Reservoir (LFDD)	10/13/2004	15:30	13.8	31,400	8.8	7.74	7.0	12,100
Sweetwater River at low-flow diversion upstream from Sweetwater Reservoir (LFDD)	08/10/2009	14:30	15.8	41,900	15.9	27.3	19.7	8,420
Loveland Reservoir near dam (LLR01)	10/14/2004	11:10	24.1	65,500	44.8	26.3	50.4	12,100
Loveland Reservoir near dam (LLR01)	08/11/2009	11:45	25.3	66,400	38.6	25.3	54.9	12,500
Loveland Reservoir east-end near source inlet (LLR02)	10/14/2004	12:00	15.4	33,200	9.3	7.47	7.6	13,000
Loveland Reservoir east-end near source inlet (LLR02)	08/11/2009	12:00	21.4	73,400	26.5	22.9	38.4	17,700
Sweetwater Reservoir atmospheric site at Sweetwater Dam (AIR01)	10/14/2004	14:30	18.3	87,600	20.8	13.6	21.3	30,100

Table 16. Analytical results for metals in surficial bed-sediment samples, using the U.S. Geological Survey Geologic Division laboratory, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. Concentrations are reported as milligrams per kilogram (mg/kg). **Abbreviations:** hh:mm, hour:minute; LRL, laboratory reporting level; mm/dd/yyyy, month/day/year; NA, not analyzed; —, compound was not detected at a concentration above the laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Manganese [0.7] [LRL]	Molybdenum [0.05]	Nickel [0.3]	Niobium [0.1]	Phosphorus [5]	Potassium [20]
Sweetwater Reservoir near pump tower (SWR01)	10/13/2004	11:00	7,240	6.6	25.1	5.0	3,300	2,580
Sweetwater Reservoir near pump tower (SWR01)	08/10/2009	12:45	4,570	3.1	30.6	2.6	2,770	2,510
Sweetwater Reservoir near Vista del Lago station (SWR02)	08/10/2009	13:00	1,190	1.3	18.9	8.4	681	11,600
Sweetwater Reservoir center minimum pool (SWR03)	10/13/2004	11:40	1,570	2.2	30.1	12.0	1,040	13,000
Sweetwater Reservoir center minimum pool (SWR03)	08/10/2009	13:15	1,650	2.2	27.0	9.6	1,110	11,800
Sweetwater Reservoir near recreation area (SWR04)	08/10/2009	13:30	1,460	1.4	23.8	9.4	736	12,900
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	12:20	1,200	0.51	15.9	11.0	345	14,700
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	16:20	1,100	0.49	16.3	9.7	413	14,400
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	08/10/2009	14:00	1,080	0.24	20.6	11.0	439	16,800
Sweetwater River at low-flow diversion upstream from Sweetwater Reservoir (LFDD)	10/13/2004	15:30	891	0.30	5.0	4.8	186	11,700
Sweetwater River at low-flow diversion upstream from Sweetwater Reservoir (LFDD)	08/10/2009	14:30	1,750	1.3	8.0	10.0	661	13,800
Loveland Reservoir near dam (LLR01)	10/14/2004	11:10	4,580	8.0	23.0	13.0	1,060	13,200
Loveland Reservoir near dam (LLR01)	08/11/2009	11:45	3,180	3.2	25.7	12.0	1,080	13,900
Loveland Reservoir east-end near source inlet (LLR02)	10/14/2004	12:00	622	0.28	7.1	3.5	165	11,100
Loveland Reservoir east-end near source inlet (LLR02)	08/11/2009	12:00	1,120	1.2	33.8	8.4	874	13,600
Sweetwater Reservoir atmospheric site at Sweetwater Dam (AIR01)	10/14/2004	14:30	1,560	0.74	20.6	8.1	1,380	14,000

Table 16. Analytical results for metals in surficial bed-sediment samples, using the U.S. Geological Survey Geologic Division laboratory, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. Concentrations are reported as milligrams per kilogram (mg/kg). **Abbreviations:** hh:mm, hour:minute; LRL, laboratory reporting level; mm/dd/yyyy, month/day/year; NA, not analyzed; —, compound was not detected at a concentration above the laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Rubidium [LRL] [0.01]	Scandium [0.04] [0.04]	Silver [2] [2]	Sodium [20] [20]	Strontium [0.8] [0.8]	Thallium [0.08] [0.08]
Sweetwater Reservoir near pump tower (SWR01)	10/13/2004	11:00	14.2	5.7	—	3,050	436	0.11
Sweetwater Reservoir near pump tower (SWR01)	08/10/2009	12:45	14.5	5.2	—	2,980	170	2.52
Sweetwater Reservoir near Vista del Lago station (SWR02)	08/10/2009	13:00	58.1	22.8	—	15,100	227	8.30
Sweetwater Reservoir center minimum pool (SWR03)	10/13/2004	11:40	81.3	27.6	—	5,320	201	0.61
Sweetwater Reservoir center minimum pool (SWR03)	08/10/2009	13:15	75.7	23.9	—	5,700	205	11.8
Sweetwater Reservoir near recreation area (SWR04)	08/10/2009	13:30	71.3	21.3	—	10,000	218	10.2
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	12:20	69.1	28.6	—	20,300	241	0.53
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	16:20	64.7	28.8	—	23,200	297	0.48
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	08/10/2009	14:00	86.5	27.9	—	20,900	231	8.61
Sweetwater River at low-flow diversion upstream from Sweetwater Reservoir (LFDD)	10/13/2004	15:30	32.6	17.6	—	23,200	246	0.22
Sweetwater River at low-flow diversion upstream from Sweetwater Reservoir (LFDD)	08/10/2009	14:30	57.2	16.9	—	16,500	146	5.88
Loveland Reservoir near dam (LLR01)	10/14/2004	11:10	81.2	23.4	—	7,740	150	0.61
Loveland Reservoir near dam (LLR01)	08/11/2009	11:45	86.9	24.3	—	8,540	119	17.5
Loveland Reservoir east-end near source inlet (LLR02)	10/14/2004	12:00	35.2	18.1	—	25,800	256	0.25
Loveland Reservoir east-end near source inlet (LLR02)	08/11/2009	12:00	83.5	27.2	—	7,780	128	11.6
Sweetwater Reservoir atmospheric site at Sweetwater Dam (AIR01)	10/14/2004	14:30	61.7	42.3	—	17,200	213	0.42

Table 16. Analytical results for metals in surficial bed-sediment samples, using the U.S. Geological Survey Geologic Division laboratory, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

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Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Thorium [0.1] [LRL]	Titanium [40] [LRL]	Uranium [0.02]	Vanadium [0.2]	Yttrium [0.05]	Zinc [3]
Sweetwater Reservoir near pump tower (SWR01)	10/13/2004	11:00	2.77	1,160	16.9	450	13.5	54.0
Sweetwater Reservoir near pump tower (SWR01)	08/10/2009	12:45	1,220	0.16	13.5	338	10.7	39.6
Sweetwater Reservoir near Vista del Lago station (SWR02)	08/10/2009	13:00	5,840	0.45	3.09	167	32.2	85.7
Sweetwater Reservoir center minimum pool (SWR03)	10/13/2004	11:40	12.2	6,400	4.12	198	42.8	122
Sweetwater Reservoir center minimum pool (SWR03)	08/10/2009	13:15	5,570	0.55	3.99	177	35.4	107
Sweetwater Reservoir near recreation area (SWR04)	08/10/2009	13:30	5,350	0.52	3.6	156	33.9	93.0
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	12:20	6.50	7,170	1.39	172	34.0	106
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	16:20	5.08	6,770	1.30	161	32.4	107
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	08/10/2009	14:00	6,840	0.64	1.88	167	32.6	107
Sweetwater River at low-flow diversion upstream from Sweetwater Reservoir (LFDD)	10/13/2004	15:30	1.98	4,050	0.74	88.2	20.6	55.1
Sweetwater River at low-flow diversion upstream from Sweetwater Reservoir (LFDD)	08/10/2009	14:30	4,850	0.39	2.12	86.6	23.7	104
Loveland Reservoir near dam (LLR01)	10/14/2004	11:10	16.3	5,580	5.63	182	41.2	130
Loveland Reservoir near dam (LLR01)	08/11/2009	11:45	5,730	0.64	6.68	187	38.0	117
Loveland Reservoir east-end near source inlet (LLR02)	10/14/2004	12:00	2.16	3,590	0.55	98.1	20.4	53.9
Loveland Reservoir east-end near source inlet (LLR02)	08/11/2009	12:00	6,650	0.63	3.59	196	34.1	132
Sweetwater Reservoir atmospheric site at Sweetwater Dam (AIR01)	10/14/2004	14:30	7.80	9,420	2.18	283	54.1	208

Results showed methyl *tert*-butyl ether was present in water and air samples until its use was phased out by order of the California state government in January 2004. The highest concentrations of benzene and toluene in water were detected at or near the surface of the reservoir during Phase Two. The concentrations of benzene and toluene in air samples were highest during the cooler months and tended to have the same seasonal pattern over time. Isophorone and phenol were the two most frequently detected BNA compounds in water. Diuron, prometon, and simazine were the most frequently detected pesticide compounds in water. Silver and thallium were not detected in unfiltered water samples. Beryllium, chromium, and thallium had no detections in filtered water samples.

Chloroethane was the only high-volatility volatile organic compound detected in air samples. Twenty-eight medium/low-volatility volatile organic compounds had no detections in air samples. Nineteen polycyclic aromatic hydrocarbon compounds were detected in air samples. Ten pesticide compounds were detected in air samples. Niobium and thallium were the least frequently detected metals in air samples.

Seven polycyclic aromatic hydrocarbons and three isomers were detected in half the surficial bed-sediment samples. Of the 22 organochlorine pesticides analyzed, 6 were detected at least once. Of the 37 metals analyzed in surficial bed-sediment samples, silver was the only metal not detected.

Three types of quality-control samples were used in this study—spikes, blanks, and replicates. Matrix-spike data were considered to be adequate if the recovery was within 30 percent of the expected concentration. Most matrix-spike data were within acceptable criteria, but several compounds were below the acceptable criteria. The detected concentrations for these compounds may be under-reported or may not have been detected if present at low concentrations. Some matrix spikes were above the acceptable criteria and concentrations of those compounds may be overestimated. Replicate data are considered to be adequate if within 30 percent of the environmental sample.

Matrix-spike recoveries were within the acceptable criteria for volatile organic compounds in water samples except for carbon disulfide, dichlorodifluoromethane, and trichloromethane, which had recoveries more than 30 percent different from expected in one-third or more of spike samples. High-volatility volatile organic compounds in air samples had only one matrix-spike recovery above the acceptable criteria, and 21 recoveries were below the acceptable criteria, although no recovery was below 59 percent. Medium/low-volatility volatile organic compounds in air samples had 5 matrix-spike recoveries above the acceptable criteria, and 32 recoveries were below the acceptable criteria. The polycyclic aromatic hydrocarbons in the air had no recoveries above the acceptable criteria, but many recoveries were below the acceptable criteria. The recoveries tend to be lower on the glass-fiber

filters than on the polyurethane foam. Pesticides in air samples had a similar pattern as the polycyclic aromatic hydrocarbon data for matrix-spike samples; recoveries were lower on the glass-fiber filters than on the polyurethane foam. Eight compounds had one spike recovery above acceptable criteria for Airpest003. About 26 percent of pesticide recoveries were below the acceptable criteria. Three standard references for metals in surficial bed sediment were analyzed for laboratory matrix spikes. All matrix-spike results for reference material NIST 2709 were within the acceptable criteria. All matrix-spike results for reference materials SO-2 and SO-4 were within the upper acceptable criteria except niobium (SO-2 recovery of 173 percent). Two matrix-spike recoveries for reference materials SO-2 and SO-4 were below the lower acceptable criteria—antimony and uranium.

Field blank data associated with water samples for volatile organic compounds had detections for acetone and carbon disulfide. Trichloromethane was also detected in a field blank, but at a similar concentration to that in an associated source solution blank. Four metals (molybdenum, silver, thallium, and uranium) were detected in a blank sample at site SWR08, but all detections were below the LRLs. Travel, lot and laboratory blanks were processed with all the volatile organic compound air samples. Acetone, benzene, and toluene were detected at low concentrations in most volatile organic compound air blanks. Two field blanks collected for polycyclic aromatic hydrocarbons in the air had no detections. The 17 laboratory blanks for polycyclic aromatic hydrocarbons in the air had detections, but none were above their laboratory reporting level. No blank data were collected for surficial bed sediments.

The volatile organic compound replicate data for water samples were within acceptable criteria for most samples and compounds. Four replicate data sets collected for pesticide compounds in water indicate most results are within acceptable criteria. Replicate data for metals in water samples indicated that 7 of the 19 compounds analyzed had 5 or fewer replicates outside the acceptable criteria. No high-volatility volatile organic compounds in the air were detected in replicate or associated environmental samples. Twenty-seven compounds for medium/low volatility VOCs had at least one replicate value above the acceptable criteria, and twenty-two compounds had at least one replicate value below the acceptable criteria. Replicate air samples for semivolatile organic compounds and metals were not collected during this reporting period. Two replicate data sets were collected for polycyclic aromatic hydrocarbons in surficial bed sediment, and some compounds had replicate pair comparisons outside the acceptable criteria. No detections were found in the surficial bed sediment replicate sample collected for organochlorine and polychlorinated biphenyl compounds. Of the 37 metals analyzed, beryllium had the only replicate outside the acceptable criteria.

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Appendix

The appendix includes quality-control (QC) tables for the water, air, and surficial bed sediment analyzed as part of the data collected for the Sweetwater Reservoir (SWR) project. The QC associated with the water sampling is listed in tables A1A–A6C. The QC associated with the air sampling is listed in tables B1A–B6C. The QC associated with the bed-sediment sampling is listed in tables C1–C3C. Replicate samples for volatile organic compounds (VOCs) and metals (targeted compounds) were evaluated by calculating the percentage difference from the environmental sample.

Appendix A. Water-Quality Control

At least one field quality-control (QC) sample type was collected each time the reservoir was sampled. The type of QC sample collected and the sampling location were chosen randomly. The matrix-spike QC data for the volatile organic compounds (VOCs) in water are given in table A1A. The blank and replicate QC data for VOCs are given in table A1B. The replicate data are compared to the environmental samples in table A1C. In six matrix spikes and three matrix-spike recoveries, recoveries were adequate for all the VOCs except the following; carbon disulfide and dichlorodifluoromethane were below the acceptable criteria for about one-third of the samples; and trichloromethane were below the acceptable criteria for more than half of the samples. Of the VOCs detected in the environmental samples, acetone and 2-butanone were detected at estimated concentrations below the laboratory reporting level (LRL) in one of three field blanks; acetone had 35 detections in environmental water samples and 2-butanone had 2 detections. Carbon disulfide was detected in three of the four equipment blanks at site SWR03 and in some environmental water samples. Trichloromethane was detected in one of the three field blanks and in a source solution blank collected the same day as the field blank sample. No compounds were detected in the trip blank at site SWR03. In 14 replicate samples, VOC concentrations were within the acceptable criteria (± 30 percent of environmental sample) except for the following samples; trichloromethane at site SWR06 in July 2004; six compounds (benzene, ethylbenzene, toluene, 1,2,4-trimethylbenzene, *m*- and *p*-xylene, and *o*-xylene) at site SWR06 in July 2006; and toluene at site LFDD in October 2006. No replicate comparison was calculated if either the environmental or replicate compound was not detected.

The matrix-spike and replicate QC data for base neutral acid compounds (BNAs) are given in tables A2A and A2B, respectively. One matrix-spike sample was analyzed for BNAs. Two compounds (di-*n*-butyl phthalate and hexachlorobutadiene) in that sample were not within the acceptable criteria of ± 30 percent. Di-*n*-butyl phthalate was detected in ten water samples and hexachlorobutadiene was not detected in any water samples. Concentrations of all compounds detected in the three BNA replicate samples were estimated and within the acceptable criteria when a replicate comparison could be calculated, except for phenol in a sample collected from site SWR09 on April 13, 2005. The replicate QC data for pesticides (National Water Quality Laboratory schedules 2003 and 2060) are given in tables A3 and A4, respectively. Most replicate data for pesticides were within the acceptable criteria when a replicate comparison could be calculated, except for caffeine for a sample from site SWR01 on July 12, 2005. No blanks were processed for BNA compounds or pesticides.

No matrix spike or blank samples were processed for anthropogenic organic indicator (AOI) compounds. One replicate sample was collected for AOI compounds (table A5); no AOI compounds were detected in either the environmental or replicate sample.

The matrix-spike QC data for metals in unfiltered water samples are given in table A6A. Two spikes and one spike replicate had recoveries above the acceptable criteria. Metals with recoveries above the acceptable criteria (greater than 30 percent) in three spike and two spike replicates were aluminum, chromium, lithium, selenium, and strontium. Most matrix-spike replicates are within ± 15 percent of spike data. The replicate and field blank data for metals in unfiltered water samples are given in table A6B. Four metals (molybdenum, silver, thallium, and uranium) were detected in blank samples at site SWR08, but all detections were below the LRLs. Silver was the only metal detected in one additional blank at concentrations just above the LRL. During this reporting period, 12 replicate samples (table A6C) were collected for metals; 7 of the 19 compounds analyzed had 5 or less replicates outside the acceptable criteria.

Appendix B. Air Quality Control

Replicate volatile organic compound (VOC) air samples collected for high-volatility (14 replicates) and medium/low-volatility (11 replicates) are presented in tables B1A and B1B, respectively. The VOC replicate air data were compared to the environmental air data in table B1C; no high-volatility VOCs were detected in replicate or associated environmental samples. Twenty-seven compounds for medium/low volatility VOCs had at least one replicate value above the acceptable criteria, and Twenty-two compounds had at least one replicate value below the acceptable criteria. A travel spike was sent with about one-third of the VOC air samples and a travel, lot, and laboratory blank were associated with each VOC air sample collected. For high-volatility VOCs, the travel spike and travel, lot, and laboratory blanks are presented in tables B2A, B2B, B2C, and B2D, respectively. Thirty-seven spikes were analyzed for high-volatility VOCs; chloromethane had one spike recovery above the acceptable criteria and several spike recoveries below the acceptable criteria. Chloroethene and chloroethane also had recoveries below the acceptable criteria, although no recovery was below 59 percent. No high-volatility VOCs were detected in travel, lot, or laboratory blanks. For medium/low-volatility VOCs, the travel spike and travel, lot, and laboratory blanks are presented in tables B3A, B3B, B3C, and B3D, respectively. In 36 travel spikes analyzed for 80 medium/low-volatility VOCs, 5 compounds had 1 recovery above the acceptable criteria, and 17 compounds had at least 1 recovery below the acceptable criteria. Of the 80 medium/low-volatility VOCs, 18 were detected in travel and lot blanks, and 17 were detected in laboratory blanks. Acetone, benzene, and toluene were detected in most blank samples of each type.

The associated laboratory reagent spike and laboratory blanks quality-control (QC) data for the polycyclic aromatic hydrocarbons (PAHs) in air samples are presented in tables B4A and B4B, respectively. Seven sets of PAH spikes were analyzed for the glass-fiber filter (GFF) and polyurethane foam (PUF). Typically, the PUFs had better recoveries than the GFFs. PAHs in the air had no recoveries above the acceptable criteria, but many recoveries were below the acceptable criteria. Of the 17 laboratory PAH samples analyzed, 6 compounds had 2 or more detections, although most blank detections were an order of magnitude lower than the laboratory reporting level (LRL). There were no detections in the two PAH field blanks. The laboratory matrix-spike and laboratory blank data for pesticides in air samples (method Airpest003) are presented in tables B5A and B5B, respectively. Eight compounds had one spike recovery above acceptable criteria for Airpest003. About 26 percent of spike recoveries for Airpest003 were below the acceptable criteria; four compounds had at least one spike with no recovery. The low spike recoveries may indicate the compound was under-detected and may be reported at lower concentrations than occur. Pesticides were not detected in the six blank samples. Replicate air samples for semivolatile organic compounds (SOCs) were not collected during this reporting period.

Ten laboratory-reagent spike QC samples of standard reference materials for metals in air are presented in tables B6A. Antimony and bismuth were the only compounds with one or more spike recoveries below the acceptable criteria. Five compounds (cadmium, chromium, lead, lithium, and niobium) had one or more recoveries above the acceptable criteria. The spike sample from October 9, 2006, to March 14, 2007, was unusable because of equipment problems. Results from 10 laboratory blank samples and 1 field blank for 32 metals are presented in table B6B. Arsenic, bismuth, thallium, and titanium had no detections in the laboratory blank samples. Caesium had detections in laboratory blanks below the LRL; all other compounds have laboratory blank detections above their LRL. Silver and uranium had a higher detections in the field blank than in environmental samples. One blank replicate sample for metals was analyzed (table B6C), and two compounds are outside the acceptable criteria (cobalt and niobium).

Appendix C. Surficial Bed-Sediment Quality Control

Replicate data collected for polycyclic aromatic hydrocarbons (PAH's) and organochlorine (OC) and polychlorinated biphenyl compounds in surficial bed-sediment samples are presented in tables C1 and C2, respectively. One replicate sample for PAHs was collected during each of the 2004 and 2009 sampling periods. Nine compounds were detected in the 2004 PAH replicate sample; four compounds were detected above 130 percent of the environmental sample. Four compound were detected below 70 percent of the environmental sample. Eleven compounds were detected in the 2009 PAH replicate sample, of which three were detected above 130 percent of the environmental sample. Six compounds were detected below 70 percent of the environmental sample. The one replicate sample collected for OCs during the 2009 sampling event had no detections.

Spike and replicate data collected for metals in surficial bed-sediment samples are presented in tables C3A and C3B, respectively. All matrix-spike results for reference material NIST-2709 were within the acceptable criteria. Matrix-spike results for reference materials SO-2 and SO-4 were mostly within acceptable criteria except niobium (SO-2 recovery of 173 percent), antimony (SO-2 and SO-4 recoveries of 52 and 66 percent, respectively), and uranium (SO-2 recovery of 69 percent). Quality control replicate comparison of metals are listed in table C3C. Of the 36 metals analyzed in a replicate sample in 2004, only antimony (130 percent) had a recovery above the upper acceptable criteria. Of the 36 metals analyzed in the 2009 replicate sample, only beryllium (58.6 percent) had a recovery below the acceptable criteria.

Appendix A Tables.

Table A1A. Quality-control matrix spike results for volatile organic compounds (VOCs) in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir watershed, San Diego County, California.

[See table 1 for site-identification number. Time is denoted in 24-hour scale. Concentrations are given in percentage recovery. **Abbreviations:** hh:mm, hour:minute; m, meter; mm/dd/yyyy, month/day/year]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample type	Sample depth (m)	Acetone	Acrylonitrile	Benzene	Bromo- benzene	Bromo- chloromethane	Bromodi- chloromethane	Bromoethene	Bromo- methane	2- Butanone
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:37	Spike	0.1	74.7	118	107	103	113	108	99.5	93.6	96.3
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:38	Spike replicate	0.1	76.4	118	107	103	111	108	94.1	85.1	98.9
Sweetwater Reservoir center of minimum pool (SWR03)	04/14/2009	12:28	Spike	0.1	115	109	103	107	107	110	105	106	108
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:33	Spike	0.1	118	112	112	96.5	99.1	111	105	99.4	118
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:34	Spike replicate	0.1	122	121	118	105	100	116	110	103	126
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	04/12/2005	14:38	Spike	0.1	123	112	118	101	111	113	110	140	118
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/11/2006	12:48	Spike	0.1	80.5	79.7	97.9	90.0	90.5	101	121	90.1	76.7
Loveland reservoir near dam (LLR01)	01/10/2007	11:08	Spike	0.1	102	101	101	98.9	106	98.5	117	123	95.5
Loveland reservoir near dam (LLR01)	01/10/2007	11:09	Spike replicate	0.1	102	101	101	105	114	98.5	117	111	95.2

Table A1A. Quality-control matrix spike results for volatile organic compounds (VOCs) in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. Concentrations are given in percentage recovery. **Abbreviations:** hh:mm, hour:minute; m, meter; mm/dd/yyyy, month/day/year]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample type	Sample depth (m)	<i>n</i> - Butylbenzene	<i>sec</i> - Butylbenzene	<i>tert</i> - Butylbenzene	Carbon disulfide	Chloro- benzene	Chloro- ethane	Chloro- methane	3- Chloropropene	2- Chlorotoluene
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:37	Spike	0.1	89.5	95.7	99.5	58.6	103	114	105	122	104
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:38	Spike replicate	0.1	94.9	95.7	97.3	59.7	105	114	105	118	104
Sweetwater Reservoir center of minimum pool (SWR03)	04/14/2009	12:28	Spike	0.1	90.3	98.9	103	79.8	103	104	111	110	101
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:33	Spike	0.1	86.7	94.7	104	86.7	98.5	112	110	100	97.9
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:34	Spike replicate	0.1	92.3	98.9	108	88.1	103	112	116	103	102
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	04/12/2005	14:38	Spike	0.1	97.8	105	118	97.3	101	112	129	106	106
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/11/2006	12:48	Spike	0.1	100	103	110	84.1	94.4	114	110	106	91.5
Loveland reservoir near dam (LLR01)	01/10/2007	11:08	Spike	0.1	78.8	91.5	103	65.9	103	93.1	112	139	97.9
Loveland reservoir near dam (LLR01)	01/10/2007	11:09	Spike replicate	0.1	89.5	100.0	109	73.3	105	104	112	139	97.9

Table A1A. Quality-control matrix spike results for volatile organic compounds (VOCs) in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. Concentrations are given in percentage recovery. **Abbreviations:** hh:mm, hour:minute; m, meter; mm/dd/yyyy, month/day/year]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample type	Sample depth (m)	4- Chlorotoluene	Dibromo- chloromethane	1,2- Dibromo-3- chloropropane	1,2- Dibromoethane	Dibromo- methane	1,2- Dichlorobenzene	1,3- Dichlorobenzene
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:37	Spike	0.1	97.9	104	100	109	106	110	106
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:38	Spike replicate	0.1	97.9	104	100	109	113	110	109
Sweetwater Reservoir center of minimum pool (SWR03)	04/14/2009	12:28	Spike	0.1	98.9	105	100	106	109	103	101
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:33	Spike	0.1	94.2	99.7	101	100	106	102	94.1
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:34	Spike replicate	0.1	97.8	106	106	106	108	106	101
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	04/12/2005	14:38	Spike	0.1	101	112	108	102	108	106	105
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/11/2006	12:48	Spike	0.1	91.0	83.3	82.9	85.3	88.8	86.8	89.9
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	01/10/2007	11:08	Spike	0.1	95.7	98.9	104	97.9	91.5	89.4	89.4
Loveland reservoir near dam (LLR01)	01/10/2007	11:09	Spike replicate	0.1	104	98.9	104	100	91.5	97.9	95.7

Table A1A. Quality-control matrix spike results for volatile organic compounds (VOCs) in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. Concentrations are given in percentage recovery. **Abbreviations:** hh:mm, hour:minute; m, meter; mm/dd/yyyy, month/day/year]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample type	Sample depth (m)	1,4- Dichlorobenzene	<i>trans</i> -1,4- Dichloro-2- butene	Dichloro- difluoro- methane	1,1- Dichloroethane	1,2- Dichloroethane	1,1- Dichloroethene	<i>cis</i> -1,2- Dichloroethene
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:37	Spike	0.1	103	113	65.6	110	103	92.6	110
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:38	Spike replicate	0.1	103	110	64.2	106	103	94.7	110
Sweetwater Reservoir center of minimum pool (SWR03)	04/14/2009	12:28	Spike	0.1	96.8	101	89.0	110	103	103	107
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:33	Spike	0.1	91.8	120	71.9	124	112	103	105
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:34	Spike replicate	0.1	98.2	123	74.3	129	112	107	109
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	04/12/2005	14:38	Spike	0.1	100	128	79.0	114	112	94.6	101
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/11/2006	12:48	Spike	0.1	85.4	79.1	112	107	95.0	109	96.6
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	01/10/2007	11:08	Spike	0.1	89.4	94.9	68.4	104	102	90.4	101
Loveland reservoir near dam (LLR01)	01/10/2007	11:09	Spike replicate	0.1	102	99.2	77.7	103	102	86.2	101

Table A1A. Quality-control matrix spike results for volatile organic compounds (VOCs) in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. Concentrations are given in percentage recovery. **Abbreviations:** hh:mm, hour:minute; m, meter; mm/dd/yyyy, month/day/year]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample type	Sample depth (m)	<i>trans</i> -1,2- Dichloroethylene	Dichloro- methane	1,2- Dichloropropane	1,3- Dichloropropane	2,2- Dichloropropane	1,1- Dichloropropane	<i>cis</i> -1,3- Dichloropropene
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:37	Spike	0.1	112	104	110	105	83.5	95.7	95.3
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:38	Spike replicate	0.1	108	104	105	112	81.4	95.7	96.3
Sweetwater Reservoir center of minimum pool (SWR03)	04/14/2009	12:28	Spike	0.1	103	104	107	105	99.5	95.7	92.1
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:33	Spike	0.1	98.3	106	103	106	112	107	87.2
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:34	Spike replicate	0.1	103	106	109	115	112	113	94.0
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	04/12/2005	14:38	Spike	0.1	111	112	103	106	98.4	107	90.6
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/11/2006	12:48	Spike	0.1	105	81.9	94.2	84.0	93.4	104	81.8
Loveland reservoir near dam (LLR01)	01/10/2007	11:08	Spike	0.1	101	83.0	98.9	98.2	96.3	95.7	94.2
Loveland reservoir near dam (LLR01)	01/10/2007	11:09	Spike replicate	0.1	105	83.0	96.8	105	99.5	100	101

Table A1A. Quality-control matrix spike results for volatile organic compounds (VOCs) in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. Concentrations are given in percentage recovery. **Abbreviations:** hh:mm, hour:minute; m, meter; mm/dd/yyyy, month/day/year]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample type	Sample depth (m)	<i>trans</i> -1,3- Dichloropropene	Diethyl ether	Diisopropyl ether	Ethylbenzene	Ethyl <i>tert</i> -butyl ether	Ethyl methacrylate	<i>o</i> -Ethyl toluene	Hexa- chlorobutadiene	Hexa- chloroethane
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:37	Spike	0.1	95.4	105	103	97.9	95.8	95.2	93.6	76.4	99.7
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:38	Spike replicate	0.1	102	111	97.4	97.9	102	98.8	93.6	83.5	94.4
Sweetwater Reservoir center of minimum pool (SWR03)	04/14/2009	12:28	Spike	0.1	96.1	111	107	97.9	104	102	94.7	83.5	94.4
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:33	Spike	0.1	99.0	111	110	98.4	108	104	96	81.3	93.0
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:34	Spike replicate	0.1	102	124	112	103	116	111	103	81.3	98.6
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	04/12/2005	14:38	Spike	0.1	112	118	105	107	97.3	96.1	106	88.9	104
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/11/2006	12:48	Spike	0.1	80.0	84.5	85.9	103	83.9	84.1	90.4	89.1	99.7
Loveland reservoir near dam (LLR01)	01/10/2007	11:08	Spike	0.1	97.5	101	105	101	104	95.2	91.5	75.7	99.7
Loveland reservoir near dam (LLR01)	01/10/2007	11:09	Spike replicate	0.1	97.5	101	99.5	105	97.9	95.2	97.9	82.7	105

Table A1A. Quality-control matrix spike results for volatile organic compounds (VOCs) in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued[See table 1 for site-identification number. Time is denoted in 24-hour scale. Concentrations are given in percentage recovery. **Abbreviations:** hh:mm, hour:minute; m, meter; mm/dd/yyyy, month/day/year]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample type	Sample depth (m)	Naphthalene	<i>tert</i> -Pentyl methyl ether	<i>n</i> - Propylbenzene	Styrene	1,1,1,2- Tetrachloroethane	1,1,2,2- Tetrachloroethane	Tetrachloro- ethylene	Tetrachloro- methane
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:37	Spike	0.1	129	96.2	na	97.9	113	112	104	104
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:38	Spike replicate	0.1	129	96.2	na	97.9	115	110	109	101
Sweetwater Reservoir center of minimum pool (SWR03)	04/14/2009	12:28	Spike	0.1	105	106	na	93.8	106	103	97.9	102
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:33	Spike	0.1	97.2	101	91.4	95.6	94.3	107	90.6	101
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:34	Spike replicate	0.1	108	108	93.5	100	101	111	94.8	103
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	04/12/2005	14:38	Spike	0.1	108	98.7	102	111	103	111	101	117
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/11/2006	12:48	Spike	0.1	103	84.9	95.6	85.3	92.0	81.6	107	115
Loveland reservoir near dam (LLR01)	01/10/2007	11:08	Spike	0.1	107	102	na	100	93.6	93.3	89.4	100
Loveland reservoir near dam (LLR01)	01/10/2007	11:09	Spike replicate	0.1	109	102	na	102	100	96.8	97.9	103

Table A1A. Quality-control matrix spike results for volatile organic compounds (VOCs) in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued[See table 1 for site-identification number. Time is denoted in 24-hour scale. Concentrations are given in percentage recovery. **Abbreviations:** hh:mm, hour:minute; m, meter; mm/dd/yyyy, month/day/year]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample type	Sample depth (m)	Tetra- hydrofuran	1,2,3,4-Tetra- methylbenzene	1,2,3,5-Tetra- methylbenzene	Toluene	Tribromo- methane	1,2,3- Trichlorobenzene	1,2,4- Trichlorobenzene	1,1,1- Trichloroethane
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:37	Spike	0.1	110	123	126	105	103	112	97.2	101
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:38	Spike replicate	0.1	105	123	126	103	104	112	104	101
Sweetwater Reservoir center of minimum pool (SWR03)	04/14/2009	12:28	Spike	0.1	105	96.5	105	99.0	107	105	97.9	105
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:33	Spike	0.1	115	94.9	109	104	92.1	95.8	85.8	105
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:34	Spike replicate	0.1	120	105	118	109	97.4	104	94.7	109
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	04/12/2005	14:38	Spike	0.1	115	119	122	106	106	104	94.7	113
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/11/2006	12:48	Spike	0.1	78.2	116	124	107	87.9	103	96.5	115
Loveland reservoir near dam (LLR01)	01/10/2007	11:08	Spike	0.1	116	102	104	94.8	102	104	89.4	97.9
Loveland reservoir near dam (LLR01)	01/10/2007	11:09	Spike replicate	0.1	121	109	111	96.9	103	111	104	100

Table A1A. Quality-control matrix spike results for volatile organic compounds (VOCs) in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued[See table 1 for site-identification number. Time is denoted in 24-hour scale. Concentrations are given in percentage recovery. **Abbreviations:** hh:mm, hour:minute; m, meter; mm/dd/yyyy, month/day/year]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample type	Sample depth (m)	1,1,2-Tri- chloroethane	Trichloro- ethylene	Trichloro- fluoromethane	Trichloro- methane (chloroform)	1,2,3- Trichloropropane	1,1,2- trichloro- trifluoro- ethane (freon 113)	1,2,3-Tri- methylbenzene	1,2,4-Tri- methylbenzene
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:37	Spike	0.1	112	101	94.7	53.4	103	91.5	114	104
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:38	Spike replicate	0.1	112	103	89.4	52.4	106	89.4	114	104
Sweetwater Reservoir center of minimum pool (SWR03)	04/14/2009	12:28	Spike	0.1	105	110	106	51.5	109	102	103	93.8
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:33	Spike	0.1	104	98.0	107	111	102	93.7	105	101
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:34	Spike replicate	0.1	111	104	109	115	107	98.0	105	108
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	04/12/2005	14:38	Spike	0.1	108	102	111	117	109	109	114	115
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/11/2006	12:48	Spike	0.1	89.4	111	123	105	81.2	104	92.4	98.8
Loveland reservoir near dam (LLR01)	01/10/2007	11:08	Spike	0.1	102	96.8	87.2	45.9	95.7	70.2	103	100
Loveland reservoir near dam (LLR01)	01/10/2007	11:09	Spike replicate	0.1	95.7	96.8	94.7	46.9	102	80.9	103	108

Table A1A. Quality-control matrix spike results for volatile organic compounds (VOCs) in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued[See table 1 for site-identification number. Time is denoted in 24-hour scale. Concentrations are given in percentage recovery. **Abbreviations:** hh:mm, hour:minute; m, meter; mm/dd/yyyy, month/day/year]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample type	Sample depth (m)	1,3,5- Trimethylbenzene	Vinyl chloride	<i>m</i> - and <i>p</i> - Xylene	<i>o</i> - Xylene	1,4- Bromofluorobenzene, surrogate (percent) (99834)	1,2- Dichloroethane- <i>d</i> 4, surrogate (percent) (99832)	Toluene- <i>d</i> 8, surrogate (percent) (99833)
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:37	Spike	0.1	97.9	104	97.9	95.7	88.8	97.2	98.4
Sweetwater Reservoir near pump tower (SWR01)	04/15/2008	11:38	Spike replicate	0.1	95.8	104	99.0	95.7	91.7	95.4	100
Sweetwater Reservoir center of minimum pool (SWR03)	04/14/2009	12:28	Spike	0.1	95.8	104	94.8	100	103	104	101
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:33	Spike	0.1	95.5	114	95.5	102	97.3	105	101
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/13/2004	14:34	Spike replicate	0.1	102	114	101	109	98.4	107	99.9
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	04/12/2005	14:38	Spike	0.1	110	124	110	104	93.8	104	103
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	07/11/2006	12:48	Spike	0.1	97.7	115	102	97.0	93.8	95.9	101
Loveland reservoir near dam (LLR01)	01/10/2007	11:08	Spike	0.1	95.8	93.6	99.0	100	98.8	95.5	97.7
Loveland reservoir near dam (LLR01)	01/10/2007	11:09	Spike replicate	0.1	104	104	104	104	100	95.8	96.7

Table A1B. Quality-control field blank and field replicate results for volatile organic compound (VOC) concentrations in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. The five-digit parameter code number in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; m, meters; mm/dd/yyyy, month/day/year; NA, not analyzed; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Date (mm/dd/yyyy) (hh:mm)	Time	Sample type	Sample depth (m)	Dibromochloromethane (32105)	1,2-Dibromo- 3-chloropropane (82625)	1,2- Dibromoethane (77651)	Dibromomethane (30217)	1,2- Dichlorobenzene (34536)	1,3- Dichlorobenzene (34566)	1,4- Dichlorobenzene (34571)
				[LRL]	[0.1]	[0.5]	[0.04]	[0.05]	[0.05]	[0.03]
Sweetwater Reservoir near pump tower (SWR01)										
07/12/2005	11:01	Replicate	2.0	—	—	—	—	—	—	—
10/09/2007	11:48	Equipment blank	none	—	—	—	—	—	—	—
04/16/2008	09:48	Field blank	none	—	—	—	—	—	—	—
10/14/2008	12:28	Field blank	none	—	—	—	—	—	—	—
Sweetwater Reservoir center of minimum pool (SWR03)										
12/16/2003	13:08	Equipment blank	none	—	—	—	—	—	—	—
01/12/2005	12:18	Equipment blank	none	—	—	—	—	—	—	—
10/11/2005	11:31	Replicate	6.0	—	—	—	—	—	—	—
01/10/2006	12:08	Equipment blank	none	—	—	—	—	—	—	—
01/10/2006	12:18	Trip blank	none	—	—	—	—	—	—	—
04/14/2009	12:21	Replicate	0.1	0.4	—	—	—	—	—	—
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)										
10/14/2003	15:01	Replicate	0.2	0.1	—	—	—	—	—	—
04/13/2004	12:41	Replicate	1.0	0.1	—	—	—	—	—	—
07/13/2004	14:31	Replicate	0.1	—	—	—	—	—	—	—
04/12/2005	14:31	Replicate	2.0	—	—	—	—	—	—	—
04/07/2006	12:21	Replicate	0.1	—	—	—	—	—	—	—
07/11/2006	12:41	Replicate	2.0	—	—	—	—	—	—	—
01/08/2008	11:51	Replicate	0.1	—	—	—	—	—	—	—
Perdue Treatment Plant-finished water at SWR (SWR08)										
04/11/2007	08:41	Replicate	none	0.6	—	—	—	—	—	—
07/10/2007	13:11	Replicate	none	2.2	—	—	—	—	—	—
07/07/2009	14:08	Field blank	none	—	—	—	—	—	—	—
Sweetwater River at low-flow diversion dam upstream from SWR (LFDD)										
10/11/2006	13:11	Replicate	0.1	—	—	—	—	—	—	—
01/14/2009	12:41	Replicate	0.1	—	—	—	—	—	—	—
Quality-control site (QA/QC)										
07/07/2009	14:30	Source solution blank	none	—	—	—	—	—	—	—

Table A1B. Quality-control field blank and field replicate results for volatile organic compound (VOC) concentrations in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. The five-digit parameter code number in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; m, meters; mm/dd/yyyy, month/day/year; NA, not analyzed; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Date (mm/dd/yyyy) (hh:mm)	Time	Sample type	Sample depth (m)	<i>trans</i> -1,4- Dichloro-2-butene (73547)	Dichlorodifluoromethane (34668)	1,1- Dichloroethane (34496)	1,2- Dichloroethane (32103)	1,1- Dichloroethylene (34501)	<i>cis</i> -1,2- Dichloroethylene (77093)	<i>trans</i> -1,2- Dichloroethylene (34546)	Dichloromethane (34423)
				[LRL] [0.7]	[0.18]	[0.04]	[0.1]	[0.02]	[0.02]	[0.03]	[0.1]
Sweetwater Reservoir near pump tower (SWR01)											
07/12/2005	11:01	Replicate	2.0	—	—	—	—	—	—	—	—
10/09/2007	11:48	Equipment blank	none	—	—	—	—	—	—	—	—
04/16/2008	09:48	Field blank	none	—	—	—	—	—	—	—	—
10/14/2008	12:28	Field blank	none	—	—	—	—	—	—	—	—
Sweetwater Reservoir center of minimum pool (SWR03)											
12/16/2003	13:08	Equipment blank	none	—	—	—	—	—	—	—	—
01/12/2005	12:18	Equipment blank	none	—	—	—	—	—	—	—	—
10/11/2005	11:31	Replicate	6.0	—	—	—	—	—	—	—	—
01/10/2006	12:08	Equipment blank	none	—	—	—	—	—	—	—	—
01/10/2006	12:18	Trip blank	none	—	—	—	—	—	—	—	—
04/14/2009	12:21	Replicate	0.1	—	—	—	—	—	—	—	—
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)											
10/14/2003	15:01	Replicate	0.2	—	—	—	—	—	—	—	—
04/13/2004	12:41	Replicate	1.0	—	—	—	—	—	—	—	—
07/13/2004	14:31	Replicate	0.1	—	—	—	—	—	—	—	—
04/12/2005	14:31	Replicate	2.0	—	—	—	—	—	—	—	—
04/07/2006	12:21	Replicate	0.1	—	—	—	—	—	—	—	—
07/11/2006	12:41	Replicate	2.0	—	—	—	—	—	—	—	—
01/08/2008	11:51	Replicate	0.1	—	—	—	—	—	—	—	—
Perdue Treatment Plant-finished water at SWR (SWR08)											
04/11/2007	08:41	Replicate	none	—	—	—	—	—	—	—	—
07/10/2007	13:11	Replicate	none	—	—	—	—	—	—	—	0.1
07/07/2009	14:08	Field blank	none	—	—	—	—	—	—	—	—
Sweetwater River at low-flow diversion dam upstream from SWR (LFDD)											
10/11/2006	13:11	Replicate	0.1	—	—	—	—	—	E0.02	—	—
01/14/2009	12:41	Replicate	0.1	—	E0.05	—	—	—	0.03	—	E0.01
Quality-control site (QA/QC)											
07/07/2009	14:30	Source solution blank	none	—	—	—	—	—	—	—	—

Table A1B. Quality-control field blank and field replicate results for volatile organic compound (VOC) concentrations in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. The five-digit parameter code number in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are given in micrograms per liter ($\mu\text{g/L}$) unless noted. **Abbreviations:** E, estimated above laboratory reporting level; NA, not analyzed; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

[illegible]

Table A1B. Quality-control field blank and field replicate results for volatile organic compound (VOC) concentrations in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. The five-digit parameter code number in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; m, meters; mm/dd/yyyy, month/day/year; NA, not analyzed; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Time (hh:mm)	Sample type	Sample depth (m)	Methyl iodide (77424)	Methyl methacrylate (81597)	4-Methyl- 2-pentanone (78133)	Methyl tert- butyl ether (MTBE) (78032)	Naphthalene (34696)	tert-Pentyl methyl ether (50005)	n- Propylbenzene (77224)	Styrene (77128)	1,1,1,2- Tetrachloroethane (77562)	1,1,2,2- Tetrachloroethane (34516)
[LRL]				[0.50]	[0.2]	[0.4]	[0.1]	[0.5]	[0.04]	[0.04]	[0.04]	[0.03]	[0.08]
Sweetwater Reservoir near pump tower (SWR01)													
07/12/2005	11:01	Replicate	2.0	—	—	—	—	—	—	—	—	—	—
10/09/2007	11:48	Equipment blank	none	—	—	—	—	—	—	NA	—	—	—
04/16/2008	09:48	Field blank	none	—	—	—	—	—	—	NA	—	—	—
10/14/2008	12:28	Field blank	none	—	—	—	—	—	—	NA	—	—	—
Sweetwater Reservoir center of minimum pool (SWR03)													
12/16/2003	13:08	Equipment blank	none	—	—	—	—	—	—	—	—	—	—
01/12/2005	12:18	Equipment blank	none	—	—	—	—	—	—	—	—	—	—
10/11/2005	11:31	Replicate	6.0	—	—	—	—	—	—	—	—	—	—
01/10/2006	12:08	Equipment blank	none	—	—	—	—	—	—	—	—	—	—
01/10/2006	12:18	Trip blank	none	—	—	—	—	—	—	—	—	—	—
04/14/2009	12:21	Replicate	0.1	—	—	—	—	—	—	—	—	—	—
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)													
10/14/2003	15:01	Replicate	0.2	—	—	—	—	—	—	—	—	—	—
04/13/2004	12:41	Replicate	1.0	—	—	—	—	—	—	—	—	—	—
07/13/2004	14:31	Replicate	0.1	—	—	—	—	—	—	—	—	—	—
04/12/2005	14:31	Replicate	2.0	—	—	—	—	—	—	—	—	—	—
04/07/2006	12:21	Replicate	0.1	—	—	—	—	—	—	—	—	—	—
07/11/2006	12:41	Replicate	2.0	—	—	—	—	—	—	—	—	—	—
01/08/2008	11:51	Replicate	0.1	—	—	—	—	—	—	—	—	—	—
Perdue Treatment Plant-finished water at SWR (SWR08)													
04/11/2007	08:41	Replicate	none	—	—	—	—	—	—	NA	—	—	—
07/10/2007	13:11	Replicate	none	—	—	—	—	—	—	NA	—	—	—
07/07/2009	14:08	Field blank	none	—	—	—	—	—	—	NA	—	—	—
Sweetwater River at low-flow diversion dam upstream from SWR (LFDD)													
10/11/2006	13:11	Replicate	0.1	—	—	—	—	—	—	NA	—	—	—
01/14/2009	12:41	Replicate	0.1	—	—	—	0.19	—	—	NA	E0.02	—	—
Quality-control site (QA/QC)													
07/07/2009	14:30	Source solution blank	none	—	—	—	—	—	—	NA	—	—	—

Table A1B. Quality-control field blank and field replicate results for volatile organic compound (VOC) concentrations in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. The five-digit parameter code number in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; m, meters; mm/dd/yyyy, month/day/year; NA, not analyzed; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Date (mm/dd/yyyy) (hh:mm)	Time	Sample type	Sample depth (m)	Tetrachloroethylene (34475)	Tetrachloromethane (32102)	Tetrahydrofuran (81607)	1,2,3,4- Tetramethylbenzene (49999)	1,2,3,5- Tetramethylbenzene (50000)	Toluene (34010)	Tri bromomethane (32104)
[LRL]				[0.03]	[0.06]	[1]	[0.1]	[0.1]	[0.02, 0.05]	[0.1]
Sweetwater Reservoir near pump tower (SWR01)										
07/12/2005	11:01	Replicate	2.0	—	—	—	—	—	—	—
10/09/2007	11:48	Equipment blank	none	—	—	—	—	—	—	—
04/16/2008	09:48	Field blank	none	—	—	—	—	—	—	—
10/14/2008	12:28	Field blank	none	—	—	—	—	—	—	—
Sweetwater Reservoir center of minimum pool (SWR03)										
12/16/2003	13:08	Equipment blank	none	—	—	—	—	—	—	—
01/12/2005	12:18	Equipment blank	none	—	—	—	—	—	—	—
10/11/2005	11:31	Replicate	6.0	—	—	—	—	—	—	—
01/10/2006	12:08	Equipment blank	none	—	—	—	—	—	—	—
01/10/2006	12:18	Trip blank	none	—	—	—	—	—	—	—
04/14/2009	12:21	Replicate	0.1	—	—	—	—	—	—	0.23
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)										
10/14/2003	15:01	Replicate	0.2	—	—	—	—	—	—	—
04/13/2004	12:41	Replicate	1.0	—	—	—	—	—	E0.01	—
07/13/2004	14:31	Replicate	0.1	—	—	—	—	—	E0.01	—
04/12/2005	14:31	Replicate	2.0	—	—	—	—	—	—	—
04/07/2006	12:21	Replicate	0.1	—	—	—	—	—	E0.01	—
07/11/2006	12:41	Replicate	2.0	—	—	—	—	—	0.22	—
01/08/2008	11:51	Replicate	0.1	—	—	—	—	—	—	—
Perdue Treatment Plant-finished water at SWR (SWR08)										
04/11/2007	08:41	Replicate	none	—	—	—	—	—	—	0.23
07/10/2007	13:11	Replicate	none	—	0.07	—	—	—	—	0.51
07/07/2009	14:08	Field blank	none	—	—	—	—	—	—	—
Sweetwater River at low-flow diversion dam upstream from SWR (LFDD)										
10/11/2006	13:11	Replicate	0.1	—	—	—	—	—	E0.02	—
01/14/2009	12:41	Replicate	0.1	—	—	—	—	—	—	—
Quality-control site (QA/QC)										
07/07/2009	14:30	Source solution blank	none	—	—	—	—	—	—	—

Table A1B. Quality-control field blank and field replicate results for volatile organic compound (VOC) concentrations in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.—Continued

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

[illegible]

Table A1B. Quality-control field blank and field replicate results for volatile organic compound (VOC) concentrations in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. The five-digit parameter code number in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; m, meters; mm/dd/yyyy, month/day/year; NA, not analyzed; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Time (hh:mm)	Sample type	Sample depth (m)	12,3- Trimethylbenzene (7721)	12,4- Trimethylbenzene (7722)	1,3,5- Trimethylbenzene (7726)	Vinyl Chloride (39175)	m- and p- Xylene (85795)	o-Xylene (77135)	1,4- Bromofluorobenzene, surrogate (percent) (99834)	1,2- Dichloroethane-d4, surrogate (percent) (99832)	Toluene-d8, surrogate (percent) (99833)
				[LRL]	[0.06]	[0.04]	[0.1]	[0.06]	[0.04]	[0.04]	[0.04]	
Sweetwater Reservoir near pump tower (SWR01)												
07/12/2005	11:01	Replicate	2.0	—	—	—	—	—	—	93.0	98.8	100
10/09/2007	11:48	Equipment blank	none	—	—	—	—	—	—	85.2	112	98.5
04/16/2008	09:48	Field blank	none	—	—	—	—	—	—	84.4	103	95.8
10/14/2008	12:28	Field blank	none	—	—	—	—	—	—	79.5	138	91.8
Sweetwater Reservoir center of minimum pool (SWR03)												
12/16/2003	13:08	Equipment blank	none	—	—	—	—	—	—	82.2	120	99.9
01/12/2005	12:18	Equipment blank	none	—	—	—	—	—	—	113	106	100
10/11/2005	11:31	Replicate	6.0	—	—	—	—	—	—	112	101	104
01/10/2006	12:08	Equipment blank	none	—	—	—	—	—	—	99.5	99.4	98.3
01/10/2006	12:18	Trip blank	none	—	—	—	—	—	—	94.1	96.8	96.8
04/14/2009	12:21	Replicate	0.1	—	—	—	—	—	—	93.0	107	96.8
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)												
10/14/2003	15:01	Replicate	0.2	—	—	—	—	—	—	101	126	102
04/13/2004	12:41	Replicate	1.0	—	—	—	—	—	—	90.8	102	99.0
07/13/2004	14:31	Replicate	0.1	—	—	—	—	—	—	109	138	103
04/12/2005	14:31	Replicate	2.0	—	—	—	—	—	—	111	99.5	104
04/07/2006	12:21	Replicate	0.1	—	—	—	—	—	—	75.2	124	95.4
07/11/2006	12:41	Replicate	2.0	—	0.08	E0.03	—	0.20	0.07	105	106	101
01/08/2008	11:51	Replicate	0.1	—	—	—	—	—	—	75.3	121	94.4
Perdue Treatment Plant-finished water at SWR (SWR08)												
04/11/2007	08:41	Replicate	none	—	—	—	—	—	—	69.1	110	94.7
07/10/2007	13:11	Replicate	none	—	—	—	—	—	—	72.3	138	93.7
07/07/2009	14:08	Field blank	none	—	—	—	—	—	—	82.0	147	94.8
Sweetwater River at low-flow diversion dam upstream from SWR (LFDD)												
10/11/2006	13:11	Replicate	0.1	—	—	—	—	—	—	82.3	119	96.9
01/14/2009	12:41	Replicate	0.1	—	—	—	—	—	—	66.0	134	97.1
Quality-control site (QA/QC)												
07/07/2009	14:30	Source solution blank	none	—	—	—	—	—	—	82.2	144	92.6

Table A1C. Quality-control replicate comparison for volatile organic compound (VOC) detected in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.

