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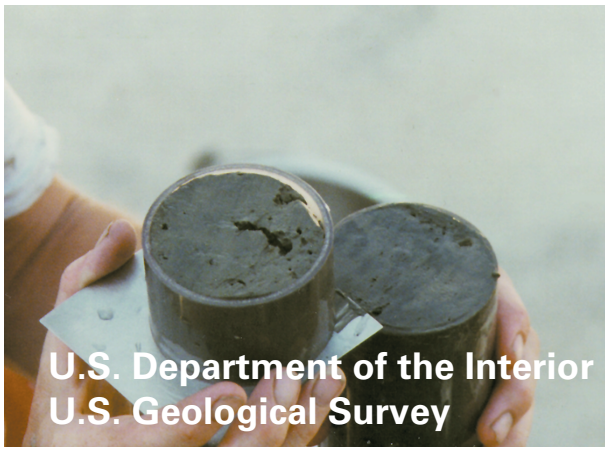
Chemical Data for Bottom Sediment in Mountain Creek Lake, Dallas, Texas, 1999–2000

Open-File Report 02–053



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U.S. Geological Survey pontoon coring boat (photograph by Kenneth J. Covay, U.S. Geological Survey).

U.S. Geological Survey employee slicing a sediment core (photograph by C.E. Ranzau, U.S. Geological Survey).

U.S. Geological Survey digital orthophoto quarter quadrangle, Duncanville NW, Texas, 7 1/2 minute series.

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By Jennifer T. Wilson

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Naval Facilities Engineering Command

Austin, Texas
2002

U.S. DEPARTMENT OF THE INTERIOR

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ABBREVIATIONS

cm, centimeter
CRM, certified reference material
Cr-VI, hexavalent chromium
^{137}Cs, cesium-137
dup, duplicate
g/cm^2-yr, grams per square centimeter per year
ICP/MS, inductively coupled plasma-mass spectrometry
m, meter
MAR, mass accumulation rate
NAS, Naval Air Station
NWIRP, Naval Weapons Industrial Reserve Plant
NWQL, National Water-Quality Laboratory
PAH, polycyclic aromatic hydrocarbon
PCB, polychlorinated biphenyl
pCi/g, picocuries per gram
2–σ, 2–sigma
SOUTHDIV, Southern Division Naval Facilities Engineering Command
USGS, U.S. Geological Survey

Chemical Data for Bottom Sediment in Mountain Creek Lake, Dallas, Texas, 1999–2000

By Jennifer T. Wilson

Abstract

Mountain Creek Lake is a reservoir adjacent to the Naval Weapons Industrial Reserve Plant and the former Naval Air Station in Dallas, Texas. The U.S. Geological Survey began studies of water, sediment, and biota in the reservoir in 1994 after a Resource Conservation and Recovery Act Facility Investigation detected concentrations of organic chemicals on both facilities. Additional reservoir bottom sediment samples were collected during December 1999–January 2000 at the request of the Southern Division Naval Facilities Engineering Command to further define the occurrence and distribution of selected constituents and to supplement available data. The U.S. Geological Survey National Water Quality Laboratory analyzed bottom-sediment samples from 16 box cores and 5 gravity cores for major and trace elements, organochlorine pesticides, polychlorinated biphenyls, polycyclic aromatic hydrocarbons, grain size, and cesium-137.

INTRODUCTION

Mountain Creek Lake is a reservoir on Mountain Creek in Dallas, Tex. The Naval Weapons Industrial Reserve Plant (NWIRP) and former Naval Air Station (NAS) are located on the northern shores of the reservoir (fig. 1). A Resource Conservation and Recovery Act Facility Investigation at the NWIRP conducted by the Southern Division Naval Facilities Engineering Command (SOUTHDIV) indicated detections of concentrations of organic chemicals (EnSafe/Allen & Hoshall, 1994, 1996). Because of concern for offsite contamination (Jeffrey James, EnSafe, written commun., 1994, 1996, and 1997), SOUTHDIV requested that the U.S. Geological Survey (USGS) determine if selected constituents could be detected in Mountain Creek Lake and adjacent streams.

Runoff from the Mountain Creek drainage area, which includes the NWIRP and former NAS, and atmospheric fallout are two potential contaminant pathways to the lake for hydrophobic compounds, or compounds with low aqueous solubilities. The major constituents of concern in the lake sediment are trace elements (especially chromium, lead, and zinc), polychlorinated biphenyls (PCBs), and polycyclic aromatic hydrocarbons (PAHs). Trace elements, PCBs, and PAHs have been detected in the sediment of two lagoons on the NWIRP, and PCBs and PAHs have been detected in soils on the NAS (Jeffrey James, EnSafe, written commun., 1994, 1996, and 1997).

The USGS collected bottom-sediment, lake water, bottom-sediment pore water, and fish samples in Mountain Creek Lake and bottom-sediment samples from streams near the lake in Phase I of their studies beginning in June 1994. Analytical results from Phase I samples led to an expansion of the study and additional collection of bottom-sediment and fish samples in Mountain Creek Lake and bottom-sediment samples from nearby streams during June 1995–August 1996 (Phase II). The analytical results from Phases I and II, including volatile and semivolatile organic compounds, organochlorine pesticides, PCBs, nutrients, grain size, and cesium-137 (^{137}Cs), are presented in Jones and others (1997). Results of stormwater runoff monitoring on the NWIRP and NAS from a related USGS study are presented in Raines and others (1997). SOUTHDIV requested that the USGS collect bottom-sediment samples in Mountain Creek Lake a third time (Phase III) to further define the occurrence of selected constituents and to supplement available data. Phase III samples were collected during December 1999–January 2000.

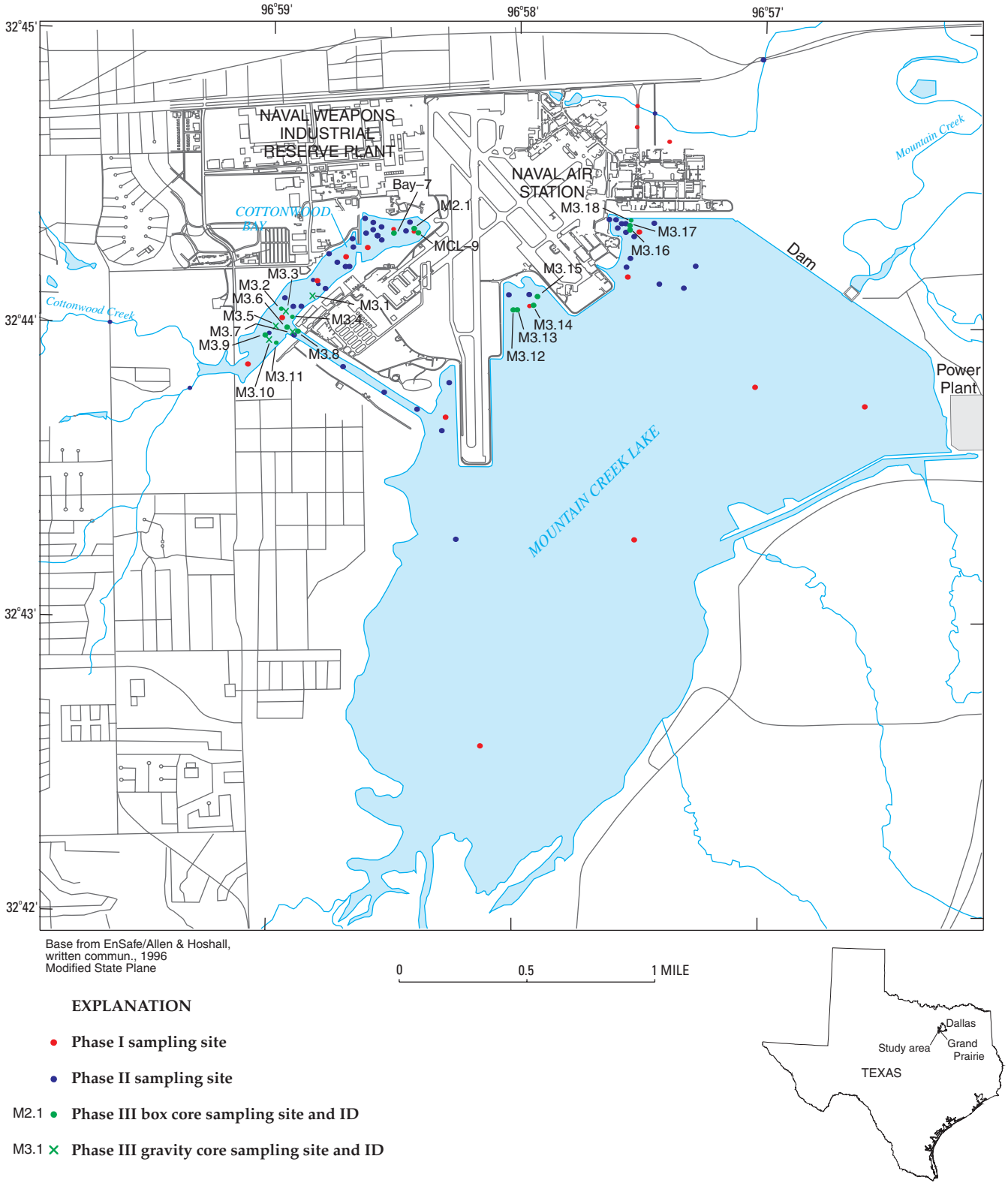


Figure 1. Location of the study area and approximate sampling locations in Mountain Creek Lake, Dallas, Texas.

Purpose and Scope

This report presents the chemical data from the analysis of reservoir bottom sediment collected from Mountain Creek Lake during Phase III. Sixteen surficial sediment samples were collected with a box corer and analyzed for selected major and trace elements, organochlorine pesticides, PCBs, PAHs, and grain size. Five gravity cores were collected to describe the temporal changes in selected constituents. Gravity core sediment samples were analyzed for major and trace elements, organochlorine pesticides, PCBs, PAHs, grain size, and ^{137}Cs (for dating purposes). Quality-control data for major and trace element, organochlorine pesticide, PCB, and PAH analyses are included. Not all constituents were analyzed in every sample from every site.

Study Area

Mountain Creek Lake is located in the cities of Dallas and Grand Prairie in north-central Texas (fig. 1). The reservoir was constructed in 1928 as a source of cooling water for a power plant of Texas Utilities, which owns and operates the reservoir. The NWIRP to the northwest of Mountain Creek Lake began operations on its 314-acre facility in 1941 as a military and commercial aircraft manufacturer. The NAS to the northeast of Mountain Creek Lake covers 837 acres and began operation in 1928 as Hensley Field. The NAS was closed at the end of 1998.

Acknowledgments

The personnel in the Organic Chemistry Program, USGS National Water Quality Laboratory (NWQL) and the Branch of Geochemistry, USGS Geologic Division, are acknowledged for their timely analysis of the samples collected at Mountain Creek Lake during Phase III.

CHEMICAL DATA

Collection of Bottom-Sediment Samples

Bottom-sediment samples were collected from 13 sites during December 7–8, 1999, and 8 sites during January 4–6, 2000. Three of these sites are in the upper (eastern) part of Cottonwood Bay, and 11 are in the lower (western) part of Cottonwood Bay located between the NWIRP and NAS (fig. 1). The seven remaining sites are in the main part of Mountain Creek Lake near the NAS shore. EnSafe, Inc. (formerly EnSafe/Allen & Hoshall) selected the Phase III sampling locations primarily to supplement data from earlier sampling efforts. The three sites in the upper part of Cottonwood Bay (MCL–9, BAY–7, and M2.1) were sampled during either Phase I or Phase II of this study while the other 18 sites are previously unsampled locations.

Bottom sediments were collected using two techniques. The first technique involved collecting a 15-centimeter (cm) deep core using a 14- by 14- by 21-cm Wildco box corer. Box cores were collected at 16 sites (fig. 1). The maximum thickness or depth of sediment was retained (table 1, at end of report) at any sampling site where less than 15 cm of bottom sediment was present.

Sediment collected by box core was transferred to a stainless steel bucket, homogenized with a Teflon spoon, and distributed into sample jars immediately after collection. Three samples were collected from each box core—one sample for major and trace element analysis; one sample for organic compound analysis (including organochlorine pesticides, PCBs, and PAHs); and one sample for hexavalent chromium (Cr-VI) analysis. All samples were stored on ice immediately after collection. The samples for Cr-VI analysis were shipped overnight to Savannah Laboratories and Environmental Services, Inc., Savannah, Ga., each evening after collection.

The second technique involved collecting sediment cores using a Benthos gravity corer with a 6-cm diameter and 3.1-meter (m) long barrel. Gravity cores were collected from five sites (fig. 1) and retained in their core liners until subsampled. The gravity cores were extruded from their core liners and described for color, texture, and odor (table 2, at end of report). First, a portion of the top 15 cm of each gravity core was subsampled and homogenized for Cr-VI analysis. The gravity cores were then subsampled on a smaller interval over the entire length for major and trace element and organic compound analyses. Gravity core M3.1 was subsampled on a 7.5-cm interval from 0 to 15 cm and subsampled on a 7-cm interval from below 15 cm to the bottom of the core. Gravity core M3.3 was subsampled on a 5-cm interval from 0 to 30 cm and subsampled on an 8-cm interval from below 30 cm to the bottom of the core. Gravity core M3.5 was subsampled on a 7.5-cm interval from 0 to 15 cm, subsampled on a 7-cm interval from below 15 cm to 64 cm, and subsampled on a 10-cm interval from below 64 cm to the bottom of the core. Gravity core M3.7 was subsampled on a 5-cm interval over the entire length of the core. Gravity core M3.10

was subsampled on a 7.5-cm interval from 0 to 15 cm and subsampled on a 10-cm interval from below 15 to 75 cm, with a 7-cm subsample at the bottom of the core. Not all subsamples were analyzed for all constituents.

Tables 3–6 and 7–11 (at end of report) list sample depths for the box core sediment samples and the gravity core sediment samples, respectively.

Analytical Methods and Results

All chemical analyses were performed at the USGS NWQL in Denver, Colo., except for Cr-VI analysis. Cr-VI analysis was performed by Savannah Laboratories and Environmental Services, Inc., and the results were provided directly to SOUTHDIV.

Major and trace element concentrations were determined on concentrated acid-digests (hydrochloric-nitric-perchloric-hydrofluoric acids) using inductively coupled plasma-mass spectrometry (ICP/MS) (Lichte and others, 1987). Tables 3 and 7 list the results of the major and trace element analyses of the 16 box core sediment samples and the 5 gravity cores, respectively. Figure 2 shows chromium concentrations in the surficial sediment samples at all Phase III sampling sites in Mountain Creek Lake. Chromium concentrations relative to sediment deposition date (depth) in the gravity core samples are shown in figure 3.