[See table 1 for site-identification number. Values are given in percentage of environmental sample [(replicate concentration/environmental concentration)*100]. **Abbreviations:** m, meter; mm/dd/yyyy, month/day/year; na, not applicable; nr, no replicate calculated; —, compound was not detected in environmental or replicate sample at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Sample depth (m)	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	2- Butanone	Carbon disulfide	Chlorobenzene	Chloroethane	Chloromethane
Sweetwater Reservoir near pump tower (SWR01)											
07/12/2005	2.0	—	—	—	—	—	—	—	—	—	—
Sweetwater Reservoir center of minimum pool (SWR03)											
10/11/2005	6.0	—	—	—	—	—	—	—	—	—	—
04/14/2009	0.1	—	—	—	—	103	—	—	—	—	—
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)											
10/14/2003	0.2	—	—	—	—	90.9	—	—	—	—	—
04/13/2004	1.0	—	—	—	—	100	—	nr	—	—	—
07/13/2004	0.1	—	—	—	—	—	—	—	—	—	—
04/12/2005	2.0	107	—	—	—	107	—	125	—	—	—
04/07/2006	0.1	100	—	—	—	—	—	—	—	—	—
07/11/2006	2.0	—	150	—	—	—	—	—	—	—	—
01/08/2008	0.1	—	—	—	—	—	—	—	—	—	—
Perdue Treatment Plant—finished water at Sweetwater Reservoir (SWR08)											
04/11/2007	na	—	—	—	—	97.2	—	—	—	—	—
07/10/2007	na	97.0	—	—	—	107	—	nr	—	—	101
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)											
10/11/2006	0.1	—	—	—	—	—	—	111	—	—	—
01/14/2009	0.1	—	—	—	—	—	—	nr	—	—	—

Table A1C. Quality-control replicate comparison for volatile organic compound (VOC) detected in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Values are given in percentage of environmental sample [(replicate concentration/environmental concentration)*100]. **Abbreviations:** m, meter; mm/dd/yyyy, month/day/year; na, not applicable; nr, no replicate calculated; —, compound was not detected in environmental or replicate sample at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Sample depth (m)	Dibromochloro- methane	Dibromo- methane	1,2- Dichlorobenzene	1,4- Dichlorobenzene	Dichlorodifluoro- methane	<i>cis</i> -1,2- Dichloroethylene	Dichloromethane	Diethyl ether	Ethylbenzene	<i>o</i> -Ethyl toluene
Sweetwater Reservoir near pump tower (SWR01)											
07/12/2005	2.0	—	—	—	—	—	—	—	—	—	—
Sweetwater Reservoir center of minimum pool (SWR03)											
10/11/2005	6.0	—	—	—	—	—	—	—	—	—	—
04/14/2009	0.1	97.6	—	—	—	—	—	—	—	—	—
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)											
10/14/2003	0.2	100	—	—	—	—	—	—	—	—	—
04/13/2004	1.0	76.9	—	—	—	—	—	—	—	—	—
07/13/2004	0.1	—	—	—	—	—	—	—	—	—	—
04/12/2005	2.0	—	—	—	—	—	—	—	—	—	—
04/07/2006	0.1	—	—	—	—	—	—	—	—	—	—
07/11/2006	2.0	—	—	—	—	—	—	—	—	148	nr
01/08/2008	0.1	—	—	—	—	—	—	—	—	—	—
Perdue Treatment Plant—finished water at Sweetwater Reservoir (SWR08)											
04/11/2007	na	89.8	—	—	—	—	—	—	—	—	—
07/10/2007	na	115	—	—	—	—	—	116	—	—	—
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)											
10/11/2006	0.1	—	—	—	—	—	100	—	—	—	—
01/14/2009	0.1	—	—	—	—	92.6	111	83.3	—	—	—

Table A1C. Quality-control replicate comparison for volatile organic compound (VOC) detected in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Values are given in percentage of environmental sample [(replicate concentration/environmental concentration)*100]. **Abbreviations:** m, meter; mm/dd/yyyy, month/day/year; na, not applicable; nr, no replicate calculated; —, compound was not detected in environmental or replicate sample at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Sample depth (m)	4-Isopropyl- 1-methylbenzene	Methyl iodide	Methyl <i>tert</i> - butyl ether (MTBE)	Styrene	Tetrachloro- methane	Tetrahydrofuran	Toluene	Tribromomethane	1,1,1- Trichloroethane	Trichloroethylene
Sweetwater Reservoir near pump tower (SWR01)											
07/12/2005	2.0	—	—	—	—	—	—	—	—	—	—
Sweetwater Reservoir center of minimum pool (SWR03)											
10/11/2005	6.0	—	—	—	—	—	—	—	—	—	—
04/14/2009	0.1	—	—	—	—	—	—	—	95.8	—	—
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)											
10/14/2003	0.2	—	—	—	—	—	—	—	—	—	—
04/13/2004	1.0	—	—	—	—	—	—	100	—	—	—
07/13/2004	0.1	—	—	—	—	—	—	90.9	—	—	—
04/12/2005	2.0	—	—	—	—	—	—	—	—	—	—
04/07/2006	0.1	—	—	—	—	—	—	90.9	—	—	—
07/11/2006	2.0	—	—	—	—	—	—	149	—	—	—
01/08/2008	0.1	—	—	—	—	—	—	—	—	—	—
Perdue Treatment Plant—finished water at Sweetwater Reservoir (SWR08)											
04/11/2007	na	—	—	—	—	—	—	—	103	—	—
07/10/2007	na	—	—	—	—	nr	—	—	105	—	—
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)											
10/11/2006	0.1	—	—	—	—	—	—	133	—	—	120
01/14/2009	0.1	—	—	106	105	—	—	—	—	—	106

Table A1C. Quality-control replicate comparison for volatile organic compound (VOC) detected in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2020, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Values are given in percentage of environmental sample [(replicate concentration/environmental concentration)*100]. **Abbreviations:** m, meter; mm/dd/yyyy, month/day/year; na, not applicable; nr, no replicate calculated; —, compound was not detected in environmental or replicate sample at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Sample depth (m)	Trichloro- methane	1,2,3- Trimethylbenzene	1,2,4- Trimethylbenzene	1,3,5- Trimethylbenzene	<i>m</i> - and <i>p</i> - Xylene	<i>o</i> - Xylene	1,4- Bromofluoro- benzene, surrogate (percent)	1,2- Dichloroethane- <i>d</i> 4, surrogate (percent)	Toluene- <i>d</i> 8, surrogate (percent)
Sweetwater Reservoir near pump tower (SWR01)										
07/12/2005	2.0	—	—	—	—	—	—	104	104	102
Sweetwater Reservoir center of minimum pool (SWR03)										
10/11/2005	6.0	—	—	—	—	—	—	97.4	99.0	97.2
04/14/2009	0.1	—	—	—	—	—	—	101	98.2	100
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)										
10/14/2003	0.2	—	—	—	—	—	—	108	94.7	100
04/13/2004	1.0	—	—	—	—	—	—	99.3	99.0	100
07/13/2004	0.1	—	—	—	—	—	—	103	101	101
04/12/2005	2.0	—	—	—	—	—	—	102	100	99.0
04/07/2006	0.1	—	—	—	—	—	—	98.4	99.2	101
07/11/2006	2.0	—	—	174	nr	160	159	104	104	101
01/08/2008	0.1	—	—	—	—	—	—	98.2	104	103
Perdue Treatment Plant—finished water at Sweetwater Reservoir (SWR08)										
04/11/2007	na	—	—	—	—	—	—	102	92.4	100
07/10/2007	na	—	—	—	—	—	—	98.4	101	106
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)										
10/11/2006	0.1	—	—	—	—	—	—	98.0	99.2	100
01/14/2009	0.1	—	—	—	—	—	—	98.5	98.5	100

Table A2A. Quality-control matrix spike results for base-neutral acid (BNA) compounds in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1383, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[The site-identification number is 324137117002901. Time is denoted in 24-hour scale. Concentrations are given in percentage recovery. Abbreviations: hh:mm, hour:minute; mm/dd/yyyy, month/day/year; SWR, Sweetwater Reservoir]

Station number	Date (mm/dd/yyyy)	Time (hh:mm)	2,4-Dinitro- toluene	2,6-Dinitro- toluene	1,2-Diphenyl- hydrazine	Hexachloro- fluorene	Hexachloro- benzene	Hexachloro- butadiene	Hexachloro- cyclopentadiene	Hexachloro- ethane	Indeno[1,2,3-cd] pyrene
Perdue Treatment Plant- imported raw water at Sweetwater Reservoir (SWR09)	04/14/2004	12:28	109	109	109	109	119	68.9	88.7	88.4	98.6

Table A2A. Quality-control matrix spike results for base-neutral acid (BNA) compounds in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1383, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[The site-identification number is 324137117002901. Time is denoted in 24-hour scale. Concentrations are given in percentage recovery. Abbreviations: hh:mm, hour:minute; mm/dd/yyyy, month/day/year; SWR, Sweetwater Reservoir]

Station number	Date (mm/dd/yyyy)	Time (hh:mm)	Isophorone	2-Methyl-4,6- dinitrophenol	Naphthalene	Nitro- benzene	2-Nitrophenol	4-Nitrophenol	<i>N</i> -Nitrosodi- propylamine	<i>N</i> -Nitrosodi- phenylamine	Pentachloro- phenol
Perdue Treatment Plant- imported raw water at Sweetwater Reservoir (SWR09)	04/14/2004	12:28	109	118	109	109	99.3	78.7	89.2	118	118

Table A2A. Quality-control matrix spike results for base-neutral acid (BNA) compounds in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1383, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[The site-identification number is 324137117002901. Time is denoted in 24-hour scale. Concentrations are given in percentage recovery. Abbreviations: hh:mm, hour:minute; mm/dd/yyyy, month/day/year; SWR, Sweetwater Reservoir]

Station number	Date (mm/dd/yyyy)	Time (hh:mm)	Phenanthrene	Phenol	Pyrene	1,2,4-Trichloro- benzene	2,4,6-Trichloro- phenol	2-Fluoro- phenol, surrogate (percent) (12325)	2-Fluoro- biphenyl, surrogate (percent) (49279)	Nitro- benzene- <i>o</i> s, surrogate (percent) (49280)	Phenol- <i>o</i> s, surrogate (percent) (90630)	Terphenyl- <i>d</i> 14, surrogate (percent) (49278)	2,4,6-Tribromo- phenol, surrogate (percent) (90652)
Perdue Treatment Plant- imported raw water at Sweetwater Reservoir (SWR09)	04/14/2004	12:28	129	88.0	119	99	99.2	89.7	93.0	94.8	76.3	75.1	102

Table A2B. Quality-control replicate results for base-neutral acid (BNAs) compounds in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1383, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.

[See table 1 for site-identification number. Time is denoted in 24-hour scale. The five-digit number 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. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Acenaph- thene (34205)	Acenaph- thylene (34200)	Anthracene (34220)	Benzo[a] anthracene (34526)	Benzo[a] pyrene (34247)	Benzo[b] fluoranthene (34230)	Benzo[ghi] perylene (34521)	Benzo[k] fluoran- thene (34242)	Benzyl <i>n</i> -butyl phthalate (34292)	4- Bromophenyl phenyl ether (34636)
Perdue Treatment Plant-finished water at Sweetwater Reservoir (SWR08)	12/17/2003	13:51	[LRL]	[2]	[2]	[2]	[1]	[2]	[2]	[1]	[2]	[2]
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)	10/12/2004	16:31	—	—	—	—	—	—	E0.01	—	—	—
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)	04/13/2005	08:41	—	—	—	E0.05	—	—	E0.03	—	—	—

Table A2B. Quality-control replicate results for base-neutral acid (BNAs) compounds in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1383, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. The five-digit number 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. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	bis(2-Chloroethoxy) methane (34278)	bis(2-Chloroethyl) ether (34273)	bis(2-Chloroisopropyl) ether (34283)	4-Chloro- 3-methylphenol (34452)	2-Chloro- naphthalene (34581)	2-Chlorophenol (34586)	4- Chlorophenyl phenyl ether (34641)
Perdue Treatment Plant-finished water at Sweetwater Reservoir (SWR08)	12/17/2003	13:51	[LRL]	[1]	[1]	[2]	[1]	[1]	[1]
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)	10/12/2004	16:31	—	—	—	—	—	—	—
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)	04/13/2005	08:41	—	—	—	—	—	—	—

Table A2B. Quality-control replicate results for base-neutral acid (BNAs) compounds in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1383, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. The five-digit number 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. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Chrysene (34320)	bis(2-Ethylhexyl) phthalate (39100)	Dibenz[a,h] anthracene (34556)	1,2- Dichlorobenzene (34536)	1,3- Dichlorobenzene (34566)	1,4- Dichlorobenzene (34571)	2,4- Dichlorophenol (34601)
			[LRL]	[2]	[2]	[2]	[1]	[1]	[2]
Perdue Treatment Plant-finished water at Sweetwater Reservoir (SWR08)	12/17/2003	13:51	—	—	—	—	—	—	—
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)	10/12/2004	16:31	—	—	—	—	—	—	—
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)	04/13/2005	08:41	—	—	—	—	—	—	—

Table A2B. Quality-control replicate results for base-neutral acid (BNAs) compounds in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1383, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. The five-digit number 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. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Diethyl phthalate (34336)	2,4- Dimethylphenol (34606)	Dimethyl phthalate (34341)	Di-n-butyl phthalate (39110)	Di-n-octyl phthalate (34596)	2,4- Dinitrophenol (34616)	2,4- Dinitrotoluene (34611)	2,6- Dinitrotoluene (34626)
			[LRL]	[2]	[1]	[2]	[2]	[3]	[1]	[2]
Perdue Treatment Plant-finished water at Sweetwater Reservoir (SWR08)	12/17/2003	13:51	—	—	—	E1	—	—	—	—
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)	10/12/2004	16:31	—	—	—	—	—	—	—	—
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)	04/13/2005	08:41	—	—	—	—	—	—	—	—

Table A2B. Quality-control replicate results for base-neutral acid (BNAs) compounds in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1383, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. The five-digit number 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. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	1,2-Diphenylhydrazine (82626)	Fluoranthene (34376)	Fluorene (34381)	Hexachloro- benzene (39700)	Hexachloro- butadiene (39702)	Hexachloro- cyclopentadiene (34386)	Hexachloro- ethane (34396)
			[LRL]	[1]	[1]	[1]	[1]	[1]	[2]
Perdue Treatment Plant-finished water at Sweetwater Reservoir (SWR08)	12/17/2003	13:51	—	—	—	—	—	—	—
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)	10/12/2004	16:31	—	—	—	—	—	—	—
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)	04/13/2005	08:41	—	E0.06	—	—	—	—	—

Table A2B. Quality-control replicate results for base-neutral acid (BNAs) compounds in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1383, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. The five-digit number 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. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Indeno[1,2,3-cd] pyrene (34403)	Isophorone (34408)	2-Methyl-4,6- dinitrophenol (34657)	Naphthalene (34696)	Nitrobenzene (34447)	2-Nitrophenol (34591)	4-Nitrophenol (34646)
			[LRL]	[2]	[2]	[2]	[1]	[1]	[1]
Perdue Treatment Plant-finished water at Sweetwater Reservoir (SWR08)	12/17/2003	13:51	—	—	—	—	—	—	—
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)	10/12/2004	16:31	—	—	—	—	—	—	—
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)	04/13/2005	08:41	E0.04	—	—	—	—	—	—

Table A2B. Quality-control replicate results for base-neutral acid (BNAs) compounds in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1383, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. The five-digit number 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. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	<i>N</i> -Nitrosodi- methylaniline (34438)		<i>N</i> -Nitrosodi- <i>n</i> - propylaniline (34428)		<i>N</i> -Nitrosodi- phenylamine (34433)		Pentachlorophenol (39032)		Phenanthrene (34461)		Phenol (34694)		Pyrene (34469)		1,2,4- Trichlorobenzene (34551)	
			[LRL]	[2]	[2]	[2]	[2]	[2]	[1]	[1.6]	[2]	[2]	[1]	[1]				
Perdue Treatment Plant-finished water at Sweetwater Reservoir (SWR08)	12/17/2003	13:51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)	10/12/2004	16:31	—	—	—	—	—	—	—	—	—	E0.3	—	—	—	—	—	—
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)	04/13/2005	08:41	—	—	—	—	—	—	—	—	—	E0.1	—	—	—	—	—	—

Table A2B. Quality-control replicate results for base-neutral acid (BNAs) compounds in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1383, collected from the Sweetwater Reservoir (SWR) watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. The five-digit number 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. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	2,4,6- Trichlorophenol (34621)		2-Fluorophenol, surrogate (percent) (12325)		2-Fluorobiphenyl, surrogate (percent) (49279)		Nitrobenzene- <i>d</i> 5, surrogate (percent) (49280)		Phenol- <i>d</i> 5, surrogate (percent) (90630)		Terphenyl- <i>d</i> 14, surrogate (percent) (49278)		2,4,6- Tribromophenol, surrogate (percent) (90652)	
			[LRL]	[1]	[LRL]	[1]	[LRL]	[1]	[LRL]	[1]	[LRL]	[1]	[LRL]	[1]	[LRL]	[1]
Perdue Treatment Plant-finished water at Sweetwater Reservoir (SWR08)	12/17/2003	13:51	—	—	2.90	86.8	93.2	2.20	51.1	128	—	—	—	—	—	—
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)	10/12/2004	16:31	—	—	92.2	111	119	70.9	94.6	124	—	—	—	—	—	—
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)	04/13/2005	08:41	—	—	56.4	82.6	90.9	44.9	76.2	74.1	—	—	—	—	—	—

Table A3. Quality-control replicate results of pesticide concentrations in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2003, collected from Sweetwater Reservoir, San Diego County, California.—Continued

[The site-identification number is 324130117002501. Time is denoted in 24-hour scale. The five-digit number 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. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Dichlorvos (38775)	Dicrotophos (38454)	Dieldrin (39381)	2,6-Diethylaniline (82660)	Dimethoate (82662)	Ethion (82346)	Ethion monoxon (61644)	2-Ethyl-6-methylaniline (61620)	2-[(2-Ethyl-6-methylphenyl)-amino]-1-propanol (61615)
Sweetwater Reservoir near pump tower (SWR01)	02/17/2004	15:41	5.0	[LRL]	[0.01]	[0.009]	[0.006]	[0.006]	[0.004]	[0.03]	[0.004]	[0.1]

Table A3. Quality-control replicate results of pesticide concentrations in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2003, collected from Sweetwater Reservoir, San Diego County, California.—Continued

[The site-identification number is 324130117002501. Time is denoted in 24-hour scale. The five-digit number 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. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Fenamiphos (61591)	Fenamiphos sulfone (61645)	Fenamiphos sulfoxide (61646)	Fipronil (62166)	Fipronil sulfide (62167)	Fipronil sulfone (62168)	Fonofos (04095)	Fonofos oxygen analog (61649)	Hexazinone (04025)	Iprodione (61593)
Sweetwater Reservoir near pump tower (SWR01)	02/17/2004	15:41	5.0	[LRL]	[0.03]	[0.008]	[0.016]	[0.013]	[0.024]	[0.003]	[0.002]	[0.013]	[1]

Table A3. Quality-control replicate results of pesticide concentrations in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2003, collected from Sweetwater Reservoir, San Diego County, California.—Continued

[The site-identification number is 324130117002501. Time is denoted in 24-hour scale. The five-digit number 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. Concentrations are given in micrograms per liter ($\mu\text{g/L}$) unless noted. **Abbreviations:** E, estimated having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters)	Isofenphos (61594)	Malaoxon (61652)	Malathion (39532)	Metalaxyl (61596)	Methidathion (61598)	Metolachlor (39415)	Metribuzin (82630)	Myclobutanil (61599)	1- Naphthol (49295)
			(00098)	[LRL]	[0.003]	[0.008]	[0.027]	[0.005]	[0.006]	[0.013]	[0.008]	[0.09]
Sweetwater Reservoir near pump tower (SWR01)	02/17/2004	15:41	5.0	—	—	E0.006	—	—	—	E0.005	—	—

Table A3. Quality-control replicate results of pesticide concentrations in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2003, collected from Sweetwater Reservoir, San Diego County, California.—Continued

[The site-identification number is 324130117002501. Time is denoted in 24-hour scale. The five-digit number 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. Concentrations are given in micrograms per liter ($\mu\text{g/L}$) unless noted. **Abbreviations:** E, estimated having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

[illegible]

Table A3. Quality-control replicate results of pesticide concentrations in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2003, collected from Sweetwater Reservoir, San Diego County, California.—Continued

[The site-identification number is 324130117002501. Time is denoted in 24-hour scale. The five-digit number 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. Concentrations are given in micrograms per liter ($\mu\text{g/L}$) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters)	Pronamide (82676)		Simazine (04035)	Tebuthiuron (82670)	Terbufos (82675)	Terbufos oxygen analog sulfone (61674)	Terbuthylazine (04022)	Trifluralin (82661)	Diazinon d10, surrogate (percent) (99994)	HCH, α -d6, surrogate (percent) (99995)
				[LRL]	[0.004]	[0.005]	[0.016]	[0.02]	[0.07]	[0.01]	[0.009]	—	98.3
Sweetwater Reservoir near pump tower (SWR01)	02/17/2004	15:41	5.0	—	0.006	E0.010	—	—	—	—	—	98.3	80.3

Table A4. Quality-control replicate results of pesticide concentrations in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2060, 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 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. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; NA, not analyzed; SWR, Sweetwater Reservoir; —, compound was not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Station number	Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Acifluorfen (49315)	Aldicarb (49312)	Aldicarb sulfone (49313)	Aldicarb sulfoxide (46314)	Atrazine (39632)	Bendiocarb (50299)	Benomyl (50300)	Bensulfuron- methyl (61693)	Bentazon (38711)	Bromacil (04029)
Sweetwater Reservoir near pump tower (SWR01)	07/12/2005	11:01	2.0	—	—	—	—	—	—	—	—	—	—
Perdue Treatment Plant- imported raw water at Sweetwater Reservoir (SWR09)	10/12/2004	16:31	0.1	—	—	—	—	—	—	—	—	—	—
Sweetwater River at low- flow diversion upstream from Sweetwater Reservoir (LFDD)	07/14/2004	10:11	0.1	—	—	—	—	—	—	—	—	—	—

Table A4. Quality-control replicate results of pesticide concentrations in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2060, collected 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 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. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; NA, not analyzed; SWR, Sweetwater Reservoir; —, compound was not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Station number	Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Bromo- xynil (49311)	Caffeine (50305)	Carbaryl (49310)	Carbofuran (49309)	Chloramben, methyl ester (61188)	Chlorimuron- ethyl (50306)	N-(4- Chlorophenyl)- N-methyl urea (61692)	Clopyralid (49305)	Cycloate (04031)	2,4-D and 2,4-methyl ester (66496)
Sweetwater Reservoir near pump tower (SWR01)	07/12/2005	11:01	2.0	—	0.033	—	—	—	—	—	—	—	—
Perdue Treatment Plant- imported raw water at Sweetwater Reservoir (SWR09)	10/12/2004	16:31	0.1	—	—	—	—	—	—	—	—	—	E0.02
Sweetwater River at low- flow diversion upstream from Sweetwater Reservoir (LFDD)	07/14/2004	10:11	0.1	—	E0.014	—	—	—	—	—	—	—	—

Table A4. Quality-control replicate results of pesticide concentrations in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2060, collected 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 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. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; NA, not analyzed; SWR, Sweetwater Reservoir; —, compound was not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Station number	Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters)	2,4-DB (38746)	Dacthal monoacid (49304)	Deethyl- atrazine (04040)	Deusopro- pylatiazine (04038)	Dicamba (38442)	Dichlorprop (49302)	Dinoseb (49301)	Diphenamid (04033)	Diuron (49300)	Fenuron (49297)	Flumetsulam (61694)
			(00098)	[LRL]	[0.03]	[0.03]	[0.08, 0.01]	[0.04, 0.01]	[0.03, 0.01]	[0.04, 0.01]	[0.01, 0.3]	[0.01]	[0.02]	[0.04]
Sweetwater Reservoir near pump tower (SWR01)	07/12/2005	11:01	2.0	—	—	—	—	—	—	—	—	0.05	—	—
Perdue Treatment Plant- imported raw water at Sweetwater Reservoir (SWR09)	10/12/2004	16:31	0.1	—	—	—	—	—	—	—	—	0.05	—	—
Sweetwater River at low- flow diversion upstream from Sweetwater Reservoir (LFDD)	07/14/2004	10:11	0.1	—	—	—	—	—	—	—	—	—	—	NA

Table A4. Quality-control replicate results of pesticide concentrations in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2060, collected 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 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. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; NA, not analyzed; SWR, Sweetwater Reservoir; —, compound was not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Station number	Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters)	Fluometuron (38811)	Hydroxy- atrazine (50355)	3-Hydroxy carbofuran (49308)	Imazaquin (50356)	Imazethapyr (50407)	Imidacloprid (61695)	Linuron (38478)	MCPA (38482)	MCPB (38487)	Metalaxyl (50359)
			(00098)	[LRL]	[0.02, 0.03]	[0.032]	[0.008, 0.006]	[0.04, 0.02]	[0.04, 0.02]	[0.020]	[0.01]	[0.03, 0.02]	[0.01, 0.02]
Sweetwater Reservoir near pump tower (SWR01)	07/12/2005	11:01	2.0	—	—	—	—	—	—	—	—	—	—
Perdue Treatment Plant- imported raw water at Sweetwater Reservoir (SWR09)	10/12/2004	16:31	0.1	—	E0.016	—	—	—	—	—	—	—	—
Sweetwater River at low- flow diversion upstream from Sweetwater Reservoir (LFDD)	07/14/2004	10:11	0.1	—	E0.013	—	—	—	0.025	—	—	—	—

Table A4. Quality-control replicate results of pesticide concentrations in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2060, collected 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 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. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; NA, not analyzed; SWR, Sweetwater Reservoir; —, compound was not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Station number	Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters)	Methiocarb (38501)	Methomyl (49296)	Metsulfuron- methyl (61697)	Neburon (49294)	Nico- sulfuron (50364)	Nor- flurazon (49293)	Oryzalin (49292)	Oxamyl (38866)	Picloram (49291)	Propham (49236)
				[LRL] [0.010, 0.008]	[0.020, 0.004]	[0.03]	[0.01]	[0.04, 0.01]	[0.02]	[0.01, 0.02]	[0.03, 0.01]	[0.03, 0.02]	[0.030, 0.010]
Sweetwater Reservoir near pump tower (SWR01)	07/12/2005	11:01	2.0	—	—	—	—	—	—	—	—	—	—
Perdue Treatment Plant- imported raw water at Sweetwater Reservoir (SWR09)	10/12/2004	16:31	0.1	—	—	—	—	—	—	—	—	—	—
Sweetwater River at low- flow diversion upstream from Sweetwater Reservoir (LFDD)	07/14/2004	10:11	0.1	—	—	—	—	—	—	—	—	—	—

Table A4. Quality-control replicate results of pesticide concentrations in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 2060, collected 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 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. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; NA, not analyzed; SWR, Sweetwater Reservoir; —, compound was not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Station number	Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters)	Propi- conazole (50471)	Pro- poxur (38538)	Siduron (38548)	Sulfometuron- methyl (50337)	Tebuthiuron (82670)	Terbacil (04032)	Triclopyr (49235)	Barban, surrogate (percent)	Caffeine-C13, surrogate (percent)	2,4,5-T, surrogate (percent)
				[LRL] [0.01, 0.02]	[0.008]	[0.02]	[0.038, 0.009]	[0.026]	[0.016, 0.010]	[0.03, 0.02]	(90640)	(99959)	(99958)
Sweetwater Reservoir near pump tower (SWR01)	07/12/2005	11:01	2.0	—	—	—	—	—	—	—	101	96.8	103
Perdue Treatment Plant- imported raw water at Sweetwater Reservoir (SWR09)	10/12/2004	16:31	0.1	—	—	—	—	—	—	—	105	104	69.6
Sweetwater River at low- flow diversion upstream from Sweetwater Reservoir (LFDD)	07/14/2004	10:11	0.1	—	—	—	—	—	—	—	E43.1	E115	68.8

Table A5. Quality-control replicate results for anthropogenic indicator compounds (AICs) analyzed in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1433, collected from the Sweetwater Reservoir watershed, San Diego County, California.

The site-identification number is 324311116565901. Time is denoted in 24-hour scale. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are given in micrograms per liter ($\mu\text{g/L}$) unless noted. **Abbreviations:** hh:mm, hour:minute; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Station number	Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters)	Acetophenone (62064)	Acetyl hexamethyl tetrahydro naphthalene (62065)	Anthracene (34221)	9,10- Anthraquinone (62066)	Benzo[a]pyrene (34248)	Benzophenone (62067)	Bromacil (04029)	3- <i>tert</i> -Butyl- 4-hydroxyan- isole (BHA) (62059)
				[LRL]	[0.5]	[0.5]	[0.5]	[0.5]	[0.5]	[0.5]	[0.5]
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)	02/18/2004	15:11	0.1	—	—	—	—	—	—	—	—

Table A5. Quality-control replicate results for anthropogenic indicator compounds (AICs) analyzed in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1433, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

The site-identification number is 324311116565901. Time is denoted in 24-hour scale. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are given in micrograms per liter ($\mu\text{g/L}$) unless noted. **Abbreviations:** hh:mm, hour:minute; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Station number	Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters)	Caffeine (50305)	Camphor (62070)	Carbaryl (82680)	Carbazole (62071)	Chlorpyrifos (38933)	Cholesterol (62072)	3-β-Coprostanol (62057)	Cotinine (62005)	p-Cresol (62084)
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)	02/18/2004	15:11	0.1	[LRL]	[0.5]	[1]	[0.5]	[0.5]	[2]	[2]	[1]	[1]

Table A5. Quality-control replicate results for anthropogenic indicator compounds (AICs) analyzed in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1433, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[The site-identification number is 324311116565901. Time is denoted in 24-hour scale. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** hh:mm, hour:minute; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Station number	Date (mm/dd/yyyy) (hh:mm)	Sampling depth (meters) (00098)	5-Methyl-1(H)- benzotriazole (62063)	1- Methylnaphthalene (62054)	2- Methylnaphthalene (62056)	Methyl salicylate (62081)	Naphthalene (34443)	4- Nonylphenol (total) (62085)	4- Nonylphenol diethoxy (62083)
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)	02/18/2004 15:11	0.1	[LRL] [2] —	[0.5] —	[0.5] —	[0.5] —	[0.5] —	[0.5] —	[0.5] —

Table A5. Quality-control replicate results for anthropogenic indicator compounds (AICs) analyzed in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1433, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[The site-identification number is 324311116565901. Time is denoted in 24-hour scale. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are given in micrograms per liter (µg/L) unless noted. **Abbreviations:** hh:mm, hour:minute; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Station number	Date (mm/dd/yyyy) (hh:mm)	Sampling depth (meters) (00098)	4- <i>n</i> - Octylphenol (62061)	4- <i>tert</i> - Octylphenol (62062)	4- Octylphenol diethoxylates (61705)	4- Octylphenol monoethoxylates (61706)	Phenanthrene (34462)	Phenol (34466)	Prometon (04037)	Pyrene (34470)
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)	02/18/2004 15:11	0.1	[LRL] [1] —	[1] —	[1] —	[1] —	[0.5] —	[0.5] —	[0.5] —	[0.5] —

Table A5. Quality-control replicate results for anthropogenic indicator compounds (AICs) analyzed in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1433, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[The site-identification number is 324311116565901. Time is denoted in 24-hour scale. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are given in micrograms per liter ($\mu\text{g/L}$) unless noted. **Abbreviations:** hh:mm, hour:minute; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Station number	Date (mm/dd/yyyy) (hh:mm)	Sampling depth (meters)	β -Sitosterol (62068)	β -Stigmasterol (62086)	Tetrachloroethene (34476)	Tribromomethane (34288)	Tributyl phosphate (62089)	Triclosan (62090)	Triethyl citrate (62091)	Triphenyl phosphate (62092)
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)	02/18/2004 15:11	0.1	[LRL]	[2]	[0.5]	[0.5]	[0.5]	[1]	[0.5]	[0.5]

Table A5. Quality-control replicate results for anthropogenic indicator compounds (AICs) analyzed in filtered-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1433, collected from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[The site-identification number is 324311116565901. Time is denoted in 24-hour scale. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. Concentrations are given in micrograms per liter ($\mu\text{g/L}$) unless noted. **Abbreviations:** hh:mm, hour:minute; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Station number	Date (mm/dd/yyyy) (hh:mm)	Sampling depth (meters)	Tri(2-butoxyethyl) phosphate (62093)	Tri(2-chloroethyl) phosphate (62087)	Tri(dichloroisopropyl) phosphate (62088)	Caffeine-C13, surrogate (percent)	Decafluorobiphenyl, surrogate (percent)	Fluoranthene-d10, surrogate (percent)
Sweetwater River at low-flow diversion dam upstream from Sweetwater Reservoir (LFDD)	02/18/2004 15:11	0.1	[LRL]	[0.5]	[0.5]	109	82.6	95.7

Table A6A. Quality-control spike results for metals in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1080, collected from the Sweetwater Reservoir, San Diego County, California.

[See table 1 for site-identification number. Time is denoted in 24-hour scale. All values are reported as percentages. **Abbreviations:** hh:mm, hour:minute; mm/dd/yyyy, month/day/year; NA, not analyzed]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Type	Aluminum	Antimony	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Lithium
Sweetwater Reservoir near pump tower (SWR01)	07/13/2004	13:33	2.0	Spike	122	113	113	116	111	125	113	108	118	116
Sweetwater Reservoir near pump tower (SWR01)	07/13/2004	13:34	2.0	Spike replicate	142	120	121	128	118	135	128	120	127	131
Sweetwater Reservoir near pump tower (SWR01)	07/07/2009	10:48	3.0	Spike	134	94.0	111	89.0	86.4	103	95.4	91.0	104	117
Sweetwater Reservoir near pump tower (SWR01)	07/07/2009	10:49	3.0	Spike replicate	141	93.5	75.5	88.5	83.4	99.0	92.9	87.0	103	106
Sweetwater Reservoir center of minimum pool (SWR03)	07/15/2008	11:13	2.0	Spike	106	96.6	105	102	91.6	101	100	92.5	106	102

Table A6A. Quality-control spike results for metals in whole-water samples, using U.S. Geological Survey National Water Quality Laboratory schedule 1080, collected from the Sweetwater Reservoir, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. All values are reported as percentages. **Abbreviations:** hh:mm, hour:minute; mm/dd/yyyy, month/day/year; NA, not analyzed]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sampling depth (meters) (00098)	Type	Manganese	Molybdenum	Nickel	Selenium	Silver	Strontium	Thallium	Uranium (natural)	Zinc
Sweetwater Reservoir near pump tower (SWR01)	07/13/2004	13:33	2.0	Spike	105	117	113	116	114	104	116	104	NA
Sweetwater Reservoir near pump tower (SWR01)	07/13/2004	13:34	2.0	Spike replicate	112	126	127	122	121	100	125	112	NA
Sweetwater Reservoir near pump tower (SWR01)	07/07/2009	10:48	3.0	Spike	107	103	89.6	132	115.9	230	103	87.5	110
Sweetwater Reservoir near pump tower (SWR01)	07/07/2009	10:49	3.0	Spike replicate	96.5	102	87.6	93.1	115.9	75.0	102	83.0	110
Sweetwater Reservoir center of minimum pool (SWR03)	07/15/2008	11:13	2.0	Spike	98.4	111	94.7	93.2	92.8	76.0	104	112	82.6

Table A6C. Quality-control replicate comparison for metals in whole-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.

[See table 1 for site-identification number. Values are given in percentage of environmental sample [(replicate concentration/environmental concentration)*100]. **Abbreviations:** mm/dd/yyyy, month/day/year; na, not applicable; nr, no replicate calculated; —, compound was not detected in environmental or replicate sample at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Sampling depth (meters) (00098)	Aluminum (01105)	Antimony (01097)	Barium (01007)	Beryllium (01012)	Cadmium (01027)	Chromium (01034)	Cobalt (01037)	Copper (01042)	Lead (01051)	Lithium (01132)
Sweetwater Reservoir near pump tower (SWR01)											
07/13/2004	2.0	86.4	130	100	—	nr	nr	96.6	97.6	140	96.7
10/11/2006	4.0	95.1	100	93.2	—	—	113	99.5	37.2	100	98.0
Sweetwater Reservoir center of minimum pool (SWR03)											
12/16/2003	4.0	103	118	102	—	nr	—	102	169	106	101
01/12/2005	7.0	87.7	120	99.0	—	—	87.0	95.3	101	94.4	98.6
10/11/2005	6.0	87.5	120	98.7	—	—	92.9	38.6	34.4	100	92.8
04/07/2006	0.1	122	54.6	100	—	—	30.0	108	149	—	98.8
10/09/2007	5.0	104	100	101	—	—	nr	100	25.5	90.9	101
10/14/2008	4.0	100	100	103	—	—	112	100	—	218	101
Perdue Treatment Plant-finished water at Sweetwater Reservoir (SWR08)											
07/12/2005	na	119	85.1	100	—	—	—	102	105	144	101
01/10/2006	na	nr	103	100	—	—	50.0	69.6	94.1	—	107
04/14/2009	na	nr	100	99.2	—	—	—	—	—	—	101
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)											
10/12/2004	na	107	96.2	101	—	—	—	99.7	102	99.3	100

Table A6C. Quality-control replicate comparison for metals in whole-water samples collected from the Sweetwater Reservoir watershed, San Diego County, California.
—Continued

[See table J for site-identification number. Values are given in percentage of environmental sample [(replicate concentration/environmental concentration)*100]. **Abbreviations:** mm/dd/yyyy, month/day/year; na, not applicable; nr, no replicate calculated; —, compound was not detected in environmental or replicate sample at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Sampling depth (meters) (00098)	Manganese (01055)	Molybdenum (01062)	Nickel (01067)	Selenium (01147)	Silver (01077)	Strontium (01082)	Thallium (01059)	Uranium (natural) (28011)	Zinc (01092)
Sweetwater Reservoir near pump tower (SWR01)										
07/13/2004	2.0	93.2	98.4	92.3	114	—	99.2	—	108	99.3
10/11/2006	4.0	85.7	100	105	96.7	—	100.0	—	101	36.4
Sweetwater Reservoir center of minimum pool (SWR03)										
12/16/2003	4.0	105	101	96.9	111	—	102	—	102	104
01/12/2005	7.0	98.1	100	96.8	98.7	—	100	—	99.5	100
10/11/2005	6.0	84.2	101	31.2	121	—	94.7	—	103	101
04/07/2006	0.1	101	99.7	141	106	—	99.8	—	99.7	—
10/09/2007	5.0	103	100	40.7	106	—	101	—	102	—
10/14/2008	4.0	107	100	96.9	96.4	—	102	—	102	nr
Perdue Treatment Plant-finished water at Sweetwater Reservoir (SWR08)										
07/12/2005	na	101	101	94.3	121	—	99.8	—	100	71.4
01/10/2006	na	95.0	95.1	92.4	105	—	103	—	99.0	487
04/14/2009	na	nr	98.1	100	100	—	98.7	—	100	100
Perdue Treatment Plant-imported raw water at Sweetwater Reservoir (SWR09)										
10/12/2004	na	96.7	98.9	101	125	—	100	—	100	94.9

Appendix B Tables.

Table B1A. Quality-control replicate results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site-identification number is 324141117001601. Concentrations are given in part per billion by volume (ppbv). **Abbreviations:** mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; °C, degree Celsius; —, compound was not detected at a concentration above the laboratory reporting level]

Date (mm/dd/yyyy)	Pressure (mm of Hg)	Temperature (°C)	Chloromethane		Chloroethene (vinyl chloride)	Bromomethane	Chloroethane	Bromoethene (vinyl bromide)
			[LRL]	[0.30]	[0.30]	[0.50]	[0.30]	[0.30]
11/29/2003	761.9	15.0		—	—	—	—	—
12/11/2003	761.6	12.0		—	—	—	—	—
02/03/2005	762.4	15.7		—	—	—	—	—
03/11/2005	760.6	15.0		—	—	—	—	—
01/29/2006	765.2	11.5		—	—	—	—	—
04/23/2006	764.7	13.2		—	—	—	—	—
09/14/2006	756.1	18.8		—	—	—	—	—
02/17/2007	761.7	19.1		—	—	—	—	—
05/24/2007	759.0	17.3		—	—	—	—	—
01/07/2008	760.1	12.0		—	—	—	—	—
04/12/2008	708.7	22.8		—	—	—	—	—
05/30/2008	703.2	17.2		—	—	—	—	—
09/27/2008	719.1	20.9		—	—	—	—	—
12/20/2008	766.1	9.2		—	—	—	—	—

Table B1B. Quality-control replicate results for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed, °C, degree Celsius; LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Date (mm/dd/yyyy)	Pressure (mm of Hg)	Temperature (°C)	Acetone	Diethyl ether	1,1- Dichloroethane	<i>tert</i> -Butyl alcohol	2- Propenenitrile (acrylonitrile)	Methylene chloride	Methylacetate	3-Chloro- 1-propene	Carbon disulfide	<i>trans</i> 1,2- Dichloroethene
			[LRL] [0.20]	[0.15]	[0.06]	[0.12]	[0.19]	[0.09]	[0.16]	[0.10]	[0.16]	[0.08]
11/29/2003	761.9	15.0	1.31	—	—	E0.10	—	0.31	—	—	—	—
12/11/2003	761.6	12.0	1.06	—	—	0.21	—	E0.06	—	—	—	—
02/03/2005	762.4	15.7	2.90	—	—	E0.04	—	0.35	—	—	E0.10	—
01/29/2006	765.2	11.5	3.20	—	—	E0.09	—	E0.08	—	—	—	—
04/23/2006	764.7	13.2	0.89	—	—	E0.02	—	—	—	—	E0.03	—
09/14/2006	756.1	18.8	1.02	—	—	E0.05	—	E0.02	—	—	E0.03	—
02/17/2007	761.7	19.1	2.43	—	—	E0.05	—	0.33	—	—	E0.09	—
05/24/2007	759.0	17.3	1.87	—	—	E0.04	—	0.10	—	—	—	—
05/30/2008	703.2	17.2	0.81	—	—	E0.02	—	E0.05	—	—	E0.02	—
09/27/2008	719.1	20.9	0.42	—	—	E0.02	—	E0.03	—	—	—	—
12/20/2008	766.1	9.2	0.83	—	—	E0.03	—	E0.05	—	—	E0.02	—

Table B1B. Quality-control replicate results for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in part per billion by volume (ppbv). **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed, °C, degree Celsius; LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Date (mm/dd/yyyy)	Pressure (mm of Hg)	Temperature (°C)	Methyl <i>tert</i> - butyl ether (MTBE)	1,1- Dichloroethane	2-Butanone (methyl ethyl ketone)	Diisopropyl ether (DIPE)	Methyl acrylonitrile	<i>cis</i> -1,2- Dichloroethene	Bromochloro methane	Trichloro- methane (chloroform)	2,2- Dichloropropene	Methyl acrylate
			[LRL] [0.10]	[0.08]	[0.14]	[0.08]	[0.16]	[0.09]	[0.09]	[0.06]	[0.07]	[0.15]
11/29/2003	761.9	15.0	0.37	—	0.29	—	—	—	—	E0.03	—	—
12/11/2003	761.6	12.0	0.24	—	0.18	—	—	—	—	E0.01	—	—
02/03/2005	762.4	15.7	E0.02	—	0.20	—	—	—	—	E0.03	—	—
01/29/2006	765.2	11.5	E0.07	—	0.59	—	—	—	—	E0.01	—	—
04/23/2006	764.7	13.2	—	—	E0.05	—	—	—	—	—	—	—
09/14/2006	756.1	18.8	E0.05	—	E0.11	—	—	—	—	E0.01	—	—
02/17/2007	761.7	19.1	E0.03	—	0.27	—	—	—	—	E0.04	—	—
05/24/2007	759.0	17.3	E0.01	—	0.29	—	—	—	—	E0.03	—	—
05/30/2008	703.2	17.2	E0.01	—	0.19	—	—	—	—	E0.03	—	—
09/27/2008	719.1	20.9	E0.01	—	0.19	—	—	—	—	E0.02	—	—
12/20/2008	766.1	9.2	E0.02	—	0.31	—	—	—	—	0.06	—	—

Table B1B. Quality-control replicate results for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in part per billion by volume (ppbv). **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed, °C, degree Celsius; LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Date (mm/dd/yyyy)	Pressure (mm of Hg)	Temperature (°C)	Ethyl <i>tert</i> - butyl ether (ETBE)		<i>tert</i> -Amyl alcohol	1,2- Dichloroethane	1,1,1- Trichloroethane	1,1- Dichloropropene	Tetrachloro- methane	Benzene	<i>tert</i> -Pentyl methyl ether	Dibromo- methane
			[LRL]	[0.09]	[0.16]	[0.12]	[0.09]	[0.06]	[0.09]	[0.11]	[0.20]	[0.08]
11/29/2003	761.9	15.0	E0.02	E0.02	—	E0.02	—	E0.03	—	0.11	0.88	—
12/11/2003	761.6	12.0	E0.02	E0.02	—	E0.03	—	E0.04	0.12	0.54	—	—
02/03/2005	762.4	15.7	—	—	—	—	E0.007	E0.02	E0.09	0.56	—	—
01/29/2006	765.2	11.5	—	—	E0.06	—	—	E0.03	0.17	0.68	—	—
04/23/2006	764.7	13.2	—	—	—	—	—	—	—	—	—	—
09/14/2006	756.1	18.8	E0.01	E0.01	—	E0.01	—	E0.02	E0.13	0.23	—	—
02/17/2007	761.7	19.1	—	—	—	—	—	E0.02	0.11	0.67	—	—
05/24/2007	759.0	17.3	—	—	—	—	—	E0.03	0.15	0.19	—	—
05/30/2008	703.2	17.2	—	—	—	—	—	E0.01	E0.09	—	—	—
09/27/2008	719.1	20.9	—	—	—	—	—	E0.01	0.11	—	—	—
12/20/2008	766.1	9.2	—	—	—	—	E0.019	E0.03	0.18	0.51	—	—

Table B1B. Quality-control replicate results for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in part per billion by volume (ppbv). **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed, °C, degree Celsius; LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Date (mm/dd/yyyy)	Pressure (mm of Hg)	Temperature (°C)	1,2- Dichloro- propane	Trichloro- ethene (TCE)	Bromodichloro- methane	Methylmeth- acrylate	<i>cis</i> 1,3- Dichloro- propane	4-Methyl- 2-pentanone (MIBK)	<i>trans</i> 1,3- Dichloro- propane	1,1,2- Trichloro- ethane	Toluene	1,3- Dichloro- propane
			[LRL]	[0.07]	[0.05]	[0.12]	[0.08]	[0.10]	[0.06]	[0.06]	[0.08]	[0.09]
11/29/2003	761.9	15.0	—	E0.02	—	—	—	E0.06	—	—	1.88	E0.02
12/11/2003	761.6	12.0	—	E0.01	—	—	—	E0.06	—	—	1.41	—
02/03/2005	762.4	15.7	—	E0.004	—	—	—	E0.02	—	—	0.35	—
01/29/2006	765.2	11.5	—	E0.02	—	—	—	E0.03	—	—	1.14	—
04/23/2006	764.7	13.2	—	—	—	—	—	—	—	—	—	—
09/14/2006	756.1	18.8	—	E0.01	—	—	—	E0.02	—	—	0.27	—
02/17/2007	761.7	19.1	—	E0.01	—	—	—	E0.03	—	—	1.07	—
05/24/2007	759.0	17.3	—	E0.01	—	—	—	E0.02	—	—	0.32	—
05/30/2008	703.2	17.2	—	E0.05	—	—	—	E0.01	—	—	0.36	—
09/27/2008	719.1	20.9	—	—	—	—	—	E0.03	—	—	0.64	—
12/20/2008	766.1	9.2	—	E0.01	—	—	—	E0.01	—	—	0.74	—

Table B1B. Quality-control replicate results for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). Abbreviations: E, estimated or having a higher degree of uncertainty; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed; °C, degree Celsius; LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Date (mm/dd/yyyy)	Pressure (mm of Hg)	Temperature (°C)	Ethylmeth- acrylate	2-Hexanone (MBK)	Dibromochloro- methane	1,2- Dibromo- ethane	Tetrachloro- ethene (PCE)	1,1,1,2- Tetrachloro- ethane	Chlorobenzene	Ethylbenzene	<i>m</i> and <i>p</i> - Xylene	Bromoform (tribromo- methane)
[LRL]	[0.10]		[0.10]	[0.10]	[0.05]	[0.05]	[0.05]	[0.60]	[0.09]	[0.07]	[0.09]	[0.11]
11/29/2003	761.9	15.0	—	E0.09	—	—	E0.02	—	E0.003	0.30	0.91	—
12/11/2003	761.6	12.0	—	E0.06	—	—	E0.02	—	—	0.22	0.84	—
02/03/2005	762.4	15.7	—	E0.03	—	—	E0.02	—	E0.01	0.07	0.23	—
01/29/2006	765.2	11.5	—	E0.02	—	—	0.37	—	E0.01	0.16	0.49	—
04/23/2006	764.7	13.2	—	—	—	—	—	—	—	—	—	—
09/14/2006	756.1	18.8	—	E0.01	—	—	—	—	E0.01	E0.05	0.14	—
02/17/2007	761.7	19.1	—	E0.01	—	—	—	—	E0.01	0.18	0.56	—
05/24/2007	759.0	17.3	—	E0.01	—	—	—	—	E0.01	E0.05	0.12	—
05/30/2008	703.2	17.2	—	E0.01	—	—	E0.03	—	—	0.07	0.22	—
09/27/2008	719.1	20.9	—	E0.01	—	—	E0.01	—	—	0.08	0.31	—
12/20/2008	766.1	9.2	—	E0.01	E0.04	—	E0.02	—	—	0.12	0.33	E0.03

Table B1B. Quality-control replicate results for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). Abbreviations: E, estimated or having a higher degree of uncertainty; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed; °C, degree Celsius; LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Date (mm/dd/yyyy)	Pressure (mm of Hg)	Temperature (°C)	Ethynyl- benzene (styrene)	1,1,2,2- Tetrachloro- ethane	<i>o</i> -Xylene	1,2,3- Trichloro- propene	<i>trans</i> -1,4- Dichloro- 2-butene	Isopropyl- benzene (cumene)	Bromo- benzene	<i>n</i> - propyl- benzene	1-Chloro- 2-methylbenzene	1-Chloro- 4-methylbenzene
[LRL]	[0.09]		[0.07]	[0.07]	[0.07]	[0.06]	[0.10]	[0.08]	[0.06]	[0.07]	[0.07]	[0.07]
11/29/2003	761.9	15.0	E0.06	—	0.38	—	—	E0.02	—	E0.04	—	—
12/11/2003	761.6	12.0	E0.05	—	0.29	—	—	E0.01	E0.04	E0.04	—	—
02/03/2005	762.4	15.7	E0.01	—	0.08	—	—	E0.004	—	E0.01	—	—
01/29/2006	765.2	11.5	E0.03	—	0.19	—	—	E0.01	—	E0.05	—	—
04/23/2006	764.7	13.2	—	—	—	—	—	—	—	—	—	—
09/14/2006	756.1	18.8	—	—	E0.05	—	—	E0.01	—	E0.01	—	—
02/17/2007	761.7	19.1	E0.03	—	0.23	—	—	E0.01	—	E0.03	—	—
05/24/2007	759.0	17.3	E0.07	—	E0.05	—	—	E0.003	—	E0.01	—	—
05/30/2008	703.2	17.2	—	—	0.08	—	—	E0.004	—	E0.01	—	—
09/27/2008	719.1	20.9	E0.02	—	0.11	—	—	E0.004	—	E0.02	—	—
12/20/2008	766.1	9.2	E0.04	—	0.13	—	—	E0.02	—	E0.02	—	—

Table B1B. Quality-control replicate results for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in part per billion by volume (ppbv). Abbreviations: E, estimated or having a higher degree of uncertainty; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed; °C, degree Celsius; LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Date (mm/dd/yyyy)	Pressure (mm of Hg)	Temperature (°C)	1,3,5- Trimethyl- benzene	2- Ethyltoluene	tert- Butylbenzene	1,2,4- Trimethyl- benzene	sec- Butylbenzene	1,3- Dichloro- benzene	1,4- Dichloro- benzene	1-Isopropyl- 4-methylbenzene	1,2,3- Trimethyl- benzene	1,2- Dichloro- benzene	n- Butyl- benzene
[LRL]	[0.06]	[0.08]	[0.07]	[0.07]	[0.07]	[0.07]	[0.06]	[0.07]	[0.07]	[0.07]	[0.08]	[0.08]	[0.07]
11/29/2003	761.9	15.0	0.08	E0.07	—	0.28	E0.01	—	E0.04	E0.03	E0.05	—	E0.01
12/11/2003	761.6	12.0	0.07	E0.06	—	0.23	E0.003	—	E0.04	E0.06	E0.05	—	E0.01
02/03/2005	762.4	15.7	E0.02	E0.02	—	E0.06	—	—	E0.01	E0.01	E0.01	—	E0.003
01/29/2006	765.2	11.5	0.11	0.08	—	0.31	E0.01	—	E0.03	E0.03	E0.05	—	E0.01
04/23/2006	764.7	13.2	—	—	—	—	—	—	—	—	—	—	—
09/14/2006	756.1	18.8	E0.01	E0.01	—	E0.04	—	—	E0.01	E0.01	E0.01	—	E0.01
02/17/2007	761.7	19.1	E0.05	E0.04	—	0.16	E0.002	—	E0.01	E0.02	E0.04	—	E0.01
05/24/2007	759.0	17.3	E0.01	E0.01	—	E0.02	—	—	E0.01	E0.01	E0.01	—	E0.003
05/30/2008	703.2	17.2	E0.02	E0.02	—	E0.05	—	—	E0.01	E0.01	E0.01	—	E0.002
09/27/2008	719.1	20.9	E0.03	E0.02	—	E0.09	—	—	E0.01	E0.03	E0.02	—	E0.01
12/20/2008	766.1	9.2	E0.03	E0.02	—	E0.06	E0.01	—	E0.01	E0.02	E0.03	—	E0.01

Table B1B. Quality-control replicate results for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in part per billion by volume (ppbv). Abbreviations: E, estimated or having a higher degree of uncertainty; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed; °C, degree Celsius; LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Date (mm/dd/yyyy)	Pressure (mm of Hg)	Temperature (°C)	1,2-Dibromo- 3-chloropropene (DBCP)	Hexachloro- ethane	1,2,4,5-Tetra- methylbenzene	1,2,3,5-Tetra- methylbenzene	1,2,3,4-Tetra- methylbenzene	1,2,4- Trichloro- benzene	Naphthalene	Hexachloro- butadiene	1,2,3- Trichloro- benzene
[LRL]	[0.10]	[0.07]	[0.10]	[0.07]	[0.09]	[0.06]	[0.08]	[0.06]	[0.09]	[0.05]	[0.07]
11/29/2003	761.9	15.0	—	—	E0.01	E0.02	E0.01	—	E0.04	—	—
12/11/2003	761.6	12.0	—	—	E0.01	E0.02	E0.004	—	E0.04	—	—
02/03/2005	762.4	15.7	—	—	E0.004	E0.003	E0.002	—	E0.01	—	—
01/29/2006	765.2	11.5	—	—	E0.01	E0.02	E0.01	—	E0.04	—	—
04/23/2006	764.7	13.2	—	—	—	—	—	—	—	—	—
09/14/2006	756.1	18.8	—	—	E0.01	E0.01	E0.01	—	E0.01	—	—
02/17/2007	761.7	19.1	—	—	E0.01	E0.02	E0.01	—	E0.03	—	—
05/24/2007	759.0	17.3	—	—	E0.003	E0.003	E0.003	—	E0.01	—	—
05/30/2008	703.2	17.2	—	—	E0.003	E0.004	E0.002	—	E0.01	—	—
09/27/2008	719.1	20.9	—	—	E0.003	E0.004	E0.003	—	E0.01	—	—
12/20/2008	766.1	9.2	—	—	E0.004	E0.01	E0.01	—	E0.02	—	—

Table B1C. Quality-control replicate comparison for medium/low-volatility volatile organic compounds (VOCs) detected in air samples, processed at the Oregon Graduate Institute, from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site-identification number is 32414117001601. Values are given in percent of environmental sample [(replicate concentration/environmental concentration)*100]. **Abbreviations:** mm/dd/yyyy, month/day/year; NA, not analyzed; nr, no replicate calculated; —, compound was not detected in environmental or replicate sample at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Acetone	<i>tert</i> -Butyl alcohol	Methylene chloride	Carbon disulfide	Methyl <i>tert</i> - butyl ether (MTBE)	2-Butanone (methyl ethyl ketone)	Trichloromethane (chloroform)	Ethyl <i>tert</i> - butyl ether (ETBE)	Tetrahydrofran	<i>tert</i> -Amyl alcohol
11/29/2003	83.4	143	96.1	—	98.2	87.9	75.0	100	—	100
12/11/2003	114	115	120	—	117	91.7	50.0	200	—	100
02/03/2005	77.2	66.7	89.7	66.7	66.7	62.6	100	—	—	—
01/29/2006	119	113	88.9	—	117	98.5	100	—	120	—
04/23/2006	nr	200	—	25.0	—	250	—	—	—	—
09/14/2006	124	125	100	100	55.6	84.6	100	100	—	100
02/17/2007	123	100	107	nr	81.1	76.1	84.9	—	—	—
05/24/2007	93.4	100	83.3	—	70.6	93.5	93.8	—	—	—
05/30/2008	90.0	50.0	71.4	66.7	125	119	194	—	—	—
09/27/2008	111	100	100	—	117	127	88.9	—	—	—
12/20/2008	59.7	100	50.0	200	133	93.9	137	—	nr	—

Table B1C. Quality-control replicate comparison for medium/low-volatility volatile organic compounds (VOCs) detected in air samples, processed at the Oregon Graduate Institute, from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Values are given in percent of environmental sample [(replicate concentration/environmental concentration)*100]. **Abbreviations:** mm/dd/yyyy, month/day/year; NA, not analyzed; nr, no replicate calculated; —, compound was not detected in environmental or replicate sample at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	1,2- Dichloroethane	1,1,1- Trichloroethane	Tetrachloro- methane	Benzene	Trichloroethene (TCE)	4-Methyl- 2-pentanone (MIBK)	Toluene	2-Hexanone (MBK)	Dibromochloro- methane	Tetrachloro- ethene (PCE)
11/29/2003	—	100	100	120	100	100	106	83.8	—	66.7
12/11/2003	—	100	133	82.4	65.0	64.4	103	96.7	—	100
02/03/2005	100	66.7	92.0	83.6	80.0	100	83.3	150	84.5	100
01/29/2006	—	150	111	135	100	150	104	200	—	168
04/23/2006	—	—	—	nr	—	—	—	—	—	—
09/14/2006	—	100	100	123	100	100	95.9	100	—	—
02/17/2007	—	66.7	87.9	110	109	100	86.1	100	—	—
05/24/2007	—	150	115	146	75.0	100	94.1	100	—	—
05/30/2008	—	100	129	—	204	50.0	92.3	83.3	—	206
09/27/2008	—	100	122	—	—	100	121	76.9	—	nr
12/20/2008	100	150	129	109	100	50.0	89.2	111	88.4	46.3

Table B1C. Quality-control replicate comparison for medium/low-volatility volatile organic compounds (VOCs) detected in air samples, processed at the Oregon Graduate Institute, from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Values are given in percent of environmental sample [(replicate concentration/environmental concentration)*100]. Abbreviations: mm/dd/yyyy, month/day/year; NA, not analyzed; nr, no replicate calculated; —, compound was not detected in environmental or replicate sample at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	Chlorobenzene	Ethylbenzene	<i>m</i> and <i>p</i> - Xylene	Bromoform (tribromomethane)	Ethylbenzene (styrene)	<i>o</i> -Xylene	Isopropylbenzene (cumene)	<i>n</i> - propylbenzene	1,3,5- Trimethylbenzene	2- Ethyltoluene
11/29/2003	75.0	109	89.4	—	120	105	100	66.7	100	117
12/11/2003	—	136	97.8	—	167	87.8	100	nr	83.3	nr
02/03/2005	46.2	117	115	—	50.0	133	40.0	100	100	150
01/29/2006	100	100	109	—	150	114	100	125	138	133
04/23/2006	—	—	—	—	—	—	—	—	—	—
09/14/2006	100	125	127	—	—	125	100	100	100	100
02/17/2007	100	100	83.9	—	75.0	100	89.9	83.9	92.9	83.3
05/24/2007	100	125	100	—	117	125	75.0	75.0	90.9	90.0
05/30/2008	—	140	129	—	—	133	133	120	100	114
09/27/2008	—	114	124	—	100	122	133	112	153	115
12/20/2008	—	85.7	75.0	147	100	86.7	170	80.0	83.9	71.9

Table B1C. Quality-control replicate comparison for medium/low-volatility volatile organic compounds (VOCs) detected in air samples, processed at the Oregon Graduate Institute, from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Values are given in percent of environmental sample [(replicate concentration/environmental concentration)*100]. Abbreviations: mm/dd/yyyy, month/day/year; NA, not analyzed; nr, no replicate calculated; —, compound was not detected in environmental or replicate sample at a concentration above laboratory reporting level]

Date (mm/dd/yyyy)	1,2,4- Trimethyl- benzene	<i>sec</i> - Butylbenzene	1,4- Dichloro- benzene	1-Isopropyl- 4-methylbenzene	1,2,3- Trimethyl- benzene	<i>n</i> - Butylbenzene	1,2,4,5- Tetramethyl- benzene	1,2,3,5- Tetramethyl- benzene	1,2,3,4- Tetramethyl- benzene	1,2,4- Trichloro- benzene	Naphthalene
11/29/2003	98.1	125	80.0	100	71.4	50.0	50.0	100	125	100	79.6
12/11/2003	150	100	133	25.0	125	100	100	200	100	100	100
02/03/2005	150	—	100	50.0	100	75.0	40.0	30.0	20.0	100	100
01/29/2006	140	100	100	150	100	100	100	100	100	100	133
04/23/2006	—	—	—	—	—	—	—	—	—	—	—
09/14/2006	133	—	100	100	100	100	100	100	100	100	100
02/17/2007	84.6	100	62.5	90.5	90.5	80.0	109	121	83.6	100	90.4
05/24/2007	84.6	—	90.9	91.7	90.0	100	100	75.0	100	100	150
05/30/2008	116	—	162	85.7	117	66.7	75.0	100	100	100	88.9
09/27/2008	152	—	117	121	119	150	100	80.0	100	100	118
12/20/2008	64.0	125	108	70.6	96.2	71.4	66.7	138	160	100	106

Table B2A. Quality-control travel spike results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site-identification number is 324141117001601. Values are given in percentage recovery. Sample volume for quality-assurance spike is 1.5 liters.

Abbreviations: mm/dd/yyyy, month/day/year; NA, not analyzed]

Sample date (mm/dd/yyyy)	Analyzed date (mm/dd/yyyy)	Cartridge number	Chloromethane	Chloroethene (vinyl chloride)	Bromomethane	Chloroethane	Bromoethene (vinyl bromide)
11/29/2003	12/18/2003	Y16058	74.3	72.3	NA	76.2	89.4
12/23/2003	01/29/2004	Y16119	94.3	70.5	NA	77.6	88.8
01/14/2004	02/06/2004	Y05951	74.9	81.5	NA	85.9	85.6
04/09/2004	04/16/2004	Y16133	81.5	87.2	NA	83.8	99.9
04/21/2004	05/06/2004	Y16137	113	94.1	NA	71.4	98.9
07/26/2004	08/25/2004	Y12889	78.0	96.5	NA	72.2	101
01/22/2005	02/10/2005	Y15939	124	72.1	NA	77.0	97.9
02/15/2005	03/03/2005	Y12858	76.1	75.1	NA	78.8	82.6
03/11/2005	03/30/2005	Y14520	90.9	95.7	NA	69.3	98.8
05/10/2005	05/17/2005	Y16058	86.5	85.6	NA	74.2	86.9
06/03/2005	06/20/2005	Y16058	78.2	75.6	NA	65.1	90.9
08/02/2005	08/17/2005	Y16133	132	68.7	NA	71.3	83.0
09/19/2005	10/05/2005	Y06586	78.4	98.4	NA	79.1	97.1
10/13/2005	11/02/2005	Y15161	90.2	65.1	NA	73.0	74.3
01/29/2006	02/15/2006	Y16096	79.3	72.7	NA	71.4	79.0
02/22/2006	03/09/2006	Y12858	70.6	95.1	NA	70.5	109
04/23/2006	05/11/2006	Y16128	90.7	105	NA	81.6	111
09/14/2006	10/02/2006	Y05908	83.2	93.6	NA	72.0	108
10/08/2006	10/25/2006	Y12870	60.2	89.3	NA	61.8	102
02/17/2007	03/08/2007	Y05908	63.8	74.4	NA	78.5	83.4
04/30/2007	05/16/2007	Y16139	69.9	76.8	NA	65.4	83.8
05/24/2007	06/14/2007	Y16099	81.4	78.3	NA	71.7	85.1
08/16/2007	09/05/2007	Y16119	75.4	79.5	NA	72.0	90.9
10/15/2007	10/19/2007	Y05868	94.5	91.6	NA	59.8	101
11/20/2007	12/06/2007	Y16139	96.2	87.0	NA	78.6	99.8
01/07/2008	01/23/2008	Y15989	81.6	71.1	NA	92.1	94.9
01/31/2008	02/19/2008	Y05161	83.0	91.3	NA	61.4	109
02/24/2008	03/13/2008	Y05908	68.6	87.7	NA	65.7	101
03/19/2008	04/03/2008	Y11977	111	76.1	NA	99.1	88.4
04/24/2008	04/30/2008	Y12883	67.4	67.1	NA	74.7	74.3
05/30/2008	06/18/2008	Y05908	70.2	75.4	NA	70.9	72.7
08/10/2008	08/28/2008	Y05161	92.4	71.6	NA	61.8	90.5
09/27/2008	10/16/2008	Y16119	64.6	74.7	NA	79.0	84.6
12/20/2008	12/31/2008	Y12874	63.9	85.1	NA	74.8	90.2
02/18/2009	03/04/2009	Y05951	73.0	72.1	NA	65.4	84.9
04/07/2009	04/23/2009	Y16052	78.4	91.6	NA	67.6	94.7
05/25/2009	06/11/2009	Y15939	86.4	65.8	NA	71.4	76.7

Table B2B. Quality-control analytical travel blank results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). Sample volume for quality-assurance travel blank is 1.5 liters. Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; NA, not analyzed; mm/dd/yyyy, month/day/year; mm of Hg, millimeters of mercury; LRL, laboratory reporting level; °C, degree Celsius; —, compound was not detected at a concentration above laboratory reporting level]

Sample date (mm/dd/yyyy)	Analyzed date (mm/dd/yyyy)	Cartridge number	Pressure (mm of Hg)	Temperature (°C)	Chloro- methane		Chloroethene (vinyl chloride)		Bromo- methane		Chloroethane		Bromoethene (vinyl bromide)	
					[LRL]	[0.30]	[0.30]		[0.50]		[0.30]		[0.30]	
09/18/2003	10/16/2003	Y05951	759.9	19.6		—	—		—		—		—	
10/12/2003	10/16/2003	Y16119	759.7	20.7		—	—		—		—		—	
10/24/2003	11/21/2003	Y12877	759.0	18.2		—	—		—		—		—	
11/05/2003	11/21/2003	Y05951	761.7	12.7		—	—		—		—		—	
11/17/2003	11/21/2003	Y16137	763.0	13.3		—	—		—		—		—	
11/29/2003	12/18/2003	Y12851	761.9	15.0		—	—		—		—		—	
12/11/2003	12/18/2003	Y12874	761.6	12.0		—	—		—		—		—	
12/23/2003	01/29/2004	Y16133	760.7	15.4		—	—		—		—		—	
01/04/2004	01/29/2004	Y16138	764.9	9.48		—	—		—		—		—	
01/14/2004	02/06/2004	Y12877	758.0	12.9		—	—		—		—		—	
01/28/2004	02/06/2004	Y05161	763.5	12.3		—	—		—		—		—	
02/09/2004	02/27/2004	Y16099	762.5	12.4		—	—		—		—		—	
02/21/2004	02/27/2004	Y12841	757.9	11.7		—	—		—		—		—	
03/04/2004	03/26/2004	Y15939	758.8	13.8		—	—		—		—		—	
03/16/2004	03/26/2004	Y04934	760.6	15.0		—	—		—		—		—	
03/28/2004	04/16/2004	Y10662	760.2	20.8		—	—		—		—		—	
04/09/2004	04/16/2004	Y16058	760.3	16.6		—	—		—		—		—	
04/21/2004	05/06/2004	Y16133	760.8	16.0		—	—		—		—		—	
05/03/2004	05/06/2004	Y12870	758.1	18.2		—	—		—		—		—	
05/15/2004	06/04/2004	Y16139	757.5	18.2		—	—		—		—		—	
05/27/2004	06/04/2004	Y05908	761.2	17.5		—	—		—		—		—	
06/08/2004	06/28/2004	Y12867	757.3	17.1		—	—		—		—		—	
06/20/2004	06/28/2004	Y10658	760.7	19.2		—	—		—		—		—	
07/02/2004	07/21/2004	Y12870	761.7	18.9		—	—		—		—		—	
07/14/2004	07/21/2004	Y16133	759.7	22.9		—	—		—		—		—	
07/26/2004	08/25/2004	Y12861	758.9	21.2		—	—		—		—		—	
08/19/2004	08/25/2004	Y16099	759.9	20.7		—	—		—		—		—	
08/31/2004	09/21/2004	Y15987	759.1	22.2		—	—		—		—		—	
09/12/2004	09/21/2004	Y16137	757.7	22.5		—	—		—		—		—	
09/23/2004	10/13/2004	Y16058	759.2	22.1		—	—		—		—		—	
10/06/2004	10/13/2004	Y05161	759.0	17.9		—	—		—		—		—	
10/18/2004	11/10/2004	Y16099	758.9	18.7		—	—		—		—		—	
10/30/2004	11/10/2004	Y16133	761.7	15.0		—	—		—		—		—	
11/23/2004	12/08/2004	Y12883	763.3	11.2		—	—		—		—		—	
12/05/2004	12/08/2004	Y16133	754.7	10.5		—	—		—		—		—	
12/28/2004	01/20/2005	Y12883	758.4	13.4		—	—		—		—		—	
01/10/2005	01/20/2005	Y15939	762.2	15.3		—	—		—		—		—	
01/22/2005	02/10/2005	Y12870	762.3	13.6		—	—		—		—		—	
02/03/2005	02/10/2005	Y16096	762.4	15.7		—	—		—		—		—	
02/15/2005	03/03/2005	Y05868	762.4	12.8		—	—		—		—		—	
02/27/2005	03/03/2005	Y05908	764.0	14.0		—	—		—		—		—	
03/11/2005	03/30/2005	Y16137	760.6	15.0		—	—		—		—		—	

Table B2B. Quality-control analytical travel blank results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.
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[The site-identification number is 324141117001601. Concentrations are given in part per billion by volume (ppbv). Sample volume for quality-assurance travel blank is 1.5 liters. Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; NA, not analyzed; mm/dd/yyyy, month/day/year; mm of Hg, millimeters of mercury; LRL, laboratory reporting level; °C, degree Celsius; —, compound was not detected at a concentration above laboratory reporting level]

Sample date (mm/dd/yyyy)	Analyzed date (mm/dd/yyyy)	Cartridge number	Pressure (mm of Hg)	Temperature (°C)	Chloro- methane		Chloroethene (vinyl chloride)		Bromo- methane		Chloroethane		Bromoethene (vinyl bromide)	
					[LRL]	[0.30]	[0.30]		[0.50]		[0.30]		[0.30]	
03/23/2005	03/30/2005	Y16139	760.0	13.5		—	—		—		—		—	
04/04/2005	04/20/2005	Y12889	762.7	14.0		—	—		—		—		—	
04/16/2005	04/20/2005	Y12874	759.3	16.0		—	—		—		—		—	
04/28/2005	05/17/2005	Y16139	762.0	15.1		—	—		—		—		—	
05/10/2005	05/17/2005	Y12889	759.9	16.0		—	—		—		—		—	
06/03/2005	06/20/2005	Y05161	756.7	18.2		—	—		—		—		—	
06/15/2005	06/20/2005	Y15939	758.1	17.8		—	—		—		—		—	
07/09/2005	07/28/2005	Y16139	759.2	18.7		—	—		—		—		—	
07/25/2005	07/28/2005	Y12889	757.0	25.4		—	—		—		—		—	
08/02/2005	08/17/2005	Y15939	758.9	20.6		—	—		—		—		—	
08/14/2005	08/17/2005	Y16058	757.9	19.4		—	—		—		—		—	
08/26/2005	09/14/2005	Y12841	759.3	25.9		—	—		—		—		—	
09/07/2005	09/14/2005	Y06012	758.9	20.3		—	—		—		—		—	
09/19/2005	10/05/2005	Y16133	760.1	19.2		—	—		—		—		—	
10/01/2005	10/05/2005	Y12858	756.7	20.5		—	—		—		—		—	
10/13/2005	11/02/2005	Y12883	759.5	20.3		—	—		—		—		—	
10/25/2005	11/02/2005	Y12874	763.4	16.4		—	—		—		—		—	
11/06/2005	11/29/2005	Y12889	759.0	15.0		—	—		—		—		—	
11/18/2005	11/29/2005	Y15939	762.4	20.2		—	—		—		—		—	
12/12/2005	01/04/2006	Y16099	762.7	12.3		—	—		—		—		—	
12/24/2005	01/04/2006	Y15939	762.8	13.3		—	—		—		—		—	
01/06/2006	01/24/2006	Y16137	765.0	18.1		—	—		—		—		—	
01/17/2006	01/24/2006	Y16099	768.0	11.8		—	—		—		—		—	
01/29/2006	02/15/2006	Y12874	765.2	11.5		—	—		—		—		—	
02/10/2006	02/15/2006	Y16137	764.0	12.9		—	—		—		—		—	
02/22/2006	03/09/2006	Y12861	763.3	11.2		NA	NA		NA		NA		NA	
03/05/2006	03/09/2006	Y16128	764.7	13.2		—	—		—		—		—	
03/30/2006	04/13/2006	Y12883	761.8	13.4		—	—		—		—		—	
04/11/2006	04/13/2006	Y16119	760.8	15.6		—	—		—		—		—	
04/23/2006	05/11/2006	Y06011	762.2	13.4		—	—		—		—		—	
05/05/2006	05/11/2006	Y12858	761.1	15.7		—	—		—		—		—	
06/10/2006	07/12/2006	Y16119	757.5	17.8		—	—		—		—		—	
06/22/2006	07/12/2006	Y16096	760.2	19.7		—	—		—		—		—	
07/04/2006	07/12/2006	Y12841	760.7	21.9		—	—		—		—		—	
07/28/2006	08/14/2006	Y16096	759.6	25.1		—	—		—		—		—	
08/09/2006	08/14/2006	Y12841	758.4	23.8		—	—		—		—		—	
08/21/2006	09/08/2006	Y12874	758.5	21.7		—	—		—		—		—	
09/02/2006	09/08/2006	Y16119	755.5	23.2		—	—		—		—		—	
09/14/2006	10/02/2006	Y16139	756.1	18.8		—	—		—		—		—	
09/26/2006	10/02/2006	Y12874	761.0	19.3		—	—		—		—		—	
10/08/2006	10/25/2006	Y06313	759.4	16.5		—	—		—		—		—	
10/20/2006	10/25/2006	Y16119	756.8	19.4		—	—		—		—		—	

Table B2B. Quality-control analytical travel blank results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.
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[The site-identification number is 324141117001601. Concentrations are given in part per billion by volume (ppbv). Sample volume for quality-assurance travel blank is 1.5 liters. Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; NA, not analyzed; mm/dd/yyyy, month/day/year; mm of Hg, millimeters of mercury; LRL, laboratory reporting level; °C, degree Celsius; —, compound was not detected at a concentration above laboratory reporting level]

Sample date (mm/dd/yyyy)	Analyzed date (mm/dd/yyyy)	Cartridge number	Pressure (mm of Hg)	Temperature (°C)	Chloro- methane		Chloroethene (vinyl chloride)		Bromo- methane		Chloroethane		Bromoethene (vinyl bromide)	
					[LRL]	[0.30]	[0.30]		[0.50]		[0.30]		[0.30]	
11/01/2006	11/17/2006	Y05161	761.6	16.5		—	—		—		—		—	
11/13/2006	11/17/2006	Y16096	715.9	16.9		—	—		—		—		—	
11/25/2006	12/15/2006	Y06011	706.9	14.5		—	—		—		—		—	
12/07/2006	12/15/2006	Y14520	762.7	15.7		—	—		—		—		—	
12/31/2006	01/19/2007	Y12858	765.7	10.1		—	—		—		—		—	
01/12/2007	01/19/2007	Y15936	760.5	9.4		—	—		—		—		—	
01/24/2007	02/07/2007	Y15939	764.2	13.4		—	—		—		—		—	
02/05/2007	02/07/2007	Y12867	763.2	17.3		—	—		—		—		—	
02/17/2007	03/08/2007	Y16058	761.7	19.1		—	—		—		—		—	
03/01/2007	03/08/2007	Y12870	763.3	9.9		—	—		—		—		—	
03/13/2007	03/29/2007	Y16119	761.4	16.2		—	—		—		—		—	
03/25/2007	03/29/2007	Y16139	763.0	15.5		—	—		—		—		—	
04/06/2007	05/01/2007	Y05951	758.9	14.9		—	—		—		—		—	
04/18/2007	05/01/2007	Y12874	761.6	14.1		—	—		—		—		—	
04/30/2007	05/16/2007	Y16133	759.8	16.6		—	—		—		—		—	
05/12/2007	05/16/2007	Y15939	761.1	15.5		—	—		—		—		—	
05/24/2007	06/14/2007	Y05161	759.0	17.3		—	—		—		—		—	
06/05/2007	06/14/2007	Y16119	759.0	16.4		—	—		—		—		—	
06/17/2007	07/11/2007	Y12870	758.2	18.0		—	—		—		—		—	
06/29/2007	07/11/2007	Y12874	758.9	19.8		—	—		—		—		—	
07/11/2007	07/13/2007	Y16052	745.0	20.8		—	—		—		—		—	
07/23/2007	08/09/2007	Y16133	758.3	20.9		—	—		—		—		—	
08/04/2007	08/09/2007	Y16058	701.1	20.7		—	—		—		—		—	
08/16/2007	09/05/2007	Y05161	699.5	22.9		—	—		—		—		—	
08/28/2007	09/05/2007	Y16099	756.0	24.6		—	—		—		—		—	
09/09/2007	10/02/2007	Y14520	758.7	20.6		—	—		—		—		—	
09/21/2007	10/02/2007	Y16134	757.6	17.4		—	—		—		—		—	
10/03/2007	10/19/2007	Y12870	758.3	20.7		—	—		—		—		—	
10/15/2007	10/19/2007	Y05951	758.0	17.1		—	—		—		—		—	
10/27/2007	11/13/2007	Y16099	762.5	20.3		—	—		—		—		—	
11/08/2007	11/13/2007	Y16052	761.9	15.2		—	—		—		—		—	
11/20/2007	12/06/2007	Y12867	759.9	13.2		—	—		—		—		—	
12/02/2007	12/06/2007	Y12870	769.0	11.3		—	—		—		—		—	
12/14/2007	01/03/2008	Y16134	765.5	10.2		—	—		—		—		—	
12/26/2007	01/03/2008	Y16052	762.4	9.71		—	—		—		—		—	
01/07/2008	01/23/2008	Y12841	760.1	12.0		—	—		—		—		—	
01/19/2008	01/23/2008	Y16119	707.0	10.7		—	—		—		—		—	
01/31/2008	02/19/2008	Y16134	766.8	10.9		—	—		—		—		—	
02/12/2008	02/19/2008	Y12841	710.6	16.0		—	—		—		—		—	
02/24/2008	03/13/2008	Y12883	716.2	12.2		—	—		—		—		—	
03/07/2008	03/13/2008	Y05161	706.1	15.9		—	—		—		—		—	
03/19/2008	04/03/2008	Y12867	763.9	12.8		—	—		—		—		—	

Table B2B. Quality-control analytical travel blank results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). Sample volume for quality-assurance travel blank is 1.5 liters. Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; NA, not analyzed; mm/dd/yyyy, month/day/year; mm of Hg, millimeters of mercury; LRL, laboratory reporting level; °C, degree Celsius; —, compound was not detected at a concentration above laboratory reporting level]

Sample date (mm/dd/yyyy)	Analyzed date (mm/dd/yyyy)	Cartridge number	Pressure (mm of Hg)	Temperature (°C)	Chloro- methane		Chloroethene (vinyl chloride)		Bromo- methane		Chloroethane		Bromoethene (vinyl bromide)	
					[LRL]	[0.30]	[0.30]		[0.50]		[0.30]		[0.30]	
03/31/2008	04/03/2008	Y16058	763.3	12.3		—	—		—		—		—	
04/12/2008	04/30/2008	Y05868	708.7	22.8		—	—		—		—		—	
04/24/2008	04/30/2008	Y16139	705.5	15.2		—	—		—		—		—	
05/06/2008	05/22/2008	Y05951	704.8	13.8		—	—		—		—		—	
05/18/2008	05/22/2008	Y15989	699.5	24.1		—	—		—		—		—	
05/30/2008	06/18/2008	Y16099	703.2	17.2		—	—		—		—		—	
06/11/2008	06/18/2008	Y12841	701.3	17.1		—	—		—		—		—	
06/23/2008	07/14/2008	Y16119	700.3	21.8		—	—		—		—		—	
07/05/2008	07/14/2008	Y05016	702.1	20.8		—	—		—		—		—	
07/17/2008	08/14/2008	Y15939	704.2	20.7		—	—		—		—		—	
07/29/2008	08/14/2008	Y14520	705.3	21.4		—	—		—		—		—	
08/10/2008	08/28/2008	Y16096	704.8	22.4		—	—		—		—		—	
08/22/2008	08/28/2008	Y12889	703.9	20.7		—	—		—		—		—	
09/03/2008	09/18/2008	Y16134	702.3	23.1		—	—		—		—		—	
09/15/2008	09/18/2008	Y12870	709.2	21.9		—	—		—		—		—	
09/27/2008	10/16/2008	Y05868	719.1	20.9		—	—		—		—		—	
10/09/2008	10/16/2008	Y16139	704.0	18.7		—	—		—		—		—	
10/21/2008	11/06/2008	Y14520	761.5	16.6		—	—		—		—		—	
11/02/2008	11/06/2008	Y12867	763.3	17.5		—	—		—		—		—	
11/14/2008	12/10/2008	Y05016	760.0	21.3		—	—		—		—		—	
11/26/2008	12/10/2008	Y12867	758.5	16.2		—	—		—		—		—	
12/08/2008	12/31/2008	Y05908	765.3	13.3		—	—		—		—		—	
12/20/2008	12/31/2008	Y13939	766.1	9.2		—	—		—		—		—	
01/01/2009	01/21/2009	Y05016	762.0	11.4		—	—		—		—		—	
01/13/2009	01/21/2009	Y16058	765.3	17.8		—	—		—		—		—	
01/25/2009	02/11/2009	Y15936	762.8	11.6		—	—		—		—		—	
02/06/2009	02/11/2009	Y16119	761.0	13.2		—	—		—		—		—	
02/18/2009	03/04/2009	Y16058	766.3	11.0		—	—		—		—		—	
03/02/2009	03/04/2009	Y12889	763.0	18.3		—	—		—		—		—	
03/14/2009	04/01/2009	Y14520	759.5	12.9		—	—		—		—		—	
03/26/2009	04/01/2009	Y16134	759.0	12.7		—	—		—		—		—	
04/07/2009	04/23/2009	Y15936	762.5	13.7		—	—		—		—		—	
04/19/2009	04/23/2009	Y12841	760.5	25.2		—	—		—		—		—	
05/01/2009	05/21/2009	Y16058	761.8	16.9		—	—		—		—		—	
05/13/2009	05/21/2009	Y05951	758.3	16.6		—	—		—		—		—	
05/25/2009	06/11/2009	Y16096	759.7	16.0		—	—		—		—		—	
06/06/2009	06/11/2009	Y16139	760.5	17.1		—	—		—		—		—	
06/18/2009	07/09/2009	Y12883	756.7	17.9		—	—		—		—		—	
06/30/2009	07/09/2009	Y12874	757.3	20.8		—	—		—		—		—	
07/12/2009	07/29/2009	Y05868	760.2	24.8		—	—		—		—		—	
07/24/2009	07/29/2009	Y15939	759.0	16.7		—	—		—		—		—	

Table B2C. Quality-control analytical lot blank results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site-identification number is 324141117001601. Concentrations are given in part per billion by volume (ppbv). Sample volume for quality-assurance lot-blank is 1.5 liters. Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. Samples processed at 20.0 degrees Celsius and 760 millimeters of mercury. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analyzed date (mm/dd/yyyy)	Cartridge number	Chloromethane	Chloroethene (vinyl chloride)	Bromomethane	Chloroethane	Bromoethene (vinyl bromide)
			[LRL]	[0.30]	[0.30]	[0.50]	[0.30]
10/12/2003	10/16/2003	Y12883	—	—	—	—	—
10/24/2003	11/21/2003	Y12861	—	—	—	—	—
11/05/2003	11/21/2003	Y16138	—	—	—	—	—
11/17/2003	11/21/2003	Y12851	—	—	—	—	—
11/29/2003	12/18/2003	Y16138	—	—	—	—	—
12/11/2003	12/18/2003	Y16096	—	—	—	—	—
12/23/2003	01/29/2004	Y12883	—	—	—	—	—
01/04/2004	01/29/2004	Y16128	—	—	—	—	—
01/14/2004	02/06/2004	Y12874	—	—	—	—	—
01/28/2004	02/06/2004	Y12867	—	—	—	—	—
02/09/2004	02/27/2004	Y06012	—	—	—	—	—
02/21/2004	02/27/2004	Y12870	—	—	—	—	—
03/04/2004	03/26/2004	Y12858	—	—	—	—	—
03/16/2004	03/26/2004	Y16119	—	—	—	—	—
03/28/2004	04/16/2004	Y16128	—	—	—	—	—
04/09/2004	04/16/2004	Y12858	—	—	—	—	—
04/21/2004	05/06/2004	Y15939	—	—	—	—	—
05/03/2004	05/06/2004	Y12874	—	—	—	—	—
05/15/2004	06/04/2004	Y16113	—	—	—	—	—
05/27/2004	06/04/2004	Y05951	—	—	—	—	—
06/08/2004	06/28/2004	Y10662	—	—	—	—	—
06/20/2004	06/28/2004	Y12858	—	—	—	—	—
07/02/2004	07/21/2004	Y12861	—	—	—	—	—
07/14/2004	07/21/2004	Y12858	—	—	—	—	—
07/26/2004	08/25/2004	Y05951	—	—	—	—	—
08/19/2004	08/25/2004	Y16128	—	—	—	—	—
08/31/2004	09/21/2004	Y16133	—	—	—	—	—
09/12/2004	09/21/2004	Y16139	—	—	—	—	—
09/23/2004	10/13/2004	Y12874	—	—	—	—	—
10/06/2004	10/13/2004	Y15936	—	—	—	—	—
10/18/2004	11/10/2004	Y16119	—	—	—	—	—
10/30/2004	11/10/2004	Y06012	—	—	—	—	—
11/23/2004	12/08/2004	Y05161	—	—	—	—	—
12/05/2004	12/08/2004	Y12867	—	—	—	—	—
12/28/2004	01/20/2005	Y12889	—	—	—	—	—
01/10/2005	01/20/2005	Y16119	—	—	—	—	—
01/22/2005	02/10/2005	Y12877	—	—	—	—	—
02/03/2005	02/10/2005	Y05908	—	—	—	—	—
02/15/2005	03/03/2005	Y05161	—	—	—	—	—
02/27/2005	03/03/2005	Y16133	—	—	—	—	—
03/11/2005	03/30/2005	Y15936	—	—	—	—	—
03/23/2005	03/30/2005	Y16058	—	—	—	—	—

Table B2C. Quality-control analytical lot blank results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). Sample volume for quality-assurance lot-blank is 1.5 liters. Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. Samples processed at 20.0 degrees Celsius and 760 millimeters of mercury. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analyzed date (mm/dd/yyyy)	Cartridge number	Chloromethane	Chloroethene (vinyl chloride)	Bromomethane	Chloroethane	Bromoethene (vinyl bromide)
			[LRL]	[0.30]	[0.30]	[0.50]	[0.30]
04/04/2005	04/20/2005	Y15987	—	—	—	—	—
04/16/2005	04/20/2005	Y12870	—	—	—	—	—
04/28/2005	05/17/2005	Y14520	—	—	—	—	—
05/10/2005	05/17/2005	Y11968	—	—	—	—	—
06/03/2005	06/20/2005	Y05908	—	—	—	—	—
06/15/2005	06/20/2005	Y06012	—	—	—	—	—
07/09/2005	07/28/2005	Y16096	—	—	—	—	—
07/25/2005	07/28/2005	Y16096	—	—	—	—	—
08/02/2005	08/17/2005	Y06012	—	—	—	—	—
08/14/2005	08/17/2005	Y12894	—	—	—	—	—
08/26/2005	09/14/2005	Y12883	—	—	—	—	—
09/07/2005	09/14/2005	Y12861	—	—	—	—	—
09/19/2005	10/05/2005	Y16128	—	—	—	—	—
10/01/2005	10/05/2005	Y12861	—	—	—	—	—
10/13/2005	11/02/2005	Y16137	—	—	—	—	—
10/25/2005	11/02/2005	Y05951	—	—	—	—	—
11/06/2005	11/29/2005	Y04283	—	—	—	—	—
11/18/2005	11/29/2005	Y05868	—	—	—	—	—
12/12/2005	01/04/2006	Y12858	—	—	—	—	—
12/24/2005	01/04/2006	Y16119	—	—	—	—	—
01/06/2006	01/24/2006	Y12867	—	—	—	—	—
01/17/2006	01/24/2006	Y16539	—	—	—	—	—
01/29/2006	02/15/2006	Y16119	—	—	—	—	—
02/10/2006	02/15/2006	Y15936	—	—	—	—	—
02/22/2006	03/09/2006	Y05868	—	—	—	—	—
03/05/2006	03/09/2006	Y16133	—	—	—	—	—
03/30/2006	04/13/2006	Y05161	—	—	—	—	—
04/11/2006	04/13/2006	Y12870	—	—	—	—	—
04/23/2006	05/11/2006	Y15936	—	—	—	—	—
05/05/2006	05/11/2006	Y16099	—	—	—	—	—
06/10/2006	07/12/2006	Y16058	—	—	—	—	—
06/22/2006	07/12/2006	Y16133	—	—	—	—	—
07/04/2006	07/12/2006	Y16099	—	—	—	—	—
07/28/2006	08/14/2006	Y12858	—	—	—	—	—
08/09/2006	08/14/2006	Y11458	—	—	—	—	—
08/21/2006	09/08/2006	Y16058	—	—	—	—	—
09/02/2006	09/08/2006	Y12870	—	—	—	—	—
09/14/2006	10/02/2006	Y12867	—	—	—	—	—
09/26/2006	10/02/2006	Y12858	—	—	—	—	—
10/08/2006	10/25/2006	Y12841	—	—	—	—	—
10/20/2006	10/25/2006	Y15939	—	—	—	—	—
11/01/2006	11/17/2006	Y08484	—	—	—	—	—

Table B2C. Quality-control analytical lot blank results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). Sample volume for quality-assurance lot-blank is 1.5 liters. Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. Samples processed at 20.0 degrees Celsius and 760 millimeters of mercury. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analyzed date (mm/dd/yyyy)	Cartridge number	Chloromethane	Chloroethene (vinyl chloride)	Bromomethane	Chloroethane	Bromoethene (vinyl bromide)
			[LRL]	[0.30]	[0.30]	[0.50]	[0.30]
11/13/2006	11/17/2006	Y08484	—	—	—	—	—
11/25/2006	12/15/2006	Y05161	—	—	—	—	—
12/07/2006	12/15/2006	Y12874	—	—	—	—	—
12/31/2006	01/19/2007	Y12867	—	—	—	—	—
01/12/2007	01/19/2007	Y12870	—	—	—	—	—
01/24/2007	02/07/2007	Y05908	—	—	—	—	—
02/05/2007	02/07/2007	Y16058	—	—	—	—	—
02/17/2007	03/08/2007	Y05951	—	—	—	—	—
03/01/2007	03/08/2007	Y16099	—	—	—	—	—
03/13/2007	03/29/2007	Y12889	—	—	—	—	—
03/25/2007	03/29/2007	Y05868	—	—	—	—	—
04/06/2007	05/01/2007	Y14520	—	—	—	—	—
04/18/2007	05/01/2007	Y15989	—	—	—	—	—
04/30/2007	05/16/2007	Y12883	—	—	—	—	—
05/12/2007	05/16/2007	Y12841	—	—	—	—	—
05/24/2007	06/14/2007	Y16046	—	—	—	—	—
06/05/2007	06/14/2007	Y15939	—	—	—	—	—
06/17/2007	07/11/2007	Y16113	—	—	—	—	—
06/29/2007	07/11/2007	Y16134	—	—	—	—	—
07/11/2007	07/13/2007	Y12889	—	—	—	—	—
07/23/2007	08/09/2007	Y05908	—	—	—	—	—
08/04/2007	08/09/2007	Y12874	—	—	—	—	—
08/16/2007	09/05/2007	Y12867	—	—	—	—	—
08/28/2007	09/05/2007	Y16139	—	—	—	—	—
09/09/2007	10/02/2007	Y05951	—	—	—	—	—
09/21/2007	10/02/2007	Y16099	—	—	—	—	—
10/03/2007	10/19/2007	Y16052	—	—	—	—	—
10/15/2007	10/19/2007	Y16052	—	—	—	—	—
10/27/2007	11/13/2007	Y12889	—	—	—	—	—
11/08/2007	11/13/2007	Y12841	—	—	—	—	—
11/20/2007	10/02/2006	Y15939	—	—	—	—	—
12/02/2007	12/06/2007	Y05868	—	—	—	—	—
12/14/2007	01/03/2008	Y12874	—	—	—	—	—
12/26/2007	01/03/2008	Y16139	—	—	—	—	—
01/07/2008	01/23/2008	Y05868	—	—	—	—	—
01/19/2008	01/23/2008	Y12870	—	—	—	—	—
01/31/2008	02/19/2008	Y15936	—	—	—	—	—
02/12/2008	02/19/2008	Y12889	—	—	—	—	—
02/24/2008	03/13/2008	Y12089	—	—	—	—	—
03/07/2008	03/13/2008	Y12874	—	—	—	—	—
03/19/2008	04/03/2008	Y16139	—	—	—	—	—