Samples for organic analyses were extracted using a Soxhlet extractor and organic solvents. Organochlorine pesticide and PCB concentrations were determined in organic solvent extracts using a dual capillary-column gas chromatograph with a dual electron-capture detector (Wershaw and others, 1987; Foreman and others, 1995). PAH compounds were separated, identified, and quantified by capillary gas chromatography coupled to mass spectrometry with selected ion monitoring (Furlong and others, 1996). Results of laboratory analyses for organochlorine pesticides, PCBs, and PAHs in the 16 box core sediment samples and the 5 gravity cores are listed in tables 4–5 and tables 8–9, respectively. Figures 4–5 show total PCB concentrations (sum of PCB Aroclors 1242, 1254, and 1260) in the surficial sediment samples and total PCB concentrations relative to sediment deposition date (depth) in the gravity core samples, respectively. Figures 6–7 show total PAH concentrations (sum of all parent and alkylated PAH compounds except perylene) in the surficial sediment samples and total PAH concentrations relative to sediment deposition date (depth) in the gravity core samples, respectively.

Grain size analysis was done at the USGS sediment laboratory in Iowa City, Iowa, using the sieve and pipet methods (Carol Anderson, U.S. Geological Survey, written commun., 1993). Tables 6 and 10 list the results of laboratory analysis of grain size for the Phase III box and gravity core samples, respectively. Only 3 of the 16 box core samples were submitted for grain size analysis. The percent silt-and-clay-sized particles and the percent clay-sized particles are reported.

Radiochemical analysis for ^{137}Cs activity was measured by gamma spectroscopy at the Severn Trent Laboratory, Richland, Wash., under contract with the USGS NWQL. The ^{137}Cs activities in the gravity core samples are listed in table 11. These results were used to estimate sediment deposition dates shown in figures 3, 5, and 7 following the method presented in Van Metre and Callender (1997). The sample intervals in gravity cores M3.1 and M3.5 with the maximum ^{137}Cs activities (0.975 and 0.343 picocurie per gram [pCi/g], respectively) were assigned a deposition date of 1964 because atmospheric concentrations of ^{137}Cs peaked in 1963–64 during nuclear weapons testing. The ^{137}Cs date marker and the date of core collection were used to estimate sediment mass accumulation rates (MARs) of 0.53 and 0.96 gram per square centimeter per year (g/cm^2-yr) for M3.1 and M3.5, respectively. The MARs were then used to estimate deposition dates for the remaining sample intervals in each of the cores. The ^{137}Cs activity profiles in gravity cores M3.3, M3.7, M3.10 did not have peak ^{137}Cs activities to use as date markers. Therefore, the MARs calculated for M3.1 and M3.5 were used to estimate sediment deposition dates for the remaining three cores. Peak concentrations of DDT and lead in the gravity cores were assigned deposition dates that agree with known historical environmental concentration maxima for the two contaminants and provide supporting evidence that the sediment deposition dates are reasonable.

Selected laboratory quality-control sample results are listed in tables 12–14 (at end of report). Duplicate sample analyses are included in the chemical data tables and indicated by the suffix "dup" adjacent to the sample depth. Major and trace element laboratory quality control included three blanks and four standard reference material analyses with the exception of Job no. 2039, which did not include blanks (table 12). Organic compound laboratory quality control included the analysis of a blank, spike, and certified reference material (CRM). Table 13 lists the concentrations for the blanks, spike recovery percentages, and concentrations of the

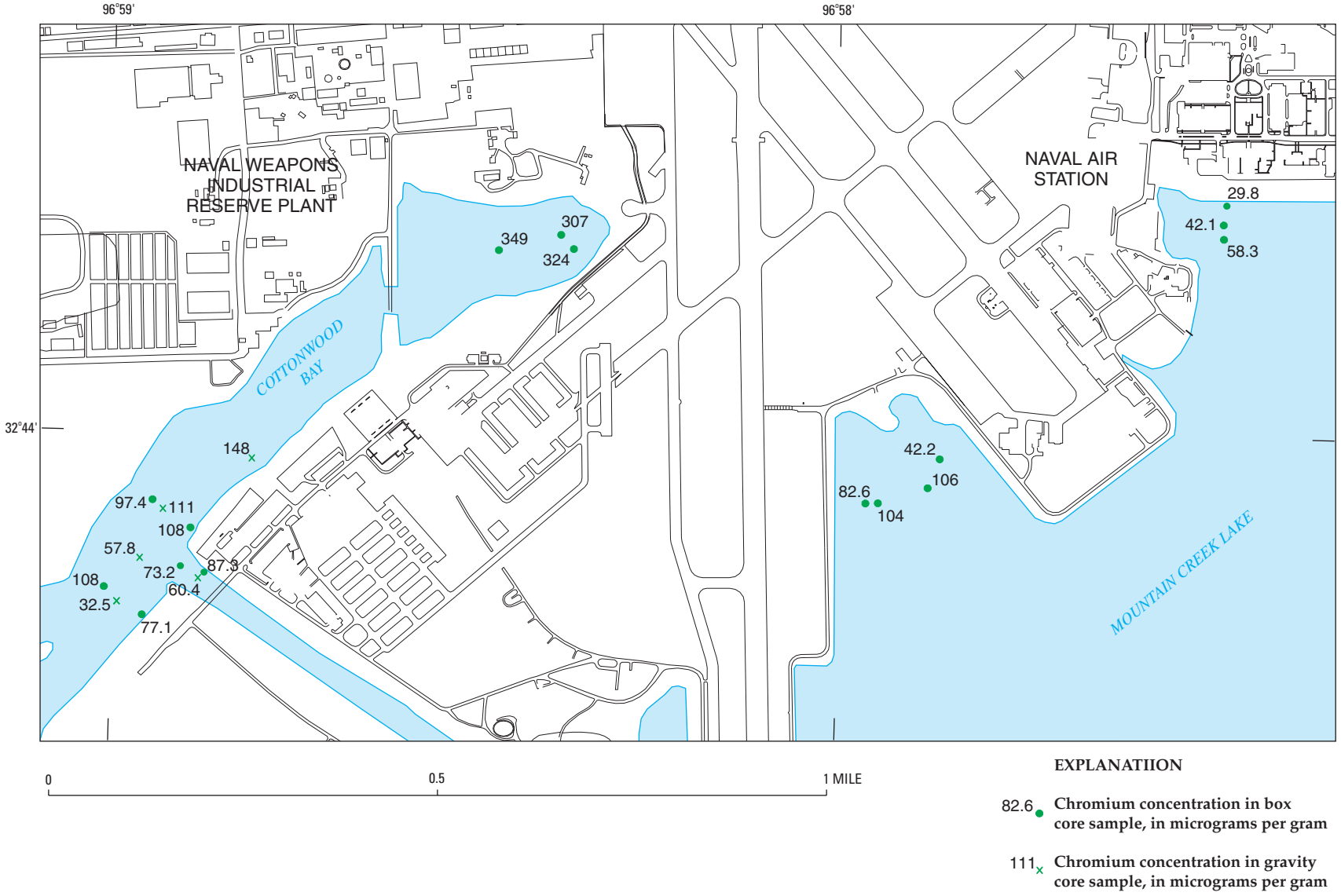
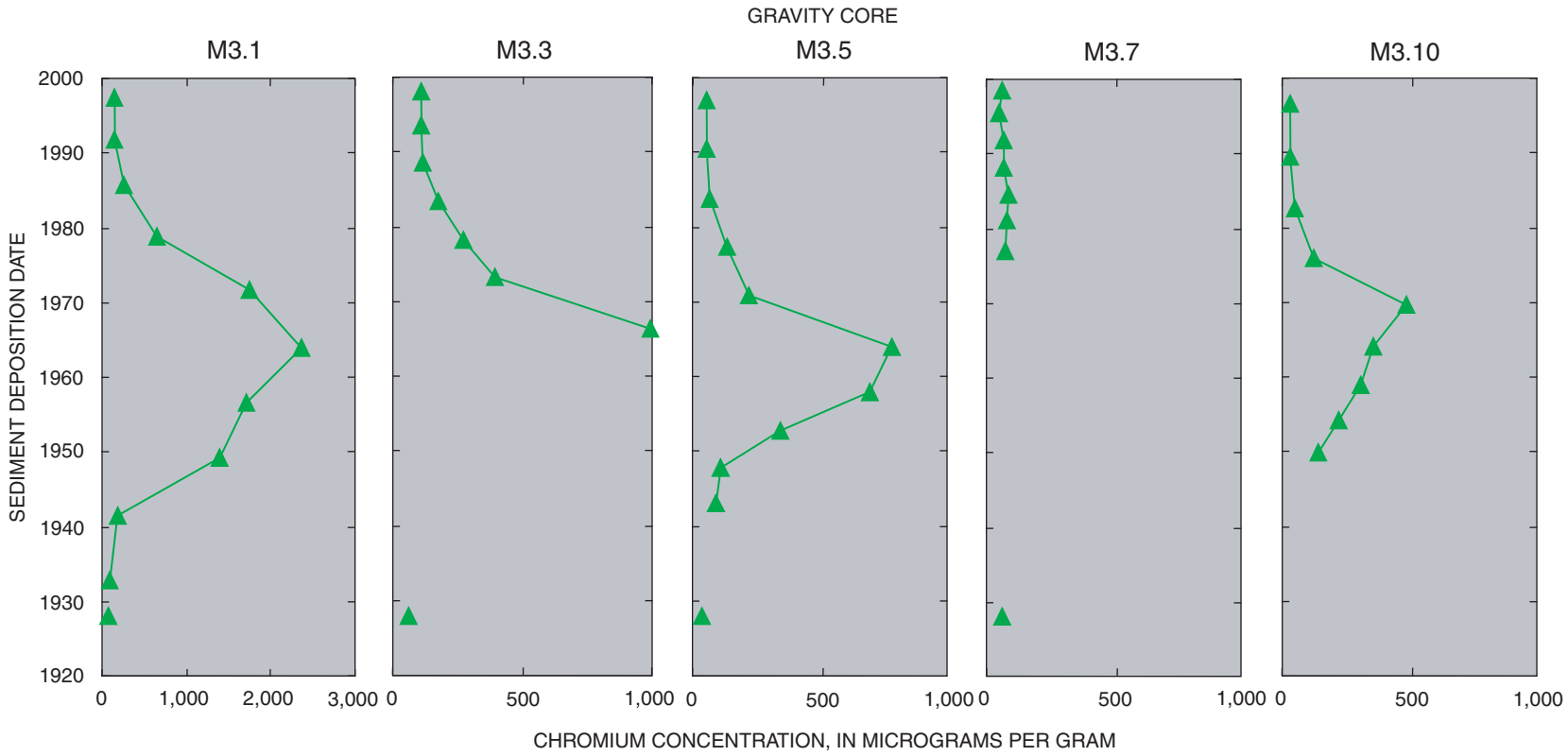


Figure 2. Chromium concentrations in surficial sediment samples collected during Phase III at Mountain Creek Lake, Dallas, Texas.



NOTE: The oldest samples in cores M3.1, M3.3, M3.5, and M3.7 are pre-reservoir sediments

Figure 3. Chromium concentrations relative to sediment deposition date in gravity core samples collected during Phase III at Mountain Creek Lake, Dallas, Texas.

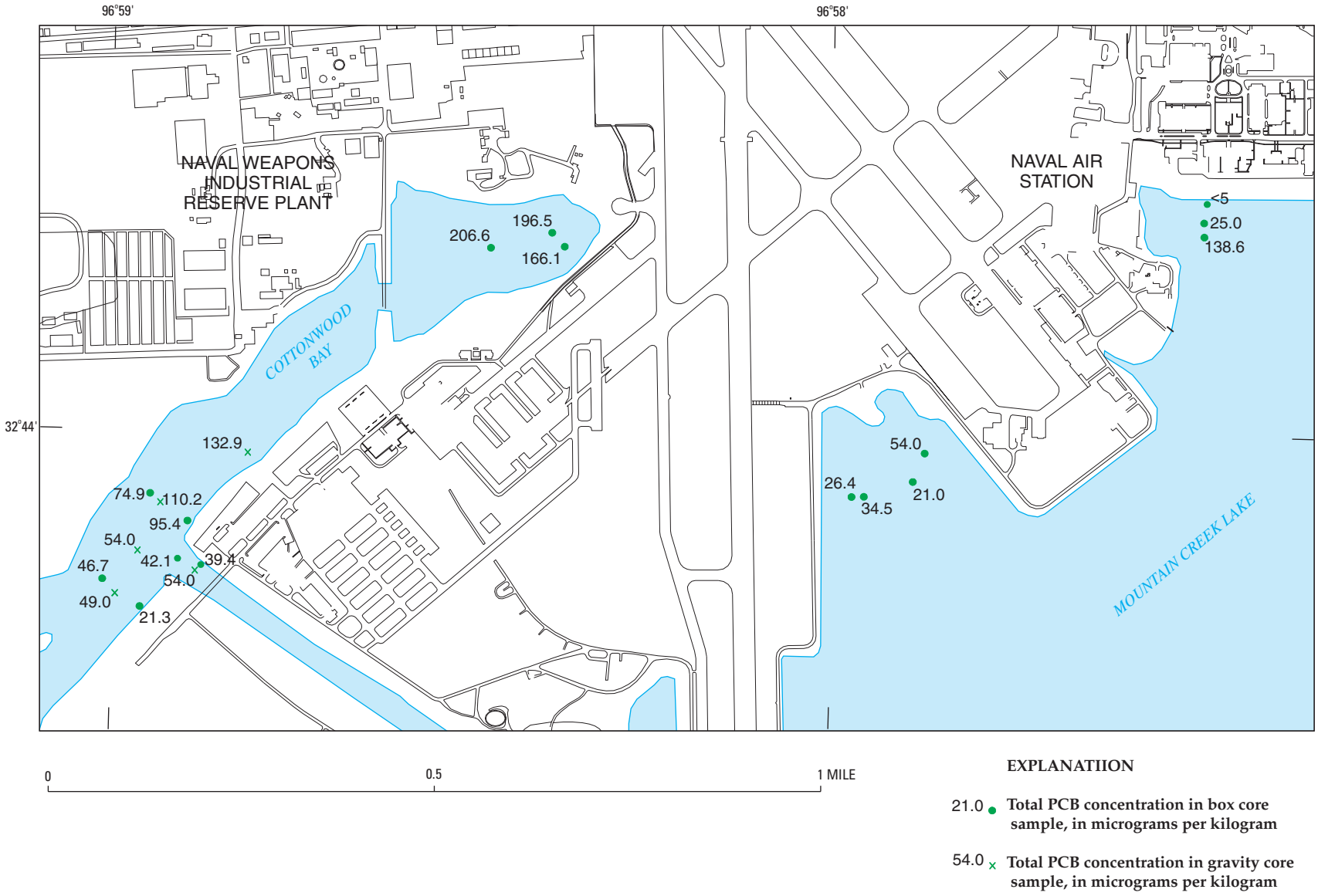


Figure 4. Total polychlorinated biphenyl (PCB) concentrations in surficial sediment samples collected during Phase III at Mountain Creek Lake, Dallas, Texas.