Table B2C. Quality-control analytical lot blank results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). Sample volume for quality-assurance lot-blank is 1.5 liters. Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. Samples processed at 20.0 degrees Celsius and 760 millimeters of mercury. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analyzed date (mm/dd/yyyy)	Cartridge number	Chloromethane	Chloroethene (vinyl chloride)	Bromomethane	Chloroethane	Bromoethene (vinyl bromide)
			[LRL]	[0.30]	[0.30]	[0.50]	[0.30]
03/31/2008	04/03/2008	Y05016	—	—	—	—	—
04/12/2008	04/30/2008	Y05908	—	—	—	—	—
04/24/2008	04/30/2008	Y16099	—	—	—	—	—
05/06/2008	05/22/2008	Y15989	—	—	—	—	—
05/18/2008	05/22/2008	Y05161	—	—	—	—	—
05/30/2008	06/18/2008	Y15936	—	—	—	—	—
06/01/2008	06/18/2008	Y12867	—	—	—	—	—
06/23/2008	07/14/2008	Y26208	—	—	—	—	—
07/05/2008	07/14/2008	Y05868	—	—	—	—	—
07/17/2008	08/14/2008	Y12874	—	—	—	—	—
07/29/2008	08/14/2008	Y12874	—	—	—	—	—
08/10/2008	08/28/2008	Y12841	—	—	—	—	—
08/22/2008	08/28/2008	Y16119	—	—	—	—	—
09/03/2008	09/18/2008	Y12867	—	—	—	—	—
09/15/2008	09/18/2008	Y12883	—	—	—	—	—
09/27/2008	10/16/2008	Y16096	—	—	—	—	—
10/09/2008	10/16/2008	Y05908	—	—	—	—	—
10/21/2008	11/06/2008	Y12867	—	—	—	—	—
11/02/2008	11/06/2008	Y12870	—	—	—	—	—
11/14/2008	12/10/2008	Y12874	—	—	—	—	—
11/26/2008	12/10/2008	Y12841	—	—	—	—	—
12/08/2008	12/31/2008	Y16134	—	—	—	—	—
12/20/2008	12/31/2008	Y12867	—	—	—	—	—
01/01/2009	01/21/2009	Y15989	—	—	—	—	—
01/13/2009	01/21/2009	Y12874	—	—	—	—	—
01/25/2009	02/11/2009	Y05868	—	—	—	—	—
02/06/2009	02/11/2009	Y26208	—	—	—	—	—
02/18/2009	03/04/2009	Y12874	—	—	—	—	—
03/02/2009	03/04/2009	Y15936	—	—	—	—	—
03/14/2009	04/01/2009	Y05951	—	—	—	—	—
03/26/2009	04/01/2009	Y12870	—	—	—	—	—
04/07/2009	04/23/2009	Y05161	—	—	—	—	—
04/19/2009	04/23/2009	Y16058	—	—	—	—	—
05/01/2009	05/21/2009	Y12870	—	—	—	—	—
05/13/2009	05/21/2009	Y16119	—	—	—	—	—
05/25/2009	06/11/2009	Y15989	—	—	—	—	—
06/06/2009	06/11/2009	Y15989	—	—	—	—	—
06/18/2009	07/09/2009	Y05951	—	—	—	—	—
06/30/2009	07/09/2009	Y15939	—	—	—	—	—
07/12/2009	07/29/2009	Y16139	—	—	—	—	—
07/24/2009	07/29/2009	Y12870	—	—	—	—	—

Table B2D. Quality-control analytical laboratory blank results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site-identification number is 324141117001601. Concentrations are given in part per billion by volume (ppbv). Sample volume for quality-assurance lab-blank is 1.5 liters. Samples processed at 20.0 degrees Celsius and 760 millimeters of mercury. Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; —, not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analyzed date (mm/dd/yyyy)	Cartridge number	Chloromethane	Chloroethene (vinyl chloride)	Bromomethane	Chloroethane	Bromoethene (vinyl bromide)
			[LRL]	[0.30]	[0.30]	[0.50]	[0.30]
10/12/2003	10/16/2003	Y12874	—	—	—	—	—
10/24/2003	11/21/2003	Y15987	—	—	—	—	—
11/05/2003	11/21/2003	Y06012	—	—	—	—	—
11/17/2003	11/21/2003	Y15939	—	—	—	—	—
11/29/2003	12/18/2003	Y05868	—	—	—	—	—
12/11/2003	12/18/2003	Y05951	—	—	—	—	—
12/23/2003	01/29/2004	Y16137	—	—	—	—	—
01/04/2004	01/29/2004	Y06012	—	—	—	—	—
01/14/2004	02/06/2004	Y15987	—	—	—	—	—
01/28/2004	02/06/2004	Y16139	—	—	—	—	—
02/09/2004	02/27/2004	Y16119	—	—	—	—	—
02/21/2004	02/27/2004	Y05908	—	—	—	—	—
03/04/2004	03/26/2004	Y14520	—	—	—	—	—
03/16/2004	03/26/2004	Y12877	—	—	—	—	—
03/28/2004	04/16/2004	Y16099	—	—	—	—	—
04/09/2004	04/16/2004	Y06012	—	—	—	—	—
04/21/2004	05/06/2004	Y16128	—	—	—	—	—
05/03/2004	05/06/2004	Y06012	—	—	—	—	—
05/15/2004	06/04/2004	Y16128	—	—	—	—	—
05/27/2004	06/04/2004	Y12861	—	—	—	—	—
06/08/2004	06/28/2004	Y05951	—	—	—	—	—
06/20/2004	06/28/2004	Y12841	—	—	—	—	—
07/02/2004	07/21/2004	Y15939	—	—	—	—	—
07/14/2004	07/21/2004	Y06012	—	—	—	—	—
07/26/2004	08/25/2004	Y15936	—	—	—	—	—
08/19/2004	08/25/2004	Y05868	—	—	—	—	—
08/31/2004	09/21/2004	Y12858	—	—	—	—	—
09/12/2004	09/21/2004	Y12889	—	—	—	—	—
09/23/2004	10/13/2004	Y12870	—	—	—	—	—
10/06/2004	10/13/2004	Y12889	—	—	—	—	—
10/18/2004	11/10/2004	Y05951	—	—	—	—	—
10/30/2004	11/10/2004	Y12841	—	—	—	—	—
11/23/2004	12/08/2004	Y05868	—	—	—	—	—
12/05/2004	12/08/2004	Y12841	—	—	—	—	—
12/28/2004	01/20/2005	Y16058	—	—	—	—	—
01/10/2005	01/20/2005	Y12858	—	—	—	—	—
01/22/2005	02/10/2005	Y12870	—	—	—	—	—
02/03/2005	02/10/2005	Y06012	—	—	—	—	—
02/15/2005	03/03/2005	Y05161	—	—	—	—	—
02/27/2005	03/03/2005	Y15939	—	—	—	—	—
03/11/2005	03/30/2005	Y12861	—	—	—	—	—
03/23/2005	03/30/2005	Y05908	—	—	—	—	—
04/04/2005	04/20/2005	Y16133	—	—	—	—	—

Table B2D. Quality-control analytical laboratory blank results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

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[The site-identification number is 324141117001601. Concentrations are given in part per billion by volume (ppbv). Sample volume for quality-assurance lab-blank is 1.5 liters. Samples processed at 20.0 degrees Celsius and 760 millimeters of mercury. Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; —, not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analyzed date (mm/dd/yyyy)	Cartridge number	Chloromethane	Chloroethene (vinyl chloride)	Bromomethane	Chloroethane	Bromoethene (vinyl bromide)
			[LRL]	[0.30]	[0.30]	[0.50]	[0.30]
04/16/2005	04/20/2005	Y12877	—	—	—	—	—
04/28/2005	05/17/2005	Y12861	—	—	—	—	—
05/10/2005	05/17/2005	Y16128	—	—	—	—	—
06/03/2005	06/20/2005	Y12877	—	—	—	—	—
06/15/2005	06/20/2005	Y12841	—	—	—	—	—
07/09/2005	07/28/2005	Y15987	—	—	—	—	—
07/25/2005	07/28/2005	Y12877	—	—	—	—	—
08/02/2005	08/17/2005	Y05908	—	—	—	—	—
08/14/2005	08/17/2005	Y16128	—	—	—	—	—
08/26/2005	09/14/2005	Y15936	—	—	—	—	—
09/07/2005	09/14/2005	Y16139	—	—	—	—	—
09/19/2005	10/05/2005	Y15987	—	—	—	—	—
10/01/2005	10/05/2005	Y12889	—	—	—	—	—
10/13/2005	11/02/2005	Y12867	—	—	—	—	—
10/25/2005	11/02/2005	Y16139	—	—	—	—	—
11/06/2005	11/29/2005	Y04283	—	—	—	—	—
11/18/2005	11/29/2005	Y04283	—	—	—	—	—
12/12/2005	01/04/2006	Y12889	—	—	—	—	—
12/24/2005	01/04/2006	Y15987	—	—	—	—	—
01/06/2006	01/24/2006	Y16133	—	—	—	—	—
01/17/2006	01/24/2006	Y12858	—	—	—	—	—
01/29/2006	02/15/2006	Y12870	—	—	—	—	—
02/10/2006	02/15/2006	Y12889	—	—	—	—	—
02/22/2006	03/09/2006	Y12867	—	—	—	—	—
03/05/2006	03/09/2006	Y05161	—	—	—	—	—
03/30/2006	04/13/2006	Y16096	—	—	—	—	—
04/11/2006	04/13/2006	Y16139	—	—	—	—	—
04/23/2006	05/11/2006	Y05161	—	—	—	—	—
05/05/2006	05/11/2006	Y16058	—	—	—	—	—
06/10/2006	07/12/2006	Y14520	—	—	—	—	—
06/22/2006	07/12/2006	Y12883	—	—	—	—	—
07/04/2006	07/12/2006	Y16058	—	—	—	—	—
07/28/2006	08/14/2006	Y16137	—	—	—	—	—
08/09/2006	08/14/2006	Y06011	—	—	—	—	—
08/21/2006	09/08/2006	Y14520	—	—	—	—	—
09/02/2006	09/08/2006	Y16128	—	—	—	—	—
09/14/2006	10/02/2006	Y16058	—	—	—	—	—
09/26/2006	10/02/2006	Y12889	—	—	—	—	—
10/08/2006	10/25/2006	Y12889	—	—	—	—	—
10/20/2006	10/25/2006	Y16128	—	—	—	—	—
11/01/2006	11/17/2006	Y12889	—	—	—	—	—
11/13/2006	11/17/2006	Y12870	—	—	—	—	—
11/25/2006	12/15/2006	Y16133	—	—	—	—	—

Table B2D. Quality-control analytical laboratory blank results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.
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[The site-identification number is 324141117001601. Concentrations are given in part per billion by volume (ppbv). Sample volume for quality-assurance lab-blank is 1.5 liters. Samples processed at 20.0 degrees Celsius and 760 millimeters of mercury. Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; —, not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analyzed date (mm/dd/yyyy)	Cartridge number	Chloromethane	Chloroethene (vinyl chloride)	Bromomethane	Chloroethane	Bromoethene (vinyl bromide)
			[LRL]	[0.30]	[0.30]	[0.50]	[0.30]
12/07/2006	12/15/2006	Y16099	—	—	—	—	—
12/31/2006	01/19/2007	Y16058	—	—	—	—	—
01/12/2007	01/19/2007	Y11217	—	—	—	—	—
01/24/2007	02/07/2007	Y12883	—	—	—	—	—
02/05/2007	02/07/2007	Y16058	—	—	—	—	—
02/17/2007	03/08/2007	Y15989	—	—	—	—	—
03/01/2007	03/08/2007	Y12867	—	—	—	—	—
03/13/2007	03/29/2007	Y12841	—	—	—	—	—
03/25/2007	03/29/2007	Y12870	—	—	—	—	—
04/06/2007	05/01/2007	Y16099	—	—	—	—	—
04/18/2007	05/01/2007	Y16046	—	—	—	—	—
04/30/2007	05/16/2007	Y06011	—	—	—	—	—
05/12/2007	05/16/2007	Y12883	—	—	—	—	—
05/24/2007	06/14/2007	Y12874	—	—	—	—	—
06/05/2007	06/14/2007	Y16134	—	—	—	—	—
06/17/2007	07/11/2007	Y06011	—	—	—	—	—
06/29/2007	07/11/2007	Y14520	—	—	—	—	—
07/11/2007	07/13/2007	Y12841	—	—	—	—	—
07/23/2007	08/09/2007	Y12883	—	—	—	—	—
08/04/2007	08/09/2007	Y16099	—	—	—	—	—
08/16/2007	09/05/2007	Y11217	—	—	—	—	—
08/28/2007	09/05/2007	Y12841	—	—	—	—	—
09/09/2007	10/02/2007	Y05868	—	—	—	—	—
09/21/2007	10/02/2007	Y16058	—	—	—	—	—
10/03/2007	10/19/2007	Y12874	—	—	—	—	—
10/15/2007	10/19/2007	Y12883	—	—	—	—	—
10/27/2007	11/13/2007	Y16058	—	—	—	—	—
10/27/2007	11/13/2007	Y16058	—	—	—	—	—
11/08/2007	11/13/2007	Y12867	—	—	—	—	—
11/08/2007	11/13/2007	Y12867	—	—	—	—	—
11/20/2007	12/06/2007	Y05161	—	—	—	—	—
11/20/2007	12/06/2007	Y05161	—	—	—	—	—
12/02/2007	12/06/2007	Y16119	—	—	—	—	—
12/02/2007	12/06/2007	Y16119	—	—	—	—	—
12/14/2007	01/03/2008	Y05161	—	—	—	—	—
12/14/2007	01/03/2008	Y05161	—	—	—	—	—
12/26/2007	01/03/2008	Y15936	—	—	—	—	—
12/26/2007	01/03/2008	Y15936	—	—	—	—	—
01/07/2008	01/23/2008	Y12889	—	—	—	—	—
01/19/2008	01/23/2008	Y16099	—	—	—	—	—
01/31/2008	02/19/2008	Y16058	—	—	—	—	—
02/12/2008	02/19/2008	Y16052	—	—	—	—	—
02/24/2008	03/13/2008	Y05016	—	—	—	—	—

Table B2D. Quality-control analytical laboratory blank results for high-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

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[The site-identification number is 324141117001601. Concentrations are given in part per billion by volume (ppbv). Sample volume for quality-assurance lab-blank is 1.5 liters. Samples processed at 20.0 degrees Celsius and 760 millimeters of mercury. Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; —, not detected at a concentration above laboratory reporting level; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analyzed date (mm/dd/yyyy)	Cartridge number	Chloromethane	Chloroethene (vinyl chloride)	Bromomethane	Chloroethane	Bromoethene (vinyl bromide)
			[LRL]	[0.30]	[0.30]	[0.50]	[0.30]
03/07/2008	03/13/2008	Y16099	—	—	—	—	—
03/19/2008	04/03/2008	Y16096	—	—	—	—	—
03/31/2008	04/03/2008	Y05908	—	—	—	—	—
04/12/2008	04/30/2008	Y14520	—	—	—	—	—
04/24/2008	04/30/2008	Y12874	—	—	—	—	—
05/06/2008	05/22/2008	Y12867	—	—	—	—	—
05/18/2008	05/22/2008	Y16134	—	—	—	—	—
05/30/2008	06/18/2008	Y16139	—	—	—	—	—
06/01/2008	06/18/2008	Y16096	—	—	—	—	—
06/23/2008	07/14/2008	Y11185	—	—	—	—	—
07/05/2008	07/14/2008	Y05951	—	—	—	—	—
07/17/2008	08/14/2008	Y16658	—	—	—	—	—
07/29/2008	08/14/2008	Y15889	—	—	—	—	—
08/10/2008	08/28/2008	Y05016	—	—	—	—	—
08/22/2008	08/28/2008	Y16139	—	—	—	—	—
09/03/2008	09/18/2008	Y16058	—	—	—	—	—
09/15/2008	09/18/2008	Y14520	—	—	—	—	—
09/27/2008	10/16/2008	Y16052	—	—	—	—	—
10/09/2008	10/16/2008	Y15989	—	—	—	—	—
10/21/2008	11/06/2008	Y05161	—	—	—	—	—
11/02/2008	11/06/2008	Y05908	—	—	—	—	—
11/14/2008	12/10/2008	Y12883	—	—	—	—	—
11/26/2008	12/10/2008	Y16139	—	—	—	—	—
12/08/2008	12/31/2008	Y16058	—	—	—	—	—
12/20/2008	12/31/2008	Y12883	—	—	—	—	—
01/01/2009	01/21/2009	Y05951	—	—	—	—	—
01/13/2009	01/21/2009	Y05161	—	—	—	—	—
01/25/2009	02/11/2009	Y05908	—	—	—	—	—
02/06/2009	02/11/2009	Y05868	—	—	—	—	—
02/18/2009	03/04/2009	Y15939	—	—	—	—	—
03/02/2009	03/04/2009	Y16096	—	—	—	—	—
03/14/2009	04/01/2009	Y05016	—	—	—	—	—
03/26/2009	04/01/2009	Y12867	—	—	—	—	—
04/07/2009	04/23/2009	Y16119	—	—	—	—	—
04/19/2009	04/23/2009	Y05951	—	—	—	—	—
05/01/2009	05/21/2009	Y14520	—	—	—	—	—
05/13/2009	05/21/2009	Y16052	—	—	—	—	—
05/25/2009	06/11/2009	Y05016	—	—	—	—	—
06/06/2009	06/11/2009	Y16058	—	—	—	—	—
06/18/2009	07/09/2009	Y16096	—	—	—	—	—
06/30/2009	07/09/2009	Y14520	—	—	—	—	—
07/12/2009	07/29/2009	Y16134	—	—	—	—	—
07/24/2009	07/29/2009	Y12889	—	—	—	—	—

Table B3A. Quality-control travel spike results for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.[The site-identification number is 32414117001601. Values are given in percentage recovery. **Abbreviations:** mm/dd/yyyy, month/day/year; NA, not analyzed]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Acetone	Diethyl ether	1,1-Dichloroethene	tert-Butyl alcohol	2-Propenenitrile (acrylonitrile)	Methylene chloride	Methylacetate	3-Chloro-1-propene	Carbon disulfide	trans 1,2-Dichloroethene
11/29/2003	12/18/2003	Y12089	97.5	108	114	120	104	92.3	79.3	74.8	80.8	110
12/23/2003	01/29/2004	Y15630	117	104	109	67.2	102	111	75.0	76.7	121	107
01/14/2004	02/06/2004	Y11407	95.4	120	113	107	108	103	68.9	84.2	95.4	116
02/21/2004	02/27/2004	Y26371	115	78.5	102	77.0	79.3	99.2	68.1	79.7	87.1	93.5
04/09/2004	04/16/2004	Y26371	91.2	74.5	96.2	70.6	81.8	94.4	76.5	79.1	78.2	97.6
04/21/2004	05/06/2004	Y11241	124	83.5	94.0	128	72.1	102	119	99.9	73.6	93.2
07/26/2004	08/25/2004	Y11458	106	84.3	98.9	93.9	72.6	83.1	82.0	72.3	70.3	93.8
09/23/2004	10/13/2004	Y29357	82.0	114	122	104	75.2	121	74.7	71.8	103	119
02/15/2005	03/03/2005	Y29305	94.0	116	108	84.8	98.9	120	63.2	76.4	105	116
03/11/2005	03/30/2005	Y10925	78.9	96.5	108	83.8	117	87.5	79.4	73.3	99.7	99.5
05/10/2005	05/17/2005	Y11968	83.0	110	108	118	92.0	108	72.4	102	93.0	99.8
06/03/2005	06/20/2005	Y16392	43.1	106	113	78.2	70.3	92.5	74.0	104	89.3	94.9
08/02/2005	08/17/2005	Y26144	136	113	71.2	78.6	98.4	112	72.8	79.9	102	113
09/19/2005	10/05/2005	Y07567	75.2	104	124	123	90.0	84.3	112	94.8	80.1	104
10/13/2005	11/02/2005	Y08490	85.1	86.1	82.2	80.5	81.8	85.0	72.6	74.1	74.4	78.0
02/22/2006	03/09/2006	Y16229	83.1	100	85.1	72.4	98.8	100	63.6	70.8	96.2	98.5
04/23/2006	05/11/2006	Y29313	5.15	106	133	84.5	107	95.2	69.7	96.9	112	109
10/08/2006	10/25/2006	Y12870	133	130	82.9	126	111	116	117	85.2	116	107
02/17/2007	03/08/2007	Y05908	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
04/30/2007	05/16/2007	Y16139	98.4	95.2	130	82.2	102	110	67.5	73.9	104	114
05/24/2007	06/14/2007	Y16099	61.8	107	129	91.9	90.1	85.8	81.9	72.6	84.5	103
08/16/2007	09/05/2007	Y16119	91.2	94.1	121	83.5	86.7	95.9	98.1	83.0	91.2	96.3
10/15/2007	10/19/2007	Y05868	64.9	101	101	95.1	97.5	78.0	62.7	71.2	78.0	99.9
11/20/2007	12/06/2007	Y16139	NA	88.8	133	89.0	104	75.5	63.4	73.3	85.0	85.3
01/07/2008	01/23/2008	Y15989	98.1	86.8	85.7	126	108	79.1	85.8	62.1	66.8	78.1
01/31/2008	02/19/2008	Y05161	103	104	85.7	76.0	96.0	104	55.7	76.5	98.5	112
02/24/2008	03/13/2008	Y05908	78.0	92.4	79.4	97.0	95.6	83.2	77.0	79.7	88.4	91.8
03/19/2008	04/03/2008	Y11977	99.8	88.0	82.6	107	93.7	81.2	72.3	71.2	71.4	92.7
04/24/2008	04/30/2008	Y12883	64.3	102	125	80.9	86.6	95.2	119	83.4	108	103
05/30/2008	06/18/2008	Y05908	82.1	93.4	78.2	69.9	82.6	96.5	65.4	72.5	90.6	93.7
08/10/2008	08/28/2008	Y05161	89.4	85.7	79.9	103	92.0	96.4	95.1	67.7	93.1	87.9
09/27/2008	10/16/2008	Y16119	85.1	96.4	79.5	92.0	90.4	94.6	92.4	78.8	83.6	94.6
12/20/2008	12/31/2008	Y12874	72.3	98.8	79.5	128	113	98.6	108	80.9	95.6	108
02/18/2009	03/04/2009	Y05951	35.2	83.0	88.6	75.1	109	95.7	66.8	98.9	108	97.3
04/07/2009	04/23/2009	Y16052	54.7	113	107	103	123	94.9	73.9	66.1	117	102
05/25/2009	06/11/2009	Y15939	64.7	86.5	127	84.3	88.0	100	82.6	74.0	94.7	97.6

Table B3A. Quality-control travel spike results for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Values are given in percentage recovery. Abbreviations: mm/dd/yyyy, month/day/year; NA, not analyzed]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Methyl tert-butyl ether (MTBE)	1,1-Dichloroethane	2-Butanone (methyl ethyl ketone)	Diisopropyl ether (DIPE)	Methyl acrylonitrile	cis-1,2-Dichloroethene	Bromochloro methane	Trichloro-methane (chloroform)	2,2-Dichloropropene	Methyl acrylate
11/29/2003	12/18/2003	Y12089	104	103	84.8	105	120	118	89.9	109	75.2	88.5
12/23/2003	01/29/2004	Y15630	94.9	83.5	77.0	104	88.0	104	93.9	99.6	76.7	72.8
01/14/2004	02/06/2004	Y11407	117	107	90.1	118	121	115	89.1	118	74.6	91.6
02/21/2004	02/27/2004	Y26371	82.5	97.7	94.6	85.1	89.7	99.4	86.8	99.7	98.5	83.3
04/09/2004	04/16/2004	Y26371	72.8	84.9	76.9	78.7	85.3	93.7	98.4	93.2	71.0	72.6
04/21/2004	05/06/2004	Y11241	77.0	99.5	103	86.2	85.1	93.6	94.3	105	90.0	96.8
07/26/2004	08/25/2004	Y11458	89.3	94.4	92.5	91.1	87.9	93.8	94.9	99.9	93.1	93.4
09/23/2004	10/13/2004	Y29357	116	99.2	116	120	118	121	77.7	114	78.8	122
02/15/2005	03/03/2005	Y29305	116	105	98.1	106	105	114	86.0	120	83.4	92.6
03/11/2005	03/30/2005	Y10925	71.4	91.4	78.3	113	131	101	101	90.2	62.9	82.2
05/10/2005	05/17/2005	Y11968	103	98.2	111	112	117	108	106	111	71.1	110
06/03/2005	06/20/2005	Y16392	82.6	102	97.3	85.0	95.1	93.7	120	100	77.2	90.4
08/02/2005	08/17/2005	Y26144	97.4	118	106	115	108	116	94.1	127	83.8	102
09/19/2005	10/05/2005	Y07567	93.8	111	82.3	99.1	96.8	105	99.0	122	80.3	105
10/13/2005	11/02/2005	Y08490	72.5	72.1	69.3	83.4	86.0	86.3	79.1	97.4	67.6	83.1
02/22/2006	03/09/2006	Y16229	95.3	92.4	84.5	98.4	115	102	84.4	102	71.5	70.5
04/23/2006	05/11/2006	Y29313	85.0	111	105	103	105	109	101	110	73.5	88.4
10/08/2006	10/25/2006	Y12870	121	119	107	107	108	105	73.1	114	97.2	127
02/17/2007	03/08/2007	Y05908	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
04/30/2007	05/16/2007	Y16139	102	113	107	102	99.0	112	82.0	112	85.1	89.6
05/24/2007	06/14/2007	Y16099	101	85.1	89.5	96.8	89.4	111	87.3	103	80.8	81.8
08/16/2007	09/05/2007	Y16119	95.3	87.0	93.2	98.4	105	101	80.2	93.5	73.1	90.6
10/15/2007	10/19/2007	Y05868	96.0	89.9	91.9	97.7	97.5	98.9	85.9	94.8	75.6	87.3
11/20/2007	12/06/2007	Y16139	64.7	74.6	86.1	87.5	101	85.5	86.9	83.3	70.2	78.3
01/07/2008	01/23/2008	Y15989	99.6	75.4	79.9	96.5	112	77.8	72.3	73.4	82.2	92.9
01/31/2008	02/19/2008	Y05161	100	105	101	105	99.3	108	75.5	112	88.0	99.2
02/24/2008	03/13/2008	Y05908	112	88.8	80.0	100	102	91.8	75.5	88.8	78.6	86.9
03/19/2008	04/03/2008	Y11977	88.1	90.1	75.4	88.4	95.5	90.9	83.8	93.8	83.2	82.8
04/24/2008	04/30/2008	Y12883	89.3	91.7	82.9	101	105	101	79.6	108	65.5	73.8
05/30/2008	06/18/2008	Y05908	87.3	91.9	90.6	92.1	97.9	92.9	88.8	92.9	75.9	92.2
08/10/2008	08/28/2008	Y05161	93.1	94.6	90.3	91.4	86.6	93.5	71.4	100	76.4	104
09/27/2008	10/16/2008	Y16119	92.8	92.3	98.4	96.5	103	94.0	77.4	107	73.6	103
12/20/2008	12/31/2008	Y12874	107	105	97.6	106	95.6	99.6	107	103	72.8	105
02/18/2009	03/04/2009	Y05951	63.8	103	76.0	93.1	94.9	98.3	97.9	81.1	74.5	80.0
04/07/2009	04/23/2009	Y16052	111	90.5	110	112	113	107	85.0	99.4	77.0	115
05/25/2009	06/11/2009	Y15939	89.2	89.3	92.5	99.0	93.5	90.1	76.1	81.6	77.9	92.5

Table B3A. Quality-control travel spike results for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued[The site-identification number is 3241.4117001601. Values are given in percentage recovery. **Abbreviations:** mm/dd/yyyy, month/day/year; NA, not analyzed]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Ethyl <i>tert</i> -butyl ether (ETBE)	Tetrahydrofran	<i>tert</i> -Amyl alcohol	1,2-Dichloroethane	1,1,1-Trichloroethane	1,1-Dichloropropene	Tetrachloro-methane	Benzene	<i>tert</i> -Pentyl methyl ether	Dibromo-methane
11/29/2003	12/18/2003	Y12089	105	107	116	108	108	113	123	111	102	106
12/23/2003	01/29/2004	Y15630	87.0	102	73.5	106	110	107	113	122	83.2	97.9
01/14/2004	02/06/2004	Y11407	123	122	119	112	99.4	111	113	89.8	127	111
02/21/2004	02/27/2004	Y26371	85.5	85.2	73.4	102	94.1	97.6	105	134	89.5	105
04/09/2004	04/16/2004	Y26371	77.1	73.5	79.7	94.1	87.9	98.4	99.7	91.5	83.6	94.4
04/21/2004	05/06/2004	Y11241	73.1	89.8	116	98.6	78.9	93.8	75.8	126	78.9	104
07/26/2004	08/25/2004	Y11458	84.2	82.9	93.8	96.9	94.1	94.8	98.3	107	81.8	102
09/23/2004	10/13/2004	Y29357	114	102	81.2	122	112	124	116	106	106	111
02/15/2005	03/03/2005	Y29305	124	106	103	112	116	113	121	119	124	104
03/11/2005	03/30/2005	Y10925	76.3	98.9	71.5	86.8	77.0	104	83.2	87.5	73.7	74.3
05/10/2005	05/17/2005	Y11968	101	107	104	115	97.2	113	103	96.6	99.5	94.0
06/03/2005	06/20/2005	Y16392	84.5	91.2	69.5	107	107	91.8	109	78.7	87.9	102
08/02/2005	08/17/2005	Y26144	95.4	109	92.3	121	114	121	125	110	97.8	121
09/19/2005	10/05/2005	Y07567	90.5	102	121	106	97.5	106	106	90.0	88.5	101
10/13/2005	11/02/2005	Y08490	73.9	87.4	79.4	87.7	86.2	82.6	87.1	81.3	73.3	76.2
02/22/2006	03/09/2006	Y16229	94.6	100	86.5	97.2	100	102	101	84.0	102	98.8
04/23/2006	05/11/2006	Y29313	77.4	103	76.7	105	107	107	116	86.5	72.1	103
10/08/2006	10/25/2006	Y12870	114	95.3	132	108	111	105	117	81.8	115	93.6
02/17/2007	03/08/2007	Y05908	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
04/30/2007	05/16/2007	Y16139	102	89.6	74.2	98.7	98.1	105	102	86.1	97.7	97.6
05/24/2007	06/14/2007	Y16099	101	90.2	68.9	96.9	96.6	99.4	99.5	94.0	96.5	86.9
08/16/2007	09/05/2007	Y16119	106	94.2	95.6	91.2	91.6	95.4	99.0	84.6	107	93.5
10/15/2007	10/19/2007	Y05868	94.4	96.9	83.5	90.9	94.6	100	95.0	80.1	91.7	86.4
11/20/2007	12/06/2007	Y16139	70.7	95.1	70.2	84.2	80.6	81.8	82.5	73.5	69.8	87.6
01/07/2008	01/23/2008	Y15989	114	104	122	80.1	80.6	78.5	74.5	77.5	127	71.4
01/31/2008	02/19/2008	Y05161	104	98.8	71.9	110	108	110	124	83.6	100	99.8
02/24/2008	03/13/2008	Y05908	112	92.8	100	79.4	87.5	91.2	98.1	84.5	112	80.4
03/19/2008	04/03/2008	Y11977	89.0	88.1	102	89.5	85.6	91.7	89.6	69.2	86.2	86.7
04/24/2008	04/30/2008	Y12883	86.9	101	72.2	102	101	103	112	82.5	76.6	96.9
05/30/2008	06/18/2008	Y05908	83.3	88.5	84.3	90.4	87.9	93.4	95.4	77.6	76.8	90.2
08/10/2008	08/28/2008	Y05161	94.5	87.5	109	91.4	87.7	97.7	96.6	70.1	92.8	84.2
09/27/2008	10/16/2008	Y16119	102	97.7	90.4	99.4	95.5	94.4	106	88.4	100	95.7
12/20/2008	12/31/2008	Y12874	103	102	132	88.9	95.1	99.0	106	103	102	102
02/18/2009	03/04/2009	Y05951	67.7	87.1	86.1	87.0	86.0	99.8	98.5	87.5	69.4	98.2
04/07/2009	04/23/2009	Y16052	122	110	90.1	103	104	106	110	105	107	89.8
05/25/2009	06/11/2009	Y15939	92.1	93.6	82.7	90.4	92.5	94.1	92.5	72.9	94.1	86.8

Table B3A. Quality-control travel spike results for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Values are given in percentage recovery. **Abbreviations:** mm/dd/yyyy, month/day/year; NA, not analyzed]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	1,2-Dichloro-propane	Trichloroethene (TCE)	Bromodichloro-methane	Methylmeth-acrylate	cis 1,3-Dichloro-propene	4-Methyl-2-pentanone (MIBK)	trans 1,3-Dichloro-propene	1,1,2-Trichloro-ethane	Toluene	1,3-Dichloro-propene
11/29/2003	12/18/2003	Y12089	110	115	109	87.6	100	108	87.9	114	113	105
12/23/2003	01/29/2004	Y15630	105	104	107	76.8	109	96.3	107	106	114	106
01/14/2004	02/06/2004	Y11407	108	113	102	105	102	115	90.7	116	99.6	102
02/21/2004	02/27/2004	Y26371	101	98.4	95.4	82.3	105	92.4	111	101	98.7	104
04/09/2004	04/16/2004	Y26371	96.4	100	89.7	74.8	90.9	78.6	85.1	95.9	92.4	95.3
04/21/2004	05/06/2004	Y11241	94.8	91.8	76.7	104	93.8	90.7	96.0	98.0	128	89.4
07/26/2004	08/25/2004	Y11458	96.2	89.6	87.3	99.0	102	92.7	108	98.4	113	97.2
09/23/2004	10/13/2004	Y29357	120	113	109	123	119	122	126	121	126	122
02/15/2005	03/03/2005	Y29305	113	114	119	93.2	107	107	97.1	108	110	115
03/11/2005	03/30/2005	Y10925	93.2	76.1	82.3	110	89.8	115	96.2	89.1	98.8	91.1
05/10/2005	05/17/2005	Y11968	115	102	106	113	119	119	121	104	114	106
06/03/2005	06/20/2005	Y16392	73.3	98.7	75.1	98.0	76.3	97.1	76.1	75.3	77.5	74.7
08/02/2005	08/17/2005	Y26144	123	128	123	115	129	124	130	129	114	128
09/19/2005	10/05/2005	Y07567	101	111	100	103	90.7	93.4	89.8	103	103	103
10/13/2005	11/02/2005	Y08490	82.6	88.0	94.9	86.4	72.7	80.3	73.0	79.9	80.6	80.5
02/22/2006	03/09/2006	Y16229	104	101	106	67.6	103	99.0	92.5	99.4	91.9	97.4
04/23/2006	05/11/2006	Y29313	105	106	108	84.1	111	102	104	107	103	107
10/08/2006	10/25/2006	Y12870	93.5	119	90.8	118	97.1	106	102	93.5	84.1	95.7
02/17/2007	03/08/2007	Y05908	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
04/30/2007	05/16/2007	Y16139	102	102	106	92.6	106	95.1	100	103	101	101
05/24/2007	06/14/2007	Y16099	97.9	87.3	95.7	84.4	98.7	90.8	90.2	100	92.8	95.9
08/16/2007	09/05/2007	Y16119	95.2	90.6	94.8	101	101	107	96.9	98.4	98.8	103
10/15/2007	10/19/2007	Y05868	95.4	94.5	98.3	87.9	97.2	97.7	92.6	101	89.9	98.6
11/20/2007	12/06/2007	Y16139	85.4	81.1	86.2	76.8	80.3	109	75.4	88.6	83.1	83.0
01/07/2008	01/23/2008	Y15989	82.3	137	80.0	107	79.9	103	69.3	85.4	129	88.9
01/31/2008	02/19/2008	Y05161	107	98.8	112	108	118	108	116	112	105	110
02/24/2008	03/13/2008	Y05908	90.2	92.7	87.2	92.8	93.3	95.2	88.2	93.6	92.8	91.6
03/19/2008	04/03/2008	Y11977	91.1	92.3	87.5	84.4	89.1	88.6	85.8	95.0	87.2	88.2
04/24/2008	04/30/2008	Y12883	100	108	102	75.5	94.9	105	97.5	108	79.9	104
05/30/2008	06/18/2008	Y05908	91.1	85.9	93.0	94.4	99.7	93.5	97.7	96.5	89.9	92.8
08/10/2008	08/28/2008	Y05161	94.8	119	95.7	106	98.4	96.8	95.4	97.4	94.9	94.6
09/27/2008	10/16/2008	Y16119	95.2	88.8	89.8	118	104	85.6	107	104	94.6	97.7
12/20/2008	12/31/2008	Y12874	106	111	106	107	107	81.8	97.8	109	75.0	108
02/18/2009	03/04/2009	Y05951	102	112	96.6	80.8	101	80.9	96.9	103	104	101
04/07/2009	04/23/2009	Y16052	103	105	98.7	115	106	113	100	106	101	103
05/25/2009	06/11/2009	Y15939	105	94.0	104.4	87.0	112	104	101	103	93.6	108

Table B3A. Quality-control travel spike results for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued[The site-identification number is 3241.4117001601. Values are given in percentage recovery. **Abbreviations:** mm/dd/yyyy, month/day/year; NA, not analyzed]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Ethylmethacrylate	2-Hexanone (MBK)	Dibromochloromethane	1,2-Dibromoethane	Tetrachloroethene (PCE)	1,1,1,2-Tetrachloroethane	Chlorobenzene	Ethylbenzene	<i>m</i> - and <i>p</i> -Xylene	Bromoform (tribromomethane)
11/29/2003	12/18/2003	Y12089	103	111	122	103	112	115	112	103	103	106
12/23/2003	01/29/2004	Y15630	78.7	91.4	111	103	102	109	108	96.1	122	95.7
01/14/2004	02/06/2004	Y11407	122	121	115	97.6	106	112	111	111	110	119
02/21/2004	02/27/2004	Y26371	90.7	102	110	109	99.3	107	100	101	97.9	109
04/09/2004	04/16/2004	Y26371	78.9	80.5	99.7	94.8	93.0	100	95.6	87.7	83.5	97.0
04/21/2004	05/06/2004	Y11241	92.2	92.0	90.4	86.3	90.0	88.7	93.9	95.8	101	86.7
07/26/2004	08/25/2004	Y11458	106	102	98.8	108	93.2	98.5	98.6	88.5	83.3	83.6
09/23/2004	10/13/2004	Y29357	101	117	124	120	116	128	121	110	107	123
02/15/2005	03/03/2005	Y29305	102	102	120	108	115	115	109	104	107	109
03/11/2005	03/30/2005	Y10925	106	118	73.8	85.5	79.7	108	101	94.1	97.5	76.8
05/10/2005	05/17/2005	Y11968	114	120	123	104	104	110	103	104	104	120
06/03/2005	06/20/2005	Y16392	102	102	73.3	91.0	102	94.0	91.2	88.4	87.0	98.4
08/02/2005	08/17/2005	Y26144	125	125	122	99.3	114	117	125	111	109	127
09/19/2005	10/05/2005	Y07567	101	90.3	114	105	122	111	104	104	99.3	88.8
10/13/2005	11/02/2005	Y08490	70.6	81.8	88.3	76.7	77.2	83.0	82.9	80.5	80.7	73.8
02/22/2006	03/09/2006	Y16229	78.2	96.7	106	94.5	102	99.6	100	82.1	79.1	89.8
04/23/2006	05/11/2006	Y29313	73.8	106	116	104	128	108	104	104	103	114
10/08/2006	10/25/2006	Y12870	112	96.9	112	92.8	98.6	89.8	84.2	95.9	96.0	108
02/17/2007	03/08/2007	Y05908	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
04/30/2007	05/16/2007	Y16139	96.3	93.6	108	97.3	97.0	102	99.9	105	103	115
05/24/2007	06/14/2007	Y16099	82.2	97.0	95.8	99.0	93.3	94.6	95.4	98.2	97.8	103
08/16/2007	09/05/2007	Y16119	109	114	106	101	102	97.9	108	101	99.1	107
10/15/2007	10/19/2007	Y05868	94.7	102	102	105	98.6	101	101	87.0	85.1	89.6
11/20/2007	12/06/2007	Y16139	88.9	119	89.8	83.8	88.4	89.2	89.6	70.3	70.2	68.8
01/07/2008	01/23/2008	Y15989	126	93.5	79.6	78.6	129	81.2	98.0	86.9	89.1	78.7
01/31/2008	02/19/2008	Y05161	112	111	124	112	102	115	110	115	113	129
02/24/2008	03/13/2008	Y05908	103	107	97.1	99.2	85.8	94.8	93.4	87.7	88.1	102
03/19/2008	04/03/2008	Y11977	92.5	89.8	97.8	85.5	90.4	94.1	91.3	97.6	96.3	104
04/24/2008	04/30/2008	Y12883	85.1	109	113	106	99.9	109	106	94.6	93.5	108
05/30/2008	06/18/2008	Y05908	87.2	91.0	97.3	93.4	94.1	94.1	91.1	90.3	89.3	96.3
08/10/2008	08/28/2008	Y05161	105	97.3	99.3	98.5	115	90.4	99.5	100	99.8	107
09/27/2008	10/16/2008	Y16119	111	119	109	104	93.0	106	96.3	84.6	84.1	95.6
12/20/2008	12/31/2008	Y12874	98.1	91.2	115	105	109	111	103	74.7	103	130
02/18/2009	03/04/2009	Y05951	71.8	87.3	107	99.7	108	101	109	99.7	107	108
04/07/2009	04/23/2009	Y16052	112	124	110	102	102	104	105	125	108	112
05/25/2009	06/11/2009	Y15939	94.4	104	116	105	102	105	101	90.0	89.6	104

Table B3A. Quality-control travel spike results for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued[The site-identification number is 32414117001601. Values are given in percentage recovery. **Abbreviations:** mm/dd/yyyy, month/day/year; NA, not analyzed]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Ethylbenzene (styrene)	1,1,2,2-Tetrachloro-ethane	<i>o</i> -Xylene	1,2,3-Trichloro-propene	<i>trans</i> -1,4-Dichloro-2-butene	Isopropyl-benzene (cumene)	Bromobenzene	<i>n</i> -propylbenzene	1-Chloro-2-methyl-benzene	1-Chloro-4-methyl-benzene
11/29/2003	12/18/2003	Y12089	106	99.6	106	107	75.0	105	106	101	107	103
12/23/2003	01/29/2004	Y15630	96.4	93.6	96.2	94.4	96.7	94.5	95.1	94.1	92.1	90.9
01/14/2004	02/06/2004	Y11407	113	109	111	111	89.0	109	107	112	109	112
02/21/2004	02/27/2004	Y26371	104	100	101	101	127	101	102	106	102	105
04/09/2004	04/16/2004	Y26371	85.7	91.2	90.5	85.8	92.0	93.9	94.0	91.5	91.0	93.7
04/21/2004	05/06/2004	Y11241	102	90.8	93.9	96.4	107	90.8	94.7	91.3	92.2	94.9
07/26/2004	08/25/2004	Y11458	93.2	96.9	85.8	83.2	107	89.2	81.7	92.1	76.5	84.2
09/23/2004	10/13/2004	Y29357	112	121	107	109	97.0	108	105	106	103	107
02/15/2005	03/03/2005	Y29305	104	95.4	103	107	83.4	102	100	104	101	104
03/11/2005	03/30/2005	Y10925	104	99.5	96.4	96.9	83.5	95.8	97.3	99.9	93.7	100
05/10/2005	05/17/2005	Y11968	107	117	103	112	115	99.9	112	103	104	107
06/03/2005	06/20/2005	Y16392	98.1	78.0	85.0	97.9	72.3	91.8	91.1	90.4	92.0	93.4
08/02/2005	08/17/2005	Y26144	119	112	114	128	119	111	114	117	116	117
09/19/2005	10/05/2005	Y07567	104	91.6	98.6	104	81.5	102	104	100	99.4	100.2
10/13/2005	11/02/2005	Y08490	80.4	90.9	82.1	86.6	66.8	80.9	82.0	81.5	79.5	82.1
02/22/2006	03/09/2006	Y16229	79.4	81.9	82.6	79.2	70.2	83.4	85.0	81.9	79.5	84.2
04/23/2006	05/11/2006	Y29313	106	109	102	104	82.9	105	104	106	103	107
10/08/2006	10/25/2006	Y12870	92.7	66.0	92.8	98.9	81.6	95.8	98.4	93.9	95.6	96.5
02/17/2007	03/08/2007	Y05908	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
04/30/2007	05/16/2007	Y16139	109	109	99.8	99.3	94.2	103	104	102	97.2	103
05/24/2007	06/14/2007	Y16099	101	106	98.0	99.9	102	98.8	98.9	101	97.6	101
08/16/2007	09/05/2007	Y16119	105	106	97.1	101	95.3	100	98.9	99.1	97.3	100
10/15/2007	10/19/2007	Y05868	92.5	94.0	86.8	89.1	80.1	87.6	89.6	89.3	86.1	92.0
11/20/2007	12/06/2007	Y16139	74.3	84.9	71.4	75.0	65.3	72.8	73.5	77.1	74.0	76.7
01/07/2008	01/23/2008	Y15989	95.9	80.1	89.9	90.9	93.9	95.0	96.3	99.5	95.6	100
01/31/2008	02/19/2008	Y05161	121	118	113	115	129	115	121	117	117	118
02/24/2008	03/13/2008	Y05908	97.3	90.2	86.6	89.2	101	88.0	91.0	90.4	87.3	94.2
03/19/2008	04/03/2008	Y11977	99.8	98.2	96.2	95.7	69.2	96.4	96.1	98.4	95.4	96.9
04/24/2008	04/30/2008	Y12883	95.4	97.8	95.6	97.0	80.8	102	101	100	101	103
05/30/2008	06/18/2008	Y05908	95.6	104	90.1	90.2	74.4	88.5	92.1	89.6	88.5	91.8
08/10/2008	08/28/2008	Y05161	103	79.4	97.0	106	66.2	96.1	102	101	102	105
09/27/2008	10/16/2008	Y16119	91.4	95.5	84.9	92.5	121	86.2	85.4	91.3	90.1	94.7
12/20/2008	12/31/2008	Y12874	108	106	107	119	95.4	91.5	109	79.0	109	108
02/18/2009	03/04/2009	Y05951	119	95.9	116	106	71.1	102	109	94.5	107	118
04/07/2009	04/23/2009	Y16052	117	98.4	108	105	88.8	121	105	83.6	108	109
05/25/2009	06/11/2009	Y15939	93.4	92.5	89.4	92.9	72.2	91.2	88.9	94.1	88.7	92.9