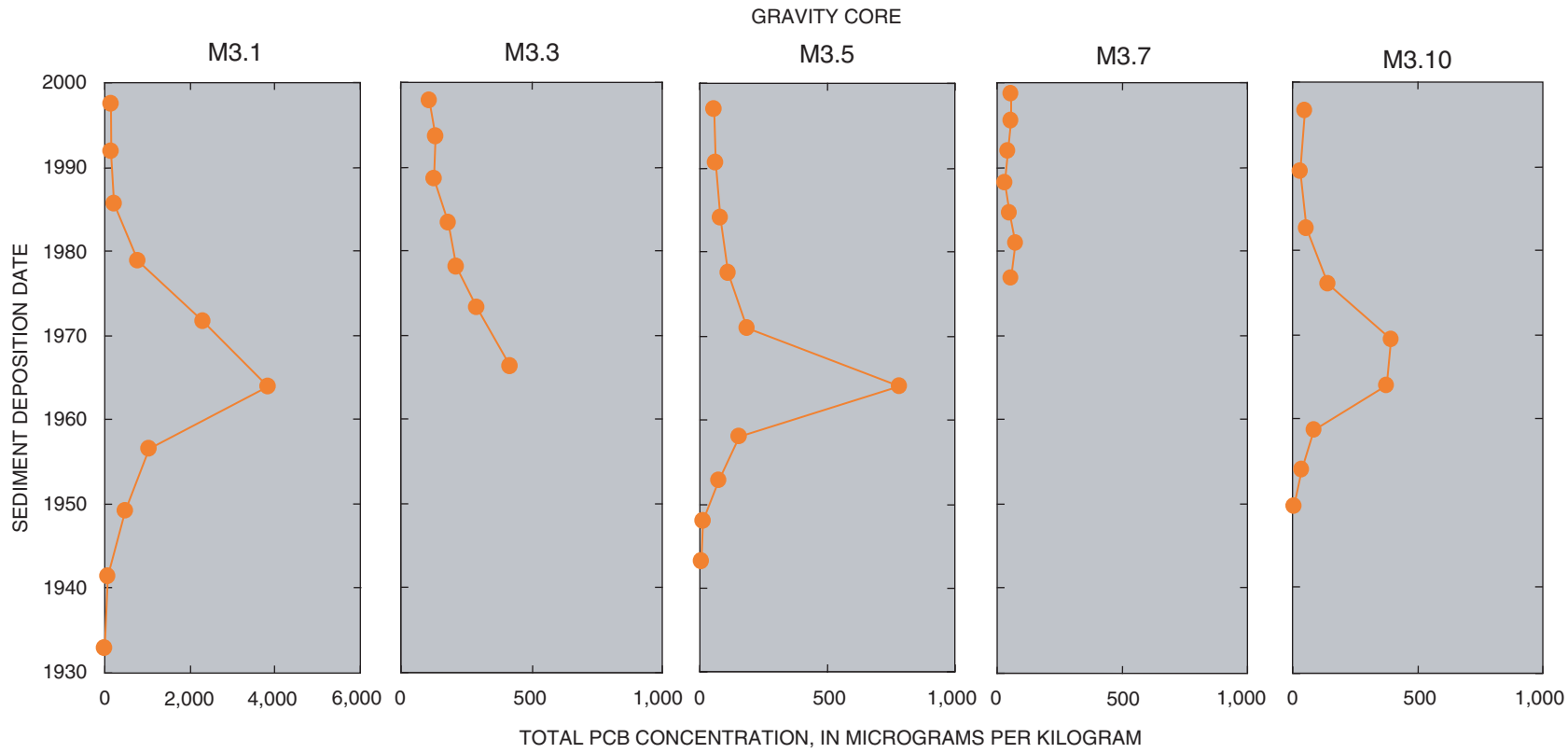


Figure 5. Total polychlorinated biphenyl (PCB) concentrations relative to sediment deposition date in gravity core samples collected during Phase III at Mountain Creek Lake, Dallas, Texas.

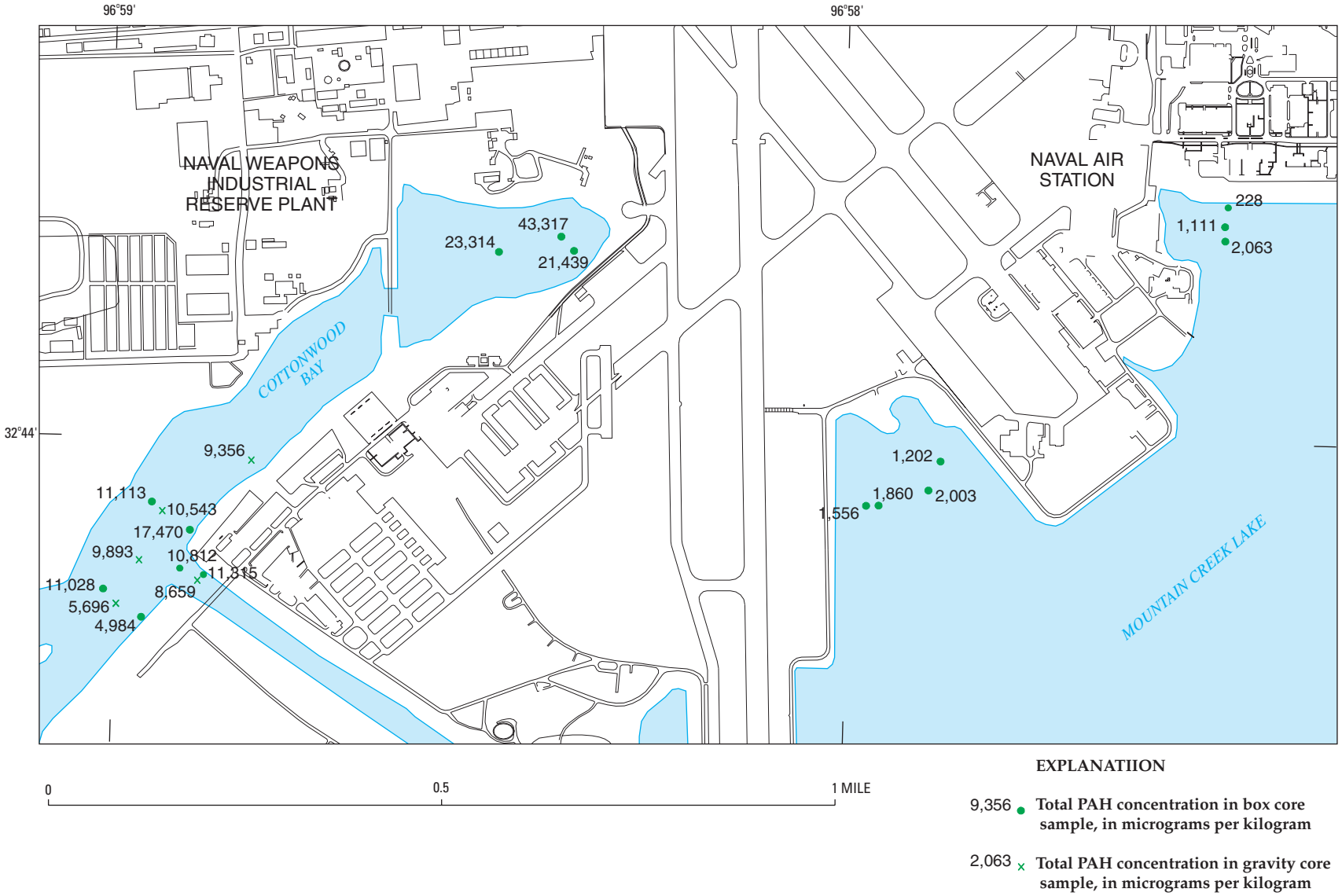


Figure 6. Total polycyclic aromatic hydrocarbon (PAH) concentrations in surficial sediment samples collected during Phase III at Mountain Creek Lake, Dallas, Texas.

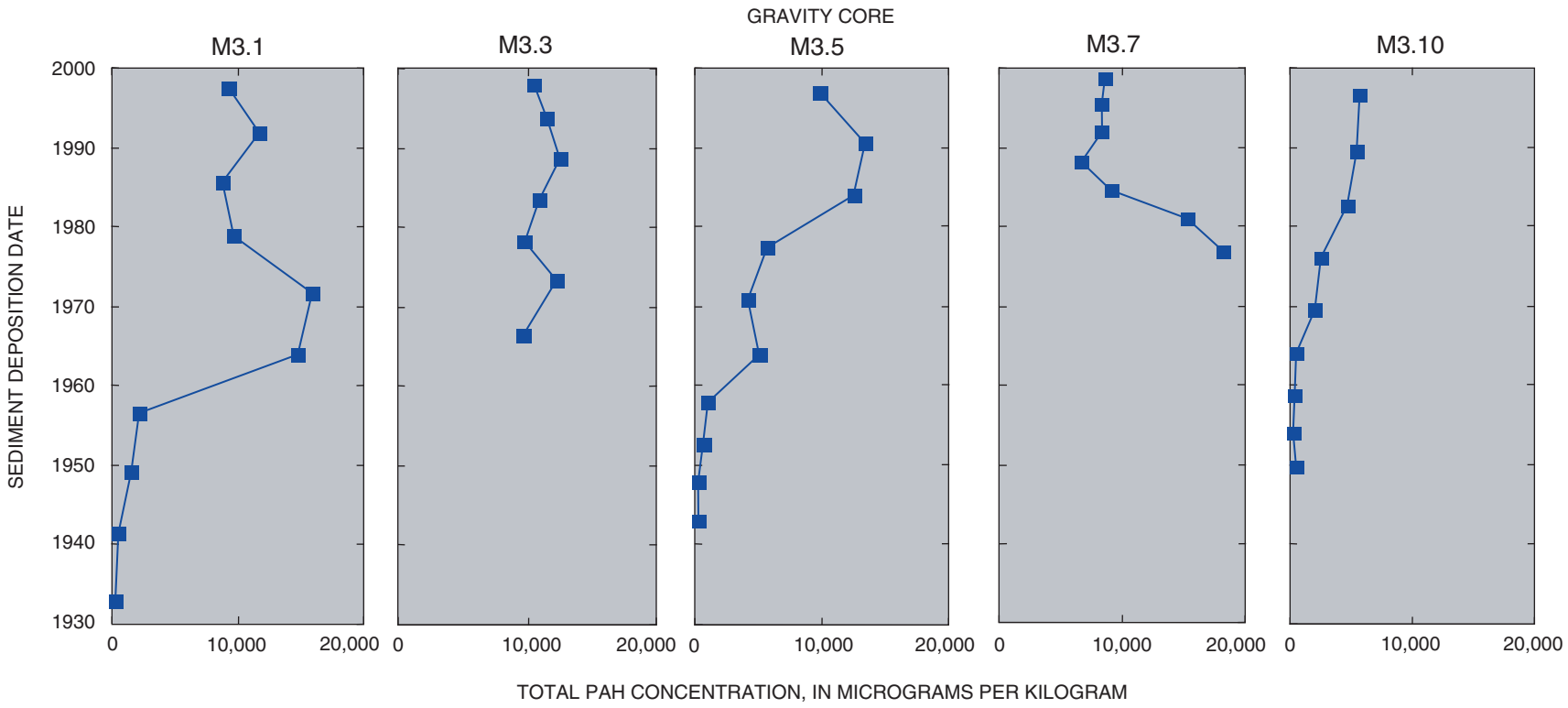


Figure 7. Total polycyclic aromatic hydrocarbon (PAH) concentrations relative to sediment deposition date in gravity core samples collected during Phase III at Mountain Creek Lake, Dallas, Texas

CRM along with the acceptable ranges for the spike and CRM for the organochlorine pesticides and PCBs. Quality-control data for PAHs also include the analysis of a blank, spike, and CRM along with acceptable range for CRM (table 14). Acceptable spike recovery limits have not been established for the PAHs. The counting uncertainty in the analysis of ^{137}Cs is the statistical uncertainty in the count attributed to background. The counting uncertainty is given as 2-sigma (2–σ), or two standard deviations, and is included with the ^{137}Cs analytical results (table 11).

SUMMARY

The NWIRP and former NAS are located on the northern shores of Mountain Creek Lake; a Resource Conservation and Recovery Act Facility Investigation at the NWIRP indicated detections of organic chemicals. Both facilities contribute runoff to the adjacent Mountain Creek Lake, and concerns for off-site contamination led SOUTHDIV to request that the USGS determine if selected constituents could be detected in the reservoir and nearby streams. The USGS collected bottom-sediment, lake water, bottom-sediment pore water, and fish samples in Mountain Creek Lake and bottom-sediment samples in nearby streams during 1994 and early 1995 (Phase I) and during 1995 and 1996 (Phase II) in a previous study that analyzed numerous constituents, including major and trace elements, volatile and semivolatile organic compounds, organochlorine pesticides, PCBs, grain size, ^{137}Cs, and nutrients.

SOUTHDIV requested that the bottom sediment in Mountain Creek Lake be sampled again (Phase III) to further define the occurrence and distribution of selected constituents and to supplement available data. Box cores of bottom sediment were collected at 16 sites and gravity cores at 5 sites in Mountain Creek Lake during December 1999–January 2000. Sediment samples were analyzed for major and trace elements, organochlorine pesticides, PCBs, PAHs, grain size, and ^{137}Cs. Not all constituents were analyzed in every sample from every site.

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Table 1. Thickness of lacustrine sediment samples in cores collected from Mountain Creek Lake, Dallas, Texas

[cm, centimeters; >, greater than]

Sampling site	Type of corer	Thickness of lacustrine sediment sample (cm)	Sampling site	Type of corer	Thickness of lacustrine sediment sample (cm)
M2.1	Box	15	M3.9	Box	13
BAY–7	Box	15	M3.10	Gravity	>82
MCL–9	Box	15	M3.11	Box	15
M3.1	Gravity	71	M3.12	Box	9
M3.2	Box	15	M3.13	Box	9
M3.3	Gravity	38	M3.14	Box	15
M3.4	Box	15	M3.15	Box	15
M3.5	Gravity	74	M3.16	Box	12
M3.6	Box	15	M3.17	Box	5
M3.7	Gravity	35	M3.18	Box	2
M3.8	Box	12			

Table 2. Description of gravity cores collected from Mountain Creek Lake, Dallas, Texas

[cm, centimeters; --, not described]

Depth interval (cm)	Color	Description
Gravity core M3.1		
0–35	Light olive gray	Smooth, soft clay
35–44	Darker olive gray	Same texture; moderate hydrocarbon/kerosene odor
44–46	Black	Same texture; strong odor
46–63	Dark olive gray	Same texture; moderate odor
63–71	Olive gray	Same texture; almost no odor
71–87	--	Pre-reservoir soil: crumbly, clayey texture, root hairs
Gravity core M3.3		
0–3	Light olive gray with tan chunks	--
3–17	Olive gray with black streaks	Distinctive, dark streak at 10–11 cm
17–25	Olive gray with tan chunks	--
25–27	Dark streak	--
27–38	Darker, greener, less tan	Wood chunks at 20 cm; very strong hydrocarbon odor at 33–38 cm
38–45	--	Pre-reservoir soil: dry, stiff clay, root hairs
Gravity core M3.5		
0–7	Olive gray	Smooth, soft clay
7–20	Olive gray	Sticky and drier; organic debris (pine needles)
20–42	Olive gray	Sticky and a slightly chunky texture
42–50	Olive gray	Smooth, drier
50–72	Mottled dark olive gray and light olive gray layers	Biggest dark layers at 54–58 cm
72–74	Thin tan layer and light olive gray	--
74–86	--	Pre-reservoir soil: crumbly with root hairs
Gravity core M3.7		
0–35	Dark olive gray	Uniform color and soft lacustrine texture with some fine sand
35–55	Yellow	Very sharp pre-reservoir boundary at 35 cm; stiff clay
Gravity core M3.10		
0–16	Olive gray mottled with darker gray	Sandy with a few sticks and pine needles
16–30	Olive gray mottled with darker gray	Less sandy, no organic debris
30–46	Olive gray mottled with darker gray	Drier, sandy
46–75	Olive gray	Smoother clay
75–82	Olive gray mottled with darker gray	Still no pre-reservoir

Table 3. Box cores—Major and trace element concentrations in bottom sediments

[Chemical Abstracts Service–Registry Number (CAS–RN) in parentheses below element name; in micrograms per gram dry sediment weight except as indicated; cm, centimeters; dup, duplicate; na, not analyzed]

Site ID and sample depth (cm)	Date	Aluminum (7429–90–5)	Calcium (7440–70–2)	Iron (7439–89–6)	Potassium (7440–09–7)	Magnesium (7439–95–4)	Sodium (7440–23–5)	Phosphorus (7723–14–0)	Titanium (7440–32–6)	Arsenic (7440–38–2)	Barium (7440–39–3)
M2.1 (0–15)	12/07/99	48,300	73,600	26,000	7,030	5,090	1,040	634	3,210	14.2	196
M2.1 (0–15 dup)	12/07/99	47,800	74,400	27,200	7,190	5,070	1,040	678	3,960	14.3	196
BAY–7 (0–15)	12/07/99	69,400	97,600	35,400	9,050	7,320	1,110	750	4,790	17.2	247
MCL–9 (0–15)	12/07/99	53,900	78,400	29,000	7,690	5,690	1,320	689	3,870	15.1	208
M3.2 (0–15)	12/08/99	58,600	77,900	28,000	7,760	6,300	1,260	602	3,760	14.4	227
M3.4 (0–15)	12/08/99	50,000	77,200	25,600	7,070	5,460	1,180	628	3,640	13.2	208
M3.6 (0–15)	12/08/99	49,000	78,900	25,700	7,290	5,460	1,350	640	3,860	13.0	208
M3.8 (0–12)	12/08/99	63,500	87,500	30,000	8,500	7,090	1,340	651	4,480	15.3	243
M3.9 (0–13)	12/08/99	56,300	79,300	28,500	7,890	5,980	1,330	698	4,280	14.6	237
M3.11 (0–15)	12/08/99	63,600	83,700	29,700	8,420	7,060	1,350	667	4,400	14.4	246
M3.12 (0–9)	12/08/99	68,500	68,800	36,400	12,300	7,160	1,820	733	4,620	22.1	267
M3.13 (0–9)	12/08/99	83,800	69,000	40,900	13,400	8,740	1,570	732	6,640	22.0	303
M3.14 (0–15)	12/08/99	87,100	68,500	41,700	13,300	9,030	1,480	725	6,520	18.9	304
M3.15 (0–15)	12/08/99	30,400	37,700	18,000	5,530	3,260	912	446	2,380	13.1	139
M3.16 (0–12)	01/06/00	30,300	30,200	21,900	5,840	3,220	988	418	3,050	14.7	161
M3.16 (0–12 dup)	01/06/00	30,000	29,600	21,200	5,890	3,100	960	437	2,770	13.2	163
M3.17 (0–5)	01/06/00	25,200	14,400	17,700	4,690	2,580	816	314	2,360	12.0	138
M3.18 (0–2)	01/06/00	17,200	7,210	13,000	3,110	1,810	533	255	1,740	8.06	105

Site ID and sample depth (cm)	Date	Beryllium (7440–41–7)	Cadmium (7440–43–9)	Cobalt (7440–48–4)	Chromium (7440–50–8)	Copper (7440–50–8)	Mercury (7439–97–6)	Lithium (58–89–9)	Manganese (7439–96–5)	Nickel (7440–02–0)
M2.1 (0–15)	12/07/99	1.62	6.80	12.8	307	41.6	0.19	30.5	466	57.0
M2.1 (0–15 dup)	12/07/99	1.59	6.43	12.9	320	45.4	na	30.9	472	72.9
BAY–7 (0–15)	12/07/99	2.23	6.86	12.9	349	54.5	.19	42.7	618	63.5
MCL–9 (0–15)	12/07/99	1.78	5.96	12.6	324	44.4	.19	33.9	492	53.6
M3.2 (0–15)	12/08/99	1.96	2.13	13.1	97.4	38.0	.08	35.4	580	57.9
M3.4 (0–15)	12/08/99	1.58	2.38	12.1	108	39.8	.09	30.5	523	68.4
M3.6 (0–15)	12/08/99	1.64	1.37	12.8	73.2	35.2	.09	30.0	524	68.8
M3.8 (0–12)	12/08/99	2.15	1.72	12.5	87.3	41.0	.06	38.5	597	68.5
M3.9 (0–13)	12/08/99	1.90	2.33	15.0	108	68.6	.09	33.2	596	73.7
M3.11 (0–15)	12/08/99	2.07	1.58	12.3	77.1	38.1	.04	38.9	571	64.8
M3.12 (0–9)	12/08/99	2.33	.552	13.6	82.6	43.6	.04	48.1	517	48.3
M3.13 (0–9)	12/08/99	2.55	.631	13.8	104	57.0	.04	56.8	580	59.1
M3.14 (0–15)	12/08/99	2.59	.649	13.6	106	57.4	.05	58.0	542	59.2
M3.15 (0–15)	12/08/99	1.10	.355	9.34	42.2	23.3	.02	23.1	289	36.3
M3.16 (0–12)	01/06/00	1.11	1.19	11.0	58.3	28.0	.05	24.2	280	24.5
M3.16 (0–12 dup)	01/06/00	1.25	1.03	10.7	54.9	24.7	na	23.1	269	23.5
M3.17 (0–5)	01/06/00	.867	.740	10.0	42.1	20.3	.04	20.1	304	20.9
M3.18 (0–2)	01/06/00	.655	.188	5.14	29.8	11.5	.02	15.2	234	12.4

Table 3. Box cores—Major and trace element concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	Date	Lead (7439–92–1)	Scandium (7440–20–2)	Strontium (7440–24–6)	Vanadium (7440–62–2)	Zinc (7440–66–6)	Gallium (7440–55–3)	Selenium (7782–49–2)	Rubidium (7440–17–7)	Yttrium (7440–65–5)	Niobium (7440–03–1)
M2.1 (0–15)	12/07/99	74.1	9.03	242	117	268	11.0	0.927	58.0	17.0	40.2
M2.1 (0–15 dup)	12/07/99	77.1	9.59	241	119	276	11.3	1.08	57.7	19.2	26.5
BAY–7 (0–15)	12/07/99	84.3	12.3	305	164	314	15.8	1.08	81.1	23.4	60.7
MCL–9 (0–15)	12/07/99	76.8	10.2	261	125	267	12.4	.944	64.2	19.8	45.8
M3.2 (0–15)	12/08/99	52.2	9.83	219	154	167	13.2	.842	66.5	20.5	46.8
M3.4 (0–15)	12/08/99	49.5	9.30	217	142	169	11.7	.998	57.8	19.5	38.2
M3.6 (0–15)	12/08/99	41.6	8.97	217	149	137	11.4	1.02	57.4	20.5	38.9
M3.8 (0–12)	12/08/99	45.9	11.0	243	174	166	14.7	.981	71.9	24.0	53.7
M3.9 (0–13)	12/08/99	54.3	10.4	216	164	168	13.0	1.17	64.8	22.5	43.9
M3.11 (0–15)	12/08/99	42.2	11.0	235	172	153	14.4	1.01	72.0	24.2	52.6
M3.12 (0–9)	12/08/99	27.3	12.6	269	136	118	16.0	.770	87.7	20.7	73.0
M3.13 (0–9)	12/08/99	30.7	15.9	276	171	131	19.8	.848	106	25.4	94.2
M3.14 (0–15)	12/08/99	31.3	15.9	270	175	132	20.8	.863	108	25.8	94.4
M3.15 (0–15)	12/08/99	17.4	5.65	146	63.1	69.6	6.95	.486	38.1	11.4	14.3
M3.16 (0–12)	01/06/00	33.2	6.83	118	65.7	83.1	7.52	.453	41.8	11.6	28.5
M3.16 (0–12 dup)	01/06/00	28.8	6.91	116	64.3	81.2	7.45	.408	40.7	11.7	22.0
M3.17 (0–5)	01/06/00	16.9	5.22	78.6	53.8	58.5	6.13	.368	34.2	8.81	27.5
M3.18 (0–2)	01/06/00	8.32	3.80	51.7	38.3	29.1	4.38	.251	22.9	7.00	16.0

Site ID and sample depth (cm)	Date	Molybdenum (7439–98–7)	Silver (7440–22–4)	Antimony (7440–36–0)	Cesium (7440–46–2)	Lanthanum (7439–91–0)	Thorium (7440–29–1)	Uranium (7440–61–1)	Percent total carbon (7440–44–0)	Percent organic carbon
M2.1 (0–15)	12/07/99	3.69	3.42	1.90	3.64	34.9	8.08	2.96	4.75	2.74
M2.1 (0–15 dup)	12/07/99	3.73	3.88	2.05	3.57	38.1	8.70	3.22	na	na
BAY–7 (0–15)	12/07/99	5.38	7.01	2.44	5.13	47.4	11.1	3.87	6.00	3.31
MCL–9 (0–15)	12/07/99	4.12	4.54	1.99	3.92	40.4	9.38	3.28	5.30	3.10
M3.2 (0–15)	12/08/99	6.92	<3	1.68	4.27	42.0	10.1	3.82	4.72	2.52
M3.4 (0–15)	12/08/99	6.33	<3	1.49	3.68	40.3	9.65	3.67	4.36	2.17
M3.6 (0–15)	12/08/99	7.13	<3	1.43	3.61	41.0	9.67	4.19	4.28	2.06
M3.8 (0–12)	12/08/99	9.54	<3	1.80	4.61	47.3	11.4	4.72	4.68	2.27
M3.9 (0–13)	12/08/99	7.60	<3	1.77	4.20	44.2	10.7	4.51	4.59	2.43
M3.11 (0–15)	12/08/99	9.32	<3	1.80	4.58	47.2	11.4	4.79	4.44	2.12
M3.12 (0–9)	12/08/99	3.06	<3	.886	4.77	51.4	11.2	3.08	3.55	1.60
M3.13 (0–9)	12/08/99	4.44	<3	1.17	6.27	57.9	13.0	3.62	3.80	1.96
M3.14 (0–15)	12/08/99	4.85	<3	1.20	6.41	58.9	13.3	3.84	3.71	1.89
M3.15 (0–15)	12/08/99	1.38	<3	.499	2.09	28.4	5.56	1.67	2.43	1.17
M3.16 (0–12)	01/06/00	1.14	<3	.604	2.22	27.9	6.34	1.71	1.86	1.06
M3.16 (0–12 dup)	01/06/00	1.08	<3	.558	2.21	25.1	5.86	1.57	na	na
M3.17 (0–5)	01/06/00	.823	<3	.437	1.80	23.8	5.58	1.30	1.12	.76
M3.18 (0–2)	01/06/00	.656	<3	.258	1.27	20.2	4.20	.934	.66	.51

Table 4. Box cores—Organochlorine pesticide and polychlorinated biphenyl (PCB) concentrations in bottom sediments

[Chemical Abstracts Service–Registry Number (CAS–RN) in parentheses below compound name; in micrograms per kilogram dry sediment weight; cm, centimeters; <, less than; E, estimated; dup, duplicate]

Site ID and sample depth (cm)	Date	Lindane (58–89–9)	Heptachlor (76–77–8)	Aldrin (309–00–2)	Heptachlor epoxide (1024–57–3)	Technical chlordane (12789–03–6)	Endosulfan I (115–29–7)	Dieldrin (60–57–1)	*p,p'*-DDE (72–55–9)	Endrin (72–20–8)
M2.1 (0–15)	12/07/99	<1.0	<1.0	<1.0	<1.0	6.3	<1.0	<1.0	3.5	<1.1
BAY–7 (0–15)	12/07/99	<1.0	<1.0	<1.0	<1.0	E4.9	<1.0	<1.0	3.4	<1.0
MCL–9 (0–15)	12/07/99	<.5	<.5	<.5	<.5	8.9	<.5	<.5	2.9	<.5
M3.2 (0–15)	12/08/99	<1.0	<1.0	<1.0	<1.0	12	<1.0	<1.0	3.0	<1.0
M3.4 (0–15)	12/08/99	<1.0	<1.0	<1.0	<1.0	9.5	<1.0	E.90	2.8	<1.0
M3.6 (0–15)	12/08/99	<1.0	<1.0	<1.0	<1.0	7.5	<1.0	E.81	1.7	<1.0
M3.8 (0–12)	12/08/99	<1.0	<1.0	<1.0	<1.0	11	<1.0	E.88	1.7	<1.0
M3.9 (0–13)	12/08/99	<.5	<.5	<.5	<.5	9.9	<.5	.55	1.9	<.5
M3.11 (0–15)	12/08/99	<.5	<.5	<.5	<.5	7.1	<.5	.65	1.2	<.5
M3.12 (0–9)	12/08/99	<1.0	<1.0	<1.0	<1.0	<5	<1.0	<1.0	1.4	<1.0
M3.13 (0–9)	12/08/99	<1.5	<1.5	<1.5	<1.5	<5	<1.5	<1.5	1.7	<1.5
M3.13 (0–9 dup)	12/08/99	<1.5	<1.5	<1.5	<1.5	<5	<1.5	<1.5	1.4	<1.5
M3.14 (0–15)	12/08/99	<1.0	<1.0	<1.0	<1.0	<5	<1.0	<1.0	2.0	<1.0
M3.15 (0–15)	12/08/99	<.5	<.5	<.5	<.5	<5	<.5	<.5	1.2	<.5
M3.15 (0–15 dup)	12/08/99	<.5	<.5	<.5	<.5	<5	<.5	<.5	.86	<.5
M3.16 (0–12)	01/06/00	<.5	<.5	<.5	<.5	11	<.5	<.5	1.3	<.5
M3.17 (0–5)	01/06/00	<.5	<.5	<.5	<.5	<5	<.5	<.5	<.5	<.5
M3.18 (0–2)	01/06/00	<.5	<.5	<.5	<.5	<5	<.5	<.5	<.5	<.5