Table B3A. Quality-control travel spike results for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 3241.4117001601. Values are given in percentage recovery. Abbreviations: mm/dd/yyyy, month/day/year; NA, not analyzed]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	1,3,5-Trimethylbenzene	2-Ethyltoluene	tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1-Isopropyl-4-methylbenzene	1,2,3-Trimethylbenzene	1,2-Dichlorobenzene
11/29/2003	12/18/2003	Y12089	106	103	108	103	101	111	110	109	106	113
12/23/2003	01/29/2004	Y15630	92.0	90.5	90.4	89.8	90.6	95.8	95.1	97.9	96.9	92.9
01/14/2004	02/06/2004	Y11407	110	111	109	111	110	99.9	99.9	103	103	99.8
02/21/2004	02/27/2004	Y26371	108	106	102	104	109	99.0	100	98.5	99.5	98.2
04/09/2004	04/16/2004	Y26371	95.2	92.4	96.9	92.4	94.7	90.6	90.6	86.4	88.5	90.4
04/21/2004	05/06/2004	Y11241	90.8	89.0	100	89.5	88.0	93.1	91.7	81.5	88.5	89.9
07/26/2004	08/25/2004	Y11458	87.5	89.2	78.0	87.7	92.4	78.3	79.0	87.8	83.6	77.7
09/23/2004	10/13/2004	Y29357	105	106	102	104	104	105	108	104	104	102
02/15/2005	03/03/2005	Y29305	99.8	103	93.8	104	99.2	107	108	108	106	106
03/11/2005	03/30/2005	Y10925	98.1	100	100	101	99.2	87.2	85.5	97.4	101	79.4
05/10/2005	05/17/2005	Y11968	107	106	105	109	107	92.6	92.1	92.1	93.8	96.9
06/03/2005	06/20/2005	Y16392	93.2	94.2	117	95.9	93.3	82.7	84.4	76.3	75.0	86.7
08/02/2005	08/17/2005	Y26144	114	114	110	117	117	118	113	116	113	111
09/19/2005	10/05/2005	Y07567	102	102	107	102	102	103	101	102	99.1	103
10/13/2005	11/02/2005	Y08490	80.5	77.7	71.8	79.1	79.2	89.4	94.8	95.0	90.0	88.5
02/22/2006	03/09/2006	Y16229	79.7	81.2	87.4	84.6	81.6	83.0	84.6	83.3	82.3	84.5
04/23/2006	05/11/2006	Y29313	105	104	109	108	108	102	103	98.3	100	99.2
10/08/2006	10/25/2006	Y12870	91.2	92.3	99.5	89.9	89.5	104	103	87.7	91.5	103
02/17/2007	03/08/2007	Y05908	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
04/30/2007	05/16/2007	Y16139	105	103	101	105	105	97.3	95.4	94.3	93.9	93.9
05/24/2007	06/14/2007	Y16099	100	99.8	98.3	98.5	99.2	91.6	91.9	98.1	95.1	97.3
08/16/2007	09/05/2007	Y16119	100	99.1	97.4	101	98.3	99.7	98.4	101	98.6	99.0
10/15/2007	10/19/2007	Y05868	86.4	87.8	88.1	86.9	88.1	86.6	87.2	85.2	83.0	85.9
11/20/2007	12/06/2007	Y16139	78.9	77.3	77.1	79.6	79.5	85.1	86.4	87.2	87.6	88.9
01/07/2008	01/23/2008	Y15989	103	101	101	104	104	91.5	94.7	95.0	92.9	93.0
01/31/2008	02/19/2008	Y05161	118	117	114	120	120	102	104	99.2	97.8	99.1
02/24/2008	03/13/2008	Y05908	89.1	88.5	87.0	89.2	88.5	89.0	91.6	87.9	84.5	85.5
03/19/2008	04/03/2008	Y11977	96.2	96.8	93.4	95.8	95.0	90.2	90.7	89.8	92.3	87.6
04/24/2008	04/30/2008	Y12883	100	101	101	99.5	101	103	108	105	105	101
05/30/2008	06/18/2008	Y05908	88.9	90.6	87.4	90.5	90.5	76.7	75.0	76.0	74.5	77.8
08/10/2008	08/28/2008	Y05161	94.0	97.2	96.0	94.0	90.8	106	108	85.9	92.1	94.9
09/27/2008	10/16/2008	Y16119	88.8	88.9	89.0	90.0	89.1	88.2	86.6	81.9	85.2	82.4
12/20/2008	12/31/2008	Y12874	110	91.1	107	113	100	96.5	98.4	95.7	96.9	90.3
02/18/2009	03/04/2009	Y05951	111	102	111	112	101	92.6	89.5	97.2	99.2	83.2
04/07/2009	04/23/2009	Y16052	110	123	109	116	124	111	115	122	122	104
05/25/2009	06/11/2009	Y15939	93.2	92.7	91.3	92.2	95.1	77.8	78.7	81.6	81.3	77.2

Table B3A. Quality-control travel spike results for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Values are given in percentage recovery. Abbreviations: mm/dd/yyyy, month/day/year; NA, not analyzed]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	n-Butylbenzene	1,2-Dibromo-3-chloropropene (DBCP)	Hexachloro-ethane	1,2,4,5-Tetramethylbenzene	1,2,3,5-Tetramethylbenzene	1,2,3,4-Tetramethylbenzene	1,2,4-Trichlorobenzene	Naphthalene	Hexachlorobutadiene	1,2,3-Trichlorobenzene
11/29/2003	12/18/2003	Y12089	109	114	117	111	109	107	111	113	107	114
12/23/2003	01/29/2004	Y15630	96.0	107	109	94.1	92.2	95.4	89.2	93.7	94.9	91.2
01/14/2004	02/06/2004	Y11407	99.8	98.7	123	108	107	110	106	110	100	106
02/21/2004	02/27/2004	Y26371	99.4	102	99.8	104	104	107	108	112	96.6	110
04/09/2004	04/16/2004	Y26371	90.7	93.2	99.7	95.7	95.2	100	100	99.9	102	110
04/21/2004	05/06/2004	Y11241	87.9	103	112	83.0	85.4	83.8	104	103	100	105
07/26/2004	08/25/2004	Y11458	89.3	104	80.3	97.5	89.1	94.7	89.2	98.2	89.6	93.3
09/23/2004	10/13/2004	Y29357	102	118	128	96.4	96.8	92.5	103	98.1	99.6	102
02/15/2005	03/03/2005	Y29305	107	107	107	108	102	106	117	117	112	110
03/11/2005	03/30/2005	Y10925	105	111	80.5	116	111	117	108	119	82.4	111
05/10/2005	05/17/2005	Y11968	101	126	103	109	112	113	116	124	104	104
06/03/2005	06/20/2005	Y16392	75.2	75.5	89.1	90.4	89.2	89.9	96.4	99.7	107	106
08/02/2005	08/17/2005	Y26144	118	115	114	122	119	119	114	109	113	110
09/19/2005	10/05/2005	Y07567	102	95.9	90.0	97.0	97.6	95.8	102	98.3	113	96.6
10/13/2005	11/02/2005	Y08490	94.2	96.8	82.6	85.0	84.6	83.2	91.8	89.6	82.4	88.5
02/22/2006	03/09/2006	Y16229	85.7	90.8	86.7	92.0	93.0	97.1	94.9	96.5	98.2	98.1
04/23/2006	05/11/2006	Y29313	104	105	104	113	115	118	129	127	129	121
10/08/2006	10/25/2006	Y12870	89.1	69.2	106	82.3	83.0	80.8	110	85.2	108	104
02/17/2007	03/08/2007	Y05908	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
04/30/2007	05/16/2007	Y16139	97.7	99.7	96.6	102	110	105	109	111	105	104
05/24/2007	06/14/2007	Y16099	100	102	92.3	104	105	106	109	109	104	110
08/16/2007	09/05/2007	Y16119	103	124	100	110	112	114	117	123	106	113
10/15/2007	10/19/2007	Y05868	85.3	101	88.3	86.4	87.7	89.0	93.9	97.1	93.3	90.9
11/20/2007	12/06/2007	Y16139	93.9	112	84.7	103	103	110	113	123	103	119
01/07/2008	01/23/2008	Y15989	99.1	84.8	82.8	107	107	114	116	120	101	117
01/31/2008	02/19/2008	Y05161	107	120	121	112	112	120	136	126	116	125
02/24/2008	03/13/2008	Y05908	90.8	99.4	98.8	94.5	94.0	97.5	115	114	92.1	111
03/19/2008	04/03/2008	Y11977	92.2	89.2	82.4	88.7	88.8	89.3	85.9	87.8	87.2	84.0
04/24/2008	04/30/2008	Y12883	104	97.0	116	106	108	106	100	98.5	103	101
05/30/2008	06/18/2008	Y05908	79.5	95.8	83.6	80.8	80.1	85.0	87.7	91.5	78.2	86.6
08/10/2008	08/28/2008	Y05161	90.9	75.7	74.6	78.5	78.3	76.2	95.6	80.1	94.1	84.1
09/27/2008	10/16/2008	Y16119	87.0	127	105	87.4	84.5	87.7	97.3	91.3	83.1	94.3
12/20/2008	12/31/2008	Y12874	96.8	87.0	93.5	104	102	107	110	107	101	109
02/18/2009	03/04/2009	Y05951	87.0	79.8	77.0	102	96.4	97.8	102	116	87.9	98.5
04/07/2009	04/23/2009	Y16052	123	115	107	120	117	114	115	121	114	117
05/25/2009	06/11/2009	Y15939	80.5	82.9	74.7	86.4	87.0	85.9	88.0	88.3	81.9	89.2

Table B3B. Quality-control travel blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed; —, compound was not detected at a concentration above the laboratory reporting level; °C, degree Celsius; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Pressure (mm of Hg)	Temperature (°C)	Acetone	1,1-Dichloroethene	2-Propenenitrile (acrylonitrile)	Methylene chloride	Carbon disulfide	Methyl tert-butyl ether (MTBE)	2-Butanone (methyl ethyl ketone)	Trichloromethane (chloroform)	Benzene
					[LRL] [0.20]	[0.60]	[0.19]	[0.09]	[0.16]	[0.10]	[0.14]	[0.09]	[0.11]
10/12/2003	10/16/2003	Y29357	759.7	20.7	E0.175	—	—	—	E0.014	—	—	—	0.145
10/24/2003	11/24/2003	Y26416	759.0	18.2	0.208	—	—	—	—	—	—	—	E0.058
11/05/2003	11/24/2003	Y26371	761.7	12.7	0.493	1.12	—	—	E0.030	—	—	—	0.154
11/17/2003	11/24/2003	Y16229	763.0	13.3	E0.153	—	—	—	E0.002	—	—	—	0.150
11/29/2003	12/18/2003	Y29305	761.9	15.0	0.691	—	—	—	—	—	—	—	0.126
12/11/2003	12/18/2003	Y11396	761.6	12.0	E0.164	—	—	—	—	—	—	—	E0.072
12/23/2003	02/03/2004	Y11861	760.7	15.4	0.254	—	—	—	—	—	—	—	E0.076
01/04/2004	02/03/2004	Y16579	764.9	9.5	0.283	—	—	—	—	—	—	—	E0.046
01/14/2004	02/06/2004	Y10925	758.0	12.9	E0.191	—	E0.005	—	E0.004	—	—	—	E0.061
01/28/2004	02/06/2004	Y16108	763.5	12.3	0.264	—	—	—	E0.002	—	—	—	E0.071
02/09/2004	02/27/2004	Y10962	762.5	12.4	0.309	E0.033	E0.005	E0.006	—	—	E0.025	—	0.151
02/21/2004	02/27/2004	Y25997	757.9	11.7	0.686	E0.275	E0.015	—	E0.011	—	—	—	0.231
03/04/2004	03/26/2004	Y11181	758.8	13.8	E0.165	E0.023	—	—	—	—	—	—	E0.082
03/16/2004	03/26/2004	Y10925	760.6	15.0	0.381	E0.038	—	—	E0.002	—	—	—	E0.081
03/28/2004	04/16/2004	Y11407	760.2	20.8	E0.104	—	—	—	E0.001	—	—	—	E0.053
04/09/2004	04/16/2004	Y06586	760.3	16.6	0.212	E0.018	—	—	—	—	—	—	E0.067
04/21/2004	05/06/2004	Y26830	760.8	16.0	0.539	—	E0.027	—	E0.091	—	—	—	E0.101
05/03/2004	05/06/2004	Y29329	758.1	18.2	0.366	—	—	—	E0.123	—	E0.107	—	E0.098
05/15/2004	06/04/2004	Y15649	757.5	18.2	1.185	—	—	—	E0.070	—	—	—	E0.099
05/27/2004	06/04/2004	Y16150	761.2	17.5	0.709	—	—	—	E0.004	—	—	—	0.119
06/08/2004	06/28/2004	Y16109	757.3	17.1	0.698	—	—	—	E0.027	—	—	—	E0.095
06/20/2004	06/28/2004	Y15649	760.7	19.2	1.420	—	—	—	E0.043	—	—	—	0.198
07/02/2004	07/21/2004	Y29329	761.7	18.9	0.646	—	—	—	E0.040	—	—	—	0.186
07/14/2004	07/21/2004	Y10962	759.7	22.9	E0.161	E0.021	—	—	E0.001	—	—	—	E0.084
07/26/2004	08/25/2004	Y06313	758.9	21.2	0.284	E0.045	—	—	E0.004	—	—	—	0.123
08/19/2004	08/25/2004	Y07567	759.9	20.7	E0.139	E0.077	—	—	E0.004	—	—	—	E0.069
08/31/2004	09/21/2004	Y11984	759.1	22.2	0.664	E0.121	—	—	E0.004	—	—	—	E0.095
09/12/2004	09/21/2004	Y29305	757.7	22.5	0.362	E0.060	—	—	E0.005	—	—	—	0.155
09/23/2004	10/13/2004	Y12028	759.2	22.1	0.397	E0.041	—	—	—	—	—	—	0.128
10/06/2004	10/13/2004	Y07567	759.0	17.9	0.381	E0.027	—	—	E0.013	—	—	—	E0.059
10/18/2004	11/10/2004	Y29305	758.9	18.7	0.299	E0.119	—	—	—	—	—	—	E0.083
10/30/2004	11/10/2004	Y29342	761.7	15.0	0.304	—	—	—	—	—	—	—	E0.010
11/23/2004	12/08/2004	Y29380	763.3	11.2	0.681	E0.473	—	—	—	—	—	—	0.114
12/05/2004	12/08/2004	Y16286	754.7	10.5	E0.199	E0.049	—	—	—	—	—	—	0.143

Table B3B. Quality-control travel blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in part per billion by volume (ppbv). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; N/A, not analyzed; —, compound was not detected at a concentration above the laboratory reporting level; °C, degree Celsius; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Pressure (mm of Hg)	Temperature (°C)	Toluene	1,3-Dichloropropane	Tetra-chloroethene (PCE)	Ethylbenzene	<i>m</i> - and <i>p</i> -Xylene	Ethylbenzene (styrene)	<i>o</i> -Xylene	Bromobenzene	Naphthalene
					[LRL] [0.08]	[0.09]	[0.50]	[0.07]	[0.09]	[0.09]	[0.07]	[0.06]	[0.09]
10/12/2003	10/16/2003	Y29357	759.7	20.7	E0.016	—	—	E0.002	E0.006	—	—	—	—
10/24/2003	11/24/2003	Y26416	759.0	18.2	E0.005	—	—	—	E0.001	—	—	—	—
11/05/2003	11/24/2003	Y26371	761.7	12.7	E0.025	—	—	—	E0.001	E0.003	—	—	—
11/17/2003	11/24/2003	Y16229	763.0	13.3	E0.005	—	—	—	—	—	—	—	—
11/29/2003	12/18/2003	Y29305	761.9	15.0	E0.013	—	—	—	—	—	—	—	E0.002
12/11/2003	12/18/2003	Y11396	761.6	12.0	E0.004	—	—	—	—	—	—	—	—
12/23/2003	02/03/2004	Y11861	760.7	15.4	E0.008	—	—	—	—	—	—	—	—
01/04/2004	02/03/2004	Y16579	764.9	9.5	E0.017	—	—	—	—	—	—	—	—
01/14/2004	02/06/2004	Y10925	758.0	12.9	E0.011	—	—	E0.002	E0.006	E0.001	E0.003	—	E0.002
01/28/2004	02/06/2004	Y16108	763.5	12.3	E0.008	—	—	E0.001	E0.003	E0.001	E0.001	—	E0.002
02/09/2004	02/27/2004	Y10962	762.5	12.4	E0.029	—	—	E0.004	E0.008	E0.002	E0.002	—	E0.002
02/21/2004	02/27/2004	Y25997	757.9	11.7	E0.014	—	—	E0.002	E0.004	E0.001	—	—	E0.003
03/04/2004	03/26/2004	Y11181	758.8	13.8	E0.005	—	—	—	E0.001	E0.001	—	—	E0.002
03/16/2004	03/26/2004	Y10925	760.6	15.0	E0.006	—	—	—	—	—	—	—	—
03/28/2004	04/16/2004	Y11407	760.2	20.8	E0.006	—	—	—	E0.001	—	—	—	E0.002
04/09/2004	04/16/2004	Y06586	760.3	16.6	E0.006	—	—	—	E0.001	E0.001	E0.001	—	E0.002
04/21/2004	05/06/2004	Y26830	760.8	16.0	E0.015	—	—	E0.002	E0.006	E0.003	E0.002	—	E0.006
05/03/2004	05/06/2004	Y29329	758.1	18.2	0.080	—	—	E0.005	E0.015	E0.015	E0.004	—	E0.005
05/15/2004	06/04/2004	Y15649	757.5	18.2	E0.051	—	—	E0.002	E0.008	E0.008	E0.002	—	E0.004
05/27/2004	06/04/2004	Y16150	761.2	17.5	E0.019	—	—	E0.001	E0.003	E0.006	E0.001	—	E0.005
06/08/2004	06/28/2004	Y16109	757.3	17.1	E0.042	—	—	E0.003	E0.006	E0.012	E0.003	—	E0.002
06/20/2004	06/28/2004	Y15649	760.7	19.2	E0.075	—	—	E0.007	E0.017	E0.011	E0.005	—	E0.006
07/02/2004	07/21/2004	Y29329	761.7	18.9	E0.038	—	—	E0.003	E0.006	E0.008	E0.002	—	E0.004
07/14/2004	07/21/2004	Y10962	759.7	22.9	E0.009	—	—	E0.001	E0.002	E0.004	E0.001	—	E0.002
07/26/2004	08/25/2004	Y06313	758.9	21.2	E0.016	—	—	E0.002	E0.003	E0.002	E0.002	—	E0.003
08/19/2004	08/25/2004	Y07567	759.9	20.7	E0.007	—	—	E0.001	E0.003	—	E0.002	—	E0.003
08/31/2004	09/21/2004	Y11984	759.1	22.2	E0.051	—	—	E0.005	E0.006	E0.005	E0.002	—	E0.002
09/12/2004	09/21/2004	Y29305	757.7	22.5	E0.018	—	—	—	E0.004	E0.003	E0.004	—	E0.003
09/23/2004	10/13/2004	Y12028	759.2	22.1	E0.013	—	—	E0.002	E0.004	E0.005	E0.001	—	E0.004
10/06/2004	10/13/2004	Y07567	759.0	17.9	E0.017	—	—	E0.002	E0.005	E0.003	E0.001	—	E0.003
10/18/2004	11/10/2004	Y29305	758.9	18.7	E0.018	—	—	E0.002	E0.005	E0.003	E0.001	—	E0.004
10/30/2004	11/10/2004	Y29342	761.7	15.0	E0.017	—	—	E0.002	E0.005	E0.003	E0.001	—	E0.003
11/23/2004	12/08/2004	Y29380	763.3	11.2	E0.018	—	—	E0.002	E0.005	E0.003	E0.001	—	E0.003
12/05/2004	12/08/2004	Y16286	754.7	10.5	E0.012	—	—	E0.001	E0.004	—	E0.001	—	E0.002

Table B3B. Quality-control travel blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed; —, compound was not detected at a concentration above the laboratory reporting level; °C, degree Celsius; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Pressure (mm of Hg)	Temperature (°C)	1,1-Dichloroethene		2-Propenenitrile (acrylonitrile)	Methylene chloride	Carbon disulfide	Methyl tert-butyl ether (MTBE)	2-Butanone (methyl ethyl ketone)	Trichloromethane (chloroform)	Benzene
					Acetone	Dichloroethene							
					[LRL] [0.20]	[0.60]	[0.19]	[0.09]	[0.16]	[0.10]	[0.14]	[0.09]	[0.11]
12/28/2004	01/20/2005	Y266663	758.4	13.4	0.415	E0.073	—	—	E0.004	—	—	—	0.141
01/10/2005	01/20/2005	Y29324	762.2	15.3	E0.172	E0.167	—	—	—	—	—	—	E0.091
01/22/2005	02/10/2005	Y08939	762.3	13.6	E0.104	—	—	—	—	—	—	—	0.217
02/03/2005	02/10/2005	Y26416	762.4	15.7	E0.083	—	—	—	—	—	—	—	E0.082
02/15/2005	03/03/2005	Y07941	762.4	12.8	0.704	—	—	—	—	—	—	—	E0.083
02/27/2005	03/03/2005	Y26371	764.0	14.0	0.317	E0.037	—	—	—	—	—	—	E0.085
03/11/2005	03/30/2005	Y29380	760.6	15.0	E0.173	E0.413	—	—	—	—	—	—	0.117
03/23/2005	03/30/2005	Y26426	760.0	13.5	0.339	E0.142	—	—	—	—	—	—	0.246
04/04/2005	04/20/2005	Y11096	762.7	14.0	0.492	—	—	—	E0.032	—	—	—	E0.101
04/16/2005	04/20/2005	Y11969	759.3	16.0	0.265	—	—	—	E0.001	—	—	—	0.132
04/28/2005	05/17/2005	Y16307	762.0	15.1	0.402	E0.065	—	—	—	—	—	—	0.156
05/10/2005	05/17/2005	Y10939	759.9	16.0	0.456	E0.030	—	—	—	—	—	—	0.124
06/03/2005	06/20/2005	Y04390	756.7	18.2	1.31	E0.065	E0.047	E0.058	—	—	—	—	0.177
06/15/2005	06/20/2005	Y12028	758.1	17.8	0.911	E0.031	—	—	—	—	—	—	0.164
07/09/2005	07/28/2005	Y10925	759.2	18.7	0.349	—	—	—	—	—	—	—	0.154
07/25/2005	07/28/2005	Y16286	757.0	25.4	0.301	—	—	—	—	—	—	—	0.138
08/02/2005	08/17/2005	Y16229	758.9	20.6	0.657	E0.207	—	—	—	—	—	—	0.297
08/14/2005	08/17/2005	Y10925	757.9	19.4	0.431	E0.029	—	—	—	—	—	—	0.195
08/26/2005	09/14/2005	Y29313	759.3	25.9	0.386	E0.041	—	—	—	—	—	—	E0.094
09/07/2005	09/14/2005	Y07941	758.9	20.3	0.426	E0.241	—	—	—	—	—	—	0.140
09/19/2005	10/05/2005	Y11420	760.1	19.2	0.422	E0.081	—	—	—	—	—	—	0.122
10/01/2005	10/05/2005	Y11396	756.7	20.5	0.359	E0.137	—	—	—	—	—	—	0.140
10/13/2005	11/02/2005	Y15542	759.5	20.3	0.207	E0.041	—	—	E0.016	—	—	—	0.152
10/25/2005	11/02/2005	Y16246	763.4	16.4	E0.198	E0.094	—	—	—	—	—	—	E0.103
11/06/2005	11/29/2005	Y26830	759.0	15.0	0.382	E0.281	—	—	—	—	—	—	E0.103
11/18/2005	11/29/2005	Y16229	762.4	20.2	0.538	E0.381	—	—	—	—	—	—	0.256
12/12/2005	01/04/2006	Y26663	762.7	12.3	0.669	E0.533	—	—	—	—	—	—	0.294
12/24/2005	01/04/2006	Y07941	762.8	13.3	0.208	E0.047	—	—	—	—	—	—	0.140
01/06/2006	01/24/2006	Y29313	765.0	18.1	0.777	E0.192	E0.066	E0.027	—	—	—	—	0.283
01/17/2006	01/24/2006	Y11407	768.0	11.8	0.442	E0.161	—	—	—	E0.01	—	—	0.260
01/29/2006	02/15/2006	Y15542	765.2	11.5	0.358	E0.164	—	—	—	—	—	—	0.162
02/10/2006	02/15/2006	Y26371	764.0	12.9	0.207	E0.042	—	—	—	—	—	—	0.117
02/22/2006	03/09/2006	Y06313	763.3	11.2	0.274	E0.024	—	—	—	—	—	—	0.123
03/05/2006	03/09/2006	Y26208	764.7	13.2	0.215	E0.044	—	—	E0.008	—	—	—	E0.077
03/30/2006	04/13/2006	Y16109	761.8	13.4	0.946	E0.177	E0.028	E0.040	E0.011	—	—	—	0.192

Table B3B. Quality-control travel blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in part per billion by volume (ppbv). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed; —, compound was not detected at a concentration above the laboratory reporting level; °C, degree Celsius; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Pressure (mm of Hg)	Temperature (°C)	Toluene	1,3-Dichloropropane	Tetra-chloroethene (PCE)	Ethylbenzene	m- and p-Xylene	Ethylbenzene (styrene)	o-Xylene	Bromobenzene	Naphthalene
					[LRL] [0.08]	[0.09]	[0.50]	[0.07]	[0.09]	[0.09]	[0.07]	[0.06]	[0.09]
12/28/2004	01/20/2005	Y266663	758.4	13.4	E0.064	—	—	E0.005	E0.012	E0.017	E0.004	—	E0.006
01/10/2005	01/20/2005	Y29324	762.2	15.3	E0.023	—	—	—	E0.007	—	—	—	E0.005
01/22/2005	02/10/2005	Y08939	762.3	13.6	E0.021	—	—	E0.008	—	—	—	—	E0.001
02/03/2005	02/10/2005	Y26416	762.4	15.7	E0.006	—	—	—	E0.002	—	—	—	—
02/15/2005	03/03/2005	Y07941	762.4	12.8	E0.053	—	—	E0.008	E0.010	E0.011	E0.004	—	E0.002
02/27/2005	03/03/2005	Y26371	764.0	14.0	E0.015	—	—	—	—	—	—	—	E0.005
03/11/2005	03/30/2005	Y29380	760.6	15.0	E0.014	—	—	—	E0.003	—	—	—	—
03/23/2005	03/30/2005	Y26426	760.0	13.5	E0.016	—	—	—	—	—	—	—	E0.010
04/04/2005	04/20/2005	Y11096	762.7	14.0	E0.039	—	—	E0.003	E0.007	E0.007	E0.004	—	E0.003
04/16/2005	04/20/2005	Y11969	759.3	16.0	E0.012	—	—	—	E0.003	E0.005	—	—	E0.003
04/28/2005	05/17/2005	Y16307	762.0	15.1	E0.016	—	—	—	E0.001	E0.004	—	—	—
05/10/2005	05/17/2005	Y10939	759.9	16.0	E0.016	—	—	—	—	—	—	—	—
06/03/2005	06/20/2005	Y04390	756.7	18.2	0.086	—	—	E0.006	E0.008	E0.011	E0.006	—	—
06/15/2005	06/20/2005	Y12028	758.1	17.8	E0.023	—	—	—	E0.002	E0.007	E0.002	—	E0.001
07/09/2005	07/28/2005	Y10925	759.2	18.7	E0.038	—	—	E0.001	E0.003	E0.004	E0.002	—	—
07/25/2005	07/28/2005	Y16286	757.0	25.4	E0.006	—	—	—	—	—	—	—	—
08/02/2005	08/17/2005	Y16229	758.9	20.6	E0.059	—	—	E0.002	E0.006	E0.005	E0.003	—	—
08/14/2005	08/17/2005	Y10925	757.9	19.4	E0.012	—	—	—	E0.001	E0.002	—	—	E0.001
08/26/2005	09/14/2005	Y29313	759.3	25.9	E0.007	—	—	E0.001	E0.003	E0.002	E0.001	—	—
09/07/2005	09/14/2005	Y07941	758.9	20.3	E0.024	—	—	E0.003	E0.006	E0.007	E0.002	—	—
09/19/2005	10/05/2005	Y11420	760.1	19.2	E0.041	—	—	E0.003	E0.007	E0.014	E0.002	—	—
10/01/2005	10/05/2005	Y11396	756.7	20.5	—	—	—	—	—	—	—	—	—
10/13/2005	11/02/2005	Y15542	759.5	20.3	E0.022	—	—	E0.006	E0.017	E0.001	E0.001	—	—
10/25/2005	11/02/2005	Y16246	763.4	16.4	E0.018	—	—	—	—	—	—	—	—
11/06/2005	11/29/2005	Y26830	759.0	15.0	0.208	—	—	E0.008	E0.008	E0.006	E0.011	—	E0.016
11/18/2005	11/29/2005	Y16229	762.4	20.2	0.098	—	—	E0.008	E0.006	E0.029	E0.008	—	—
12/12/2005	01/04/2006	Y26663	762.7	12.3	0.176	—	2.21	E0.008	E0.008	E0.052	E0.008	—	—
12/24/2005	01/04/2006	Y07941	762.8	13.3	E0.027	—	E0.101	E0.008	E0.008	E0.006	E0.014	—	—
01/06/2006	01/24/2006	Y29313	765.0	18.1	0.145	—	E0.270	E0.008	E0.028	E0.066	E0.012	—	E0.012
01/17/2006	01/24/2006	Y11407	768.0	11.8	E0.044	—	E0.064	E0.008	E0.006	—	—	—	—
01/29/2006	02/15/2006	Y15542	765.2	11.5	E0.021	—	E0.138	E0.006	E0.008	E0.014	E0.017	—	E0.017
02/10/2006	02/15/2006	Y26371	764.0	12.9	E0.011	—	E0.074	—	—	—	—	—	E0.002
02/22/2006	03/09/2006	Y06313	763.3	11.2	E0.016	—	E0.041	E0.001	E0.005	—	E0.002	—	—
03/05/2006	03/09/2006	Y26208	764.7	13.2	E0.008	—	—	—	—	—	—	—	—
03/30/2006	04/13/2006	Y16109	761.8	13.4	E0.040	—	E0.089	E0.004	E0.007	—	—	—	—

Table B3B. Quality-control travel blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed; —, compound was not detected at a concentration above the laboratory reporting level; °C, degree Celsius; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Pressure (mm of Hg)	Temperature (°C)	Acetone	1,1-Dichloroethene	2-Propenenitrile (acrylonitrile)	Methylene chloride	Carbon disulfide	Methyl tert-butyl ether (MTBE)	2-Butanone (methyl ethyl ketone)	Trichloromethane (chloroform)	Benzene
					[LRL] [0.20]	[0.60]	[0.19]	[0.09]	[0.16]	[0.10]	[0.14]	[0.09]	[0.11]
04/11/2006	04/13/2006	Y08490	760.8	15.6	0.269	—	—	—	—	—	—	—	0.243
04/23/2006	05/11/2006	Y08484	762.2	13.4	0.930	E0.084	—	0.164	—	—	—	—	E0.068
05/05/2006	05/11/2006	Y29329	761.1	15.7	0.956	E0.271	E0.072	E0.018	E0.020	—	—	—	E0.068
06/10/2006	07/12/2006	Y11968	757.5	17.8	—	E0.209	—	—	—	—	—	—	0.120
06/22/2006	07/12/2006	Y15542	760.2	19.7	0.529	—	—	—	—	—	—	—	0.144
07/04/2006	07/12/2006	Y10925	760.7	21.9	E0.120	—	—	—	—	—	—	—	0.200
07/28/2006	08/14/2006	Y29328	759.6	25.1	E0.159	E0.028	—	—	—	—	—	—	E0.105
08/09/2006	08/14/2006	Y29305	758.4	23.8	0.370	E0.053	—	—	—	—	—	—	E0.082
08/21/2006	09/08/2006	Y16549	758.5	21.7	0.286	E0.034	—	—	E0.006	—	—	—	0.126
09/02/2006	09/08/2006	Y16549	755.5	23.2	0.289	E0.035	—	—	E0.006	—	—	—	0.127
09/14/2006	10/02/2006	Y11968	756.1	18.8	0.386	E0.141	—	E0.015	—	E0.01	—	—	0.138
09/26/2006	10/02/2006	Y29357	761.0	19.3	0.244	E0.032	—	—	—	—	—	—	0.117
10/08/2006	10/25/2006	Y06313	759.4	16.5	1.15	E0.149	—	—	—	—	—	—	E0.102
10/20/2006	10/25/2006	Y16119	756.8	19.4	1.15	—	—	—	—	—	—	—	0.122
11/01/2006	11/17/2006	Y05161	761.6	16.5	E0.150	—	—	—	E0.002	—	—	—	E0.049
11/13/2006	11/17/2006	Y16096	715.9	16.9	E0.160	—	—	—	E0.002	—	—	—	E0.052
11/25/2006	12/15/2006	Y06011	706.9	14.5	0.214	E0.221	—	E0.018	—	—	—	—	E0.108
12/07/2006	12/15/2006	Y14520	762.7	15.7	0.415	E0.295	—	—	—	—	—	—	E0.101
12/31/2006	01/19/2007	Y12858	765.7	10.1	0.372	E0.210	—	—	—	—	—	—	0.128
01/12/2007	01/19/2007	Y15936	760.5	9.4	0.257	—	—	—	—	—	—	—	E0.090
01/24/2007	02/07/2007	Y15939	764.2	13.4	E0.127	—	—	—	—	—	—	—	0.174
02/05/2007	02/07/2007	Y12867	763.2	17.3	0.270	E0.013	—	—	—	—	—	—	E0.084
02/17/2007	03/08/2007	Y16058	761.7	19.1	NA	NA	NA	NA	NA	NA	—	NA	NA
03/01/2007	03/08/2007	Y12870	763.3	9.9	0.300	E0.040	—	—	—	—	—	—	—
03/13/2007	03/29/2007	Y16119	761.4	16.2	0.286	E0.028	—	—	—	—	—	—	0.149
03/25/2007	03/29/2007	Y16139	763.0	15.5	0.225	E0.017	—	—	—	—	—	—	0.182
04/06/2007	05/01/2007	Y05951	758.9	14.9	0.456	E0.141	—	—	—	—	—	—	0.223
04/18/2007	05/01/2007	Y12874	761.6	14.1	E0.197	—	—	—	—	—	—	—	0.188
04/30/2007	05/16/2007	Y16133	759.8	16.6	E0.180	E0.042	—	—	—	—	—	—	0.133
05/12/2007	05/16/2007	Y15939	761.1	15.5	0.226	E0.005	—	—	—	—	—	—	E0.067
05/24/2007	06/14/2007	Y05161	759.0	17.3	NA	NA	NA	NA	NA	NA	—	NA	NA
06/05/2007	06/14/2007	Y16119	759.0	16.4	0.585	E0.122	—	—	—	—	—	—	0.361
06/17/2007	07/11/2007	Y12870	758.2	18.0	0.283	E0.082	—	—	—	—	—	—	0.124
06/29/2007	07/11/2007	Y12874	758.9	19.8	NA	NA	NA	NA	NA	NA	—	NA	NA
07/11/2007	07/11–13/2007	Y16052	745.0	20.8	0.062	E0.137	—	—	—	—	—	—	0.219

Table B3B. Quality-control travel blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

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[illegible]

Table B3B. Quality-control travel blank detections for medium/low-volatility organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in part per billion by volume (ppbv). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed; —, compound was not detected at a concentration above the laboratory reporting level; °C, degree Celsius; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Pressure (mm of Hg)	Temperature (°C)	Acetone	1,1-Dichloroethene	2-Propenenitrile (acrylonitrile)	Methylene chloride	Carbon disulfide	Methyl tert-butyl ether (MTBE)	2-Butanone (methyl ethyl ketone)	Trichloromethane (chloroform)	Benzene
					[LRL] [0.20]	[0.60]	[0.19]	[0.09]	[0.16]	[0.10]	[0.14]	[0.09]	[0.11]
07/23/2007	08/09/2007	Y16133	758.3	20.9	0.452	E0.077	—	—	—	—	—	—	E0.091
08/04/2007	08/09/2007	Y16058	701.1	20.7	0.434	E0.039	—	—	—	—	—	—	0.758
08/16/2007	09/05/2007	Y05161	699.5	22.9	0.169	E0.014	—	—	—	—	—	—	E0.104
08/28/2007	09/05/2007	Y16099	756.0	24.6	0.231	E0.143	—	—	—	—	—	—	0.121
09/09/2007	10/02/2007	Y14520	758.7	20.6	0.272	E0.039	—	—	—	—	—	—	0.173
09/21/2007	10/02/2007	Y16134	757.6	17.4	0.410	E0.064	—	—	—	—	—	—	0.168
10/03/2007	10/19/2007	Y12870	758.3	20.7	E0.106	E0.081	—	—	—	—	—	—	0.116
10/15/2007	10/19/2007	Y05951	758.0	17.1	E0.113	—	—	—	—	—	—	—	0.185
10/27/2007	11/13/2007	Y16099	762.5	20.3	0.424	E0.109	—	—	—	—	—	—	0.117
11/08/2007	11/13/2007	Y16052	761.9	15.2	0.279	E0.048	—	—	—	—	—	—	0.120
11/20/2007	12/06/2007	Y12867	759.9	13.2	2.03	E0.066	E0.031	—	—	—	—	—	0.469
12/02/2007	12/06/2007	Y12870	769.0	11.3	0.888	E0.029	—	E0.009	—	—	—	—	0.149
12/14/2007	01/03/2008	Y16134	765.5	10.2	0.075	E0.036	—	—	—	—	—	—	0.222
12/26/2007	01/03/2008	Y16052	762.4	9.7	0.508	E0.017	—	—	—	—	—	—	0.112
01/07/2008	01/23/2008	Y12841	760.1	12.0	2.98	E0.041	—	E0.016	—	—	—	—	0.323
01/19/2008	01/23/2008	Y16119	707.0	10.7	E0.156	—	—	—	—	—	—	—	0.136
01/31/2008	02/19/2008	Y16134	766.8	10.9	E0.067	—	—	—	—	—	—	—	0.265
02/12/2008	02/19/2008	Y12841	710.6	16.0	E0.154	E0.017	—	—	—	—	—	—	0.223
02/24/2008	03/13/2008	Y12883	716.2	12.2	0.225	E0.063	—	E0.016	—	—	—	—	0.238
03/07/2008	03/13/2008	Y05161	706.1	15.9	0.490	E0.096	—	—	—	—	—	—	E0.101
03/19/2008	04/03/2008	Y12867	763.9	12.8	E0.189	E0.022	—	—	—	—	—	—	0.143
03/31/2008	04/03/2008	Y16058	763.3	12.3	E0.094	—	—	—	—	—	—	—	0.191
04/12/2008	04/30/2008	Y05868	708.7	22.8	E0.076	—	—	—	—	—	—	—	E0.082
04/24/2008	04/30/2008	Y16139	705.5	15.2	E0.042	—	—	—	—	—	—	—	0.177
05/06/2008	05/22/2008	Y05951	704.8	13.8	0.247	—	—	—	—	—	—	—	0.134
05/18/2008	05/22/2008	Y15989	699.5	24.1	0.234	—	—	—	—	—	—	—	0.129
05/30/2008	06/18/2008	Y16099	703.2	17.2	0.724	E0.101	—	—	—	—	—	—	E0.093
06/11/2008	06/18/2008	Y12841	701.3	17.1	E0.062	E0.035	—	—	—	—	—	—	E0.099
06/23/2008	07/14/2008	Y16119	700.3	21.8	E0.052	E0.022	—	—	—	—	—	—	0.117
07/05/2008	07/14/2008	Y05016	702.1	20.8	E0.071	E0.184	—	—	—	—	—	—	0.317
07/17/2008	08/14/2008	Y15939	704.2	20.7	0.588	E0.106	—	—	—	—	—	—	0.130
07/29/2008	08/14/2008	Y14520	705.3	21.4	0.472	E0.065	—	—	—	—	—	—	0.270
08/10/2008	08/28/2008	Y16096	704.8	22.4	0.206	—	—	—	—	—	—	—	E0.060
08/22/2008	08/28/2008	Y12889	703.9	20.7	E0.171	—	—	—	—	—	—	—	E0.087
09/03/2008	09/18/2008	Y16134	702.3	23.1	E0.128	E0.090	—	—	—	—	—	—	0.306

Table B3B. Quality-control travel blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in part per billion by volume (ppbv). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed; —, compound was not detected at a concentration above the laboratory reporting level; °C, degree Celsius; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Pressure (mm of Hg)	Temperature (°C)	Toluene	1,3-Dichloropropane	Tetra-chloroethene (PCE)	Ethylbenzene	m- and p-Xylene	Ethylbenzene (styrene)	o-Xylene	Bromobenzene	Naphthalene
					[LRL] [0.08]	[0.09]	[0.50]	[0.07]	[0.09]	[0.09]	[0.07]	[0.06]	[0.09]
07/23/2007	08/09/2007	Y16133	758.3	20.9	E0.017	—	—	E0.017	E0.003	E0.004	E0.001	—	—
08/04/2007	08/09/2007	Y16058	701.1	20.7	E0.017	—	—	—	E0.003	E0.007	—	—	E0.002
08/16/2007	09/05/2007	Y05161	699.5	22.9	E0.006	—	—	—	—	—	—	—	E0.002
08/28/2007	09/05/2007	Y16099	756.0	24.6	E0.007	—	—	—	E0.003	E0.003	—	—	E0.005
09/09/2007	10/02/2007	Y14520	758.7	20.6	E0.010	—	—	—	—	E0.003	—	—	—
09/21/2007	10/02/2007	Y16134	757.6	17.4	E0.022	—	—	—	—	E0.008	—	—	—
10/03/2007	10/19/2007	Y12870	758.3	20.7	E0.005	—	—	—	—	—	—	—	E0.003
10/15/2007	10/19/2007	Y05951	758.0	17.1	E0.006	—	—	—	—	E0.001	—	—	—
10/27/2007	11/13/2007	Y16099	762.5	20.3	E0.023	—	—	E0.002	E0.005	E0.002	E0.001	—	—
11/08/2007	11/13/2007	Y16052	761.9	15.2	E0.016	—	—	E0.001	E0.003	—	E0.001	—	—
11/20/2007	12/06/2007	Y12867	759.9	13.2	E0.033	—	—	E0.004	E0.009	E0.019	E0.003	E0.005	E0.003
12/02/2007	12/06/2007	Y12870	769.0	11.3	E0.019	—	—	E0.002	E0.007	E0.002	E0.002	—	E0.003
12/14/2007	01/03/2008	Y16134	765.5	10.2	E0.007	—	—	E0.001	E0.005	—	E0.002	—	E0.003
12/26/2007	01/03/2008	Y16052	762.4	9.7	E0.011	—	—	E0.001	E0.003	E0.001	—	—	—
01/07/2008	01/23/2008	Y12841	760.1	12.0	E0.053	—	—	E0.003	E0.007	E0.004	E0.002	—	E0.002
01/19/2008	01/23/2008	Y16119	707.0	10.7	E0.005	—	—	—	—	—	—	—	E0.005
01/31/2008	02/19/2008	Y16134	766.8	10.9	E0.007	—	—	—	E0.006	—	—	—	—
02/12/2008	02/19/2008	Y12841	710.6	16.0	E0.013	—	—	—	E0.003	—	E0.001	—	—
02/24/2008	03/13/2008	Y12883	716.2	12.2	E0.008	—	—	—	E0.002	—	—	—	E0.001
03/07/2008	03/13/2008	Y05161	706.1	15.9	E0.008	—	—	—	—	E0.005	—	—	E0.009
03/19/2008	04/03/2008	Y12867	763.9	12.8	E0.007	—	—	E0.001	E0.003	—	—	—	E0.002
03/31/2008	04/03/2008	Y16058	763.3	12.3	E0.004	—	—	—	—	—	—	—	E0.002
04/12/2008	04/30/2008	Y05868	708.7	22.8	E0.005	—	—	—	—	—	—	—	—
04/24/2008	04/30/2008	Y16139	705.5	15.2	E0.009	—	—	—	—	—	—	—	E0.005
05/06/2008	05/22/2008	Y05951	704.8	13.8	E0.008	—	—	—	—	—	—	—	—
05/18/2008	05/22/2008	Y15989	699.5	24.1	E0.008	—	—	—	E0.008	—	—	—	—
05/30/2008	06/18/2008	Y16099	703.2	17.2	E0.009	—	—	—	—	—	—	—	E0.003
06/11/2008	06/18/2008	Y12841	701.3	17.1	E0.006	—	—	—	—	—	—	—	E0.002
06/23/2008	07/14/2008	Y16119	700.3	21.8	E0.005	—	—	—	—	—	—	—	—
07/05/2008	07/14/2008	Y05016	702.1	20.8	—	—	—	—	—	—	—	—	—
07/17/2008	08/14/2008	Y15939	704.2	20.7	E0.017	—	—	—	E0.003	E0.002	—	—	—
07/29/2008	08/14/2008	Y14520	705.3	21.4	E0.013	—	—	—	—	E0.002	—	—	—
08/10/2008	08/28/2008	Y16096	704.8	22.4	E0.011	—	—	—	—	—	—	—	—
08/22/2008	08/28/2008	Y12889	703.9	20.7	E0.010	—	—	—	—	—	—	—	—
09/03/2008	09/18/2008	Y16134	702.3	23.1	E0.004	—	—	—	—	—	—	—	—

Table B3B. Quality-control travel blank detections for medium/low-volatility organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in part per billion by volume (ppbv). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm of Hg, millimeters of mercury; mm/dd/yyyy, month/day/year; NA, not analyzed; —, compound was not detected at a concentration above the laboratory reporting level; °C, degree Celsius; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Pressure (mm of Hg)	Temperature (°C)	Acetone [LRL] [0.20]	1,1-Dichloroethene [0.60]	2-Propenenitrile (acrylonitrile) [0.19]	Methylene chloride [0.09]	Carbon disulfide [0.16]	Methyl tert-butyl ether (MTBE) [0.10]	2-Butanone (methyl ethyl ketone) [0.14]	Trichloromethane (chloroform) [0.09]	Benzene [0.11]
09/15/2008	09/18/2008	Y12870	709.2	21.9	0.541	E0.008	—	—	—	—	—	—	E0.071
09/27/2008	10/16/2008	Y05868	719.1	20.9	0.316	E0.041	—	—	—	—	—	—	0.146
10/09/2008	10/16/2008	Y16139	704.0	18.7	0.241	—	—	—	—	—	—	—	0.167
10/21/2008	11/06/2008	Y14520	761.5	16.6	E0.077	E0.010	—	—	—	—	—	—	0.126
11/02/2008	11/06/2008	Y12867	763.3	17.5	E0.029	E0.023	—	—	—	—	—	—	0.252
11/14/2008	12/10/2008	Y05016	760.0	21.3	0.234	E0.046	—	E0.015	—	—	—	—	0.265
11/26/2008	12/10/2008	Y12867	758.5	16.2	0.317	E0.076	—	—	—	—	—	—	E0.097
12/08/2008	12/31/2008	Y05908	765.3	13.3	E0.178	E0.011	—	—	—	—	—	—	E0.097
12/20/2008	12/31/2008	Y13939	766.1	9.2	E0.146	—	—	—	—	—	—	—	E0.096
01/01/2009	01/21/2009	Y05016	762.0	11.4	E0.184	E0.169	—	E0.036	—	—	—	—	0.227
01/13/2009	01/21/2009	Y16058	765.3	17.8	0.421	E0.052	—	—	—	E0.04	—	—	0.809
01/25/2009	02/11/2009	Y15936	762.8	11.6	E0.031	E0.015	—	—	—	—	—	—	0.144
02/06/2009	02/11/2009	Y16119	761.0	13.2	E0.064	—	—	—	—	—	—	—	E0.099
02/18/2009	03/04/2009	Y16058	766.3	11.0	0.538	E0.031	—	—	—	0.12	—	—	0.201
03/02/2009	03/04/2009	Y12889	763.0	18.3	0.361	—	—	—	—	—	—	—	0.163
03/14/2009	04/01/2009	Y14520	759.5	12.9	0.784	E0.308	—	E0.042	—	—	—	E0.044	0.174
03/26/2009	04/01/2009	Y16134	759.0	12.7	0.425	E0.059	—	—	—	—	—	—	0.355
04/07/2009	04/23/2009	Y15936	762.5	13.7	0.724	E0.177	—	E0.017	—	—	—	—	E0.073
04/19/2009	04/23/2009	Y12841	760.5	25.2	0.542	E0.062	—	—	—	—	—	—	0.208
05/01/2009	05/21/2009	Y16058	761.8	16.9	0.477	E0.075	—	E0.013	—	—	—	—	0.173
05/13/2009	05/21/2009	Y05951	758.3	16.6	E0.139	—	—	E0.025	—	—	—	—	E0.096
05/25/2009	06/11/2009	Y16096	759.7	16.0	0.255	—	—	—	—	—	—	—	E0.064
06/06/2009	06/11/2009	Y16139	760.5	17.1	E0.092	—	—	—	—	—	—	—	0.127
06/18/2009	07/09/2009	Y12883	756.7	17.9	E0.192	E0.024	—	E0.015	—	—	—	—	0.261
06/30/2009	07/09/2009	Y12874	757.3	20.8	0.258	E0.087	—	E0.012	—	—	—	—	E0.071
07/12/2009	07/29/2009	Y05868	760.2	24.8	E0.137	—	—	—	—	—	—	—	0.120
07/24/2009	07/29/2009	Y15939	759.0	16.7	E0.171	E0.022	—	—	—	—	—	—	0.227

Table B3B. Quality-control travel blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

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Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Pressure (mm of Hg)	Temperature (°C)	Toluene	1,3-Dichloropropane	Tetra-chloroethene (PCE)	Ethylbenzene	<i>m</i> - and <i>p</i> -Xylene	Ethylbenzene (styrene)	<i>o</i> -Xylene	Bromobenzene	Naphthalene
					[LRL] [0.08]	[0.09]	[0.50]	[0.07]	[0.09]	[0.09]	[0.07]	[0.06]	[0.09]
09/15/2008	09/18/2008	Y12870	709.2	21.9	E0.009	—	—	—	E0.003	—	—	—	—
09/27/2008	10/16/2008	Y05868	719.1	20.9	E0.006	—	—	—	—	—	—	—	—
10/09/2008	10/16/2008	Y16139	704.0	18.7	E0.008	—	—	—	—	—	—	—	—
10/21/2008	11/06/2008	Y14520	761.5	16.6	—	—	—	—	—	—	—	—	—
11/02/2008	11/06/2008	Y12867	763.3	17.5	E0.004	—	—	—	—	—	—	—	—
11/14/2008	12/10/2008	Y05016	760.0	21.3	E0.025	—	—	—	—	E0.004	—	—	—
11/26/2008	12/10/2008	Y12867	758.5	16.2	E0.027	—	—	E0.001	E0.002	E0.003	E0.001	—	—
12/08/2008	12/31/2008	Y05908	765.3	13.3	E0.006	—	—	E0.001	E0.002	—	—	—	E0.003
12/20/2008	12/31/2008	Y13939	766.1	9.2	E0.006	—	—	E0.001	E0.001	E0.002	E0.002	—	—
01/01/2009	01/21/2009	Y05016	762.0	11.4	E0.076	—	E0.044	E0.005	—	E0.015	—	—	—
01/13/2009	01/21/2009	Y16058	765.3	17.8	E0.023	—	—	—	—	E0.004	—	—	—
01/25/2009	02/11/2009	Y15936	762.8	11.6	E0.006	—	—	—	—	—	—	—	—
02/06/2009	02/11/2009	Y16119	761.0	13.2	E0.009	—	—	—	—	—	—	—	—
02/18/2009	03/04/2009	Y16058	766.3	11.0	E0.027	—	E0.018	—	E0.003	E0.008	—	—	E0.004
03/02/2009	03/04/2009	Y12889	763.0	18.3	E0.011	—	—	—	E0.002	—	—	—	—
03/14/2009	04/01/2009	Y14520	759.5	12.9	E0.058	—	E0.054	—	—	E0.019	—	—	E0.002
03/26/2009	04/01/2009	Y16134	759.0	12.7	E0.007	—	E0.009	—	—	—	—	—	—
04/07/2009	04/23/2009	Y15936	762.5	13.7	E0.045	E0.008	E0.023	E0.002	E0.004	E0.023	—	—	E0.006
04/19/2009	04/23/2009	Y12841	760.5	25.2	E0.022	—	—	—	—	—	—	—	E0.004
05/01/2009	05/21/2009	Y16058	761.8	16.9	E0.030	—	—	—	—	—	—	—	E0.001
05/13/2009	05/21/2009	Y05951	758.3	16.6	E0.003	—	—	—	—	—	—	—	—
05/25/2009	06/11/2009	Y16096	759.7	16.0	E0.018	—	—	—	—	—	—	—	E0.003
06/06/2009	06/11/2009	Y16139	760.5	17.1	E0.008	—	—	—	—	—	—	—	E0.001
06/18/2009	07/09/2009	Y12883	756.7	17.9	E0.016	—	E0.015	—	—	—	—	—	E0.002
06/30/2009	07/09/2009	Y12874	757.3	20.8	E0.012	—	—	—	—	—	—	—	—
07/12/2009	07/29/2009	Y05868	760.2	24.8	E0.019	—	—	—	—	—	—	—	—
07/24/2009	07/29/2009	Y15939	759.0	16.7	E0.023	—	—	—	E0.005	—	—	—	—

Table B3C. Quality-control lot blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

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Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Acetone	1,1-Dichloroethene	tert-Butyl alcohol	2-Propenenitrile (acrylonitrile)	Carbon disulfide	2-Butanone (methyl ethyl ketone)	Tetrachloromethane	Benzene	1,1,2-Trichloroethane
			[LRL] [0.20]	[0.06]	[0.12]	[0.19]	[0.16]	[0.14]	[0.11]	[0.11]	[0.06]
10/12/2003	10/16/2003	Y29305	0.299	—	—	—	E0.015	—	—	0.110	—
10/24/2003	11/21/2003	Y29357	E0.112	—	—	—	—	—	—	0.151	—
11/05/2003	11/21/2003	Y29324	E0.094	—	—	—	—	—	—	E0.092	—
11/17/2003	11/21/2003	Y10960	E0.054	—	—	—	—	—	—	0.115	—
11/29/2003	12/18/2003	Y11396	E0.035	—	—	—	—	—	—	E0.006	—
12/11/2003	12/18/2003	Y12028	E0.099	—	—	—	—	—	—	0.117	—
12/23/2003	01/29/2004	Y16207	E0.033	—	—	—	—	—	—	E0.035	—
01/04/2004	01/29/2004	Y26663	E0.038	—	—	—	—	—	—	E0.078	—
01/14/2004	02/06/2004	Y29342	E0.031	—	—	—	—	—	—	E0.061	—
01/28/2004	02/06/2004	Y29327	E0.027	—	—	—	—	—	—	E0.045	—
02/09/2004	02/27/2004	Y15630	0.200	—	—	—	E0.003	—	—	0.143	—
02/21/2004	02/27/2004	Y16229	0.231	—	—	E0.016	E0.006	—	—	0.213	—
03/04/2004	03/26/2004	Y26403	E0.054	—	—	—	—	—	—	0.150	—
03/16/2004	03/26/2004	Y06313	E0.141	—	—	—	—	—	—	0.110	—
03/28/2004	04/16/2004	Y11420	E0.060	—	—	—	E0.002	—	—	E0.036	—
04/09/2004	04/16/2004	Y16108	E0.106	—	—	—	—	—	—	0.143	—
04/21/2004	05/06/2004	Y11456	0.415	—	—	—	—	—	—	0.133	—
05/03/2004	05/06/2004	Y11867	0.482	—	—	—	E0.020	E0.101	—	E0.093	—
05/15/2004	06/04/2004	Y11867	0.208	—	—	—	—	—	—	E0.041	—
05/27/2004	06/04/2004	Y16207	E0.083	—	—	—	—	—	—	E0.104	—
06/08/2004	06/28/2004	Y11426	0.255	—	—	—	E0.007	—	—	0.207	—
06/20/2004	06/28/2004	Y26403	E0.177	—	—	—	—	—	—	0.165	—
07/02/2004	07/21/2004	Y11861	E0.125	—	—	—	—	—	—	0.123	—
07/14/2004	07/21/2004	Y16229	E0.116	—	—	—	—	—	—	0.187	—
07/26/2004	08/25/2004	Y16246	E0.031	—	—	—	—	—	—	E0.038	—
08/19/2004	08/25/2004	Y26166	0.368	—	—	—	E0.002	—	—	E0.089	—
08/31/2004	09/21/2004	Y16229	E0.126	—	—	—	E0.001	—	—	E0.069	—
09/12/2004	09/21/2004	Y11241	0.562	—	—	—	E0.002	—	—	0.119	—
09/23/2004	10/13/2004	Y07941	0.381	—	—	—	—	—	—	0.168	—
10/06/2004	10/13/2004	Y10960	E0.070	—	—	—	—	—	—	E0.102	—
10/18/2004	11/10/2004	Y06624	E0.151	—	—	—	—	—	—	E0.088	—
10/30/2004	11/10/2004	Y26144	0.132	—	—	—	—	—	—	E0.040	—
11/23/2004	12/08/2004	Y26403	0.081	—	—	—	—	—	—	E0.072	—
12/05/2004	12/08/2004	Y11426	0.137	—	—	—	—	—	—	0.253	—
12/28/2004	01/20/2005	Y29305	0.081	—	—	—	—	—	—	E0.105	—

Table B3C. Quality-control lot blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above the laboratory reporting level; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Toluene	Tetrachloro-ethene (PCE)		Ethylbenzene	m- and p-Xylene	Ethenyl-benzene (styrene)	1,1,2,2-Tetrachloro-ethane	o-Xylene	Naphthalene	1,2,3-Trichloro-benzene
				[LRL]	[0.08]							
10/12/2003	10/16/2003	Y29305	E0.015	—	E0.002	E0.005	—	—	—	—	—	—
10/24/2003	11/21/2003	Y29357	E0.014	—	—	E0.002	—	—	—	—	—	—
11/05/2003	11/21/2003	Y29324	E0.016	—	—	—	—	—	—	—	—	—
11/17/2003	11/21/2003	Y10960	E0.006	—	—	—	—	—	—	—	—	—
11/29/2003	12/18/2003	Y11396	—	—	—	—	—	—	—	—	—	—
12/11/2003	12/18/2003	Y12028	E0.002	—	—	—	—	—	—	—	—	—
12/23/2003	01/29/2004	Y16207	E0.002	—	—	—	—	—	—	—	—	—
01/04/2004	01/29/2004	Y26663	E0.003	—	—	—	—	—	—	—	—	—
01/14/2004	02/06/2004	Y29342	E0.003	—	—	—	—	—	—	—	—	—
01/28/2004	02/06/2004	Y29327	E0.002	—	—	—	—	—	—	—	—	—
02/09/2004	02/27/2004	Y15630	E0.011	—	E0.001	E0.001	E0.001	E0.001	—	E0.001	E0.001	—
02/21/2004	02/27/2004	Y16229	E0.009	—	E0.001	E0.003	—	—	—	—	E0.004	—
03/04/2004	03/26/2004	Y26403	E0.003	—	—	—	—	—	—	—	E0.005	—
03/16/2004	03/26/2004	Y06313	E0.003	—	—	—	—	—	—	—	—	—
03/28/2004	04/16/2004	Y11420	E0.003	—	—	—	—	—	—	—	—	—
04/09/2004	04/16/2004	Y16108	E0.003	—	—	—	E0.001	—	—	—	E0.002	—
04/21/2004	05/06/2004	Y11456	E0.015	—	E0.001	E0.008	E0.008	E0.005	—	E0.003	E0.006	—
05/03/2004	05/06/2004	Y11867	E0.035	—	E0.006	E0.022	E0.022	E0.011	—	E0.005	E0.005	—
05/15/2004	06/04/2004	Y11867	E0.005	—	—	—	E0.002	—	—	—	—	—
05/27/2004	06/04/2004	Y16207	E0.004	—	—	—	—	—	—	—	E0.003	—
06/08/2004	06/28/2004	Y11426	E0.034	—	E0.002	E0.009	E0.009	E0.007	—	E0.008	E0.007	—
06/20/2004	06/28/2004	Y26403	E0.004	—	—	E0.003	E0.003	—	—	—	E0.007	—
07/02/2004	07/21/2004	Y11861	E0.005	—	—	—	—	—	—	—	E0.002	—
07/14/2004	07/21/2004	Y16229	E0.003	—	E0.002	E0.004	E0.004	—	—	—	E0.004	—
07/26/2004	08/25/2004	Y16246	E0.001	—	—	E0.001	E0.001	—	—	—	E0.001	—
08/19/2004	08/25/2004	Y26166	E0.004	—	E0.001	E0.002	E0.002	—	—	E0.001	E0.004	—
08/31/2004	09/21/2004	Y16229	E0.001	—	—	E0.001	E0.001	E0.001	—	—	E0.004	—
09/12/2004	09/21/2004	Y11241	E0.015	—	—	E0.002	E0.002	E0.001	—	E0.002	E0.003	—
09/23/2004	10/13/2004	Y07941	E0.024	—	—	—	E0.007	E0.003	—	E0.002	E0.006	—
10/06/2004	10/13/2004	Y10960	E0.004	—	—	—	E0.001	E0.001	—	E0.001	E0.003	—
10/18/2004	11/10/2004	Y06624	E0.026	—	E0.002	E0.004	E0.004	E0.003	—	E0.006	E0.010	—
10/30/2004	11/10/2004	Y26144	E0.004	—	—	—	E0.001	—	—	—	E0.005	—
11/23/2004	12/08/2004	Y26403	E0.024	—	E0.002	E0.006	E0.006	—	—	—	E0.005	—
12/05/2004	12/08/2004	Y11426	E0.013	—	E0.001	—	E0.005	—	—	E0.002	E0.005	—
12/28/2004	01/20/2005	Y29305	E0.013	—	—	—	—	—	—	—	E0.007	—

Table B3C. Quality-control lot blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in part per billion by volume (ppbv). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above the laboratory reporting level; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Acetone	1,1-Dichloroethene	tert-Butyl alcohol	2-Propenenitrile (acrylonitrile)	Carbon disulfide	2-Butanone (methyl ethyl ketone)	Tetrachloro-methane	Benzene	1,1,2-Trichloroethane
			[LRL] [0.20]	[0.06]	[0.12]	[0.19]	[0.16]	[0.14]	[0.11]	[0.11]	[0.06]
01/10/2005	01/20/2005	Y29342	0.087	—	—	—	—	—	—	0.142	—
01/22/2005	02/10/2005	Y07941	0.075	—	—	—	—	—	—	0.111	—
02/03/2005	02/10/2005	Y06586	0.047	—	—	—	—	—	—	E0.073	—
02/15/2005	03/03/2005	Y15649	0.073	—	—	—	—	—	—	E0.065	—
02/27/2005	03/03/2005	Y26830	0.073	—	—	—	—	—	—	E0.086	—
03/11/2005	03/30/2005	Y10960	0.049	—	—	—	—	—	—	0.119	—
03/23/2005	03/30/2005	Y26403	0.148	—	—	—	—	—	—	E0.102	—
04/04/2005	04/20/2005	Y11258	0.206	—	—	—	—	—	—	0.226	—
04/16/2005	04/20/2005	Y15630	0.055	—	—	—	E0.002	—	—	E0.092	—
04/28/2005	05/17/2005	Y11968	0.107	—	—	—	—	—	—	0.163	—
05/10/2005	05/17/2005	Y11984	0.309	—	—	—	—	—	—	1.416	—
06/03/2005	06/20/2005	Y11241	0.650	—	—	—	—	—	—	0.203	—
06/15/2005	06/20/2005	Y16150	1.200	—	—	—	—	—	—	0.343	—
07/09/2005	07/28/2005	Y11429	0.477	—	—	—	—	—	—	0.194	—
07/25/2005	07/28/2005	Y29327	0.654	—	—	—	—	—	—	E0.107	—
08/02/2005	08/17/2005	Y29380	0.289	—	—	—	—	—	—	0.334	—
08/14/2005	08/17/2005	Y29327	0.099	—	—	—	—	—	—	0.246	—
08/26/2005	09/14/2005	Y11426	0.114	—	—	—	—	—	—	0.158	—
09/07/2005	09/14/2005	Y29380	E0.040	—	—	—	—	—	—	0.212	—
09/19/2005	10/05/2005	Y26663	0.259	—	—	—	—	—	—	0.159	—
10/01/2005	10/05/2005	Y11458	E0.140	—	—	—	—	—	—	E0.022	—
10/13/2005	11/02/2005	Y10925	0.413	—	—	—	—	—	—	0.146	—
10/25/2005	11/02/2005	Y26144	E0.070	—	—	—	—	—	—	E0.057	—
11/06/2005	11/29/2005	Y11420	E0.030	—	—	—	—	—	—	E0.108	—
11/18/2005	11/29/2005	Y10925	E0.020	—	—	—	—	—	—	0.168	—
12/12/2005	01/04/2006	Y11861	E0.080	—	—	—	—	—	—	E0.108	—
12/24/2005	01/04/2006	Y11396	E0.040	—	—	—	—	—	—	E0.073	—
01/06/2006	01/24/2006	Y11968	E0.030	—	—	—	—	—	—	E0.010	—
01/17/2006	01/24/2006	Y07567	—	—	—	—	—	—	—	0.154	—
01/29/2006	02/15/2006	Y07567	E0.080	—	—	—	—	—	—	0.240	—
02/10/2006	02/15/2006	Y11407	0.020	—	—	—	—	—	—	E0.083	—
02/22/2006	03/09/2006	Y06586	0.018	—	—	—	—	—	—	E0.064	—
03/05/2006	03/09/2006	Y30114	0.975	E0.033	—	—	E0.007	—	—	E0.083	—
03/30/2006	04/13/2006	Y12028	0.044	—	—	—	E0.001	—	—	0.147	—
04/11/2006	04/13/2006	Y15649	0.053	—	—	—	—	—	—	E0.102	—

Table B3C. Quality-control lot blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

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Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Toluene [LRL]	Tetrachloro- ethene (PCE) [0.5]	Ethylbenzene [0.07]	<i>m</i> - and <i>p</i> - Xylene [0.09]	Ethyl- benzene (styrene) [0.09]	1,1,2,2- Tetrachloro- ethane [0.07]	<i>o</i> -Xylene [0.07]	Naphthalene [0.09]	1,2,3- Trichloro- benzene [0.05]
01/10/2005	01/20/2005	Y29342	E0.015	—	E0.003	E0.007	—	—	—	E0.008	—
01/22/2005	02/10/2005	Y07941	E0.009	—	E0.002	—	—	—	—	E0.006	—
02/03/2005	02/10/2005	Y06586	E0.013	—	—	—	—	—	—	—	—
02/15/2005	03/03/2005	Y15649	E0.014	—	—	—	—	—	—	—	—
02/27/2005	03/03/2005	Y26830	E0.005	—	—	—	—	—	—	E0.008	—
03/11/2005	03/30/2005	Y10960	E0.007	—	—	E0.002	—	E0.002	—	E0.001	—
03/23/2005	03/30/2005	Y26403	E0.007	—	—	—	—	—	—	E0.001	—
04/04/2005	04/20/2005	Y11258	E0.040	—	E0.005	E0.019	E0.016	—	E0.006	E0.004	—
04/16/2005	04/20/2005	Y15630	E0.009	—	—	—	—	—	—	—	—
04/28/2005	05/17/2005	Y11968	E0.006	—	—	E0.004	E0.008	—	—	—	—
05/10/2005	05/17/2005	Y11984	E0.003	—	—	—	—	—	—	—	—
06/03/2005	06/20/2005	Y11241	E0.007	—	—	—	—	—	—	—	—
06/15/2005	06/20/2005	Y16150	E0.011	—	—	E0.003	—	—	—	E0.002	—
07/09/2005	07/28/2005	Y11429	E0.008	—	—	—	—	—	—	E0.003	—
07/25/2005	07/28/2005	Y29327	E0.007	—	—	—	—	—	—	—	—
08/02/2005	08/17/2005	Y29380	E0.055	—	E0.008	E0.021	—	—	E0.007	—	—
08/14/2005	08/17/2005	Y29327	E0.006	—	—	E0.001	E0.004	—	—	—	—
08/26/2005	09/14/2005	Y11426	E0.007	—	—	—	—	—	—	—	—
09/07/2005	09/14/2005	Y29380	E0.004	—	—	—	—	—	—	—	—
09/19/2005	10/05/2005	Y26663	E0.005	—	—	—	—	—	—	—	—
10/01/2005	10/05/2005	Y11458	—	—	—	—	—	—	—	—	—
10/13/2005	11/02/2005	Y10925	E0.008	—	E0.008	E0.014	—	—	—	—	—
10/25/2005	11/02/2005	Y26144	E0.009	—	—	—	—	—	—	—	—
11/06/2005	11/29/2005	Y11420	E0.009	—	—	—	—	—	—	—	—
11/18/2005	11/29/2005	Y10925	E0.009	—	E0.011	E0.012	—	—	E0.009	—	—
12/12/2005	01/04/2006	Y11861	E0.007	—	—	E0.008	E0.009	—	E0.008	—	—
12/24/2005	01/04/2006	Y11396	E0.009	—	—	E0.008	E0.008	—	—	—	—
01/06/2006	01/24/2006	Y11968	E0.009	—	—	E0.008	E0.009	—	—	—	—
01/17/2006	01/24/2006	Y07567	E0.007	—	—	—	—	—	—	—	—
01/29/2006	02/15/2006	Y07567	E0.001	—	—	—	—	—	—	—	—
02/10/2006	02/15/2006	Y11407	E0.002	—	—	—	—	—	—	—	—
02/22/2006	03/09/2006	Y06586	E0.001	—	—	—	—	—	—	—	—
03/05/2006	03/09/2006	Y30114	E0.005	—	—	—	—	—	—	—	—
03/30/2006	04/13/2006	Y12028	E0.002	—	—	—	—	—	—	—	—
04/11/2006	04/13/2006	Y15649	E0.004	—	—	—	—	—	—	—	—

Table B3C. Quality-control lot blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

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Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Acetone	1,1-Dichloroethene		tert-Butyl alcohol	2-Propenenitrile (acrylonitrile)	Carbon disulfide	2-Butanone (methyl ethyl ketone)	Tetrachloro-methane	Benzene	1,1,2-Trichloroethane
				[LRL]	[0.20]							
04/23/2006	05/11/2006	Y29357	0.132	—	—	—	—	E0.021	—	—	E0.089	—
05/05/2006	05/11/2006	Y26830	0.029	—	—	—	—	—	—	—	E0.034	—
06/10/2006	07/12/2006	Y11396	0.052	—	—	—	—	—	—	—	E0.084	—
06/22/2006	07/12/2006	Y11861	0.297	—	—	—	—	—	—	—	0.361	—
07/04/2006	07/12/2006	Y16207	0.297	—	—	—	—	—	—	—	0.248	—
07/28/2006	08/14/2006	Y25959	—	—	—	—	—	—	—	—	E0.090	—
08/09/2006	08/14/2006	Y10925	—	—	—	—	—	—	—	—	E0.058	—
08/21/2006	09/08/2006	Y29357	—	—	—	—	—	—	—	E0.074	—	E0.003
09/02/2006	09/08/2006	Y25997	0.054	—	—	—	—	—	—	—	E0.074	—
09/14/2006	10/02/2006	Y12870	0.064	—	—	—	—	—	—	—	E0.104	—
09/26/2006	10/02/2006	Y16246	0.167	—	—	—	—	—	—	—	0.125	—
10/08/2006	10/25/2006	Y06624	—	—	—	—	—	—	—	—	0.192	—
10/20/2006	10/25/2006	Y29328	E0.026	—	—	—	—	—	—	—	E0.104	—
11/01/2006	11/17/2006	Y16096	E0.075	—	—	—	—	—	—	—	E0.053	—
11/13/2006	11/17/2006	Y16096	E0.075	—	—	—	—	—	—	—	E0.053	—
11/25/2006	12/15/2006	Y26371	E0.060	—	—	—	—	—	—	—	E0.064	—
12/07/2006	12/15/2006	Y16246	E0.018	—	—	—	—	—	—	—	E0.103	—
12/31/2006	01/19/2007	Y16246	0.305	—	—	—	—	—	—	—	0.196	—
01/12/2007	01/19/2007	Y29328	0.880	—	—	—	—	—	—	—	0.150	—
01/24/2007	02/07/2007	Y07567	E0.087	—	—	—	—	—	—	—	E0.099	—
02/05/2007	02/07/2007	Y08484	E0.074	—	—	—	—	—	—	—	E0.062	—
02/17/2007	03/08/2007	Y11458	—	—	—	—	—	—	—	—	0.160	—
03/01/2007	03/08/2007	Y06581	E0.081	—	—	—	—	—	—	—	—	—
03/13/2007	03/29/2007	Y29329	0.132	—	—	—	—	—	—	—	0.159	—
03/25/2007	03/29/2007	Y08484	0.139	—	—	—	—	—	—	—	E0.107	—
04/06/2007	05/01/2007	Y11093	E0.042	—	—	—	—	—	—	—	E0.100	—
04/18/2007	05/01/2007	Y16246	0.234	—	—	—	—	—	—	—	0.194	—
04/30/2007	05/16/2007	Y07941	E0.092	—	—	—	—	—	—	—	0.119	—
05/12/2007	05/16/2007	Y06392	E0.037	—	—	—	—	—	—	—	E0.045	—
05/24/2007	06/14/2007	Y16207	0.176	—	—	—	—	—	—	—	E0.079	—
06/05/2007	06/14/2007	Y16557	0.184	—	—	—	—	—	—	—	E0.083	—
06/17/2007	07/11/2007	Y11458	0.175	—	—	—	—	—	—	—	E0.067	—
06/29/2007	07/11/2007	Y26371	0.176	—	—	—	—	—	—	—	E0.039	—
07/11/2007	7/11–13/2007	Y26663	0.139	—	—	—	—	—	—	—	0.198	—
07/23/2007	08/09/2007	Y07941	—	—	—	—	—	—	—	—	0.114	—

Table B3C. Quality-control lot blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in part per billion by volume (ppbv). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above the laboratory reporting level; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Toluene [LRL]	Tetrachloro- ethene (PCE) [0.5]	Ethylbenzene [0.07]	<i>m</i> - and <i>p</i> - Xylene [0.09]	Ethyl- benzene (styrene) [0.09]	1,1,2,2- Tetrachloro- ethane [0.07]	<i>o</i> -Xylene [0.07]	Naphthalene [0.09]	1,2,3- Trichloro- benzene [0.05]
04/23/2006	05/11/2006	Y29357	—	—	—	—	—	—	—	—	—
05/05/2006	05/11/2006	Y26830	—	—	—	—	—	—	—	—	—
06/10/2006	07/12/2006	Y11396	E0.001	—	—	—	—	—	—	—	—
06/22/2006	07/12/2006	Y11861	E0.002	—	—	—	—	—	—	—	—
07/04/2006	07/12/2006	Y16207	E0.002	E0.009	—	—	—	—	—	—	—
07/28/2006	08/14/2006	Y25959	E0.007	—	—	—	—	—	—	—	—
08/09/2006	08/14/2006	Y10925	E0.005	—	—	—	—	—	—	—	—
08/21/2006	09/08/2006	Y29357	—	—	E0.001	—	—	—	—	—	—
09/02/2006	09/08/2006	Y25997	E0.003	—	—	E0.001	—	—	—	—	—
09/14/2006	10/02/2006	Y12870	E0.001	—	—	—	—	—	—	—	—
09/26/2006	10/02/2006	Y16246	E0.005	—	—	—	—	—	—	E0.002	—
10/08/2006	10/25/2006	Y06624	—	—	—	—	—	—	—	—	—
10/20/2006	10/25/2006	Y29328	E0.003	—	—	—	—	—	—	—	—
11/01/2006	11/17/2006	Y16096	E0.012	—	—	—	—	—	—	—	—
11/13/2006	11/17/2006	Y16096	E0.012	—	—	—	—	—	—	—	—
11/25/2006	12/15/2006	Y26371	E0.013	—	—	—	—	—	—	—	—
12/07/2006	12/15/2006	Y16246	E0.002	—	—	—	—	—	—	—	—
12/31/2006	01/19/2007	Y16246	E0.009	—	—	—	—	—	—	—	—
01/12/2007	01/19/2007	Y29328	E0.004	—	—	—	—	—	—	—	—
01/24/2007	02/07/2007	Y07567	E0.007	—	—	—	—	—	—	—	—
02/05/2007	02/07/2007	Y08484	E0.005	—	—	—	—	—	—	—	—
02/17/2007	03/08/2007	Y11458	E0.004	—	—	—	—	—	—	—	—
03/01/2007	03/08/2007	Y06581	E0.003	—	—	—	—	—	—	—	—
03/13/2007	03/29/2007	Y29329	—	—	—	—	—	—	—	—	—
03/25/2007	03/29/2007	Y08484	—	—	—	—	—	—	—	—	—
04/06/2007	05/01/2007	Y11093	E0.003	—	—	—	—	—	—	—	—
04/18/2007	05/01/2007	Y16246	—	—	—	—	—	—	—	—	—
04/30/2007	05/16/2007	Y07941	E0.006	—	—	—	—	—	—	—	—
05/12/2007	05/16/2007	Y06392	E0.007	—	—	—	—	—	—	—	—
05/24/2007	06/14/2007	Y16207	—	—	—	—	—	—	—	E0.003	—
06/05/2007	06/14/2007	Y16557	E0.003	—	—	—	—	—	—	—	—
06/17/2007	07/11/2007	Y11458	E0.003	—	—	—	—	—	—	E0.002	—
06/29/2007	07/11/2007	Y26371	E0.003	—	—	—	—	—	—	—	—
07/11/2007	7/11–13/2007	Y26663	E0.003	—	—	—	—	—	—	—	—
07/23/2007	08/09/2007	Y07941	E0.002	—	—	—	—	—	—	—	—

Table B3C. Quality-control lot blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above the laboratory reporting level; LRL, laboratory reporting level]

[illegible]

Table B3C. Quality-control lot blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above the laboratory reporting level; LRL, laboratory reporting level]

[illegible]

Table B3C. Quality-control lot blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected 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). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above the laboratory reporting level; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Acetone	1,1-Dichloroethene		tert-Butyl alcohol	2-Propenenitrile (acrylonitrile)	Carbon disulfide	2-Butanone (methyl ethyl ketone)	Tetrachloromethane	Benzene	1,1,2-Trichloroethane
				[LRL]	[0.20]							
09/27/2008	10/16/2008	Y08939	E0.069	—	—	—	—	—	—	—	E0.075	—
10/09/2008	10/16/2008	Y06313	E0.082	—	—	—	—	—	—	—	E0.062	—
10/21/2008	11/06/2008	Y07941	—	—	—	—	—	—	—	—	E0.076	—
11/02/2008	11/06/2008	Y25997	0.110	E0.027	—	—	—	—	—	—	0.324	—
11/14/2008	12/10/2008	Y26208	E0.036	—	—	—	—	—	—	—	0.252	—
11/26/2008	12/10/2008	Y26830	—	—	—	—	—	—	—	—	E0.050	—
12/08/2008	12/31/2008	Y16108	0.125	—	—	—	—	—	—	—	0.147	—
12/20/2008	12/31/2008	Y26208	E0.083	—	—	—	—	—	—	—	E0.080	—
01/01/2009	01/21/2009	Y10960	—	—	—	—	—	—	—	—	0.135	—
01/13/2009	01/21/2009	Y29313	E0.072	—	—	—	—	—	—	—	0.163	—
01/25/2009	02/11/2009	Y07941	—	—	—	—	—	—	—	—	0.179	—
02/06/2009	02/11/2009	Y05951	—	—	—	—	—	—	—	—	E0.090	—
02/18/2009	03/04/2009	Y26830	0.106	—	—	—	—	—	—	—	E0.089	—
03/02/2009	03/04/2009	Y26409	0.568	—	—	—	—	—	—	—	0.579	—
03/14/2009	04/01/2009	Y07941	1.01	—	—	—	—	—	—	—	0.198	—
03/26/2009	04/01/2009	Y08882	0.136	—	—	—	—	—	—	—	0.280	—
04/07/2009	04/23/2009	Y29349	—	—	—	—	—	—	—	—	E0.091	—
04/19/2009	04/23/2009	Y16392	0.190	—	—	—	—	—	—	—	E0.075	—
05/01/2009	05/21/2009	Y08484	0.595	—	—	—	—	—	—	—	0.160	—
05/13/2009	05/21/2009	Y26663	—	—	—	—	—	—	—	—	0.225	—
05/25/2009	06/11/2009	Y11867	0.484	—	—	—	—	—	—	—	0.150	—
06/06/2009	06/11/2009	Y07941	E0.044	—	—	—	—	—	—	—	0.159	—
06/18/2009	07/09/2009	Y11968	—	—	—	—	—	—	—	—	0.284	—
06/30/2009	07/09/2009	Y07567	—	—	—	—	—	—	—	—	0.112	—
07/12/2009	07/29/2009	Y08490	—	—	—	—	—	—	—	—	0.184	—
07/24/2009	07/29/2009	Y15542	0.322	—	—	—	—	—	—	—	0.267	—

Table B3C. Quality-control lot blank detections for medium/low-volatility volatile organic compound (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in part per billion by volume (ppbv). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm/dd/yyyy, month/day/year; —, compound was not detected at a concentration above the laboratory reporting level; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Toluene	Tetrachloro-ethene (PCE)	Ethylbenzene	<i>m</i> - and <i>p</i> -Xylene	Ethynylbenzene (styrene)	1,1,2,2-Tetrachloro-ethane	<i>o</i> -Xylene	Naphthalene	1,2,3-Trichlorobenzene
			[LRL] [0.08]	[0.5]	[0.07]	[0.09]	[0.09]	[0.07]	[0.07]	[0.09]	[0.05]
09/27/2008	10/16/2008	Y08939	—	—	—	—	—	—	—	—	—
10/09/2008	10/16/2008	Y06313	—	—	—	—	—	—	—	—	—
10/21/2008	11/06/2008	Y07941	—	—	—	—	—	—	—	—	—
11/02/2008	11/06/2008	Y25997	E0.008	—	—	—	—	—	—	—	—
11/14/2008	12/10/2008	Y26208	—	—	—	—	—	—	—	—	—
11/26/2008	12/10/2008	Y26830	E0.001	—	—	—	—	—	—	—	—
12/08/2008	12/31/2008	Y16108	E0.002	—	—	E0.003	—	—	—	—	—
12/20/2008	12/31/2008	Y26208	E0.004	—	—	—	—	—	—	—	—
01/01/2009	01/21/2009	Y10960	E0.002	—	—	—	—	—	—	—	—
01/13/2009	01/21/2009	Y29313	—	—	—	—	—	—	—	—	—
01/25/2009	02/11/2009	Y07941	—	—	—	—	—	—	—	—	—
02/06/2009	02/11/2009	Y05951	—	—	—	—	—	—	—	—	—
02/18/2009	03/04/2009	Y26830	—	—	—	—	—	—	—	—	—
03/02/2009	03/04/2009	Y26409	E0.007	—	—	—	—	—	—	—	—
03/14/2009	04/01/2009	Y07941	E0.012	—	—	—	—	—	—	—	—
03/26/2009	04/01/2009	Y08882	E0.003	—	—	—	—	—	—	—	—
04/07/2009	04/23/2009	Y29349	—	—	—	—	—	—	—	—	—
04/19/2009	04/23/2009	Y16392	E0.003	—	—	—	—	—	—	—	—
05/01/2009	05/21/2009	Y08484	E0.019	—	—	—	—	—	—	—	—
05/13/2009	05/21/2009	Y26663	—	—	—	—	—	—	—	—	—
05/25/2009	06/11/2009	Y11867	E0.008	—	—	—	—	—	—	—	—
06/06/2009	06/11/2009	Y07941	—	—	—	—	—	—	—	—	—
06/18/2009	07/09/2009	Y11968	—	—	—	—	—	—	—	—	—
06/30/2009	07/09/2009	Y07567	—	—	—	—	—	—	—	—	—
07/12/2009	07/29/2009	Y08490	E0.011	—	—	—	—	—	—	—	—
07/24/2009	07/29/2009	Y15542	E0.017	—	—	E0.005	—	—	—	—	—

Table B3D. Quality-control laboratory blank detections for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

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Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Acetone	1,1-Dichloroethene	2-Propenenitrile (acrylonitrile)	Methylene chloride	Carbon disulfide	2-Butanone (methyl ethyl ketone)	Benzene	Toluene	Tetrachloroethene (PCE)
			[LRL]	[0.06]	[0.19]	[0.06]	[0.16]	[0.14]	[0.11]	[0.08]	[0.50]
10/12/2003	10/16/2003	Y29342	E0.128	—	—	—	E0.005	—	E0.118	E0.009	—
10/24/2003	11/21/2003	Y29305	E0.100	—	—	—	—	—	E0.100	E0.05	—
11/05/2003	11/21/2003	Y06586	E0.052	—	—	—	E0.001	—	0.324	E0.003	—
11/17/2003	11/21/2003	Y26663	E0.081	—	—	—	E0.003	—	0.182	E0.011	—
11/29/2003	12/18/2003	Y26371	0.470	—	—	—	—	—	0.122	E0.010	—
12/11/2003	12/18/2003	Y07941	E0.093	—	—	—	—	—	E0.072	E0.002	—
12/23/2003	01/29/2004	Y10960	E0.047	—	—	—	—	—	E0.063	E0.003	—
01/04/2004	01/29/2004	Y26416	E0.067	—	—	—	—	—	E0.061	E0.014	—
01/14/2004	02/06/2004	Y20114	0.395	—	E0.05	—	E0.023	—	E0.091	E0.014	—
01/28/2004	02/06/2004	Y29310	0.347	—	—	—	E0.011	—	E0.062	E0.005	—
02/09/2004	02/27/2004	Y10960	0.210	E0.02	E0.02	—	E0.008	—	0.145	E0.011	—
02/21/2004	02/27/2004	Y06313	E0.183	—	E0.01	—	E0.002	—	0.270	E0.007	—
03/04/2004	03/26/2004	Y16108	E0.196	—	—	—	—	—	0.159	E0.009	—
03/16/2004	03/26/2004	Y25997	0.333	—	—	—	—	—	0.155	E0.007	—
03/28/2004	04/16/2004	Y16392	E0.172	—	—	—	E0.003	—	E0.101	E0.005	—
04/09/2004	04/16/2004	Y16150	0.276	—	—	—	—	—	E0.122	E0.011	—
04/21/2004	05/06/2004	Y26166	E0.152	—	—	—	E0.001	—	0.136	E0.008	—
05/03/2004	05/06/2004	Y11025	0.381	—	—	—	E0.023	E0.087	E0.080	E0.072	—
05/15/2004	06/04/2004	Y26830	E0.161	—	—	—	E0.005	—	0.135	E0.006	—
05/27/2004	06/04/2004	Y26371	0.485	—	—	—	E0.004	—	0.294	E0.010	—
06/08/2004	06/28/2004	Y10925	0.386	—	—	—	—	—	0.491	E0.007	—
06/20/2004	06/28/2004	Y29357	0.261	—	—	—	—	—	0.191	E0.008	—
07/02/2004	07/21/2004	Y26371	0.342	—	—	—	E0.011	—	0.379	E0.009	—
07/14/2004	07/21/2004	Y29342	E0.086	—	—	—	E0.004	—	E0.094	E0.004	—
07/26/2004	08/25/2004	Y26144	0.224	—	—	—	E0.005	—	0.445	E0.008	—
08/19/2004	08/25/2004	Y10939	E0.144	—	—	—	—	—	0.121	E0.004	—
08/31/2004	09/21/2004	Y29313	0.425	—	—	—	E0.009	—	0.177	E0.073	—
09/12/2004	09/21/2004	Y11458	0.244	—	—	—	—	—	E0.080	E0.025	—
09/23/2004	10/13/2004	Y26409	0.402	—	—	—	—	—	0.272	E0.009	—
10/06/2004	10/13/2004	Y11458	E0.124	—	—	—	—	—	E0.063	E0.014	—
10/18/2004	11/10/2004	Y07941	E0.159	—	—	—	—	—	E0.089	E0.009	—
10/30/2004	11/10/2004	Y29380	E0.128	—	—	—	—	—	0.248	E0.007	—
11/23/2004	12/08/2004	Y16579	E0.142	—	—	—	—	—	0.176	E0.009	—
12/05/2004	12/08/2004	Y29305	E0.094	—	—	—	—	—	0.141	E0.011	—
12/28/2004	01/20/2005	Y08484	E0.112	—	—	—	—	—	0.127	E0.018	—

Table B3D. Quality-control laboratory blank detections for medium/low-volatility organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

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Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Ethylbenzene [LRL]	Ethylbenzene [0.07]	<i>m</i> - and <i>p</i> - Xylene [0.09]	Ethylbenzene (styrene) [0.09]	1,1,2,2- Tetrachloroethane [0.07]	<i>o</i> -Xylene [0.07]	Isopropylbenzene [0.08]	Naphthalene [0.09]	1,2,3- Trichlorobenzene [0.05]
10/12/2003	10/16/2003	Y29342	E0.002	E0.004	—	—	—	—	—	—	—
10/24/2003	11/21/2003	Y29305	—	E0.001	—	—	—	—	—	—	—
11/05/2003	11/21/2003	Y06586	—	E0.001	—	—	—	—	—	—	—
11/17/2003	11/21/2003	Y26663	—	—	—	—	—	—	—	—	—
11/29/2003	12/18/2003	Y26371	—	—	—	—	—	—	—	—	—
12/11/2003	12/18/2003	Y07941	—	—	—	—	—	—	—	—	—
12/23/2003	01/29/2004	Y10960	—	—	—	—	—	—	—	—	—
01/04/2004	01/29/2004	Y26416	—	—	—	—	—	—	—	—	—
01/14/2004	02/06/2004	Y20114	E0.003	E0.011	E0.005	—	—	—	—	E0.004	—
01/28/2004	02/06/2004	Y29310	—	E0.003	E0.001	—	—	—	—	E0.003	—
02/09/2004	02/27/2004	Y10960	E0.002	E0.005	E0.004	—	—	—	—	E0.002	—
02/21/2004	02/27/2004	Y06313	—	E0.003	—	—	—	—	—	E0.003	—
03/04/2004	03/26/2004	Y16108	E0.001	E0.003	E0.002	—	—	—	—	E0.001	—
03/16/2004	03/26/2004	Y25997	—	—	—	—	—	—	—	E0.004	—
03/28/2004	04/16/2004	Y16392	—	E0.002	E0.003	—	—	—	—	E0.003	—
04/09/2004	04/16/2004	Y16150	—	E0.004	—	—	—	—	—	E0.003	—
04/21/2004	05/06/2004	Y26166	E0.001	E0.005	E0.004	—	—	—	—	E0.007	—
05/03/2004	05/06/2004	Y11025	E0.005	E0.021	E0.009	—	—	—	—	E0.005	—
05/15/2004	06/04/2004	Y26830	—	E0.004	—	—	—	—	—	E0.004	—
05/27/2004	06/04/2004	Y26371	—	E0.003	—	—	—	—	—	E0.010	—
06/08/2004	06/28/2004	Y10925	E0.001	E0.002	E0.001	—	—	—	—	E0.005	—
06/20/2004	06/28/2004	Y29357	E0.001	E0.001	E0.001	—	—	—	—	E0.004	—
07/02/2004	07/21/2004	Y26371	E0.001	E0.003	E0.003	—	—	—	—	E0.007	—
07/14/2004	07/21/2004	Y29342	E0.001	E0.001	E0.001	—	—	—	—	E0.004	—
07/26/2004	08/25/2004	Y26144	E0.003	E0.006	E0.001	—	—	—	—	E0.004	—
08/19/2004	08/25/2004	Y10939	E0.001	E0.002	E0.002	—	—	—	—	E0.003	—
08/31/2004	09/21/2004	Y29313	E0.003	E0.006	E0.006	E0.002	—	—	—	E0.004	—
09/12/2004	09/21/2004	Y11458	—	E0.006	E0.006	E0.006	—	—	—	E0.004	—
09/23/2004	10/13/2004	Y26409	—	—	E0.005	E0.002	—	—	—	E0.005	—
10/06/2004	10/13/2004	Y11458	—	—	E0.004	E0.013	—	—	—	E0.005	—
10/18/2004	11/10/2004	Y07941	E0.002	E0.005	E0.005	E0.002	—	—	—	E0.004	—
10/30/2004	11/10/2004	Y29380	E0.001	E0.002	—	—	—	—	—	E0.005	—
11/23/2004	12/08/2004	Y16579	—	E0.003	E0.003	—	—	—	—	E0.005	—
12/05/2004	12/08/2004	Y29305	E0.003	E0.005	E0.005	—	—	—	—	E0.004	—
12/28/2004	01/20/2005	Y08484	E0.005	E0.009	—	—	—	—	—	E0.008	—

Table B3D. Quality-control laboratory blank detections for medium/low-volatility organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in part per billion by volume (ppbv). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm/dd/yyyy, month/day/year; NA, not analyzed; —, compound was not detected at a concentration above the laboratory reporting level; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Acetone	1,1-Dichloroethene	2-Propenenitrile (acrylonitrile)		Methylene chloride	Carbon disulfide	2-Butanone (methyl ethyl ketone)	Benzene	Toluene	Tetrachloroethene (PCE)
					[0.19]	[0.16]						
[LRL]	[0.20]	[0.06]	[0.19]	[0.06]	[0.19]	[0.06]	[0.16]	[0.14]	[0.11]	[0.08]	[0.50]	
01/10/2005	01/20/2005	Y11867	0.295	—	—	—	—	—	0.205	E0.036	—	
01/22/2005	02/10/2005	Y16307	E0.094	—	—	—	—	—	0.218	E0.018	—	
02/03/2005	02/10/2005	Y10960	E0.191	—	—	—	—	—	0.115	E0.011	—	
02/15/2005	03/03/2005	Y11867	0.218	—	—	—	—	—	0.319	E0.028	—	
02/27/2005	03/03/2005	Y29380	E0.081	—	—	—	—	—	E0.051	E0.006	—	
03/11/2005	03/30/2005	Y10962	E0.084	—	—	—	—	—	E0.063	E0.008	—	
03/23/2005	03/30/2005	Y29305	E0.124	—	—	—	—	—	0.394	E0.013	—	
04/04/2005	04/20/2005	Y15649	0.325	—	—	—	E0.009	—	0.158	E0.012	—	
04/16/2005	04/20/2005	Y11241	0.423	—	—	—	E0.002	—	0.310	E0.013	—	
04/28/2005	05/17/2005	Y26371	0.319	—	—	—	—	—	0.182	E0.011	—	
05/10/2005	05/17/2005	Y15649	0.524	—	—	—	—	—	0.118	E0.015	—	
06/03/2005	06/20/2005	Y29305	0.576	—	—	—	—	—	0.155	E0.012	—	
06/15/2005	06/20/2005	Y10939	0.862	E0.01	—	—	—	—	0.244	E0.007	—	
07/09/2005	07/28/2005	Y25997	0.632	—	—	—	—	—	0.174	E0.005	—	
07/25/2005	07/28/2005	Y26663	0.939	—	—	—	—	—	0.194	E0.008	—	
08/02/2005	08/17/2005	Y06224	0.451	—	—	—	—	—	0.244	E0.017	—	
08/14/2005	08/17/2005	Y11241	0.387	—	—	—	—	—	0.420	E0.017	—	
08/26/2005	09/14/2005	Y06313	0.384	—	—	—	—	—	0.117	E0.010	—	
09/07/2005	09/14/2005	Y08490	0.272	—	—	—	—	—	0.259	E0.011	—	
09/19/2005	10/05/2005	Y06586	E0.152	—	—	—	—	—	E0.102	E0.012	—	
10/01/2005	10/05/2005	Y11861	E0.171	—	—	—	—	—	E0.092	—	—	
10/13/2005	11/02/2005	Y16557	E0.073	—	—	—	—	—	0.267	E0.012	—	
10/25/2005	11/02/2005	Y07567	E0.031	—	—	—	—	—	E0.093	E0.011	—	
11/06/2005	11/29/2005	Y11396	E0.090	—	—	—	—	—	0.174	E0.014	—	
11/18/2005	11/29/2005	Y26371	0.533	—	—	—	—	—	0.780	E0.014	—	
12/12/2005	01/04/2006	Y29329	0.511	—	—	—	—	—	0.224	E0.022	—	
12/24/2005	01/04/2006	Y26371	0.300	—	—	—	—	—	0.392	E0.011	—	
01/06/2006	01/24/2006	Y16246	E0.131	—	—	—	—	—	0.217	E0.011	—	
01/17/2006	01/24/2006	Y08490	E0.084	—	—	—	—	—	0.254	E0.011	—	
01/29/2006	02/15/2006	Y26663	0.212	—	—	—	—	—	0.378	E0.013	—	
02/10/2006	02/15/2006	Y11093	E0.130	—	—	—	—	—	E0.083	E0.012	—	
02/22/2006	03/09/2006	Y10925	E0.142	—	—	—	—	—	0.167	E0.013	—	
03/05/2006	03/09/2006	Y11867	E0.132	—	E0.03	—	E0.027	—	0.179	E0.010	—	
03/30/2006	04/13/2006	Y11984	E0.171	—	—	—	—	—	0.177	E0.011	—	
04/11/2006	04/13/2006	Y04390	E0.064	—	—	—	—	—	0.106	E0.014	—	

Table B3D. Quality-control laboratory blank detections for medium/low-volatility organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in part per billion by volume (ppbv). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm/dd/yyyy, month/day/year; NA, not analyzed; —, compound was not detected at a concentration above the laboratory reporting level; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Acetone	1,1-Dichloroethene	2-Propenenitrile (acrylonitrile)	Methylene chloride	Carbon disulfide	2-Butanone (methyl ethyl ketone)	Benzene	Toluene	Tetrachloroethene (PCE)
			[LRL]	[0.06]	[0.19]	[0.06]	[0.16]	[0.14]	[0.11]	[0.08]	[0.50]
04/23/2006	05/11/2006	Y25959	E0.161	—	—	—	E0.021	—	E0.072	E0.012	—
05/05/2006	05/11/2006	Y26404	E0.053	—	—	—	—	—	E0.084	E0.011	—
06/10/2006	07/12/2006	Y26144	—	—	—	—	—	—	0.282	E0.011	—
06/22/2006	07/12/2006	Y26403	E0.154	—	—	—	—	—	E0.092	—	—
07/04/2006	07/12/2006	Y11458	NA	NA	NA	—	NA	NA	NA	NA	NA
07/28/2006	08/14/2006	Y11407	0.640	—	—	—	—	—	0.121	E0.012	—
08/09/2006	08/14/2006	Y11458	E0.120	—	—	—	—	—	E0.052	E0.014	—
08/21/2006	09/08/2006	Y11458	0.203	—	—	—	—	—	E0.091	E0.014	E0.010
09/02/2006	09/08/2006	Y11458	0.203	—	—	—	—	—	E0.090	E0.011	E0.010
09/14/2006	10/02/2006	Y29328	E0.183	—	—	—	—	—	0.213	E0.012	—
09/26/2006	10/02/2006	Y11458	0.240	—	—	—	—	—	E0.093	E0.011	E0.010
10/08/2006	10/25/2006	Y29305	E0.198	—	—	—	—	—	0.180	E0.010	—
10/20/2006	10/25/2006	Y30114	E0.043	—	—	—	—	—	0.254	E0.008	—
11/01/2006	11/17/2006	Y26663	—	—	—	—	—	—	E0.043	E0.008	—
11/13/2006	11/17/2006	Y11181	E0.042	—	—	—	—	—	E0.039	E0.006	—
11/25/2006	12/15/2006	Y07567	—	—	—	—	—	—	E0.052	E0.009	—
12/07/2006	12/15/2006	Y29380	0.219	—	—	—	—	—	E0.076	E0.005	—
12/31/2006	01/19/2007	Y29380	E0.098	—	—	—	—	—	E0.088	E0.010	—
01/12/2007	01/19/2007	Y25997	E0.090	—	—	—	—	—	0.313	E0.005	—
01/24/2007	02/07/2007	Y11968	E0.110	—	—	—	—	—	0.180	E0.012	—
02/05/2007	02/07/2007	Y08484	0.203	—	—	—	—	—	E0.025	E0.014	—
02/17/2007	03/08/2007	Y29329	0.372	—	—	—	—	—	E0.081	E0.007	—
03/01/2007	03/08/2007	Y11258	E0.102	—	—	—	—	—	—	E0.004	—
03/13/2007	03/29/2007	Y25997	0.234	—	—	—	—	—	0.329	E0.020	—
03/25/2007	03/29/2007	Y16557	E0.099	—	—	—	—	—	0.120	—	—
04/06/2007	05/01/2007	Y11867	E0.102	—	—	—	—	—	0.162	E0.012	—
04/18/2007	05/01/2007	Y10960	—	—	—	—	—	—	0.173	—	—
04/30/2007	05/16/2007	Y29357	E0.061	—	—	—	—	—	E0.062	E0.006	—
05/12/2007	05/16/2007	Y06624	E0.050	—	—	—	—	—	E0.050	E0.007	—
05/24/2007	06/14/2007	Y06581	E0.102	—	—	—	—	—	0.147	E0.006	—
06/05/2007	06/14/2007	Y26371	0.350	—	—	—	—	—	0.262	E0.002	—
06/17/2007	07/11/2007	Y16109	0.282	—	—	—	—	—	0.118	E0.010	—
06/29/2007	07/11/2007	Y16229	E0.099	—	—	—	—	—	0.108	E0.003	—
07/11/2007	7/11–13/2007	Y08484	—	—	—	—	—	—	E0.086	—	—
07/23/2007	08/09/2007	Y26663	E0.151	—	—	—	—	—	0.257	—	—