Site ID and sample depth (cm)	Date	*p,p'*-DDD (72–54–8)	*p,p'*-DDT (50–29–3)	*p,p'*-Methoxychlor (72–43–5)	Mirex (2385–85–5)	Toxaphene (8001–35–2)	PCB Aroclor 1242 (53469–21–9)	PCB Aroclor 1254 (11097–69–1)	PCB Aroclor 1260 (11096–82–5)
M2.1 (0–15)	12/07/99	1.9	<2.0	<4.0	<1.0	<100	E4.5	82	110
BAY–7 (0–15)	12/07/99	<1.0	<1.1	<9.4	<1.0	<100	E4.6	85	117
MCL–9 (0–15)	12/07/99	2.3	<2.0	<2.0	<.5	<50	E4.1	69	93
M3.2 (0–15)	12/08/99	2.5	<1.0	<4.0	<1.0	<100	6.9	34	34
M3.4 (0–15)	12/08/99	2.1	E3.5	<6.0	<1.0	<100	9.4	35	51
M3.6 (0–15)	12/08/99	1.3	E2.3	<1.0	<1.0	<100	7.1	17	18
M3.8 (0–12)	12/08/99	1.8	E2.5	<4.0	<1.0	<100	5.4	16	18
M3.9 (0–13)	12/08/99	1.8	E2.5	<2.0	<.5	<50	5.7	18	23
M3.11 (0–15)	12/08/99	1.1	E1.5	<3.7	<.5	<50	5.6	8.4	7.3
M3.12 (0–9)	12/08/99	<1.0	<1.3	<4.0	<1.0	<100	<5	9.4	17
M3.13 (0–9)	12/08/99	<1.5	<1.5	<6.0	<1.5	<150	<5	9.5	25
M3.13 (0–9 dup)	12/08/99	<1.5	<1.5	<6.0	<1.5	<150	<5	9.3	20
M3.14 (0–15)	12/08/99	<1.0	<1.0	<4.0	<1.0	<100	<5	6.0	15
M3.15 (0–15)	12/08/99	<.5	<.91	<2.0	<.5	<50	<5	14	40
M3.15 (0–15 dup)	12/08/99	<.5	<1.1	<2.0	<.5	<50	<5	12	36
M3.16 (0–12)	01/06/00	1.6	<.5	<2.0	<.5	<50	9.6	18	111
M3.17 (0–5)	01/06/00	<.5	<.5	<2.0	<.5	<50	<5	<5	25
M3.18 (0–2)	01/06/00	<.5	<.5	<2.0	<.5	<50	<5	<5	<5

Table 5. Box cores—Polycyclic aromatic hydrocarbon (PAH) concentrations in bottom sediments

[Chemical Abstracts Service–Registry Number (CAS–RN) in parentheses below compound name; in micrograms per kilogram dry sediment weight; cm, centimeters; <, less than; E, estimated; dup, duplicate]

Site ID and sample depth (cm)	Date	Naphthalene (91–20–3)	C1-128 isomers	2-Ethyl-naphthalene (939–27–5)	2,6-Dimethyl-naphthalene (581–42–0)	1,6-Dimethyl-naphthalene (575–43–9)	C2-128 isomers	Acenaph-thylene (208–96–8)	1,2-Dimethyl-naphthalene (573–98–8)	Acenaph-thene (83–32–9)	C3-128 isomers
M2.1 (0–15)	12/07/99	24.5	24.3	8.2	131	27.5	259	44.8	27.9	163	225
BAY–7 (0–15)	12/07/99	<10	13.0	E5.4	162	26.2	262	36.9	26.3	57.0	127
MCL–9 (0–15)	12/07/99	11.5	15.8	E4.4	144	22.8	220	37.1	27.0	60.1	137
M3.2 (0–15)	12/08/99	E7.5	11.1	15.5	76.6	10.7	113	16.2	10.5	24.3	88.8
M3.4 (0–15)	12/08/99	11.7	13.9	E2.5	96.7	10.6	144	30.0	12.4	48.8	109
M3.6 (0–15)	12/08/99	E9.6	E9.3	E1.7	61.6	E7.8	83.5	18.6	E7.2	27.1	77.8
M3.8 (0–12)	12/08/99	9.9	11.3	E1.9	95.6	11.9	129	20.5	E9.8	26.4	89.3
M3.9 (0–13)	12/08/99	E6.6	E8.6	E1.5	53.6	E5.9	73.4	18.6	E5.4	26.1	54.2
M3.11 (0–15)	12/08/99	E5.1	E5.8	E1.1	49.1	E5.6	70.4	E9.4	E4.0	11.8	34.4
M3.12 (0–9)	12/08/99	E1.1	E3.4	15.1	68.3	E7.4	84.8	E3.4	E2.6	E2.2	27.7
M3.13 (0–9)	12/08/99	E3.3	E5.0	E14.8	95.5	E7.8	132	E3.2	E3.2	E3.2	16.5
M3.13 (0–9 dup)	12/08/99	E2.9	E8.8	E9.5	95.4	E8.6	133	E3.7	E4.1	E3.0	32.7
M3.14 (0–15)	12/08/99	E1.2	E3.0	<15	113	11.4	131	E4.5	E1.8	E3.6	29.1
M3.15 (0–15)	12/08/99	<5	E2.4	7.5	48.1	5.5	60.1	E3.9	E2.0	E1.7	16.3
M3.15 (0–15 dup)	12/08/99	<5	E2.3	6.9	51.6	5.5	61.6	E3.6	E2.2	E1.9	17.5
M3.16 (0–12)	01/06/00	E1.9	E4.2	E1.8	21.9	E4.0	42.9	E6.6	E2.4	E3.2	19.0
M3.17 (0–5)	01/06/00	E1.0	E3.1	E1.6	14.3	E3.3	25.4	E3.4	E1.9	E1.2	10.3
M3.18 (0–2)	01/06/00	E.50	E2.1	E1.3	E4.2	E1.7	E6.3	E1.0	<10	E.31	E5.4

Site ID and sample depth (cm)	Date	2,3,6-Trimethyl-naphthalene (829–26–5)	9*H*-Fluorene (86–73–7)	C4-128 isomers	1-Methyl-9*H*-fluorene (1730–37–6)	Phenan-threne (85–01–8)	Anthra-cene (120–12–7)	C5-128 isomers	2-Methyl-anthracene (613–12–7)	4,5-Methylene-phenanthrene (203–64–5)	C1-178 isomers	1-Methyl-phenanthrene (832–69–9)
M2.1 (0–15)	12/07/99	13.6	144	59.5	22.5	1,940	468	<10	129	311	1,050	164
BAY–7 (0–15)	12/07/99	E7.8	39.3	<70	10.7	771	190	19.0	46.2	128	426	68.8
MCL–9 (0–15)	12/07/99	9.0	47.2	<50	12.0	819	208	<10	47.2	130	410	65.9
M3.2 (0–15)	12/08/99	E6.7	28.0	68.1	E8.2	306	81.9	23.0	17.9	82.2	181	31.1
M3.4 (0–15)	12/08/99	E6.2	47.2	<10	10.5	675	150	<10	30.9	130	283	46.6
M3.6 (0–15)	12/08/99	E3.4	31.4	<10	E6.1	452	91.9	<10	19.4	78.4	191	31.1
M3.8 (0–12)	12/08/99	E3.8	32.9	<10	E7.1	419	84.9	<10	171	72.8	169	30.6
M3.9 (0–13)	12/08/99	E3.7	28.2	<10	E6.3	335	91.8	<10	16.7	90.5	154	24.8
M3.11 (0–15)	12/08/99	E1.9	16.3	<10	E3.8	187	40.0	<10	E7.9	40.2	87.1	13.7
M3.12 (0–9)	12/08/99	E2.4	E5.9	13.2	E2.6	33.9	11.0	<10	E3.3	11.6	25.9	E4.1
M3.13 (0–9)	12/08/99	E2.0	E7.2	17.9	E3.2	43.7	E14.6	E10.2	E3.8	E12.9	32.0	E5.1
M3.13 (0–9 dup)	12/08/99	E2.4	E7.8	E13.8	E3.2	44.4	E14.0	E6.1	E4.3	E12.5	29.9	E5.1
M3.14 (0–15)	12/08/99	E2.0	E6.6	<15	E2.2	46.1	15.5	<15	E4.2	E12.3	31.0	E5.1
M3.15 (0–15)	12/08/99	E1.8	E3.4	<5	E1.6	23.5	9.9	<5	E2.8	6.6	18.4	E2.8
M3.15 (0–15 dup)	12/08/99	E1.9	E3.6	<5	E1.5	30.4	11.6	<5	E3.2	7.7	20.4	E3.3
M3.16 (0–12)	01/06/00	E2.3	E5.0	13.1	E2.5	48.8	16.6	<10	E5.3	11.4	37.2	E5.3
M3.17 (0–5)	01/06/00	E2.0	E3.0	E5.7	E1.7	21.8	E8.7	<10	E3.0	E7.0	25.9	E4.2
M3.18 (0–2)	01/06/00	E1.5	E1.5	E3.3	E1.0	E7.4	E2.8	<10	E1.2	E2.2	E7.4	E1.2

Table 5. Box cores—Polycyclic aromatic hydrocarbon (PAH) concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	Date	C2-178 isomers	Fluoranthene (206–44–0)	Pyrene (129–00–0)	C3-178 isomers	C4-178 isomers	1-Methyl-pyrene (2381–21–7)	C1-202 isomers	C2-202 isomers	C5-178 isomers	Benz(*a*)-anthracene (56–55–3)	Chrysene (218–01–9)
M2.1 (0–15)	12/07/99	611	5,690	4,390	276	<200	154	1,940	4,430	<10	2,320	2,210
BAY–7 (0–15)	12/07/99	276	2,630	2,130	<150	<10	84.4	874	2,570	<10	1,220	1,280
MCL–9 (0–15)	12/07/99	303	2,640	2,100	<50	<10	102	918	2,180	<10	1,190	12,30
M3.2 (0–15)	12/08/99	166	1,220	986	138	<10	42.9	526	983	<10	482	610
M3.4 (0–15)	12/08/99	164	2,240	1,820	111	<10	56.3	126	463	<200	1,030	1,180
M3.6 (0–15)	12/08/99	119	1,430	1,140	85.9	<10	29.8	52.2	246	<150	569	749
M3.8 (0–12)	12/08/99	106	1,350	1,120	62.4	<10	26.4	355	753	<150	535	699
M3.9 (0–13)	12/08/99	96.0	1,300	1,050	80.0	<10	37.5	489	857	<160	547	678
M3.11 (0–15)	12/08/99	50.4	606	490	30.2	17.2	16.4	212	348	<70	219	330
M3.12 (0–9)	12/08/99	25.2	148	108	19.6	E7.4	E7.0	71.5	144	43.2	57.0	65.3
M3.13 (0–9)	12/08/99	28.1	205	158	25.5	E13.6	E10.2	94.2	59.6	<15	79.0	79.9
M3.13 (0–9 dup)	12/08/99	26.5	178	138	22.8	E8.0	E8.9	84.0	74.1	<15	81.2	83.9
M3.14 (0–15)	12/08/99	21.7	192	158	17.1	E6.3	8.8	88.1	127	<30	84.5	93.0
M3.15 (0–15)	12/08/99	14.8	111	86.3	9.9	<5	E4.9	46.8	130	<5	58.6	59.7
M3.15 (0–15 dup)	12/08/99	16.5	128	98.1	10.9	<5	5.4	55.3	153	<5	64.8	64.1
M3.16 (0–12)	01/06/00	35.4	203	170	21.7	13.6	E9.8	100	212	<50	83.6	102
M3.17 (0–5)	01/06/00	27.8	112	96.8	15.9	E6.5	E5.8	65.4	103	<25	53.2	65.3
M3.18 (0–2)	01/06/00	E7.2	26.8	22.5	E4.3	<10	E1.7	12.3	23.1	<10	E9.7	12.4

Site ID and sample depth (cm)	Date	C3-202 isomers	C1-228 isomers	C4-202 isomers	C5-202 isomers	C2-228 isomers	Benzo(*b*)-fluoran-thene (205–99–2)	Benzo(*k*)-fluoran-thene (207–08–9)	Benzo(*e*)-pyrene (192–97–2)	Benzo(*a*)-pyrene (50–32–8)	Perylene (198–55–0)	C1-252 isomers
M2.1 (0–15)	12/07/99	783	929	644	<500	313	2,460	2,040	1,660	2,040	748	1,460
BAY–7 (0–15)	12/07/99	526	447	368	<300	182	1,750	1,000	1,200	1,300	575	898
MCL–9 (0–15)	12/07/99	484	9.5	345	<400	5.1	1,520	930	1,030	1,240	507	683
M3.2 (0–15)	12/08/99	225	215	273	<250	101	806	398	523	564	297	403
M3.4 (0–15)	12/08/99	12.6	623	E4.9	48.7	154	1,520	874	1,020	1,140	524	738
M3.6 (0–15)	12/08/99	E3.2	356	6.6	30.6	99.4	994	626	600	685	252	417
M3.8 (0–12)	12/08/99	223	355	<10	<10	108	956	412	602	660	254	417
M3.9 (0–13)	12/08/99	249	364	<200	<150	98.3	811	432	573	638	308	421
M3.11 (0–15)	12/08/99	<100	157	<10	<10	30.7	500	152	263	275	119	189
M3.12 (0–9)	12/08/99	34.7	29.1	34.5	<10	16.4	97.5	59.8	64.0	70.8	203	58.6
M3.13 (0–9)	12/08/99	<15	47.7	<15	<15	24.8	123	72.4	82.0	94.2	371	85.6
M3.13 (0–9 dup)	12/08/99	<15	49.9	<15	<15	22.2	152	126	86.7	96.6	343	71.6
M3.14 (0–15)	12/08/99	<35	64.5	<40	<15	19.7	173	102	97.1	105	380	89.0
M3.15 (0–15)	12/08/99	19.8	25.5	<5	<5	15.4	66.8	67.6	76.2	79.5	99.3	53.1
M3.15 (0–15 dup)	12/08/99	16.7	22.9	16.4	<5	14.2	101	71.8	71.7	83.6	100	54.0
M3.16 (0–12)	01/06/00	34.1	44.3	24.3	<40	18.0	168	84.1	112	124	138	100
M3.17 (0–5)	01/06/00	14.2	18.9	E6.8	<10	E8.0	74.1	55.2	55.5	67.1	107	44.4
M3.18 (0–2)	01/06/00	<10	E3.6	<10	<10	E2.1	13.3	E7.3	E8.4	10.1	85.3	E6.5

Table 5. Box cores—Polycyclic aromatic hydrocarbon (PAH) concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	Date	C3-228 isomers	C2-252 isomers	C4-228 isomers	Benzo(*ghi*)-perylene (191–24–2)	Indeno-[1,2,3-*cd*]-pyrene (193–39–5)	Dibenzo(*a,h*)-anthracene (53–70–3)	C3-252 isomers	C4-252 isomers	C5-228 isomers	C5-252 isomers	Coronene (191–07–1)
M2.1 (0–15)	12/07/99	95.3	802	<50	1,220	1,670	444	154	58.2	<20	<10	E253
BAY–7 (0–15)	12/07/99	<150	378	<10	799	1,130	196	E5.5	E3.8	<10	E4.1	E195
MCL–9 (0–15)	12/07/99	12.7	392	E2.5	790	1,140	164	93.3	<50	E2.3	<10	E56.8
M3.2 (0–15)	12/08/99	<40	196	<10	474	611	96.7	55.0	50.5	E1.5	<10	E52.4
M3.4 (0–15)	12/08/99	<130	541	<10	750	1,090	162	74.0	<80	<10	<10	E60.4
M3.6 (0–15)	12/08/99	<90	304	<10	460	681	87.4	40.4	<10	<10	<10	E32.0
M3.8 (0–12)	12/08/99	<90	326	<10	458	665	79.4	42.6	<10	<10	<10	E31.4
M3.9 (0–13)	12/08/99	<85	319	<10	427	606	106	39.8	<10	<10	<10	E44.5
M3.11 (0–15)	12/08/99	<40	134	<10	130	296	41.7	22.1	<10	<10	<10	E20.0
M3.12 (0–9)	12/08/99	<10	26.6	<10	50.6	71.8	14.0	E8.5	E4.4	<10	<10	E10.6
M3.13 (0–9)	12/08/99	<15	25.6	<15	76.4	149	25.4	<15	<15	<15	<15	E19.4
M3.13 (0–9 dup)	12/08/99	<15	24.2	<15	67.3	134	26.8	<15	<15	<15	<15	E5.3
M3.14 (0–15)	12/08/99	<20	71.2	<15	66.3	105	24.3	E11.3	<15	<15	<15	E13.0
M3.15 (0–15)	12/08/99	<5	19.8	<5	E36.6	58.6	12.7	6.6	<5	<5	<5	E5.5
M3.15 (0–15 dup)	12/08/99	<5	17.7	<5	49.7	49.0	10.2	<5	<5	<5	<5	E14.0
M3.16 (0–12)	01/06/00	<10	38.1	<10	73.8	77.2	15.6	<20	<10	<10	<10	E7.0
M3.17 (0–5)	01/06/00	<10	14.6	<10	37.3	44.4	E9.1	<10	<10	<10	<10	E4.4
M3.18 (0–2)	01/06/00	<10	<10	<10	E6.0	E9.0	E2.7	<10	<10	<10	<10	E1.7

Table 6. Box cores—Grain size in bottom sediments

[sieve size = 0.062 millimeter; pipet size = 0.004 millimeter; cm, centimeters; na, not analyzed]

Site ID and sample depth (cm)	Date	Percent silt and clay (determined by sieve analysis)	Percent clay (determined by pipet analysis)
M2.1 (0–15)	12/07/99	na	na
BAY–7 (0–15)	12/07/99	na	na
MCL–9 (0–15)	12/07/99	na	na
M3.2 (0–15)	12/08/99	na	na
M3.4 (0–15)	12/08/99	na	na
M3.6 (0–15)	12/08/99	na	na
M3.8 (0–12)	12/08/99	na	na
M3.9 (0–13)	12/08/99	na	na
M3.11 (0–15)	12/08/99	na	na
M3.12 (0–9)	12/08/99	na	na
M3.13 (0–9)	12/08/99	na	na
M3.14 (0–15)	12/08/99	na	na
M3.15 (0–15)	12/08/99	na	na
M3.16 (0–12)	01/06/00	38.8	20.4
M3.17 (0–5)	01/06/00	31.5	18.3
M3.18 (0–2)	01/06/00	20.7	13.1

Table 7. Gravity cores—Major and trace element concentrations in bottom sediments

[Chemical Abstracts Service–Registry Number (CAS–RN) in parentheses below element name; in micrograms per gram dry sediment weight except as indicated; cm, centimeters; <, less than; dup, duplicate; na, not analyzed]

Site ID and sample depth (cm)	Aluminum (7429–90–5)	Calcium (7440–70–2)	Iron (7439–89–6)	Potassium (7440–09–7)	Magnesium (7439–95–4)	Sodium (7440–23–5)	Phosphorus (7723–14–0)	Titanium (7440–32–6)	Arsenic (7440–38–2)	Barium (7440–39–3)	Beryllium (7440–41–7)	Cadmium (7440–43–9)	Cobalt (7440–48–4)
M3.1 (01/04/00)													
0–7.5	63,600	98,600	34,200	9,170	6,750	998	719	4,540	17.2	254	2.34	3.34	13.6
7.5–15	61,200	101,000	32,900	8,850	6,630	1,040	686	4,330	16.2	250	2.02	3.62	13.2
15–22	60,400	104,000	32,000	8,920	6,120	1,020	844	4,580	19.0	250	2.16	6.12	13.2
22–29	60,700	107,000	31,700	8,780	6,420	1,120	841	4,380	15.9	265	2.02	13.9	13.2
29–36	59,200	110,000	31,300	8,340	6,320	1,200	1,300	4,120	15.8	298	1.96	38.7	12.4
36–43	60,000	88,500	34,100	8,920	6,240	1,320	1,870	4,540	15.4	333	2.04	71.9	12.2
43–50	68,100	74,700	38,300	9,410	7,000	1,140	1,810	5,160	16.5	334	2.39	54.5	11.4
50–57	73,300	68,900	39,300	9,890	7,430	1,130	1,450	5,750	17.8	345	2.45	39.0	11.7
57–64	80,300	64,000	39,700	9,800	8,240	1,030	805	5,840	12.0	320	2.55	9.42	11.6
64–71	67,800	56,400	35,200	9,660	6,980	1,290	812	5,210	13.8	299	2.62	1.25	11.3
[1]71–78	53,800	44,800	30,000	9,320	5,020	1,580	797	4,690	11.7	278	2.21	.642	9.93
M3.3 (01/04/00)													
0–5	53,400	87,000	30,800	8,410	5,480	1,160	702	4,040	16.9	225	1.96	2.48	12.4
5–10	53,600	80,000	28,600	7,860	5,350	1,140	664	3,720	15.2	228	1.85	2.39	12.6
10–15	53,500	84,900	28,500	7,950	5,280	1,150	665	3,870	15.0	233	1.77	2.63	12.4
15–20	57,500	91,600	28,800	8,180	6,210	1,140	668	4,020	14.9	248	1.95	3.82	12.5
20–25	58,900	93,200	30,700	8,530	6,320	1,110	747	4,160	17.0	258	2.04	6.22	12.8
25–30	62,600	96,400	31,700	8,590	6,500	1,090	754	4,520	16.8	261	2.00	8.62	12.3
30–38	54,800	97,100	28,700	7,960	5,450	1,130	1,030	4,560	18.2	273	2.03	21.0	12.6
[1]38–45	49,400	49,600	25,400	7,810	4,810	1,390	738	4,020	9.74	248	1.56	.689	9.26
M3.5 (01/04/00)													
0–7.5	38,400	68,300	21,000	6,470	3,970	1,290	565	3,270	10.9	188	1.37	1.06	11.2
7.5–15	35,700	66,800	19,700	5,970	3,670	1,130	573	3,120	9.76	183	1.42	.950	10.8
15–22	36,700	69,900	20,700	5,980	3,810	1,000	601	3,090	11.1	184	1.47	1.33	11.1
22–29	34,100	63,500	21,900	3,720	4,480	529	585	468	10.6	138	1.41	3.17	12.0
22–29 dup	34,600	60,000	20,300	3,580	4,270	534	558	441	9.94	128	1.23	2.98	11.2
29–36	27,200	49,600	17,900	3,170	3,770	400	560	312	9.02	111	1.07	4.77	11.0
36–43	34,300	59,100	21,200	3,730	3,700	276	926	362	9.53	147	1.28	21.7	10.9
43–50	56,000	62,800	31,600	5,700	6,120	408	985	589	11.1	219	1.99	14.5	11.4
50–57	62,100	72,400	35,600	6,210	6,800	471	749	576	13.8	228	2.25	23.3	10.6
57–64	68,600	62,100	38,900	6,520	7,410	499	638	648	13.9	240	2.53	5.65	12.0
64–74	69,300	64,100	43,000	6,670	7,640	535	565	663	13.9	248	2.52	3.46	11.4
[1]74–80	30,600	37,700	20,100	3,520	3,100	257	417	315	7.09	122	1.13	.304	7.85

[1] Pre-reservoir sediment.

Table 7. Gravity cores—Major and trace element concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	Chromium (7440–50–8)	Copper (7440–50–8)	Mercury (7439–97–6)	Lithium (58–89–9)	Manganese (7439–96–5)	Nickel (7440–02–0)	Lead (7439–92–1)	Scandium (7440–20–2)	Strontium (7440–24–6)	Vanadium (7440–62–2)	Zinc (7440–66–6)	Gallium (7440–55–3)	Selenium (7782–49–2)
M3.1—Continued													
0–7.5	148	51.8	0.13	39.9	666	52.2	60.2	11.2	267	184	228	15.8	1.12
7.5–15	158	46.4	.13	38.1	618	51.4	61.6	10.8	267	178	218	15.0	1.16
15–22	259	50.0	.16	37.0	541	54.6	78.6	11.1	274	187	246	15.0	1.42
22–29	652	60.9	.19	37.2	490	56.5	108	10.7	321	163	210	14.9	.990
29–36	1,760	92.8	.28	37.0	456	67.0	138	10.1	408	127	252	14.1	.896
36–43	2,370	115	.36	39.6	474	80.6	110	10.8	323	128	298	14.7	.920
43–50	1,710	59.7	.26	44.9	440	52.6	79.2	12.8	272	153	307	17.1	.865
50–57	1,390	48.6	.11	46.9	386	51.3	65.8	13.6	227	170	306	18.1	.997
57–64	190	39.6	.04	48.2	350	58.1	28.1	14.4	196	227	133	19.8	1.04
64–71	89.6	34.4	.04	41.6	333	51.5	23.8	12.8	161	191	123	17.1	1.10
[1]71–78	67.9	28.0	.03	34.3	405	37.6	20.2	10.4	136	147	94.5	13.6	.802
M3.3—Continued													
0–5	111	38.7	.08	33.5	570	45.7	51.2	9.60	243	158	202	13.2	1.01
5–10	108	38.8	.08	32.5	525	45.2	49.5	9.62	230	150	184	12.8	.859
10–15	118	39.4	.10	32.6	506	46.0	52.6	9.82	234	154	186	12.9	.959
15–20	173	42.2	.11	34.1	488	50.0	65.6	10.2	243	168	169	13.8	.933
20–25	271	47.3	.16	35.6	470	52.6	83.6	10.9	260	168	197	14.5	1.23
25–30	391	52.6	.19	37.8	455	52.6	99.8	11.5	284	167	210	15.1	1.06
30–38	994	65.4	.20	33.9	386	61.1	110	10.8	318	141	235	13.1	.888
[1]38–45	57.9	27.3	.04	30.3	376	39.5	17.9	9.16	154	145	85.7	11.8	.928
M3.5—Continued													
0–7.5	57.8	27.1	.05	24.5	380	36.3	32.2	7.48	200	118	112	9.20	.649
7.5–15	54.1	26.0	.05	23.1	357	34.7	29.7	7.14	189	111	101	8.58	.773
15–22	64.9	26.7	.04	23.6	363	37.6	35.0	7.52	187	120	117	8.99	.764
22–29	134	30.0	.08	22.3	352	39.1	56.0	6.71	174	104	115	9.00	.782
22–29 dup	125	28.6	na	21.1	326	37.4	52.6	6.58	165	97.8	111	8.44	.742
29–36	224	27.0	.07	18.0	250	34.7	61.2	5.43	151	77.2	93.2	7.08	.626
36–43	784	44.8	.13	22.4	290	48.2	57.2	6.24	187	79.1	134	8.77	.597
43–50	698	35.0	.07	35.2	347	44.5	38.0	10.0	190	130	168	14.3	.930
50–57	345	42.6	.06	38.2	327	46.5	32.2	11.4	219	156	143	16.1	.952
57–64	109	34.6	.04	39.5	438	54.9	23.7	12.4	174	204	117	17.9	1.03
64–74	94.1	34.9	.04	39.8	686	54.9	22.7	12.5	173	206	118	18.2	1.08
[1]74–80	36.9	16.6	.02	19.3	313	24.4	12.3	5.88	104	81.3	51.8	8.19	.578

[1] Pre-reservoir sediment.