Table B3D. Quality-control laboratory blank detections for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

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Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Acetone	1,1-Dichloroethene	2-Propenenitrile (acrylonitrile)	Methylene chloride	Carbon disulfide	2-Butanone (methyl ethyl ketone)	Benzene	Toluene	Tetrachloroethene (PCE)
			[LRL]	[0.06]	[0.19]	[0.06]	[0.16]	[0.14]	[0.11]	[0.08]	[0.50]
08/04/2007	08/09/2007	Y16109	E0.074	—	—	—	—	—	0.263	E0.005	—
08/16/2007	09/05/2007	Y11968	E0.155	—	—	—	—	—	0.121	E0.009	—
08/28/2007	09/05/2007	Y07941	0.216	—	—	—	—	—	E0.087	E0.011	—
09/09/2007	10/02/2007	Y29313	E0.191	—	—	—	—	—	0.127	E0.009	—
09/21/2007	10/02/2007	Y11241	E0.054	—	—	—	—	—	0.178	E0.007	—
10/03/2007	10/19/2007	Y15542	E0.110	—	—	—	—	—	0.092	E0.009	—
10/15/2007	10/19/2007	Y06624	E0.111	—	—	—	—	—	0.285	E0.007	—
10/27/2007	11/13/2007	Y26404	E0.191	—	—	—	—	—	0.095	E0.017	—
11/08/2007	11/13/2007	Y26830	E0.072	—	—	—	—	—	0.147	E0.003	—
11/20/2007	12/06/2007	Y26830	E0.117	—	—	—	—	—	0.218	E0.003	—
12/02/2007	12/06/2007	Y26403	E0.078	—	—	—	—	—	0.178	E0.005	—
12/14/2007	01/03/2008	Y26830	E0.075	—	—	—	—	—	0.168	E0.005	—
12/26/2007	01/03/2008	Y15630	E0.064	—	—	—	—	—	0.118	E0.003	—
01/07/2008	01/23/2008	Y10925	E0.074	—	—	—	—	—	0.229	E0.009	—
01/19/2008	01/23/2008	Y08490	E0.129	—	—	—	—	—	0.177	E0.004	—
01/31/2008	02/19/2008	Y11241	—	—	—	—	—	—	E0.016	E0.002	—
02/12/2008	02/19/2008	Y26830	E0.150	—	—	—	—	—	0.385	E0.007	—
02/24/2008	03/13/2008	Y11671	E0.045	—	—	—	—	—	0.176	E0.004	—
03/07/2008	03/13/2008	Y30114	E0.037	—	—	—	—	—	0.110	E0.004	—
03/19/2008	04/03/2008	Y08490	E0.144	—	—	—	—	—	0.196	E0.006	—
03/31/2008	04/03/2008	Y16207	E0.110	—	—	—	—	—	0.171	E0.001	—
04/12/2008	04/30/2008	Y06313	E0.032	—	—	—	—	—	0.253	E0.001	—
04/24/2008	04/30/2008	Y16229	E0.027	—	—	—	—	—	0.114	E0.002	—
05/06/2008	05/22/2008	Y04390	E0.177	—	—	—	—	—	0.248	—	—
05/18/2008	05/22/2008	Y29327	E0.064	—	—	—	—	—	E0.064	—	—
05/30/2008	06/18/2008	Y11402	E0.163	—	—	—	—	—	E0.041	E0.003	—
06/01/2008	06/18/2008	Y06313	E0.028	—	—	—	—	—	0.137	—	—
06/23/2008	07/14/2008	Y16307	E0.182	—	—	—	—	—	0.390	—	—
07/05/2008	07/14/2008	Y30114	E0.096	—	—	—	—	—	0.269	—	—
07/17/2008	08/14/2008	Y08939	—	—	—	—	—	—	0.240	—	—
07/29/2008	08/14/2008	Y26409	E0.090	—	—	—	—	—	0.411	E0.011	—
08/10/2008	08/28/2008	Y06313	0.361	—	—	—	—	—	0.143	E0.001	—
08/22/2008	08/28/2008	Y10847	0.234	—	—	—	—	—	E0.052	E0.002	—
09/03/2008	09/18/2008	Y16392	0.257	—	—	—	—	—	0.180	E0.003	—
09/15/2008	09/18/2008	Y30114	0.209	—	—	—	—	—	0.168	E0.005	—

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Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Ethylbenzene	<i>m</i> - and <i>p</i> -Xylene	Ethylbenzene (styrene)	1,1,2,2-Tetrachloroethane	<i>o</i> -Xylene	Isopropylbenzene	Naphthalene	1,2,3-Trichlorobenzene
			[LRL]	[0.07]	[0.09]	[0.07]	[0.07]	[0.08]	[0.09]	[0.05]
08/04/2007	08/09/2007	Y16109	—	—	—	—	—	—	—	—
08/16/2007	09/05/2007	Y11968	E0.002	E0.003	E0.007	—	—	—	E0.002	—
08/28/2007	09/05/2007	Y07941	—	—	—	—	—	—	—	—
09/09/2007	10/02/2007	Y29313	—	—	—	—	—	—	—	—
09/21/2007	10/02/2007	Y11241	—	—	—	—	—	—	—	—
10/03/2007	10/19/2007	Y15542	E0.002	E0.004	—	—	E0.001	—	E0.002	—
10/15/2007	10/19/2007	Y06624	E0.001	E0.003	E0.002	—	E0.001	—	—	—
10/27/2007	11/13/2007	Y26404	E0.003	E0.008	—	—	E0.003	—	E0.002	—
11/08/2007	11/13/2007	Y26830	—	—	—	—	—	—	E0.002	—
11/20/2007	12/06/2007	Y26830	—	—	—	—	—	—	—	E0.001
12/02/2007	12/06/2007	Y26403	—	—	—	—	—	—	—	—
12/14/2007	01/03/2008	Y26830	—	—	—	—	—	—	—	—
12/26/2007	01/03/2008	Y15630	—	—	—	—	—	—	—	—
01/07/2008	01/23/2008	Y10925	E0.002	E0.006	E0.002	—	E0.002	—	E0.001	—
01/19/2008	01/23/2008	Y08490	—	—	—	—	—	—	—	—
01/31/2008	02/19/2008	Y11241	E0.004	E0.007	—	—	E0.002	—	E0.003	—
02/12/2008	02/19/2008	Y26830	E0.002	E0.005	—	—	E0.002	—	—	—
02/24/2008	03/13/2008	Y11671	—	—	—	—	—	—	—	—
03/07/2008	03/13/2008	Y30114	—	—	—	—	—	—	—	—
03/19/2008	04/03/2008	Y08490	—	—	—	—	—	—	—	—
03/31/2008	04/03/2008	Y16207	—	—	—	—	—	—	E0.002	—
04/12/2008	04/30/2008	Y06313	—	—	—	—	—	—	—	—
04/24/2008	04/30/2008	Y16229	—	—	—	—	—	—	—	—
05/06/2008	05/22/2008	Y04390	—	—	—	—	—	—	—	—
05/18/2008	05/22/2008	Y29327	—	—	—	—	—	—	—	—
05/30/2008	06/18/2008	Y11402	—	—	—	—	—	—	—	—
06/01/2008	06/18/2008	Y06313	—	—	—	—	—	—	—	—
06/23/2008	07/14/2008	Y16307	—	—	—	—	—	—	—	—
07/05/2008	07/14/2008	Y30114	—	—	—	—	—	—	—	—
07/17/2008	08/14/2008	Y08939	—	—	—	—	—	—	—	—
07/29/2008	08/14/2008	Y26409	—	—	E0.003	—	—	—	E0.008	—
08/10/2008	08/28/2008	Y06313	—	—	—	—	—	—	—	—
08/22/2008	08/28/2008	Y10847	—	—	—	—	—	—	—	—
09/03/2008	09/18/2008	Y16392	—	—	—	—	—	—	—	—
09/15/2008	09/18/2008	Y30114	—	—	—	—	—	—	—	—

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Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Acetone	1,1-Dichloroethene	2-Propenenitrile (acrylonitrile)	Methylene chloride	Carbon disulfide	2-Butanone (methyl ethyl ketone)	Benzene	Toluene	Tetrachloroethene (PCE)
09/27/2008	10/16/2008	Y29323	0.330	—	—	—	—	—	0.127	—	—
10/09/2008	10/16/2008	Y06581	E0.083	—	—	—	—	—	0.119	E0.003	—
10/21/2008	11/06/2008	Y26403	E0.092	—	—	—	—	—	0.196	—	—
11/02/2008	11/06/2008	Y16392	E0.057	—	—	—	—	—	E0.091	E0.002	—
11/14/2008	12/10/2008	Y11861	—	—	—	—	—	—	E0.050	E0.001	—
11/26/2008	12/10/2008	Y11093	E0.138	—	—	—	—	—	E0.095	E0.028	—
12/08/2008	12/31/2008	Y29313	E0.072	—	—	—	—	—	0.197	E0.008	—
12/20/2008	12/31/2008	Y16207	E0.009	—	—	—	—	—	E0.100	E0.003	—
01/01/2009	01/21/2009	Y29327	0.303	—	—	0.10	—	—	0.315	E0.003	—
01/13/2009	01/21/2009	Y26208	E0.074	—	—	—	—	—	1.789	E0.003	—
01/25/2009	02/11/2009	Y11968	—	—	—	—	—	—	E0.091	E0.004	—
02/06/2009	02/11/2009	Y16246	—	—	—	—	—	—	0.118	—	—
02/18/2009	03/04/2009	Y26404	0.231	—	—	—	—	—	0.218	E0.009	—
03/02/2009	03/04/2009	Y25959	0.224	—	—	—	—	—	E0.064	E0.003	—
03/14/2009	04/01/2009	Y08484	—	—	—	—	—	—	0.157	—	—
03/26/2009	04/01/2009	Y11968	E0.048	—	—	—	—	—	0.142	E0.003	—
04/07/2009	04/23/2009	Y29327	0.217	—	—	—	—	—	0.282	E0.006	—
04/19/2009	04/23/2009	Y26663	E0.099	—	—	—	—	—	0.295	E0.018	—
05/01/2009	05/21/2009	Y11671	E0.146	—	—	—	—	—	0.371	E0.010	—
05/13/2009	05/21/2009	Y26404	E0.061	—	—	E0.019	—	—	0.145	—	—
05/25/2009	06/11/2009	Y29380	E0.097	—	—	—	—	—	E0.104	E0.006	—
06/06/2009	06/11/2009	Y08490	E0.175	—	—	—	—	—	0.154	E0.007	—
06/18/2009	07/09/2009	Y16109	E0.073	—	—	E0.033	—	—	0.254	E0.010	—
06/30/2009	07/09/2009	Y30114	E0.113	—	—	E0.022	—	—	0.172	E0.009	—
07/12/2009	07/29/2009	Y16207	—	—	—	—	—	—	0.195	E0.015	—
07/24/2009	07/29/2009	Y11968	E0.073	—	—	—	—	—	0.244	E0.013	—

Table B3D. Quality-control laboratory blank detections for medium/low-volatility volatile organic compounds (VOCs) processed at the Oregon Graduate Institute for air samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in part per billion by volume (ppbv). Pairs of samples analyzed on the same date had been frozen and stored at laboratory before analysis. **Abbreviations:** E, estimated or having a higher degree of uncertainty; mm/dd/yyyy, month/day/year; NA, not analyzed; —, compound was not detected at a concentration above the laboratory reporting level; LRL, laboratory reporting level]

Sample date (mm/dd/yyyy)	Analysis date (mm/dd/yyyy)	Cartridge number	Ethylbenzene	<i>m</i> - and <i>p</i> -Xylene	Ethylbenzene (styrene)	1,1,2,2-Tetrachloroethane	<i>o</i> -Xylene	Isopropylbenzene	Naphthalene	1,2,3-Trichlorobenzene
			[LRL]	[0.07]	[0.09]	[0.07]	[0.07]	[0.08]	[0.09]	[0.05]
09/27/2008	10/16/2008	Y29323	—	—	—	—	—	—	—	—
10/09/2008	10/16/2008	Y06581	—	E0.002	—	—	—	—	—	—
10/21/2008	11/06/2008	Y26403	—	—	—	—	—	—	—	—
11/02/2008	11/06/2008	Y16392	—	—	—	—	—	—	—	—
11/14/2008	12/10/2008	Y11861	—	—	—	—	—	—	—	—
11/26/2008	12/10/2008	Y11093	E0.003	E0.009	—	—	—	—	—	—
12/08/2008	12/31/2008	Y29313	—	E0.003	—	—	—	—	—	—
12/20/2008	12/31/2008	Y16207	—	—	—	—	—	—	—	—
01/01/2009	01/21/2009	Y29327	—	—	—	—	—	—	—	—
01/13/2009	01/21/2009	Y26208	—	—	—	—	—	—	—	—
01/25/2009	02/11/2009	Y11968	—	—	—	—	—	—	—	—
02/06/2009	02/11/2009	Y16246	—	—	—	—	—	—	—	—
02/18/2009	03/04/2009	Y26404	—	—	—	—	—	—	E0.005	—
03/02/2009	03/04/2009	Y25959	—	—	—	—	—	—	—	—
03/14/2009	04/01/2009	Y08484	—	—	—	—	—	E0.001	—	—
03/26/2009	04/01/2009	Y11968	—	—	—	—	—	—	—	—
04/07/2009	04/23/2009	Y29327	—	—	—	—	—	—	E0.003	—
04/19/2009	04/23/2009	Y26663	—	—	—	—	—	—	E0.004	—
05/01/2009	05/21/2009	Y11671	—	—	—	—	—	—	E0.001	—
05/13/2009	05/21/2009	Y26404	—	—	—	—	—	—	E0.001	—
05/25/2009	06/11/2009	Y29380	—	—	—	—	—	—	—	—
06/06/2009	06/11/2009	Y08490	—	—	—	—	—	—	—	—
06/18/2009	07/09/2009	Y16109	—	—	—	—	—	—	—	—
06/30/2009	07/09/2009	Y30114	—	—	—	—	—	—	—	—
07/12/2009	07/29/2009	Y16207	—	—	—	—	—	—	—	—
07/24/2009	07/29/2009	Y11968	—	—	—	—	—	—	—	—

Table B4A. National Water Quality Laboratory quality-control reagent-spike results for polycyclic aromatic hydrocarbon (PAH) compound recoveries for the Sweetwater Reservoir atmospheric site, San Diego County, California.

[Alkylated PAH were not spiked, so they are not listed in this table. Values are given in percentage recovery, unless noted. **Abbreviations:** GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; mm/dd/yyyy, month/day/year; NA, not analyzed; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; TSP, total suspended particles (calculated for GFF samples only assuming 315 cubic meters air volume); $\mu\text{g}/\text{m}^3$; micrograms per cubic meter]

Begin date (mm/dd/yyyy)	Sample component spiked	Sample preparation set number	Extraction by	Extract split	GCMS SIM or scan	TSP ($\mu\text{g}/\text{m}^3$)	Anthracene	Benzo[a]anthracene	Benzo[ghi]perylene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[e]pyrene
11/19/2003	GFF	03.32308	PSE	Yes	SIM	3.2	68.7	67.5	84.7	68.7	88.8	97.0
11/19/2003	PUF	03.32308	PSE	Yes	SIM		85.0	85.3	91.3	85.2	91.2	95.7
03/12/2004	GFF	04.07205	PSE	Yes	Scan	1.3	69.7	69.3	64.7	60.5	65.8	64.7
03/12/2004	PUF	04.07205	PSE	Yes	Scan		72.8	78.0	70.8	64.5	69.3	70.8
08/30/2004	GFF	04.24305	PSE	Yes	Scan	0.0	62.9	81.1	82.6	74.9	81.9	NA
08/30/2004	PUF	04.24305	PSE	Yes	Scan		77.3	85.3	98.3	87.1	103	NA
09/14/2005	GFF	05.25707	Soxhlet	No	Scan	6.3	73.6	90.3	116	92.9	118	120
09/14/2005	PUF	05.25707	Soxhlet	No	Scan		77.6	93.2	113	93.8	115	117
01/17/2006	GFF	06.01705	Soxhlet	No	Scan	3.2	84.2	97.8	118	86.6	109	106
01/17/2006	PUF	06.01705	Soxhlet	No	Scan		55.0	83.4	109	52.4	89.2	97.9
08/15/2006	GFF	06.22308	Soxhlet	No	Scan	2.5	76.7	76.7	72.3	71.7	71.9	73.2
08/15/2006	PUF	06.22308	Soxhlet	No	Scan		66.6	73.9	79.5	66.5	76.9	80.2
04/18/2008	GFF	08.10910	Soxhlet	No	Scan	3.8	48.5	51.6	51.3	50.5	53.9	54.4
04/18/2008	PUF	08.10910	Soxhlet	No	Scan		86.0	90.0	89.1	86.9	98.7	97.8

Table B4A. National Water Quality Laboratory quality-control reagent-spike results for polycyclic aromatic hydrocarbon (PAH) compound recoveries for the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[Alkylated PAH were not spiked, so they are not listed in this table. Values are given in percentage recovery, unless noted. **Abbreviations:** GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; mm/dd/yyyy, month/day/year; NA, not analyzed; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; TSP, total suspended particles (calculated for GFF samples only assuming 315 cubic meters air volume); $\mu\text{g}/\text{m}^3$; micrograms per cubic meter]

Begin date (mm/dd/yyyy)	Sample component spiked	Sample preparation set number	Extraction by	Extract split	GCMS SIM or scan	TSP ($\mu\text{g}/\text{m}^3$)	Benzo[k]fluoranthene	Chrysene	Coronene	Dibenzo[a,h]anthracene	Fluoranthene
11/19/2003	GFF	03.32308	PSE	Yes	SIM	3.2	91.5	81.7	86.0	73.8	78.2
11/19/2003	PUF	03.32308	PSE	Yes	SIM		101	92.0	87.2	86.7	96.8
03/12/2004	GFF	04.07205	PSE	Yes	Scan	1.3	70.2	72.2	60.5	61.8	72.8
03/12/2004	PUF	04.07205	PSE	Yes	Scan		73.7	80.5	66.8	65.7	79.8
08/30/2004	GFF	04.24305	PSE	Yes	Scan	0.0	82.6	84.1	NA	88.7	85.5
08/30/2004	PUF	04.24305	PSE	Yes	Scan		98.2	84.8	NA	104	92.1
09/14/2005	GFF	05.25707	Soxhlet	No	Scan	6.3	114	98.0	124	120	92.9
09/14/2005	PUF	05.25707	Soxhlet	No	Scan		114	93.0	117	112	99.1
01/17/2006	GFF	06.01705	Soxhlet	No	Scan	3.2	102	91.8	126	112	104
01/17/2006	PUF	06.01705	Soxhlet	No	Scan		86.7	113	122	101	103
08/15/2006	GFF	06.22308	Soxhlet	No	Scan	2.5	73.1	75.9	NA	74.9	79.2
08/15/2006	PUF	06.22308	Soxhlet	No	Scan		77.1	77.6	NA	81.8	77.6
04/18/2008	GFF	08.10910	Soxhlet	No	Scan	3.8	54.1	56.0	39.3	52.7	51.2
04/18/2008	PUF	08.10910	Soxhlet	No	Scan		93.9	92.3	66.4	92.8	92.0

Table B4A. National Water Quality Laboratory quality-control reagent-spike results for polycyclic aromatic hydrocarbon (PAH) compound recoveries for the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[Alkylated PAH were not spiked, so they are not listed in this table. Values are given in percentage recovery, unless noted. **Abbreviations:** GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; mm/dd/yyyy, month/day/year; NA, not analyzed; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; TSP, total suspended particles (calculated for GFF samples only assuming 315 cubic meters air volume); $\mu\text{g}/\text{m}^3$; micrograms per cubic meter]

Begin date (mm/dd/yyyy)	Sample component spiked	Sample preparation set number	Extraction by	Extract split	GCMS SIM or scan	TSP ($\mu\text{g}/\text{m}^3$)	Indeno[1,2,3-cd] pyrene	2-Methyl-anthracene	4,5-Methylene-phen-anthrene	1-Methyl-phen-anthrene	1-Methyl-pyrene
11/19/2003	GFF	03.32308	PSE	Yes	SIM	3.2	62.3	65.3	76.8	80.8	76.8
11/19/2003	PUF	03.32308	PSE	Yes	SIM		80.2	85.0	92.3	91.8	96.3
03/12/2004	GFF	04.07205	PSE	Yes	Scan	1.3	59.2	66.7	71.5	70.8	69.5
03/12/2004	PUF	04.07205	PSE	Yes	Scan		68.3	72.3	77.7	75.3	78.2
08/30/2004	GFF	04.24305	PSE	Yes	Scan	0.0	85.3	66.2	71.9	76.8	81.1
08/30/2004	PUF	04.24305	PSE	Yes	Scan		98.7	81.8	79.3	84.0	88.8
09/14/2005	GFF	05.25707	Soxhlet	No	Scan	6.3	106	75.9	83.9	91.1	92.9
09/14/2005	PUF	05.25707	Soxhlet	No	Scan		104	81.5	85.0	95.2	99.5
01/17/2006	GFF	06.01705	Soxhlet	No	Scan	3.2	109	82.5	99.1	106	103
01/17/2006	PUF	06.01705	Soxhlet	No	Scan		89.3	56.4	103	110	92.9
08/15/2006	GFF	06.22308	Soxhlet	No	Scan	2.5	70.7	77.1	78.3	74.8	76.3
08/15/2006	PUF	06.22308	Soxhlet	No	Scan		70.9	68.1	76.6	77.0	76.9
04/18/2008	GFF	08.10910	Soxhlet	No	Scan	3.8	50.7	49.1	48.7	50.6	51.1
04/18/2008	PUF	08.10910	Soxhlet	No	Scan		87.5	85.1	89.7	92.2	91.9

Table B4A. National Water Quality Laboratory quality-control reagent-spike results for polycyclic aromatic hydrocarbon (PAH) compound recoveries for the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[Alkylated PAH were not spiked, so they are not listed in this table. Values are given in percentage recovery, unless noted. **Abbreviations:** GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; mm/dd/yyyy, month/day/year; NA, not analyzed; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; TSP, total suspended particles (calculated for GFF samples only assuming 315 cubic meters air volume); $\mu\text{g}/\text{m}^3$; micrograms per cubic meter]

Begin date (mm/dd/yyyy)	Sample component spiked	Sample preparation set number	Extraction by	Extract split	GCMS SIM or scan	TSP ($\mu\text{g}/\text{m}^3$)	Perylene	Phen-anthrene	Pyrene	2-Fluoro-biphenyl surrogate	Nitro-benzene- <i>d</i> 5 surrogate	Terphenyl- <i>d</i> 14 surrogate
11/19/2003	GFF	03.32308	PSE	Yes	SIM	3.2	78.5	79.0	79.3	73.8	99.8	86.2
11/19/2003	PUF	03.32308	PSE	Yes	SIM		84.7	93.3	96.8	97.8	108	99.6
03/12/2004	GFF	04.07205	PSE	Yes	Scan	1.3	59.7	73.7	71.7	62.4	45.6	66.2
03/12/2004	PUF	04.07205	PSE	Yes	Scan		64.0	80.3	79.7	66.0	49.2	73.4
08/30/2004	GFF	04.24305	PSE	Yes	Scan	0.0	NA	72.4	81.3	42.5	44.1	96.4
08/30/2004	PUF	04.24305	PSE	Yes	Scan		NA	83.8	91.5	84.0	78.9	102
09/14/2005	GFF	05.25707	Soxhlet	No	Scan	6.3	86.8	85.7	93.3	74.2	69.8	95.0
09/14/2005	PUF	05.25707	Soxhlet	No	Scan		90.5	89.7	98.7	74.7	68.9	99.8
01/17/2006	GFF	06.01705	Soxhlet	No	Scan	3.2	75.9	102	103	65.4	33.8	106
01/17/2006	PUF	06.01705	Soxhlet	No	Scan		61.3	105	104	105	85.6	122
08/15/2006	GFF	06.22308	Soxhlet	No	Scan	2.5	72.5	76.3	79.1	58.6	39.5	81.5
08/15/2006	PUF	06.22308	Soxhlet	No	Scan		67.2	76.5	76.7	79.6	61.7	79.5
04/18/2008	GFF	08.10910	Soxhlet	No	Scan	3.8	51.9	49.6	51.1	54.5	53.7	68.3
04/18/2008	PUF	08.10910	Soxhlet	No	Scan		87.0	92.0	92.1	78.8	69.0	89.7

Table B4B. Quality-control results for polycyclic aromatic hydrocarbon (PAH) compounds detected in National Water Quality laboratory and field reagent-blanks. National Water Quality Laboratory solvent-blank samples for the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site-identification number for field blanks is 32414117001601. Concentrations are given in nanograms per cubic meter (ng/m^3), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; $\mu\text{g}/\text{m}^3$, micrograms per cubic meter; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; Lab, Laboratory; mm/dd/yy, month/day/year; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; TSP, total suspended particles (calculated for GFF samples only, assuming 315 cubic meters air volume); LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Begin date (mm/dd/yyyy)	Sample type	Sample component used	Sample preparation set number	Extraction by	Extract split	GCMS SIM or scan	TSP ($\mu\text{g}/\text{m}^3$)	Anthracene [LRL] [0.5]	Benzo[a] anthracene [0.5]	Benzo[g,h,i] perylene [0.5]	Benzo[e] pyrene [0.5]	Chrysene [0.5]	Fluoranthene [0.5]
11/19/2003	Lab blank	1 GFF	03.32308	PSE	Yes	SIM	3.8	—	—	—	—	—	—
11/19/2003	Lab blank	1 new PUF	03.32308	PSE	Yes	SIM	—	—	—	—	—	—	—
03/12/2004	Lab blank	1 GFF	04.07205	PSE	Yes	Scan	1.9	—	—	E0.03	E0.03	E0.02	E0.04
03/12/2004	Lab blank	2 new PUF	04.07205	PSE	Yes	Scan	—	—	—	E0.03	E0.01	—	—
08/30/2004	Lab blank	1 GFF	04.24305	PSE	Yes	Scan	0.0	—	—	—	—	—	—
08/30/2004	Lab blank	2 new PUF	04.24305	PSE	Yes	Scan	—	—	—	—	—	—	—
09/14/2005	Lab blank	1 GFF	05.25707	Soxhlet	No	Scan	4.4	—	—	—	—	—	—
09/14/2005	Lab blank	2 PUF	05.25707	Soxhlet	No	Scan	—	—	—	—	—	—	—
09/14/2005	Lab blank	2 PUF	05.25707	Soxhlet	No	Scan	—	—	—	—	—	—	—
09/14/2005	Lab blank	Solvent only	05.25707	Soxhlet	No	Scan	—	—	—	—	—	—	—
10/05/2004	Field blank	GFF	05.25707	PSE	Yes	Scan	4.4	—	—	—	—	—	—
10/05/2004	Field blank	Top and Bottom PUF	05.25707	PSE	Yes	Scan	—	—	—	—	—	—	—
01/17/2006	Lab blank	1 GFF	06.01705	Soxhlet	No	Scan	0.0	—	—	—	—	—	—
01/17/2006	Lab blank	PUF	06.01705	Soxhlet	No	Scan	—	—	—	—	—	—	—
08/15/2006	Lab blank	1 GFF	06.22308	Soxhlet	No	Scan	3.2	E0.21	—	—	—	—	E0.20
08/15/2006	Lab blank	PUF	06.22308	Soxhlet	No	Scan	—	—	—	—	—	—	—
04/18/2008	Lab blank	GFF	08.10910	Soxhlet	No	Scan	1.9	—	—	—	—	—	—
04/18/2008	Lab blank	2 new PUF	08.10910	Soxhlet	No	Scan	—	—	—	—	—	—	—
04/18/2008	Lab blank	2 new PUF	08.10910	Soxhlet	No	Scan	—	—	—	—	—	—	E0.09

Table B4B. Quality-control results for polycyclic aromatic hydrocarbon (PAH) compounds detected in National Water Quality laboratory and field reagent-blanks. National Water Quality Laboratory solvent-blank samples for the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number for field blanks is 32414117001601. Concentrations are given in nanograms per cubic meter (ng/m³), unless noted. **Abbreviations:** E, estimated or having a higher degree of uncertainty; µg/m³, micrograms per cubic meter; GCMS, gas chromatography mass spectrometry; GFF, glass fiber filter; Lab, Laboratory; mm/dd/yy, month/day/year; PSE, pressurized solvent extraction; PUF, polyurethane foam; Scan, full scan ion monitoring mode; SIM, selected ion monitoring mode; TSP, total suspended particles (calculated for GFF samples only, assuming 315 cubic meters air volume); LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Begin date (mm/dd/yyyy)	Sample type	Sample component used	Sample preparation set number	Extraction by	Extract split	GCMS SIM or scan	TSP (µg/m ³)	Phenan- threne		Pyrene	2-Fluoro- biphenyl, surrogate (percent)	Nitro- benzene-d5, surrogate (percent)	Terphenyl-d14, surrogate (percent)
								[LRL]	[0.5]				
11/19/2003	Lab blank	1 GFF	03.32308	PSE	Yes	SIM	3.8	—	—	—	29.4	24.2	83.8
11/19/2003	Lab blank	1 new PUF	03.32308	PSE	Yes	SIM	—	—	—	—	94.6	95.8	103
03/12/2004	Lab blank	1 GFF	04.07205	PSE	Yes	Scan	1.9	E0.05	—	E0.04	55.0	41.6	62.8
03/12/2004	Lab blank	2 new PUF	04.07205	PSE	Yes	Scan	—	E0.05	—	—	65.6	40.4	70.6
08/30/2004	Lab blank	1 GFF	04.24305	PSE	Yes	Scan	0.0	—	—	—	54.2	52.0	98.1
08/30/2004	Lab blank	2 new PUF	04.24305	PSE	Yes	Scan	—	E0.17	—	—	87.2	78.1	114
09/14/2005	Lab blank	1 GFF	05.25707	Soxhlet	No	Scan	4.4	—	—	—	85.8	56.0	111
09/14/2005	Lab blank	2 PUF	05.25707	Soxhlet	No	Scan	—	—	—	—	79.2	56.4	103
09/14/2005	Lab blank	2 PUF	05.25707	Soxhlet	No	Scan	—	—	—	—	59.2	43.6	102
09/14/2005	Lab blank	Solvent only	05.25707	Soxhlet	No	Scan	—	—	—	—	85.8	56.0	111
10/05/2004	Field blank	GFF	05.25707	PSE	Yes	Scan	4.4	—	—	—	33.2	26.9	79.9
10/05/2004	Field blank	Top and Bottom PUF	05.25707	PSE	Yes	Scan	—	—	—	—	81.1	60.9	99.9
01/17/2006	Lab blank	1 GFF	06.01705	Soxhlet	No	Scan	0.0	—	—	—	29.6	15.7	96.0
01/17/2006	Lab blank	PUF	06.01705	Soxhlet	No	Scan	—	E0.25	—	—	104	78.5	124
08/15/2006	Lab blank	1 GFF	06.22308	Soxhlet	No	Scan	3.2	E0.06	—	E0.16	63.3	44.4	80.2
08/15/2006	Lab blank	PUF	06.22308	Soxhlet	No	Scan	—	E0.07	—	—	45.3	32.5	54.8
04/18/2008	Lab blank	GFF	08.10910	Soxhlet	No	Scan	1.9	—	—	—	66.9	61.4	78.8
04/18/2008	Lab blank	2 new PUF	08.10910	Soxhlet	No	Scan	—	E0.05	—	—	76.3	59.2	93.9
04/18/2008	Lab blank	2 new PUF	08.10910	Soxhlet	No	Scan	—	E0.17	—	E0.05	84.0	74.5	93.9

Table B5A. National Water Quality Laboratory quality-control reagent-spike recoveries for pesticides in air for samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[Value for compounds are in percentage recovery. Estimated value has a higher degree of uncertainty because compound has poor recovery on the basis of laboratory set spikes. **Abbreviations:** ASE, accelerated solvent extraction; mm/dd/yyyy, month/day/year; PSE, pressurized solvent extraction; GFF, glass fiber filter; PUF, polyurethane foam plug; °C, degree Celsius]

Sample date (mm/dd/yyyy)	Quality-control sample type	Sample preparation set number	Extraction method	Extraction by	Extraction temperature (°C)	Extract split before clean up	Clean-up column used for pesticides	Acetochlor	Alachlor	Atrazine	Benfluralin, estimated	Carbaryl, estimated	2-Chloro-2,6- diethylacetanilide
11/19/2003	GFF Spike	03.32308	PSE	ASE 200	120	Yes	Carbo-prep	104	98.1	110	89.3	0.0	110
11/19/2003	PUF Spike	03.32308	PSE	ASE 200	100	Yes	Carbo-prep	115	115	109	95.1	73.9	128
03/12/2004	GFF Spike	04.07205	PSE	ASE 200	120	Yes	Carbo-prep	77.7	71.9	77.8	72.8	9.4	80.7
03/12/2004	PUF Spike	04.07205	PSE	ASE 200	100	Yes	Carbo-prep	77.8	77.2	85.3	74.8	62.7	81.4
09/30/2004	GFF Spike	04.24305	PSE	ASE 200	100	Yes	Carbo-prep	60.2	64.4	68.7	49.1	13.9	62.1
09/30/2004	PUF Spike	04.24305	PSE	ASE 300	100	Yes	Carbo-prep	107	106	97.0	62.7	123	105

Table B5A. National Water Quality Laboratory quality-control reagent-spike recoveries for pesticides in air for samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[Value for compounds are in percentage recovery. Estimated value has a higher degree of uncertainty because compound has poor recovery on the basis of laboratory set spikes. **Abbreviations:** ASE, accelerated solvent extraction; mm/dd/yyyy, month/day/year; PSE, pressurized solvent extraction; GFF, glass fiber filter; PUF, polyurethane foam plug; °C, degree Celsius]

Sample date (mm/dd/yyyy)	Quality-control sample type	Sample preparation set number	Extraction method	Extraction by	Extraction temperature (°C)	Extract split before clean up	Clean-up column used for pesticides	2-Chloro-4- isopropylamino-6- amino- <i>s</i> -triazine (CIAT)	Chlorpyrifos	Dacthal (DCPA)	Desulfinyl- fipronil	Diazinon	Dieldrin	Dimethoate
11/19/2003	GFF Spike	03.32308	PSE	ASE 200	120	Yes	Carbo-prep	74	99.8	113	107	96.1	98.4	94.2
11/19/2003	PUF Spike	03.32308	PSE	ASE 200	100	Yes	Carbo-prep	101	104	104	101	101	119	78.9
03/12/2004	GFF Spike	04.07205	PSE	ASE 200	120	Yes	Carbo-prep	81.4	71.1	78.4	70.3	71.4	85.4	76.6
03/12/2004	PUF Spike	04.07205	PSE	ASE 200	100	Yes	Carbo-prep	85.6	81.8	81.0	74.3	80.2	88.4	67.8
09/30/2004	GFF Spike	04.24305	PSE	ASE 200	100	Yes	Carbo-prep	60.9	24.7	84.6	60.1	63.0	86.2	36.2
09/30/2004	PUF Spike	04.24305	PSE	ASE 300	100	Yes	Carbo-prep	103	103	93.1	104	101	91.5	107

Table B5A. National Water Quality Laboratory quality-control reagent-spike recoveries for pesticides in air for samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[Value for compounds are in percentage recovery. Estimated value has a higher degree of uncertainty because compound has poor recovery on the basis of laboratory set spikes. **Abbreviations:** ASE, accelerated solvent extraction; mm/dd/yyyy, month/day/year; PSE, pressurized solvent extraction; GFF, glass fiber filter; PUF, polyurethane foam plug; °C, degree Celsius]

Sample date (mm/dd/yyyy)	Quality-control sample type	Sample preparation set number	Extraction method	Extraction by	Extraction temperature (°C)	Extract split before clean up	Clean-up column used for pesticides	Ethion	2-Ethyl-6 methyl- aniline	Fenamiphos, estimated	Fenamiphos sulfone, estimated	Fenamiphos sulfoxide, estimated	Fipronil, estimated	Fipronil sulfide
11/19/2003	GFF Spike	03.32308	PSE	ASE 200	120	Yes	Carbo-prep	73.6	13.9	59.0	46.6	76.8	41.6	98.9
11/19/2003	PUF Spike	03.32308	PSE	ASE 200	100	Yes	Carbo-prep	144	69.0	211	86.8	82.3	112	103
03/12/2004	GFF Spike	04.07205	PSE	ASE 200	120	Yes	Carbo-prep	63.6	67.2	83.4	46.2	64.7	25.5	69.7
03/12/2004	PUF Spike	04.07205	PSE	ASE 200	100	Yes	Carbo-prep	80.2	80.6	93.1	80.4	25.8	76.6	72.9
09/30/2004	GFF Spike	04.24305	PSE	ASE 200	100	Yes	Carbo-prep	56.2	23.3	0.0	20.1	89.6	27.0	60.5
09/30/2004	PUF Spike	04.24305	PSE	ASE 300	100	Yes	Carbo-prep	127	68.3	103	146	184	112	119

Table B5A. National Water Quality Laboratory quality-control reagent-spike recoveries for pesticides in air for samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[Value for compounds are in percentage recovery. Estimated value has a higher degree of uncertainty because compound has poor recovery on the basis of laboratory set spikes. **Abbreviations:** ASE, accelerated solvent extraction; mm/dd/yyyy, month/day/year; PSE, pressurized solvent extraction; GFF, glass fiber filter; PUF, polyurethane foam plug; °C, degree Celsius]

Sample date (mm/dd/yyyy)	Quality-control sample type	Sample preparation set number	Extraction method	Extraction by	Extraction temperature (°C)	Extract split before clean up	Clean-up column used for pesticides	Fipronil sulfone	Fonofos	Hexazinone, estimated	Isofenphos	Metolaxyl	Methodathion
11/19/2003	GFF Spike	03.32308	PSE	ASE 200	120	Yes	Carbo-prep	52.6	92.3	78.8	99.0	116	73
11/19/2003	PUF Spike	03.32308	PSE	ASE 200	100	Yes	Carbo-prep	72.0	97.2	67.2	125	121	133
03/12/2004	GFF Spike	04.07205	PSE	ASE 200	120	Yes	Carbo-prep	63.8	72.4	79.0	77.4	85.5	64.8
03/12/2004	PUF Spike	04.07205	PSE	ASE 200	100	Yes	Carbo-prep	83.9	79.2	38.9	82.7	84.9	80.2
09/30/2004	GFF Spike	04.24305	PSE	ASE 200	100	Yes	Carbo-prep	43.6	56.2	85.0	57.4	66.7	42.8
09/30/2004	PUF Spike	04.24305	PSE	ASE 300	100	Yes	Carbo-prep	96.8	89.2	153	110	105	92.7

Table B5A. National Water Quality Laboratory quality-control reagent-spike recoveries for pesticides in air for samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[Value for compounds are in percentage recovery. Estimated value has a higher degree of uncertainty because compound has poor recovery on the basis of laboratory set spikes. **Abbreviations:** ASE, accelerated solvent extraction; mm/dd/yyyy, month/day/year; PSE, pressurized solvent extraction; GFF, glass fiber filter; PUF, polyurethane foam plug; °C, degree Celsius]

Sample date (mm/dd/yyyy)	Quality-control sample type	Sample preparation set number	Extraction method	Extraction by	Extraction temperature (°C)	Extract split before clean up	Clean-up column used for pesticides	Metolachlor	Metribuzin	Myclobutanil	Parathion- methyl	Pendi- methilan	cis- Permethrin
11/19/2003	GFF Spike	03.32308	PSE	ASE 200	120	Yes	Carbo-prep	107	41.0	78.6	87.7	91.4	95.8
11/19/2003	PUF Spike	03.32308	PSE	ASE 200	100	Yes	Carbo-prep	97.7	99.9	128	81.5	88.2	102
03/12/2004	GFF Spike	04.07205	PSE	ASE 200	120	Yes	Carbo-prep	74.3	67.4	79.3	70.7	76.0	72.4
03/12/2004	PUF Spike	04.07205	PSE	ASE 200	100	Yes	Carbo-prep	80.7	73.3	87.5	67.7	78.8	96.9
09/30/2004	GFF Spike	04.24305	PSE	ASE 200	100	Yes	Carbo-prep	82.3	39.2	55.9	49.5	77.3	72.4
09/30/2004	PUF Spike	04.24305	PSE	ASE 300	100	Yes	Carbo-prep	122	89.3	119	87.9	110	160

Table B5A. National Water Quality Laboratory quality-control reagent-spike recoveries for pesticides in air for samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[Value for compounds are in percentage recovery. Estimated value has a higher degree of uncertainty because compound has poor recovery on the basis of laboratory set spikes. **Abbreviations:** ASE, accelerated solvent extraction; mm/dd/yyyy, month/day/year; PSE, pressurized solvent extraction; GFF, glass fiber filter; PUF, polyurethane foam plug; °C, degree Celsius]

Sample date (mm/dd/yyyy)	Quality-control sample type	Sample preparation set number	Extraction method	Extraction by	Extraction temperature (°C)	Extract split before clean up	Clean-up column used for pesticides	trans- Permethrin	Phorate, estimated	Phorate oxon, estimated	Prometon	Prometryn	Propyzamide
11/19/2003	GFF Spike	03.32308	PSE	ASE 200	120	Yes	Carbo-prep	70.3	75.7	55.4	81.9	84.0	66.4
11/19/2003	PUF Spike	03.32308	PSE	ASE 200	100	Yes	Carbo-prep	85.3	100	152	118	109	98.3
03/12/2004	GFF Spike	04.07205	PSE	ASE 200	120	Yes	Carbo-prep	58.1	71.4	102	85.2	78.0	74.3
03/12/2004	PUF Spike	04.07205	PSE	ASE 200	100	Yes	Carbo-prep	86.4	77.3	113	100	78.2	81.5
09/30/2004	GFF Spike	04.24305	PSE	ASE 200	100	Yes	Carbo-prep	37.4	0.0	38.2	59.2	50.8	63.6
09/30/2004	PUF Spike	04.24305	PSE	ASE 300	100	Yes	Carbo-prep	75.0	57.3	152	104	93.7	105

Table B5A. National Water Quality Laboratory quality-control reagent-spike recoveries for pesticides in air for samples collected from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[Value for compounds are in percentage recovery. Estimated value has a higher degree of uncertainty because compound has poor recovery on the basis of laboratory set spikes. **Abbreviations:** ASE, accelerated solvent extraction; mm/dd/yyyy, month/day/year; PSE, pressurized solvent extraction; GFF, glass fiber filter; PUF, polyurethane foam plug; °C, degree Celsius]

Sample date (mm/dd/yyyy)	Quality- control sample type	Sample preparation set number	Extraction method	Extraction by	Extraction temperature (°C)	Extract split before clean up	Clean-up column used for pesticides	Simazine	Terbufos	Terbuthyl- azine	Trifluralin, estimated	Diazinon- <i>d</i> 10 surrogate (percent)	α -HCH- <i>d</i> 6 surrogate (percent)
11/19/2003	GFF Spike	03.32308	PSE	ASE 200	120	Yes	Carbo-prep	104	71.2	110	93.3	102	62.9
11/19/2003	PUF Spike	03.32308	PSE	ASE 200	100	Yes	Carbo-prep	103	108	109	110	99.8	92.4
03/12/2004	GFF Spike	04.07205	PSE	ASE 200	120	Yes	Carbo-prep	81.4	76.7	85.1	83.8	71.1	50.8
03/12/2004	PUF Spike	04.07205	PSE	ASE 200	100	Yes	Carbo-prep	84.2	86.8	88.0	89.4	83.2	79.7
09/30/2004	GFF Spike	04.24305	PSE	ASE 200	100	Yes	Carbo-prep	68.4	0.0	72.8	63.6	67.6	50.2
09/30/2004	PUF Spike	04.24305	PSE	ASE 300	100	Yes	Carbo-prep	109	65.3	96.5	83.7	107	78.2

Table B5B. National Water Quality Laboratory quality-control blank results for pesticide in air samples collected for 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/m³), unless noted. Sample volume assumed 315 m³. **Abbreviations:** GFF, glass fiber filter; mm/dd/yyyy, month/day/year; PSE, pressurized solvent extraction; PUF, polyurethane foam plug; LRL, laboratory reporting level; μ L, microliter; —, compound not detected at a concentration above laboratory reporting level]

Sample date (mm/dd/yyyy)	Quality-control sample type	Sample component used	Sample preparation set number	Extraction method	Extract split before clean up	Clean-up column used for pesticides	100 μ L S2001 surrogate number	Ethion	2-Ethyl-6 methylaniline	Fenamiphos sulfone	Fenamiphos sulfoxide	Fipronil sulfide	Fipronil sulfide
11/19/2003	GFF Blank	1 GFF	03.32308	PSE	Yes	Carbo-prep	3su108c	—	—	—	—	—	—
11/19/2003	PUF Blank	1 PUF	03.32308	PSE	Yes	Carbo-prep	3su108c	—	—	—	—	—	—
03/12/2004	GFF Blank	1 GFF	04.07205	PSE	Yes	Carbo-prep	3su108c	—	—	—	—	—	—
03/12/2004	PUF Blank	2 PUF	04.07205	PSE	Yes	Carbo-prep	3su108c	—	—	—	—	—	—
09/30/2004	GFF Blank	1 GFF	04.24305	PSE	Yes	Carbo-prep	3su109a	—	—	—	—	—	—
09/30/2004	PUF Blank	2 PUF	04.24305	PSE	Yes	Carbo-prep	3su109a	—	—	—	—	—	—

Table B5B. National Water Quality Laboratory quality-control blank results for pesticide in air samples collected for 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/m³), unless noted. Sample volume assumed 315 m³. **Abbreviations:** GFF, glass fiber filter; mm/dd/yyyy, month/day/year; PSE, pressurized solvent extraction; PUF, polyurethane foam plug; LRL, laboratory reporting level; μ L, microliter; —, compound not detected at a concentration above laboratory reporting level]

Sample date (mm/dd/yyyy)	Quality-control sample type	Sample component used	Sample preparation set number	Extraction method	Extract split before clean up	Clean-up column used for pesticides	100 μ L S2001 surrogate number	Fipronil sulfone	Fonofos	Hexazinone	Isofenphos	Metalaxyl	Methidathion
11/19/2003	GFF Blank	1 GFF	03.32308	PSE	Yes	Carbo-prep	3su108c	—	—	—	—	—	—
11/19/2003	PUF Blank	1 PUF	03.32308	PSE	Yes	Carbo-prep	3su108c	—	—	—	—	—	—
03/12/2004	GFF Blank	1 GFF	04.07205	PSE	Yes	Carbo-prep	3su108c	—	—	—	—	—	—
03/12/2004	PUF Blank	2 PUF	04.07205	PSE	Yes	Carbo-prep	3su108c	—	—	—	—	—	—
09/30/2004	GFF Blank	1 GFF	04.24305	PSE	Yes	Carbo-prep	3su109a	—	—	—	—	—	—
09/30/2004	PUF Blank	2 PUF	04.24305	PSE	Yes	Carbo-prep	3su109a	—	—	—	—	—	—

Table B5B. National Water Quality Laboratory quality-control blank results for pesticide in air samples collected for the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in nanograms per cubic meter (ng/m³), unless noted. Sample volume assumed 315 m³. **Abbreviations:** GFF, glass fiber filter; mm/dd/yyyy, month/day/year; PSE, pressurized solvent extraction; PUF, polyurethane foam plug; LRL, laboratory reporting level; µL, microliter; —, compound not detected at a concentration above laboratory reporting level]

Sample date (mm/dd/yyyy)	Quality-control sample type	Sample component used	Sample preparation set number	Extraction method	Extract split before clean up	Clean-up column used for pesticides	100 µL S2001 surrogate number	Metolachlor	Metribuzin	Myclobutanil	Parathion-methyl	Pendi-methilan	cis-Permethrin
								[LRL]	[0.05]	[0.10]	[0.11]	[0.06]	[0.06]
11/19/2003	GFF Blank	1 GFF	03.32308	PSE	Yes	Carbo-prep	3sul08c	—	—	—	—	—	—
11/19/2003	PUF Blank	1 PUF	03.32308	PSE	Yes	Carbo-prep	3sul08c	—	—	—	—	—	—
03/12/2004	GFF Blank	1 GFF	04.07205	PSE	Yes	Carbo-prep	3sul08c	—	—	—	—	—	—
03/12/2004	PUF Blank	2 PUF	04.07205	PSE	Yes	Carbo-prep	3sul08c	—	—	—	—	—	—
09/30/2004	GFF Blank	1 GFF	04.24305	PSE	Yes	Carbo-prep	3sul09a	—	—	—	—	—	—
09/30/2004	PUF Blank	2 PUF	04.24305	PSE	Yes	Carbo-prep	3sul09a	—	—	—	—	—	—

Table B5B. National Water Quality Laboratory quality-control blank results for pesticide in air samples collected for the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in nanograms per cubic meter (ng/m³), unless noted. Sample volume assumed 315 m³. **Abbreviations:** GFF, glass fiber filter; mm/dd/yyyy, month/day/year; PSE, pressurized solvent extraction; PUF, polyurethane foam plug; LRL, laboratory reporting level; µL, microliter; —, compound not detected at a concentration above laboratory reporting level]

Sample date (mm/dd/yyyy)	Quality-control sample type	Sample component used	Sample preparation set number	Extraction method	Extract split before clean up	Clean-up column used for pesticides	100 µL S2001 surrogate number	trans-Permethrin	Phorate	Phorate oxon	Prometon	Prometryn	Propyzamide
								[LRL]	[0.11]	[0.13]	[0.14]	[0.05]	[0.14]
11/19/2003	GFF Blank	1 GFF	03.32308	PSE	Yes	Carbo-prep	3sul08c	—	—	—	—	—	—
11/19/2003	PUF Blank	1 PUF	03.32308	PSE	Yes	Carbo-prep	3sul08c	—	—	—	—	—	—
03/12/2004	GFF Blank	1 GFF	04.07205	PSE	Yes	Carbo-prep	3sul08c	—	—	—	—	—	—
03/12/2004	PUF Blank	2 PUF	04.07205	PSE	Yes	Carbo-prep	3sul08c	—	—	—	—	—	—
09/30/2004	GFF Blank	1 GFF	04.24305	PSE	Yes	Carbo-prep	3sul09a	—	—	—	—	—	—
09/30/2004	PUF Blank	2 PUF	04.24305	PSE	Yes	Carbo-prep	3sul09a	—	—	—	—	—	—

Table B5B. National Water Quality Laboratory quality-control blank results for pesticide in air samples collected for the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number is 32414117001601. Concentrations are given in nanograms per cubic meter (ng/m³), unless noted. Sample volume assumed 315 m³. **Abbreviations:** GFF, glass fiber filter; mm/dd/yyyy, month/day/year; PSE, pressurized solvent extraction; PUF, polyurethane foam plug; LRL, laboratory reporting level; μ L, microliter; —, compound not detected at a concentration above laboratory reporting level]

Sample date (mm/dd/yyyy)	Quality-control sample type	Sample component used	Sample preparation set number	Extraction method	Extract split before clean up	Clean-up column used for pesticides	100 μ L S2001 surrogate number	Simazine [LRL] [0.06]	Terbufos [0.08]	Terbuthylazine [0.05]	Trifluralin [0.30]	Diazinon-d10, surrogate (percent)	α -HCH-d6, surrogate (percent)
11/19/2003	GFF Blank	1 GFF	03.32308	PSE	Yes	Carbo-prep	3su108c	—	—	—	—	70.8	44.6
11/19/2003	PUF Blank	1 PUF	03.32308	PSE	Yes	Carbo-prep	3su108c	—	—	—	—	101	93.7
03/12/2004	GFF Blank	1 GFF	04.07205	PSE	Yes	Carbo-prep	3su108c	—	—	—	—	61.9	50.6
03/12/2004	PUF Blank	2 PUF	04.07205	PSE	Yes	Carbo-prep	3su108c	—	—	—	—	78.0	73.2
09/30/2004	GFF Blank	1 GFF	04.24305	PSE	Yes	Carbo-prep	3su109a	—	—	—	—	53.0	47.3
09/30/2004	PUF Blank	2 PUF	04.24305	PSE	Yes	Carbo-prep	3su109a	—	—	—	—	106	85.6

Table B6A. U.S. Geological Survey Geologic Division Laboratory quality-control recovery results for metals from laboratory reagent-spike recoveries for the Sweetwater Reservoir atmospheric site, San Diego County, California.

[All values are reported as percentages. **Abbreviations:** NA, not analyzed; NIST, National Institute of Standards and Technology]

Time frame	Reference type	Antimony	Arsenic	Barium	Beryllium	Bismuth	Cadmium	Caesium	Cerium	Chromium	Cobalt	Copper
November 17, 2003, to March 16, 2004	SO-2	56.6	NA	102	115	NA	76.9	NA	105	89.4	98.7	NA
November 17, 2003, to March 16, 2004	SO-4	80.6	94.6	110	111	71.4	118	90.3	102	84.4	96.2	105
November 17, 2003, to March 16, 2004	NIST 2710	91.1	103	97.9	NA	NA	96.3	96.3	107	92.3	95.0	98.3
March 28, 2004, to July 27, 2004	SO-2	75.5	NA	97.3	103	NA	154	NA	92.0	85.4	96.7	NA
March 28, 2004, to July 27, 2004	SO-4	88.7	115	107	99.2	107	118	90.3	106	86.7	91.8	117
March 28, 2004, to July 27, 2004	NIST 2710	93.8	101	98.8	NA	NA	98.6	86.4	103	87.2	94.0	98.7
August 20, 2004, to June 15, 2005	SO-2	104	NA	106	105	NA	115	NA	107	89.4	97.0	NA
August 20, 2004, to June 15, 2005	SO-4	83.9	96.0	109	103	71.4	109	90.3	101	82.8	92.3	100
August 20, 2004, to June 15, 2005	NIST 2710	99.0	103	101	NA	NA	98.6	100	98.3	89.7	90.0	96.6
July 9, 2005, to December 25, 2005	SO-2	66.0	NA	105	103	NA	100	NA	117	89.4	97.4	NA
July 9, 2005, to December 25, 2005	SO-4	82.3	98.7	112	95.2	71.4	109	90.3	104	81.3	95.2	95.2
July 9, 2005, to December 25, 2005	NIST 2710	96.4	107	104	NA	NA	101	105	110	84.6	94.0	101
January 17, 2006, to September 27, 2006	SO-2	56.6	NA	100	100	100	107	NA	104	102	94.7	NA
January 17, 2006, to September 27, 2006	SO-4	80.6	98.7	109	95.2	71.4	109	104	96.3	84.1	95.2	105
January 17, 2006, to September 27, 2006	NIST 2710	97.1	105	100	NA	NA	98.2	97.2	105	92.8	94.0	94.9
March 25, 2007, to July 29, 2007	SO-2	47.5	NA	106	103	NA	112	NA	105	87.0	98.7	NA
March 25, 2007, to July 29, 2007	SO-4	75.8	97.3	114	103	50.0	115.0	93.8	102	79.4	96.1	105
March 25, 2007, to July 29, 2007	NIST 2710	92.7	102	101	NA	NA	98.6	98.1	104	83.1	94.0	98.0
August 9, 2007, to February 12, 2008	SO-2	66.0	NA	103	110	100	76.9	NA	109	148	100	NA
August 9, 2007, to February 12, 2008	SO-4	77.4	97.3	109	111	71.4	118	90.3	96.3	91.4	96.1	105
August 9, 2007, to February 12, 2008	NIST 2710	90.1	97.9	99.0	NA	NA	96.3	100	99.1	103	93.0	98.0
March 7, 2008, to August 10, 2008	SO-2	100	NA	103	100	100	108	NA	111	82.1	94.7	NA
March 7, 2008, to August 10, 2008	SO-4	56.5	93.2	108	103	71.4	112	90.3	96.3	80.9	95.2	105
March 7, 2008, to August 10, 2008	NIST 2710	94.0	101	100	NA	NA	98.2	105	100	84.4	91.0	104
August 22, 2008, to February 6, 2009	SO-2	100	NA	103	115	100	108	NA	106	92.7	104	NA
August 22, 2008, to February 6, 2009	SO-4	64.5	96.0	108	103	100	103	93.7	92.6	81.3	96.1	105
August 22, 2008, to February 6, 2009	NIST 2710	93.2	103	97.5	NA	NA	95.0	105	96.5	85.6	94.0	103
February 18, 2009, to July 24, 2009	SO-2	100	NA	109	110	100	108	NA	105	93.5	98.7	NA
February 18, 2009, to July 24, 2009	SO-4	46.8	103	115	103	71.4	118	93.8	96.3	82.7	95.2	105
February 18, 2009, to July 24, 2009	NIST 2710	94.3	101	103	NA	NA	99.5	98.1	96.5	82.6	90.0	95.9

Table B6A. U.S. Geological Survey Geologic Division Laboratory quality-control recovery results for metals from laboratory reagent-spike recoveries for the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued[All values are reported as percentages. **Abbreviations:** NA, not analyzed; NIST, National Institute of Standards and Technology]

Time frame	Reference type	Gallium	Iron	Lanthanum	Lead	Lithium	Manganese	Molybdenum	Nickel	Niobium	Phosphorus
November 17, 2003, to March 16, 2004	SO-2	104	100	109	87.5	122	97.8	NA	NA	NA	110
November 17, 2003, to March 16, 2004	SO-4	115	105	104	96.4	124	104	NA	95.8	130	114
November 17, 2003, to March 16, 2004	NIST 2710	103	104	97.1	99.1	NA	103	100	90.9	NA	98.1
March 28, 2004, to July 27, 2004	SO-2	102	95.5	103	96.5	122	95.9	NA	NA	NA	106
March 28, 2004, to July 27, 2004	SO-4	111	101	107	132	124	103	NA	89.6	135	111
March 28, 2004, to July 27, 2004	NIST 2710	101	102	91.2	94.0	NA	103	94.7	90.9	NA	96.7
August 20, 2004, to June 15, 2005	SO-2	104	96.3	108	91.0	112	95.8	NA	NA	NA	112
August 20, 2004, to June 15, 2005	SO-4	111	96.2	104	96.0	118	97.3	NA	88.3	130	110
August 20, 2004, to June 15, 2005	NIST 2710	100	96.7	88.2	95.8	NA	97.7	94.7	94.4	NA	94.3
July 9, 2005, to December 25, 2005	SO-2	104	99.4	118	91.5	93.3	98.6	NA	NA	NA	110
July 9, 2005, to December 25, 2005	SO-4	115	100	107	95.0	102	99.0	NA	92.5	113	109
July 9, 2005, to December 25, 2005	NIST 2710	104	102	100	102	NA	102	100	91.6	NA	95.3
January 17, 2006, to September 27, 2006	SO-2	100	97.1	107	88.0	120	95.7	NA	NA	NA	107
January 17, 2006, to September 27, 2006	SO-4	115	101	100	98.6	128	101	NA	92.9	120	111
January 17, 2006, to September 27, 2006	NIST 2710	106	102	97.1	96.9	NA	103	94.7	91.6	NA	98.1
March 25, 2007, to July 29, 2007	SO-2	104	97.4	109	89.5	126	99.0	NA	NA	NA	111
March 25, 2007, to July 29, 2007	SO-4	115	102	104	99.3	133	105	NA	92.9	80.0	115
March 25, 2007, to July 29, 2007	NIST 2710	103	100	94.1	94.9	NA	101	89.5	90.9	NA	96.2
August 9, 2007, to February 12, 2008	SO-2	104	101	109	88.5	117	89.9	NA	NA	NA	111
August 9, 2007, to February 12, 2008	SO-4	115	103	104	99.3	124	103	NA	92.5	115	111
August 9, 2007, to February 12, 2008	NIST 2710	101	102	92.7	97.5	NA	101	94.7	91.6	NA	96.2
March 7, 2008, to August 10, 2008	SO-2	106	98.0	108	90.5	100	95.3	NA	NA	NA	107
March 7, 2008, to August 10, 2008	SO-4	115	100	100	99.3	116	101	NA	92.5	99.0	106
March 7, 2008, to August 10, 2008	NIST 2710	101	101	92.7	103	NA	101	97.4	90.0	NA	92.9
August 22, 2008, to February 6, 2009	SO-2	108	105	104	92.5	117	105	NA	NA	NA	107
August 22, 2008, to February 6, 2009	SO-4	101	100	98.1	97.1	109	100	NA	92.9	88.0	113
August 22, 2008, to February 6, 2009	NIST 2710	101	103	89.7	101	NA	102	94.7	90.9	NA	99.1
February 18, 2009, to July 24, 2009	SO-2	108	101	111	91.0	131	98.3	NA	NA	NA	114
February 18, 2009, to July 24, 2009	SO-4	115	102	104	101	126	97.7	NA	93.7	94.0	111
February 18, 2009, to July 24, 2009	NIST 2710	100	98.5	91.2	95.8	NA	95.5	94.7	89.5	NA	94.3

Table B6A. U.S. Geological Survey Geologic Division Laboratory quality-control recovery results for metals from laboratory reagent-spike recoveries for the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued[All values are reported as percentages. **Abbreviations:** NA, not analyzed; NIST, National Institute of Standards and Technology]

Time frame	Reference type	Rubidium	Scandium	Silver	Strontium	Thallium	Thorium	Titanium	Uranium	Vanadium	Yttrium	Zinc
November 17, 2003, to March 16, 2004	SO-2	84.4	106	NA	101	86.2	87.2	127	71.4	96.7	115	102
November 17, 2003, to March 16, 2004	SO-4	91.3	107	NA	98.2	NA	90.5	92.4	84.0	104	90.9	102
November 17, 2003, to March 16, 2004	NIST 2710	100	111	NA	99.1	100	118	120	113	101	104	97.5
March 28, 2004, to July 27, 2004	SO-2	83.8	106	NA	94.3	103	85.9	110	71.4	95.8	107	109
March 28, 2004, to July 27, 2004	SO-4	90.0	107	NA	97.0	NA	98.2	93.2	84.0	104	90.9	103
March 28, 2004, to July 27, 2004	NIST 2710	99.2	111	NA	99.4	108	117	107	106	102	100	91.8
August 20, 2004, to June 15, 2005	SO-2	87.0	107	NA	102	84.5	108	107	74.5	93.7	113	104
August 20, 2004, to June 15, 2005	SO-4	89.8	104	NA	97.6	NA	96.4	85.6	84.0	96.7	86.4	97.8
August 20, 2004, to June 15, 2005	NIST 2710	99.2	105	108	97.0	100	110	99.3	101	94.4	100	97.9
July 9, 2005, to December 25, 2005	SO-2	85.7	108	NA	104	84.5	113	115	76.5	95.0	114	103
July 9, 2005, to December 25, 2005	SO-4	89.9	103	NA	98.8	NA	98.8	88.8	88.2	101	90.9	96.8
July 9, 2005, to December 25, 2005	NIST 2710	104	108	109	102	100	118	105	108	99.5	104	102
January 17, 2006, to September 27, 2006	SO-2	84.4	107	NA	99.1	77.6	84.6	99.0	79.6	93.8	109	99.2
January 17, 2006, to September 27, 2006	SO-4	91.3	105	NA	98.2	NA	89.3	82.9	79.8	101	90.9	101
January 17, 2006, to September 27, 2006	NIST 2710	101	111	107	98.8	100	108	101	100	99.3	100	97.7
March 25, 2007, to July 29, 2007	SO-2	85.7	109	NA	130	81.0	89.7	97.9	72.4	93.2	113	105
March 25, 2007, to July 29, 2007	SO-4	94.2	108	NA	100	NA	92.9	76.5	79.8	102	86.4	102
March 25, 2007, to July 29, 2007	NIST 2710	101	111	105	101	100	105	92.9	96.0	96.3	100	99.6
August 9, 2007, to February 12, 2008	SO-2	85.7	107	NA	102	86.2	100	113	73.5	97.0	110	104
August 9, 2007, to February 12, 2008	SO-4	92.0	105	NA	98.2	NA	95.2	81.8	88.2	102	86.4	101
August 9, 2007, to February 12, 2008	NIST 2710	99.2	108	98.3	97.9	100	111	101	103	99.0	95.7	98.1
March 7, 2008, to August 10, 2008	SO-2	85.7	104	NA	103	86.2	108	111	74.5	94.2	113	100
March 7, 2008, to August 10, 2008	SO-4	92.0	100	NA	101	NA	95.2	81.2	88.2	100	88.6	103
March 7, 2008, to August 10, 2008	NIST 2710	102	106	101	101	100	110	99.3	100	98.0	104	103
August 22, 2008, to February 6, 2009	SO-2	85.1	115	NA	103	86.2	94.9	111	72.5	102	113	110
August 22, 2008, to February 6, 2009	SO-4	89.9	105	NA	97.6	NA	95.2	75.9	79.8	101	88.6	102
August 22, 2008, to February 6, 2009	NIST 2710	100	109	98.6	98.9	100	105	94.3	94.8	99.1	100	104
February 18, 2009, to July 24, 2009	SO-2	85.7	110	NA	103	86.2	103	108	72.5	98.3	115	105
February 18, 2009, to July 24, 2009	SO-4	94.2	102	NA	99.4	NA	100	81.5	79.8	102	90.9	103
February 18, 2009, to July 24, 2009	NIST 2710	97.5	104	105	96.7	115	118	96.8	104	96.5	104	95.5

Table B6B. U.S. Geological Survey Geologic Division Laboratory quality-control replicate results for metals from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[The site-identification number for field blank is 32414117001601. All values are reported as nanograms per cubic meter (ng/m³). **Abbreviations:** LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Time frame	Lot number	Type	Antimony		Arsenic	Barium	Beryllium	Bismuth	Cadmium	Caesium	Cerium	Chromium	Cobalt	Copper
			[LRL]	[0.004]										
November 17, 2003, to March 16, 2004	54051	Laboratory blank	0.008	—	18.2	0.004	—	0.010	—	0.21	0.96	0.08	0.2	
	54051	Laboratory blank replicate	0.006	—	17.9	0.004	—	0.010	—	0.21	0.86	0.05	0.2	
March 28, 2004, to July 27, 2004	90QSWR022	Field blank July 5, 2004	0.020	—	20.4	0.003	—	0.010	—	0.23	1.00	0.70	0.5	
August 20, 2004, to June 15, 2005	54051	Laboratory blank	0.016	—	20.2	0.003	—	0.013	0.001	0.21	0.97	0.09	0.2	
July 9, 2005, to December 25, 2005	54051	Laboratory blank	1.6	—	19.7	0.005	—	0.043	—	0.24	1.02	0.10	0.3	
January 17, 2006, to September 27, 2006	R4BN85871	Laboratory blank	0.022	—	6.5	0.005	—	0.012	—	0.21	1.54	0.37	0.2	
October 9, 2006, to March 14, 2007	R4BN85871	Laboratory blank	0.023	—	6.2	0.003	—	0.018	—	0.24	1.4	0.06	—	
March 25, 2007, to July 29, 2007	R4BN85871	Laboratory blank	0.026	—	5.6	0.007	—	0.015	—	0.23	1.25	0.04	0.2	
August 9, 2007, to February 12, 2008	R4BN85871	Laboratory blank	0.020	—	5.2	0.004	—	0.015	0.001	0.23	1.95	0.02	0.4	
March 7, 2008, to August 10, 2008	R4BN85871	Laboratory blank	0.014	—	5.6	0.004	—	0.011	—	0.23	1.26	0.02	0.2	
August 22, 2008, to February 6, 2009	R4BN85871	Laboratory blank	0.025	—	5.5	0.006	—	0.012	0.001	0.24	1.18	0.02	0.2	
February 18, 2009, to July 24, 2009	R8DN68842	Laboratory blank	—	—	10.2	0.005	—	0.011	0.001	0.12	0.74	0.01	0.2	

Table B6B. U.S. Geological Survey Geologic Division Laboratory quality-control replicate results for metals from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number for field blank is 32414117001601. All values are reported as nanograms per cubic meter (ng/m³). **Abbreviations:** LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Time frame	Lot number	Type	Gallium		Iron	Lanthanum	Lead	Lithium	Manganese	Molybdenum	Nickel	Niobium	Phosphorus
			[LRL]	[0.002]									
November 17, 2003, to March 16, 2004	54051	Laboratory blank		0.02	17	0.12	0.11	—	0.51	7.2	0.40	0.04	1.3
November 17, 2003 to March 16, 2004	54051	Laboratory blank replicate		0.02	16	0.12	0.11	—	0.50	7.2	0.40	0.02	1.4
March 28, 2004, to July 27, 2004	90QSWR022	Field blank July 5, 2004		0.02	24	0.12	0.14	—	0.68	7.8	0.60	—	2.0
August 20, 2004, to June 15, 2005	54051	Laboratory blank		0.02	18	0.11	0.12	—	0.50	7.6	0.32	0.08	2.7
July 9, 2005, to December 25, 2005	54051	Laboratory blank		0.02	26	0.13	0.22	—	—	7.5	0.50	—	2.2
January 17, 2006, to September 27, 2006	R4BN85871	Laboratory blank		0.02	20	0.12	0.12	—	0.64	7.8	0.56	—	0.6
October 9, 2006, to March 14, 2007	R4BN85871	Laboratory blank		0.02	18	0.13	0.11	—	0.60	7.7	0.43	—	1.3
March 25, 2007, to July 29, 2007	R4BN85871	Laboratory blank		0.02	22	0.12	0.12	0.11	0.60	7.6	0.44	—	2.9
August 9, 2007, to February 12, 2008	R4BN85871	Laboratory blank		0.02	19	0.13	0.36	—	1.2	8.1	0.42	0.04	3.1
March 7, 2008, to August 10, 2008	R4BN85871	Laboratory blank		0.02	30	0.13	0.12	0.12	0.64	8.3	0.50	—	2.0
August 22, 2008, to February 6, 2009	R4BN85871	Laboratory blank		0.02	18	0.13	0.13	0.04	0.58	8.5	0.45	—	1.8
February 18, 2009, to July 24, 2009	R8DN68842	Laboratory blank		0.02	14	0.06	0.13	—	0.40	8.6	0.30	—	3.2

Table B6B. U.S. Geological Survey Geologic Division Laboratory quality-control replicate results for metals from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[The site-identification number for field blank is 324141117001601. All values are reported as nanograms per cubic meter (ng/m³). **Abbreviations:** LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Time frame	Lot number	Type	Rubidium		Scandium	Silver	Strontium	Thallium	Thorium	Titanium	Uranium	Vanadium	Yttrium	Zinc
			[LRL]	[0.001]	[0.004]	[0.005]	[0.08]	[0.008]	[0.01]	[4]	[0.002]	[0.02]	[0.005]	[0.3]
November 17, 2003, to March 16, 2004	54051	Laboratory blank		0.02	—	—	0.41	—	0.06	—	0.16	0.020	0.33	13.4
November 17, 2003 to March 16, 2004	54051	Laboratory blank replicate		0.02	—	—	0.40	—	0.06	—	0.16	—	0.33	13.2
March 28, 2004, to July 27, 2004	90QSWR022	Field blank July 5, 2004		0.02	—	0.08	0.49	—	0.07	—	0.15	0.040	0.35	14.2
August 20, 2004, to June 15, 2005	54051	Laboratory blank		0.02	0.032	—	0.46	—	0.09	—	0.15	—	0.35	14.3
July 9, 2005, to December 25, 2005	54051	Laboratory blank		0.03	0.009	0.01	0.49	—	0.08	—	0.16	0.048	0.35	14.0
January 17, 2006, to September 27, 2006	R4BN85871	Laboratory blank		0.02	—	0.01	0.41	—	0.07	—	0.14	—	0.32	3.7
October 9, 2006, to March 14, 2007	R4BN85871	Laboratory blank		0.01	—	—	0.40	—	0.04	—	0.14	—	0.32	3.5
March 25, 2007, to July 29, 2007	R4BN85871	Laboratory blank		0.02	0.051	0.01	0.40	—	0.07	—	0.14	0.042	0.33	2.8
August 9, 2007, to February 12, 2008	R4BN85871	Laboratory blank		0.01	0.004	—	0.40	—	0.07	—	0.16	—	0.33	2.4
March 7, 2008, to August 10, 2008	R4BN85871	Laboratory blank		0.01	—	—	0.39	—	0.06	—	0.15	—	0.34	3.2
August 22, 2008, to February 6, 2009	R4BN85871	Laboratory blank		0.02	—	—	0.42	—	0.07	—	0.16	—	0.35	2.9
February 18, 2009, to July 24, 2009	R8DN68842	Laboratory blank		0.01	—	—	0.30	—	0.09	—	0.17	0.015	0.50	4.6

Table B6C. U.S. Geological Survey Geologic Division Laboratory quality-control blank replicate comparison for metals from the Sweetwater Reservoir atmospheric site, San Diego County, California.

[Values are given in percentage difference from laboratory blank. **Abbreviations:** nr, no replicate calculated; —, compound was not detected in laboratory blank or replicate sample at a concentration above laboratory reporting level]

Time frame	Antimony	Arsenic	Barium	Beryllium	Bismuth	Cadmium	Caesium	Cerium	Chromium	Cobalt	Copper
November 17, 2003, to March 16, 2004	75.0	—	98.4	100	—	100	—	100	89.6	62.5	100

Table B6C. U.S. Geological Survey Geologic Division Laboratory quality-control blank replicate comparison for metals from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[Values are given in percentage difference from laboratory blank. **Abbreviations:** nr, no replicate calculated; —, compound was not detected in laboratory blank or replicate sample at a concentration above laboratory reporting level]

Time frame	Gallium	Iron	Lanthanum	Lead	Lithium	Manganese	Molybdenum	Nickel	Niobium	Phosphorus
November 17, 2003, to March 16, 2004	100	94.1	100	100	—	98.0	100	100	50	108

Table B6C. U.S. Geological Survey Geologic Division Laboratory quality-control blank replicate comparison for metals from the Sweetwater Reservoir atmospheric site, San Diego County, California.—Continued

[Values are given in percentage difference from laboratory blank. **Abbreviations:** nr, no replicate calculated; —, compound was not detected in laboratory blank or replicate sample at a concentration above laboratory reporting level]

Time frame	Rubidium	Scandium	Silver	Strontium	Thallium	Thorium	Titanium	Uranium	Vanadium	Yttrium	Zinc
November 17, 2003, to March 16, 2004	100	—	—	97.6	—	100	—	100	nr	100	98.5

Appendix C Tables.

Table C1. Quality-control replicate results for polycyclic aromatic hydrocarbons (PAHs) in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 2506, from the Sweetwater Reservoir watershed, San Diego County, California.

[See table 1 for site-identification number. Time is denoted in 24-hour scale. All values are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. The five-digit data parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; SWR, Sweetwater Reservoir; LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Station name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight, in grams (62597)	Acenaphthene (62549)	Acenaphthylene (62550)	Anthracene (62551)	Benzo[a] anthracene (62552)	Benzo[a] pyrene (62553)	Benzo[b] fluoranthene (62554)	Benzo[e] pyrene (62555)
Sweetwater Reservoir center of minimum pool (SWR03)	10/13/2004	11:41	8.9	—	—	—	—	—	—	160
Loveland Reservoir near dam (LLR01)	08/11/2009	11:46	7.6	—	—	—	—	—	E19	—

Table C1. Quality-control replicate results for polycyclic aromatic hydrocarbons (PAHs) in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 2506, from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. All values are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. The five-digit data parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; SWR, Sweetwater Reservoir; LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Station name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight, in grams (62597)	Benzo[ghi] perylene (62556)	Benzo[k] fluoranthene (62557)	Chrysene (62558)	1,2-Dimethyl- naphthalene (62538)	1,6-Dimethyl- naphthalene (62539)	4H-Cyclopenta[def] phenanthrene (62547)	Dibenzo[a,h] anthracene (62560)
Sweetwater Reservoir center of minimum pool (SWR03)	10/13/2004	11:41	8.9	—	—	—	—	40	—	—
Loveland Reservoir near dam (LLR01)	08/11/2009	11:46	7.6	—	—	E4.9	—	E14	—	—

Table C1. Quality-control replicate results for polycyclic aromatic hydrocarbons (PAHs) in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 2506, from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. All values are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. The five-digit data parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; SWR, Sweetwater Reservoir; LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Station name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight, in grams (62597)	2,6-Dimethyl- naphthalene (62544)	2-Ethyl-naph- thalene (62545)	Fluoranthene (62561)	9H-Fluorene (62548)	Indeno[1,2,3-cd] pyrene (62562)	1-Methyl-9H- fluorene (62540)	2-Methyl- anthracene (62546)
Sweetwater Reservoir center of minimum pool (SWR03)	10/13/2004	11:41	8.9	260	—	20	20	—	—	—
Loveland Reservoir near dam (LLR01)	08/11/2009	11:46	7.6	200	—	E13	—	—	—	—

Table C1. Quality-control replicate results for polycyclic aromatic hydrocarbons (PAHs) in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 2506, from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. All values are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. The five-digit data parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; SWR, Sweetwater Reservoir; LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Station name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight, in grams (62597)	1-Methylphen- anthrene (62541)	1-Methyl- pyrene (62542)	Naphthalene (62563)	Perylene (62565)	Phenanthrene (62566)	Pyrene (62568)	2,3,6-Trimethyl- naphthalene (62543)
Sweetwater Reservoir center of minimum pool (SWR03)	10/13/2004	11:41	8.9	—	—	—	180	—	20	—
Loveland Reservoir near dam (LLR01)	08/11/2009	11:46	7.6	—	—	—	85	E11	E12	—

Table C1. Quality-control replicate results for polycyclic aromatic hydrocarbons (PAHs) in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 2506, from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. All values are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. The five-digit data parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; SWR, Sweetwater Reservoir; LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Station name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight, in grams (62597)	C1-128 Isomers (62569)	C1-178 Isomers (62570)	C1-202 Isomers (62571)	C1-228 Isomers (62572)	C1-252 Isomers (62573)	C2-128 Isomers (62574)	C2-178 Isomers (62575)	C2-202 Isomers (62576)
				[LRL]	[40]	[40]	[30]	[80]	[30]	[30]	[40]
Sweetwater Reservoir center of minimum pool (SWR03)	10/13/2004	11:41	8.9	E100	—	—	—	—	E320	—	—
Loveland Reservoir near dam (LLR01)	08/11/2009	11:46	7.6	E300	E100	—	—	—	E200	—	—

Table C1. Quality-control replicate results for polycyclic aromatic hydrocarbons (PAHs) in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 2506, from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. All values are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. The five-digit data parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; SWR, Sweetwater Reservoir; LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Station name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight, in grams (62597)	C2-228 Isomers (62577)	C2-252 Isomers (62578)	C3-128 Isomers (62579)	C3-178 Isomers (62580)	C3-202 Isomers (62581)	C3-228 Isomers (62582)	C3-252 Isomers (62583)	C4-128 Isomers (62584)
				[LRL]	[40]	[70]	[30]	[30]	[30]	[40]	[50]
Sweetwater Reservoir center of minimum pool (SWR03)	10/13/2004	11:41	8.9	—	—	—	—	—	—	—	—
Loveland Reservoir near dam (LLR01)	08/11/2009	11:46	7.6	—	—	—	—	—	—	—	—

Table C1. Quality-control replicate results for polycyclic aromatic hydrocarbons (PAHs) in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 2506, from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. All values are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. The five-digit data parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; SWR, Sweetwater Reservoir; LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Station name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight, in grams (62597)	C4-178 Isomers (62585)	C4-202 Isomers (62586)	C4-228 Isomers (62587)	C4-252 Isomers (62588)	C5-128 Isomers (62589)	C5-178 Isomers (62590)
				[LRL]	[30]	[40]	[40]	[40]	[40]
Sweetwater Reservoir center of minimum pool (SWR03)	10/13/2004	11:41	8.9	—	—	—	—	—	—
Loveland Reservoir near dam (LLR01)	08/11/2009	11:46	7.6	—	—	—	—	—	—

Table C1. Quality-control replicate results for polycyclic aromatic hydrocarbons (PAHs) in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 2506, from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[See table 1 for site-identification number. Time is denoted in 24-hour scale. All values are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. The five-digit data parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. **Abbreviations:** E, estimated or having a higher degree of uncertainty; hh:mm, hour:minute; mm/dd/yyyy, month/day/year; SWR, Sweetwater Reservoir; LRL, laboratory reporting level; —, compound was not detected at a concentration above the laboratory reporting level]

Station name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight, in grams (62597)	C5-202 Isomers (62591)	C5-228 Isomers (62592)	C5-252 Isomers (62593)	2-Fluorobiphenyl, surrogate, in percent (62594)	Nitrobenzene-d5, surrogate, in percent (62595)	p-Terphenyl-d14, surrogate, in percent (62596)
				[LRL]	[40]	[50]	[50]	[50]	[50]
Sweetwater Reservoir center of minimum pool (SWR03)	10/13/2004	11:41	8.9	—	—	—	65.2	55.8	69.7
Loveland Reservoir near dam (LLR01)	08/11/2009	11:46	7.6	—	—	—	67.2	66.7	71.8

Table C2. Quality-control replicate results for organochlorine (OCs) and polychlorinated biphenyl (PCBs) compounds in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 5504, from the Sweetwater Reservoir watershed, San Diego County, California.

[The site-identification number is 324303116473101. Time is denoted in 24-hour scale. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. All values are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. **Abbreviations:** hh:mm, hour:minute; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Station name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight, in grams (62597)	Aldrin (39333)	Aroclor 1016 plus Aroclor 1242 (46343)		Aroclor 1254 (39507)	Aroclor 1260 (39511)	cis- Chlordane (62802)	trans- Chlordane (62803)	p,p'-DDD (39363)	p,p'-DDE (39368)	p,p'-DDT (39373)
Loveland Reservoir near dam (LLR01)	08/11/2009	11:46	7.6	[LRL]	[6.6]	[17]	[17]	[17]	[3.3]	[1.7]	[8.3]	[5.0]	[3.3]

Table C2. Quality-control replicate results for organochlorine (OCs) and polychlorinated biphenyl (PCBs) compounds in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 5504, from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[The site-identification number is 324303116473101. Time is denoted in 24-hour scale. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. All values are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. **Abbreviations:** hh:mm, hour:minute; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Station name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight, in grams (62597)	Dieldrin (39383)	α -Endosulfan (39389)	Endrin (39393)	α -HCH (39076)	β -HCH (34257)	Heptachlor (39413)	Heptachlor epoxide (39423)	Hexachloro- benzene (39701)
Loveland Reservoir near dam (LLR01)	08/11/2009	11:46	7.6	[LRL]	[1.7]	[1.7]	[5.0]	[1.7]	[3.3]	[5.0]	[9.9]

Table C2. Quality-control replicate results for organochlorine (OCs) and polychlorinated biphenyl (PCBs) compounds in surficial bed sediment, using U.S. Geological Survey National Water Quality Laboratory schedule 5504, from the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[The site-identification number is 324303116473101. Time is denoted in 24-hour scale. The five-digit parameter code in parentheses below each compound name is used in the U.S. Geological Survey computerized data system (National Water Information System) to uniquely identify a specific constituent or property. All values are reported as micrograms per kilogram ($\mu\text{g/kg}$), unless noted. **Abbreviations:** hh:mm, hour:minute; mm/dd/yyyy, month/day/year; LRL, laboratory reporting level; —, compound was not detected at a concentration above laboratory reporting level]

Station name	Date (mm/dd/yyyy)	Time (hh:mm)	Sample weight, in grams (62597)	Lindane (39343)	p,p'- Methoxychlor (39481)	Mirex (39758)	trans- Nonachlor (62804)	Toxaphene (39403)	α -HCH-d ₆ , surrogate, in percent (62837)	Isodrin, surrogate, in percent (62836)	Nonachloro- biphenyl, surrogate, in percent (62838)
Loveland Reservoir near dam (LLR01)	08/11/2009	11:46	7.6	[LRL]	[1.7]	[5.0]	[3.3]	[660]	[62837]	[62836]	[62838]

Table C3A. U.S. Geological Survey Geologic Division Laboratory quality-control matrix-spike results for metals in surficial bed-sediment samples collected in the Sweetwater Reservoir watershed, San Diego County, California.

[All values are reported as micrograms per kilogram (µg/kg), unless noted. **Abbreviations:** mm/dd/yyyy, month/day/year; NA, not analyzed; NIST, National Institute of Standards and Technology; SWR, Sweetwater Reservoir]

Date (mm/dd/yyyy)	Aluminum	Antimony	Arsenic	Barium	Beryllium	Bismuth	Cadmium	Calcium	Cerium	Cesium
10/15/2004	NIST-2709 found	7.4	NA	1,055	3.6	0.26	0.38	20,650	43.2	5.4
10/15/2004	NIST-2709 true	7.9	NA	968	NA	NA	0.38	18,900	42.0	5.3
10/15/2004	Recovery, in percent	94	NA	109	NA	NA	100	109	103	102
10/15/2004	SO-2 found	0.06	NA	1,160	2.1	NA	0.14	20,550	122	0.30
10/15/2004	SO-2 true	0.11	NA	1,000	2.0	0.033	0.13	19,600	112	0.41
10/15/2004	Recovery, in percent	52	NA	116	105	NA	108	105	108	73
10/15/2004	SO-4 found	0.47	NA	788	1.3	0.13	0.38	12,300	56.3	2.7
10/15/2004	SO-4 true	0.71	NA	700	1.26	0.14	0.34	11,000	54.0	2.9
10/15/2004	Recovery, in percent	66	NA	113	103	89	110	112	104	94
08/15/2009	NIST-2709 found	6.9	18.3	963	3.7	0.23	0.45	20,500	42.7	5.2
08/15/2009	NIST-2709 true	7.9	17.7	968	NA	NA	0.38	18,900	42.0	5.3
08/15/2009	Recovery, in percent	87	103	99	NA	NA	118	108	102	98

Table C3A. U.S. Geological Survey Geologic Division Laboratory quality-control matrix-spike results for metals in surficial bed-sediment samples collected in the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[All values are reported as micrograms per kilogram (µg/kg), unless noted. **Abbreviations:** mm/dd/yyyy, month/day/year; NA, not analyzed; NIST, National Institute of Standards and Technology; SWR, Sweetwater Reservoir]

Date (mm/dd/yyyy)	Chromium	Cobalt	Copper	Gallium	Iron	Lanthanum	Lead	Lithium	Magnesium
10/15/2004	NIST-2709 found	13.8	37.0	16.8	37,850	24.4	17.7	52.3	16,450
10/15/2004	NIST-2709 true	13.4	34.6	NA	35,000	23.0	18.9	NA	15,100
10/15/2004	Recovery, in percent	103	107	NA	108	106	93	NA	109
10/15/2004	SO-2 found	7.9	12.0	26.8	58,900	49.2	17.9	10.3	6,000
10/15/2004	SO-2 true	7.6	NA	24.3	55,600	46.5	20.0	9.00	5,400
10/15/2004	Recovery, in percent	104	NA	110	106	106	90	114	111
10/15/2004	SO-4 found	10.6	23.7	12.6	25,700	29.2	13.5	18.6	6,680
10/15/2004	SO-4 true	10.4	21.0	10.7	23,700	28.2	14.0	17.0	5,600
10/15/2004	Recovery, in percent	102	113	117	108	104	96	109	119
08/15/2009	NIST-2709 found	13.4	34.4	15.9	36,900	22.5	17.8	54.2	17,200
08/15/2009	NIST-2709 true	13.4	34.6	NA	35,000	23.0	18.9	NA	15,100
08/15/2009	Recovery, in percent	100	99	NA	105	98	94	NA	114

Table C3A. U.S. Geological Survey Geologic Division Laboratory quality-control matrix-spike results for metals in surficial bed-sediment samples collected in the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[All values are reported as micrograms per kilogram (μg/kg), unless noted. **Abbreviations:** mm/dd/yyyy, month/day/year; NA, not analyzed; NIST, National Institute of Standards and Technology; SWR, Sweetwater Reservoir]

Date (mm/dd/yyyy)		Manganese	Molybdenum	Nickel	Niobium	Phosphorus	Potassium	Rubidium	Scandium	Silver
10/15/2004	NIST-2709 found	588	2.2	87.6	13.5	646	21,750	97.9	12.8	NA
10/15/2004	NIST-2709 true	538	2.0	88.0	NA	620	20,300	96.0	12.0	0.41
10/15/2004	Recovery, in percent	109	108	100	NA	104	107	102	106	NA
10/15/2004	SO-2 found	758	1.7	3.55	38.0	3,440	25,650	66.6	13.2	NA
10/15/2004	SO-2 true	720	NA	NA	22.0	3,010	24,500	77.0	11.3	NA
10/15/2004	Recovery, in percent	105	NA	NA	173	114	105	86	116	NA
10/15/2004	SO-4 found	656	0.81	24.4	12.0	1,100	19,000	64.2	9.50	NA
10/15/2004	SO-4 true	600	NA	24.0	10.0	900	17,300	69.0	8.40	NA
10/15/2004	Recovery, in percent	109	NA	101	120	122	110	93	113	NA
08/15/2009	NIST-2709 found	556	1.8	83.2	11	703	20,900	91.9	12.8	NA
08/15/2009	NIST-2709 true	538	2.0	88.0	NA	620	20,300	96.0	12.0	NA
08/15/2009	Recovery, in percent	103	90	95	NA	113	103	96	107	NA

Table C3A. U.S. Geological Survey Geologic Division Laboratory quality-control matrix-spike results for metals in surficial bed-sediment samples collected in the Sweetwater Reservoir watershed, San Diego County, California.—Continued

[All values are reported as micrograms per kilogram (μg/kg), unless noted. **Abbreviations:** mm/dd/yyyy, month/day/year; NA, not analyzed; NIST, National Institute of Standards and Technology; SWR, Sweetwater Reservoir]

Date (mm/dd/yyyy)		Sodium	Strontium	Thallium	Thorium	Titanium	Uranium	Vanadium	Yttrium	Zinc
10/15/2004	NIST-2709 found	11,800	245	0.66	10.9	4,040	2.85	121	19.9	114
10/15/2004	NIST-2709 true	11,600	231	0.74	11.0	3,420	3.00	112	18.0	106
10/15/2004	Recovery, in percent	102	106	89	99	118	95	108	110	107
10/15/2004	SO-2 found	19,400	363	0.48	3.56	10,340	0.68	59.9	47.7	141
10/15/2004	SO-2 true	19,000	331	0.58	3.80	8,600	0.98	57.0	40.0	123
10/15/2004	Recovery, in percent	102	110	83	94	120	69	105	119	115
10/15/2004	SO-4 found	11,150	178	0.50	7.87	3,360	1.91	89.3	20.1	103
10/15/2004	SO-4 true	10,000	168	NA	8.60	3,400	2.24	85.0	22.0	94.0
10/15/2004	Recovery, in percent	112	106	NA	92	99	85	105	91	109
08/15/2009	NIST-2709 found	11,900	232	0.64	10.8	3,630	2.95	119	17	121
08/15/2009	NIST-2709 true	11,600	231	0.74	11.0	3,420	3.0	112	18.0	106
08/15/2009	Recovery, in percent	103	100	86	98	106	98	106	94	114

Table C3B. U.S. Geological Survey Geologic Division Laboratory quality-control replicate results for metals in surficial bed-sediment samples collected in the Sweetwater Reservoir, San Diego County, California.

[See table 1 for site-identification number. All values are reported as micrograms per kilogram (µg/kg), unless noted. **Abbreviations:** hh:mm, hour:minute; mm/dd/yyyy, month/day/year; SWR, Sweetwater Reservoir; —, compound was not detected at a concentration above the laboratory reporting level; LRL, laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Aluminum [50] [LRL]	Antimony [0.04] [0.03]	Barium [0.2] 498	Beryllium [0.03] 1.2	Bismuth [0.06] 0.07	Cadmium [0.007] 0.15	Calcium [100] 39,400	Cerium [0.1] 46.6	Cesium [0.003] 4.0
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	12:21	92,600	0.30	498	1.2	0.07	0.15	39,400	46.6	4.0
Sweetwater Reservoir near pump tower (SWR01)	08/10/2009	12:46	19,300	0.98	498	0.34	—	0.06	26,000	13.3	0.91

Table C3B. U.S. Geological Survey Geologic Division Laboratory quality-control replicate results for metals in surficial bed-sediment samples collected in the Sweetwater Reservoir, San Diego County, California.—Continued

[See table 1 for site-identification number. All values are reported as micrograms per kilogram (µg/kg), unless noted. **Abbreviations:** hh:mm, hour:minute; mm/dd/yyyy, month/day/year; SWR, Sweetwater Reservoir; —, compound was not detected at a concentration above the laboratory reporting level; LRL, laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Chromium [0.5] [LRL]	Cobalt [0.03] [0.02]	Copper [2] 29.8	Gallium [0.02] 18.8	Iron [50] 63,300	Lanthanum [0.05] 24.4	Lead [0.4] 9.59	Lithium [0.3] 24.0	Magnesium [6] 23,000
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	12:21	69.6	23.4	29.8	18.8	63,300	24.4	9.59	24.0	23,000
Sweetwater Reservoir near pump tower (SWR01)	08/10/2009	12:46	80.7	13.9	198	6.1	209,000	6.9	7.68	12.9	3,800

Table C3B. U.S. Geological Survey Geologic Division Laboratory quality-control replicate results for metals in surficial bed-sediment samples collected in the Sweetwater Reservoir, San Diego County, California.—Continued

[See table 1 for site-identification number. All values are reported as micrograms per kilogram ($\mu\text{g}/\text{kg}$), unless noted. **Abbreviations:** hh:mm, hour:minute; mm/dd/yyyy, month/day/year; SWR, Sweetwater Reservoir; —, compound was not detected at a concentration above the laboratory reporting level; LRL, laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Manganese [LRL]	Molybdenum [0.05]	Nickel [0.3]	Niobium [0.1]	Phosphorus [5]	Potassium [20]	Rubidium [0.01]	Scandium [0.04]	Silver [2]
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	12:21	1,330	0.57	17.7	12.0	386	14,900	72.3	31.0	—
Sweetwater Reservoir near pump tower (SWR01)	08/10/2009	12:46	5,010	3.0	32.0	2.6	2,890	2,460	14.0	5.0	—

Table C3B. U.S. Geological Survey Geologic Division Laboratory quality-control replicate results for metals in surficial bed-sediment samples collected in the Sweetwater Reservoir, San Diego County, California.—Continued

[See table 1 for site-identification number. All values are reported as micrograms per kilogram ($\mu\text{g}/\text{kg}$), unless noted. **Abbreviations:** hh:mm, hour:minute; mm/dd/yyyy, month/day/year; SWR, Sweetwater Reservoir; —, compound was not detected at a concentration above the laboratory reporting level; LRL, laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Time (hh:mm)	Sodium [LRL]	Strontium [0.8]	Thallium [0.08]	Thorium [0.1]	Titanium [40]	Uranium [0.02]	Vanadium [0.2]	Yttrium [0.05]	Zinc [3]
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	12:21	19,800	248	0.54	6.80	7,820	1.55	201	37.9	113
Sweetwater Reservoir near pump tower (SWR01)	08/10/2009	12:46	3,040	178	2.31	1,190	0.16	13.6	341	10.5	40.9

Table C3C. U.S. Geological Survey Geologic Division Laboratory quality-control replicate comparison for metals in surficial bed-sediment samples collected in the Sweetwater Reservoir, San Diego County, California.

[See table I for site-identification number. Values are given in percentage difference from environmental sample. **Abbreviations:** mm/dd/yyyy, month/day/year; nr, no replicate calculated; —, compound was not detected in environmental or replicate sample at a concentration above the laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Aluminum	Antimony	Barium	Beryllium	Bismuth	Cadmium	Calcium	Cerium	Cesium
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	102	130	102	109	100	107	103	113	103
Sweetwater Reservoir near pump tower (SWR01)	08/10/2009	97.0	108	107	58.6	nr	85.7	102	97.1	96.8

Table C3C. U.S. Geological Survey Geologic Division Laboratory quality-control replicate comparison for metals in surficial bed-sediment samples collected in the Sweetwater Reservoir, San Diego County, California.—Continued

[See table I for site-identification number. Values are given in percentage difference from environmental sample. **Abbreviations:** mm/dd/yyyy, month/day/year; nr, no replicate calculated; —, compound was not detected in environmental or replicate sample at a concentration above the laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Chromium	Cobalt	Copper	Gallium	Iron	Lanthanum	Lead	Lithium	Magnesium
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	107	107	114	103	107	113	98.7	112	106
Sweetwater Reservoir near pump tower (SWR01)	08/10/2009	103	101	100	100	102	97.2	98.2	99.2	97.9

Table C3C. U.S. Geological Survey Geologic Division Laboratory quality-control replicate comparison for metals in surficial bed-sediment samples collected in the Sweetwater Reservoir, San Diego County, California.—Continued

[See table I for site-identification number. Values are given in percentage difference from environmental sample. **Abbreviations:** mm/dd/yyyy, month/day/year; nr, no replicate calculated; —, compound was not detected in environmental or replicate sample at a concentration above the laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Manganese	Molybdenum	Nickel	Niobium	Phosphorus	Potassium	Rubidium	Scandium	Silver
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	111	112	111	109	112	101	105	108	—
Sweetwater Reservoir near pump tower (SWR01)	08/10/2009	110	96.8	105	100	104	98.0	96.6	96.2	—

Table C3C. U.S. Geological Survey Geologic Division Laboratory quality-control replicate comparison for metals in surficial bed-sediment samples collected in the Sweetwater Reservoir, San Diego County, California.—Continued

[See table I for site-identification number. Values are given in percentage difference from environmental sample. **Abbreviations:** mm/dd/yyyy, month/day/year; nr, no replicate calculated; —, compound was not detected in environmental or replicate sample at a concentration above the laboratory reporting level]

Site name	Date (mm/dd/yyyy)	Sodium	Strontium	Thallium	Thorium	Titanium	Uranium	Vanadium	Yttrium	Zinc
Sweetwater Reservoir east-end reservoir-fill boundary (SWR06)	10/13/2004	97.5	103	102	105	109	112	117	111	107
Sweetwater Reservoir near pump tower (SWR01)	08/10/2009	102	105	91.7	97.5	100	101	101	98.1	103

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