Table 7. Gravity cores—Major and trace element concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	Rubidium (7440–17–7)	Yttrium (7440–65–5)	Niobium (7440–03–1)	Molybdenum (7439–98–7)	Silver (7440–22–4)	Antimony (7440–36–0)	Cesium (7440–46–2)	Lanthanum (7439–91–0)	Thorium (7440–29–1)	Uranium (7440–61–1)	Percent total carbon (7440–44–0)	Percent organic carbon
M3.1—Continued												
0–7.5	77.7	22.4	52.8	7.76	<3	1.93	5.02	47.7	12.0	4.30	5.42	2.67
7.5–15	75.6	21.4	50.7	7.70	<3	1.88	4.82	43.2	11.2	4.20	5.30	2.48
15–22	72.9	21.6	49.6	8.45	4.72	2.14	4.76	43.6	11.6	4.35	5.13	2.30
22–29	74.8	21.8	50.1	7.33	12.4	1.92	4.74	42.7	11.3	4.11	5.18	2.29
29–36	70.7	21.4	47.4	5.30	33.1	1.82	4.58	42.5	11.0	3.72	5.57	2.48
36–43	76.1	23.7	50.0	4.36	45.9	1.71	4.94	46.3	12.1	3.47	4.85	2.49
43–50	85.7	26.2	56.7	5.72	18.0	2.09	5.61	49.4	13.3	3.85	4.04	2.12
50–57	91.0	28.0	61.1	6.35	23.2	2.74	5.98	53.5	14.4	4.18	3.74	2.01
57–64	96.0	29.2	61.6	8.50	<3	1.86	6.43	56.2	14.9	4.56	3.27	1.72
64–71	83.8	27.1	54.3	8.26	<3	1.63	5.48	53.0	13.8	4.35	3.68	2.33
[1]71–78	70.8	24.3	45.2	4.96	<3	1.23	4.27	48.0	12.5	3.46	3.71	2.63
M3.3—Continued												
0–5	66.3	19.5	44.1	6.09	<3	1.60	4.01	40.4	10.4	3.68	4.74	2.40
5–10	65.4	20.1	43.0	6.65	<3	1.61	4.05	40.4	9.80	3.60	4.75	2.44
10–15	65.2	20.8	44.4	6.65	<3	1.68	4.14	40.0	10.0	3.65	4.77	2.31
15–20	68.6	21.8	46.3	8.74	<3	1.82	4.37	42.5	10.6	4.09	4.78	2.12
20–25	72.9	22.1	48.2	8.14	5.30	1.95	4.66	42.7	10.9	3.93	4.96	2.28
25–30	75.8	23.7	51.0	6.69	8.04	1.94	4.94	44.6	11.2	3.86	5.17	2.38
30–38	67.4	23.1	47.6	5.84	16.8	1.78	4.35	42.4	10.9	3.80	4.99	2.23
[1]38–45	63.1	23.7	40.7	5.97	<3	1.30	3.84	45.0	11.5	3.72	3.82	2.55
M3.5—Continued												
0–7.5	47.6	18.8	32.2	5.51	<3	1.18	2.89	34.2	8.93	3.67	3.74	1.87
7.5–15	44.6	18.1	30.2	5.46	<3	1.13	2.74	32.9	8.61	3.57	3.77	1.93
15–22	45.1	17.5	30.8	5.98	<3	1.28	2.89	32.2	8.20	3.45	3.64	1.65
22–29	41.5	13.0	<2	3.99	<3	.464	2.81	30.9	7.06	1.94	3.51	1.73
22–29 dup	38.4	12.3	<2	3.78	<3	.432	2.61	29.2	6.59	1.82	na	na
29–36	33.6	10.1	<2	2.29	<3	.328	2.22	22.5	5.48	1.50	2.69	1.33
36–43	43.3	12.0	<2	2.30	9.03	.378	2.86	28.2	6.59	1.36	3.26	1.58
43–50	68.7	18.3	2.00	3.65	6.55	.536	4.49	43.2	10.2	1.78	3.22	1.61
50–57	76.8	19.0	<2	4.46	3.35	.445	4.98	41.5	10.2	1.73	3.55	1.61
57–64	81.6	21.2	2.0	6.48	<3	.507	5.46	45.5	11.4	1.84	3.13	1.62
64–74	83.3	21.1	2.04	7.43	<3	.462	5.44	46.2	11.3	2.18	3.35	1.62
[1]74–80	40.3	11.8	<2	2.20	<3	.230	2.48	28.0	6.32	1.23	2.11	.98

[1] Pre-reservoir sediment.

Table 7. Gravity cores—Major and trace element concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	Aluminum (7429–90–5)	Calcium (7440–70–2)	Iron (7439–89–6)	Potassium (7440–09–7)	Magnesium (7439–95–4)	Sodium (7440–23–5)	Phosphorus (7723–14–0)	Titanium (7440–32–6)	Arsenic (7440–38–2)	Barium (7440–39–3)	Beryllium (7440–41–7)	Cadmium (7440–43–9)	Cobalt (7440–48–4)
M3.7 (01/04/00)													
0–5	39,600	75,100	25,800	4,350	5,000	226	626	391	11.7	142	1.62	1.34	12.4
5–10	29,400	79,200	24,800	2,900	4,080	190	638	91	10.3	115	1.45	1.28	12.6
10–15	44,000	73,200	25,100	7,120	4,870	1,180	614	3,390	12.4	214	1.46	1.20	12.4
15–20	44,400	74,200	25,700	7,090	4,850	1,160	625	3,170	12.3	220	1.58	1.20	12.9
20–25	54,300	89,900	30,700	8,650	5,960	1,380	709	3,760	15.0	256	1.90	1.69	14.1
25–30	50,300	92,400	29,100	7,910	5,580	1,290	681	3,360	15.3	240	1.89	1.67	13.6
30–35	45,500	88,200	27,500	7,360	5,030	1,140	725	3,240	13.4	226	1.61	1.43	12.7
[1]35–40	49,500	69,800	30,100	9,190	4,620	988	592	3,310	15.1	215	1.64	.413	12.0
M3.10 (01/04/00)													
0–7.5	22,400	50,700	13,000	3,710	2,380	713	417	1,780	5.55	125	.812	.510	7.95
7.5–15	20,800	48,600	12,600	3,420	2,180	607	406	1,680	5.41	120	.824	.523	7.88
15–25	28,600	54,500	15,600	4,510	2,880	800	451	2,150	7.97	145	1.05	.967	8.35
25–35	29,800	47,000	16,300	4,690	2,890	810	431	2,270	7.65	149	1.08	2.37	7.72
35–45	46,900	72,500	24,300	7,180	4,540	1,260	779	3,570	12.6	230	1.56	8.50	11.3
45–55	72,000	65,300	34,500	8,670	7,240	1,190	776	4,440	12.9	296	2.26	10.1	11.7
55–65	74,300	60,000	36,000	8,610	7,520	1,210	735	4,540	13.8	297	2.32	5.78	9.71
65–75	79,300	54,600	43,300	8,490	7,920	1,060	860	4,820	14.7	308	2.34	6.30	11.1
75–82	76,400	62,900	35,000	8,470	7,730	1,140	638	4,690	16.4	302	2.32	10.4	10.6

[1] Pre-reservoir sediment.

Table 7. Gravity cores—Major and trace element concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	Chromium (7440–50–8)	Copper (7440–50–8)	Mercury (7439–97–6)	Lithium (58–89–9)	Manganese (7439–96–5)	Nickel (7440–02–0)	Lead (7439–92–1)	Scandium (7440–20–2)	Strontium (7440–24–6)	Vanadium (7440–62–2)	Zinc (7440–66–6)	Gallium (7440–55–3)	Selenium (7782–49–2)
M3.7—Continued													
0–5	60.4	28.9	0.07	25.0	553	41.2	35.8	7.32	199	133	135	10.6	0.989
5–10	51.3	30.9	.05	14.9	552	40.7	36.3	6.95	212	99.2	125	8.35	1.09
10–15	64.9	32.0	.05	29.9	507	39.1	35.2	8.09	208	139	123	11.5	1.12
15–20	65.8	32.8	.05	29.9	528	40.3	35.4	8.22	214	141	125	11.5	1.08
20–25	85.9	39.5	.06	36.0	608	46.6	44.8	9.95	255	173	163	14.3	1.31
25–30	81.2	37.5	.06	33.3	621	44.3	46.4	9.11	251	159	154	13.0	1.14
30–35	74.1	33.3	.07	30.4	585	42.4	37.8	8.59	239	145	134	12.1	.988
[1]35–40	60.7	27.5	.03	33.3	335	38.8	15.5	10.1	220	138	80.5	12.4	.437
M3.10—Continued													
0–7.5	32.5	16.2	.02	15.8	198	22.5	19.5	4.46	142	70.6	59.8	5.67	.466
7.5–15	33.7	17.4	.03	15.0	205	21.4	18.5	4.31	134	65.0	55.8	5.24	.311
15–25	50.2	21.6	.05	19.0	267	26.8	33.2	5.57	144	88.1	77.9	7.12	.576
25–35	125	25.6	.05	20.4	255	25.9	47.9	5.60	139	80.6	84.5	7.37	.491
35–45	485	40.8	.08	30.6	317	41.4	97.6	8.64	234	112	125	11.5	.770
45–55	358	40.7	.05	43.6	358	51.4	34.6	12.4	210	185	133	17.1	.954
55–65	307	37.8	.04	43.6	566	47.7	31.8	12.5	186	196	134	17.2	.924
65–75	222	56.2	.04	45.2	910	50.7	28.5	13.0	180	199	133	18.1	.942
75–82	142	36.9	.04	43.9	351	49.9	25.6	12.8	191	204	118	17.6	.931

[1] Pre-reservoir sediment.

Table 7. Gravity cores—Major and trace element concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	Rubidium (7440–17–7)	Yttrium (7440–65–5)	Niobium (7440–03–1)	Molybdenum (7439–98–7)	Silver (7440–22–4)	Antimony (7440–36–0)	Cesium (7440–46–2)	Lanthanum (7439–91–0)	Thorium (7440–29–1)	Uranium (7440–61–1)	Percent total carbon (7440–44–0)	Percent organic carbon
M3.7—Continued												
0–5	48.7	14.6	<2	5.52	<3	0.417	3.09	32.3	7.68	2.28	4.28	2.17
5–10	32.2	15.1	<2	4.60	<3	.182	1.85	33.2	8.10	2.52	4.15	2.04
10–15	58.9	20.4	30.8	7.31	<3	1.40	3.51	38.4	9.91	3.83	4.31	2.26
15–20	59.7	20.3	30.7	7.21	<3	1.38	3.51	37.2	9.65	3.80	3.8	1.84
20–25	73.0	23.7	38.2	8.47	<3	1.74	4.38	43.0	11.2	4.50	4.55	2.21
25–30	67.2	22.1	34.0	8.07	<3	1.70	4.06	40.2	10.4	3.98	4.61	2.09
30–35	61.2	21.4	31.8	7.84	<3	1.47	3.68	39.0	9.70	3.86	4.26	1.78
[1]35–40	65.4	18.3	38.0	8.73	<3	.957	3.76	40.6	9.29	3.24	2.31	.18
M3.10—Continued												
0–7.5	28.2	12.2	12.2	3.48	<3	.663	1.68	23.8	5.85	2.49	2.64	1.20
7.5–15	26.5	11.4	9.96	2.94	<3	.582	1.55	21.8	4.99	2.16	2.42	1.10
15–25	35.4	13.9	18.4	4.82	<3	1.05	2.14	25.5	6.47	2.52	2.65	1.08
25–35	37.6	13.1	19.6	3.08	<3	.818	2.26	25.0	6.33	2.14	2.49	1.18
35–45	59.2	21.4	32.8	7.96	5.89	1.22	3.62	37.7	9.67	3.27	3.68	1.69
45–55	85.1	27.1	45.4	6.84	<3	1.70	5.71	50.8	12.6	3.62	3.24	1.51
55–65	85.0	27.6	45.5	6.60	3.09	1.86	5.83	51.3	12.6	3.55	3.17	1.60
65–75	90.2	29.2	47.4	7.49	<3	1.87	6.25	54.5	13.0	3.76	3.29	1.69
75–82	87.2	27.4	47.1	8.11	<3	1.76	6.04	51.2	12.8	3.56	3.44	1.68

[1] Pre-reservoir sediment.

Table 8. Gravity cores—Organochlorine pesticide and polychlorinated biphenyl (PCB) concentrations in bottom sediments

[Chemical Abstracts Service–Registry Number (CAS–RN) in parentheses below compound name; in micrograms per kilogram dry sediment weight; cm, centimeters; <, less than; E, estimated; dup, duplicate]

Site ID and sample depth (cm)	Lindane (58–89–9)	Heptachlor (76–77–8)	Aldrin (309–00–2)	Heptachlor epoxide (1024–57–3)	Technical chlordane (12789–03–6)	Endosulfan I (115–29–7)	Dieldrin (60–57–1)	*p,p'*-DDE (72–55–9)	Endrin (72–20–8)
M3.1 (01/04/00)									
0–7.5	<2.0	<2.0	<2.0	<2.0	8.4	<2.0	<2.0	2.6	<2.0
7.5–15	<1.75	<1.75	<1.75	<1.75	9.5	<1.75	<1.75	2.0	<1.75
15–22	<1.75	<1.75	<1.75	<1.75	4.7	<1.75	<1.75	2.9	<1.75
22–29	<1.5	<1.5	<1.5	<1.5	10	<1.5	<1.5	5.9	<1.5
29–36	<1.5	<1.5	<1.5	<1.5	5.5	<1.5	<1.5	25	<1.5
36–43	<1.5	<1.5	<1.5	<1.5	<5	<1.5	<1.5	41	<1.5
43–50	<1.5	<1.5	<1.5	<1.5	<5	<1.5	<1.5	6.7	<1.5
50–57	<1.5	<1.5	<1.5	<1.5	<5	<1.5	<1.5	<1.5	<1.5
57–64	<1.5	<1.5	<1.5	<1.5	<5	<1.5	<1.5	<1.5	<1.5
64–71	<1.5	<1.5	<1.5	<1.5	<5	<1.5	<1.5	<1.5	<1.5
M3.3 (01/04/00)									
0–5	<1.5	<1.5	<1.5	<1.5	14	<1.5	<1.5	2.7	<1.5
5–10	<1.5	<1.5	<1.5	<1.5	19	<1.5	<1.5	3.6	<1.5
10–15	<1.5	<1.5	<1.5	<1.5	29	<1.5	<1.5	2.8	<1.5
15–20	<1.5	<1.5	<1.5	<1.5	14	<1.5	<1.5	4.2	<1.5
20–25	<1.5	<1.5	<1.5	<1.5	25	<1.5	<1.5	4.8	<1.5
25–30	<1.5	<1.5	<1.5	<1.5	7	<1.5	<1.5	4.6	<1.5
30–38	<1.5	<1.5	<1.5	<1.5	8.9	<1.5	<1.5	4.8	<1.5
M3.5 (01/04/00)									
0–7.5	<1.0	<1.0	<1.0	<1.0	16	<1.0	<1.0	1.4	<1.0
7.5–15	<1.0	<1.0	<1.0	<1.0	18	<1.0	<1.0	1.4	<1.0
15–22	<1.0	<1.0	<1.0	<1.0	16	<1.0	<1.0	1.7	<1.0
22–29	<1.0	<1.0	<1.0	<1.0	12	<1.0	<1.0	2.3	<1.0
29–36	<1.0	<1.0	<1.0	<1.0	E4.6	<1.0	<1.0	2.8	<1.0
36–43	<1.0	<1.0	<1.0	<1.0	<5	<1.0	<1.0	9.1	<1.0
43–50	<1.0	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1	<1.0
50–57	<1.5	<1.5	<1.5	<1.5	<5	<1.5	<1.5	<1.5	<1.5
57–64	<1.5	<1.5	<1.5	<1.5	<5	<1.5	<1.5	<1.5	<1.5
64–74	<1.5	<1.5	<1.5	<1.5	<5	<1.5	<1.5	<1.5	<1.5

Table 8. Gravity cores—Organochlorine pesticide and polychlorinated biphenyl (PCB) concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	*p,p'*-DDD (72–54–8)	*p,p'*-DDT (50–29–3)	*p,p'*-Methoxychlor (72–43–5)	Mirex (2385–85–5)	Toxaphene (8001–35–2)	PCB Aroclor 1242 (53469–21–9)	PCB Aroclor 1254 (11097–69–1)	PCB Aroclor 1260 (11096–82–5)
M3.1—Continued								
0–7.5	<2.0	<2.0	<8.0	<2.0	<200	9.9	41	82
7.5–15	<1.75	<1.75	<7.0	<1.75	<175	11	43	86
15–22	<1.75	<1.75	<7.0	<1.75	<175	17	56	150
22–29	<1.5	<1.5	<6.0	<1.5	<150	59	200	530
29–36	<1.5	<1.5	<6.0	<1.5	<150	230	690	1,400
36–43	<1.5	<1.5	<6.0	<1.5	<150	320	1,700	1,800
43–50	4.1	<1.5	<6.0	<1.5	<150	49	370	610
50–57	<1.5	<1.5	<6.0	<1.5	<150	13	130	340
57–64	<1.5	<1.5	<6.0	<1.5	<150	<5	38	53
64–71	<1.5	<1.5	<6.0	<1.5	<150	<5	<5	<5
M3.3—Continued								
0–5	<1.5	<1.5	<6.0	<1.5	<150	6.2	37	67
5–10	<1.5	<1.5	<6.0	<1.5	<150	8.3	47	81
10–15	<1.5	<1.5	<6.0	<1.5	<150	13	40	77
15–20	<1.5	<1.5	<6.0	<1.5	<150	12	62	110
20–25	<1.5	<1.5	<6.0	<1.5	<150	21	60	130
25–30	<1.5	<1.5	<6.0	<1.5	<150	14	99	180
30–38	<1.5	<1.5	<6.0	<1.5	<150	41	130	250
M3.5—Continued								
0–7.5	<1.0	<1.0	<4.0	<1.0	<100	11	22	21
7.5–15	<1.0	<1.0	<4.0	<1.0	<100	16	23	22
15–22	<1.0	<1.0	<4.0	<1.0	<100	18	30	30
22–29	<1.0	<1.0	<4.0	<1.0	<100	19	33	62
29–36	<1.0	<1.0	<4.0	<1.0	<100	23	52	110
36–43	<1.0	<1.0	<4.0	<1.0	<100	75	360	350
43–50	<1.0	<1.0	<4.0	<1.0	<100	12	43	100
50–57	<1.5	<1.5	<6.0	<1.5	<150	<5	28	46
57–64	<1.5	<1.5	<6.0	<1.5	<150	<5	E4.9	5.1
64–74	<1.5	<1.5	<6.0	<1.5	<150	<5	<5	<5

Table 8. Gravity cores—Organochlorine pesticide and polychlorinated biphenyl (PCB) concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	Lindane (58–89–9)	Heptachlor (76–77–8)	Aldrin (309–00–2)	Heptachlor epoxide (1024–57–3)	Technical chlordane (12789–03–6)	Endosulfan I (115–29–7)	Dieldrin (60–57–1)	*p,p'*-DDE (72–55–9)	Endrin (72–20–8)
M3.7 (01/04/00)									
0–5	<1.5	<1.5	<1.5	<1.5	32	<1.5	<1.5	E1.4	<1.5
5–10	<1.5	<1.5	<1.5	<1.5	35	<1.5	<1.5	E1.4	<1.5
10–15	<1.0	<1.0	<1.0	<1.0	31	<1.0	<1.0	<1	<1.4
15–20	<1.0	<1.0	<1.0	<1.0	28	<1.0	<1.0	1.1	<1.0
20–25	<1.5	<1.5	<1.5	<1.5	27	<1.5	<1.5	E1.4	<2.5
25–30	<1.0	<1.0	<1.0	<1.0	28	<1.0	<1.0	1.5	<1.9
30–35	<1.0	<1.0	<1.0	<1.0	31	<1.0	<1.0	<1	<2.3
M3.10 (01/04/00)									
0–7.5	<1.5	<1.5	<1.5	<1.5	8.3	<1.5	<1.5	2.2	<1.5
7.5–15	<.5	<.5	<.5	<.5	16	<.5	<.5	.85	<.5
15–25	<.5	<.5	<.5	<.5	11	<.5	<.5	1.4	<.5
25–35	<.5	<.5	<.5	<.5	8	<.5	<.5	2.6	<.5
35–45	<.5	<.5	<.5	<.5	6.3	<.5	<.5	5.7	<.5
45–55	<1.5	<1.5	<1.5	<1.5	<5	<1.5	<1.5	18	<1.5
55–65	<1.0	<1.0	<1.0	<1.0	<5	<1.0	<1.0	4.4	<1.0
65–75	<1.25	<1.25	<1.25	<1.25	<5	<1.25	<1.25	<1.25	<1.25
65–75 dup	<1.25	<1.25	<1.25	<1.25	<5	<1.25	<1.25	<1.25	<1.25
75–82	<1.25	<1.25	<1.25	<1.25	<5	<1.25	<1.25	<1.25	<1.25

Table 8. Gravity cores—Organochlorine pesticide and polychlorinated biphenyl (PCB) concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	*p,p'*-DDD (72–54–8)	*p,p'*-DDT (50–29–3)	*p,p'*-Methoxychlor (72–43–5)	Mirex (2385–85–5)	Toxaphene (8001–35–2)	PCB Aroclor 1242 (53469–21–9)	PCB Aroclor 1254 (11097–69–1)	PCB Aroclor 1260 (11096–82–5)
M3.7—Continued								
0–5	<1.5	<1.5	<6.0	<1.5	<150	13	18	23
5–10	<1.5	<1.5	<6.0	<1.5	<150	10	19	25
10–15	<1.0	<1.0	<4.0	<1.0	<100	11	15	19
15–20	<1.0	<1.0	<4.0	<1.0	<100	5.4	12	16
20–25	<1.5	<1.5	<6.0	<1.5	<150	8.2	19	25
25–30	<1.0	<1.0	<4.0	<1.0	<100	14	23	34
30–35	<1.0	<1.0	<4.0	<1.0	<100	9.8	20	27
M3.10—Continued								
0–7.5	<1.5	<1.5	<6.0	<1.5	<150	12	19	18
7.5–15	<.5	<.5	<2.0	<.5	<50	10	8.3	12
15–25	1.7	<1.0	<3.0	<.5	<50	8.4	20	25
25–35	1.8	<1.0	<4.0	<.5	<50	6.6	45	92
35–45	<.5	<.5	<.5	<.5	<50	14	200	180
45–55	1.9	<1.5	<6.0	<1.5	<150	5.4	130	240
55–65	1.0	<1.0	<4.0	<1.0	<100	<5	28	59
65–75	<1.25	<1.25	<5.0	<1.25	<125	<5	18	19
65–75 dup	<1.25	<1.25	<5.0	<1.25	<125	<5	13	15
75–82	<1.25	<1.25	<5.0	<1.25	<125	<5	35	44

Table 9. Gravity cores—Polycyclic aromatic hydrocarbon (PAH) concentrations in bottom sediments

[Chemical Abstracts Service–Registry Number (CAS–RN) in parentheses below compound name; in micrograms per kilogram dry sediment weight; cm, centimeters; E, estimated; <, less than; dup, duplicate]

Site ID and sample depth (cm)	Naphthalene (91–20–3)	C1-128 isomers	2-Ethyl-naphthalene (939–27–5)	2,6-Dimethyl-naphthalene (581–42–0)	1,6-Dimethyl-naphthalene (575–43–9)	C2-128 isomers	Acenaph-thylene (208–96–8)	1,2-Dimethyl-naphthalene (573–98–8)	Acenaph-thene (83–32–9)	C3-128 isomers
M3.1 (01/04/00)										
0–7.5	E6.1	E9.2	E1.1	92.8	11.5	136	E19.8	E10.4	22.9	71.7
7.5–15	E5.4	<15	E1.2	73.5	E7.4	98.5	21.0	E10.6	25.5	70.8
15–22	E4.9	<15	E1.1	56.4	10.0	85.9	20.4	E10.7	22.5	95.3
22–29	E6.2	E7.1	E1.6	57.2	E9.6	108	24.0	31.8	27.4	96.3
29–36	E9.3	<15	<15	<15	20.2	242	43.1	154	43.9	171
36–43	E6.8	<15	E5.7	99.3	94.7	265	51.0	<300	36.7	266
43–50	E4.7	<15	<15	58.0	<15	170	10.1	118	9.6	127
50–57	E2.1	<15	E1.4	47.8	E6.6	95.0	E6.0	49.2	E5.4	115
57–64	<15	<15	<15	17.6	E3.5	33.4	E1.6	E10.2	E2.6	49.5
64–71	E1.6	<10	<10	10.2	E2.0	18.0	<10	E5.8	E2.2	18.5
M3.3 (01/04/00)										
0–5	E7.0	E8.8	E2.7	65.1	E7.8	137	15.5	E8.8	23.0	47.7
5–10	E6.7	E11.2	E3.5	59.2	E7.1	116	16.4	E10.3	23.5	64.8
10–15	E6.5	E9.3	E3.4	36.9	E6.4	63.3	17.3	E9.0	23.8	103
15–20	E5.8	E9.3	E3.3	43.1	E7.2	114	E14.8	E13.8	22.4	97.7
20–25	E6.7	E9.7	E4.1	53.5	E8.6	85.8	16.3	14.2	22.2	117
20–25 dup	E6.5	11.0	E4.1	44.7	E7.6	83.6	15.2	14.0	21.2	110
25–30	E7.3	E10.0	E4.0	62.7	E10.6	98.7	18.8	19.8	28.8	95.2
30–38	E6.4	11.4	E3.7	58.9	E8.5	101	18.1	17.4	23.7	83.3
M3.5 (01/04/00)										
0–7.5	E7.5	E9.2	E3.2	35.3	44.6	66.3	13.4	E6.8	24.2	53.3
7.5–15	E8.4	10.6	E3.4	25.7	E6.5	57.5	14.4	E7.2	39.5	98.2
15–22	E5.1	E6.9	E2.8	19.1	E4.4	42.5	E14.4	E6.5	28.8	81.1
22–29	E3.1	E5.7	E3.1	24.6	E4.5	48.3	E9.7	E9.1	11.4	91.6
29–36	E3.0	E5.5	E2.4	19.7	E3.4	40.1	E8.4	E9.5	E9.0	58.2
36–43	E4.1	E6.6	E2.8	24.4	E4.8	64.7	10.4	33.1	E9.3	66.2
43–50	E2.0	E4.9	E2.3	18.0	E3.7	42.9	E4.2	13.8	E2.6	66.3
50–57	E2.8	E5.9	E2.9	18.6	E4.6	36.4	E2.5	E9.6	E2.0	53.2
57–64	E3.1	E6.3	E2.8	11.7	E3.7	23.1	E2.3	E3.4	E1.7	25.9
64–74	E2.0	E4.3	E2.4	E8.7	E3.1	16.7	E1.6	E2.7	E1.1	E9.4
64–74 dup	E1.7	E4.9	E2.6	E8.9	E3.7	22.1	E2.3	E3.1	E1.2	12.3

Table 9. Gravity cores—Polycyclic aromatic hydrocarbon (PAH) concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	2,3,6-Trimethyl-naphthalene (829–26–5)	9*H*-Fluorene (86–73–7)	C4-128 isomers	1-Methyl-9*H*-fluorene (1730–37–6)	Phenan-threne (85–01–8)	Anthracene (120–12–7)	C5-128 isomers	2-Methyl-anthracene (613–12–7)	4,5-Methylene-phenanthrene (203–64–5)	C1-178 isomers	1-Methyl-phenanthrene (832–69–9)
M3.1—Continued											
0–7.5	E4.0	23.0	26.8	E7.3	281	70.9	E7.7	E13.5	62.6	134	22.9
7.5–15	E4.2	28.3	25.6	E7.1	351	74.6	<15	E14.5	81.7	150	26.2
15–22	E4.7	23.9	66.8	8.1	263	77.9	<15	15.2	74.9	148	24.2
22–29	E5.5	27.0	<15	E10.6	289	76.6	<15	16.5	84.6	163	30.4
29–36	E11.2	42.4	118	32.6	437	109	<15	24.6	135	276	47.1
36–43	29.7	40.7	258	40.7	384	104	151	24.8	156	276	46.9
43–50	6.50	15.7	76.6	11.9	68.4	16.5	<15	E4.2	52.0	50.1	11.2
50–57	E7.2	11.5	89.6	E12.4	34.8	11.6	109	E2.6	51.6	51.2	E12.0
57–64	E3.6	E7.5	32.1	E4.9	E12.2	E6.2	<15	E2.5	15.5	17.4	E4.0
64–71	E1.2	E5.9	<10	E2.9	E9.1	E2.5	<10	E1.3	E2.1	E8.2	E1.6
M3.3—Continued											
0–5	E3.8	21.5	26.2	E6.2	23.0	47.7	15.3	15.6	64.5	159	23.2
5–10	E5.0	24.9	53.1	E8.7	23.5	64.8	<25	17.6	78.6	191	30.2
10–15	E6.9	30.2	92.0	E10.0	23.8	103	25.7	18.7	86.4	212	35.0
15–20	E6.7	27.3	78.7	E10.9	22.4	97.7	37.7	18.1	83.5	181	26.6
20–25	E8.8	26.3	126	11.8	22.2	117	12.4	21.5	81.0	211	32.9
20–25 dup	E7.7	24.2	94.1	10.60	21.2	110	23.5	20.2	72.5	187	32.7
25–30	E5.9	27.2	45.9	E10.1	28.8	95.2	<20	24.1	82.0	215	34.2
30–38	E6.4	23.6	73.4	E9.8	23.7	83.3	<10	22.9	76.3	204	35.7
M3.5—Continued											
0–7.5	E4.6	28.1	34.8	E6.4	379	83.8	<10	19.1	76.4	188	33.5
7.5–15	E7.3	50.7	60.2	10.2	599	116	23.4	25.0	102	257	44.0
15–22	E5.4	40.6	69.3	10.0	483	96.0	15.2	22.7	98.4	235	40.0
22–29	E6.9	18.4	102	E9.0	169	38.9	<10	11.5	50.1	123	18.3
29–36	E4.8	11.0	52.7	E6.0	114	33.2	<10	10.9	39.2	92.6	16.1
36–43	E5.1	12.3	62.1	E8.0	114	28.2	<10	E8.0	45.7	77.1	13.9
43–50	E3.1	E7.8	69.4	E6.4	21.4	E8.3	<10	E3.2	31.3	23.0	E5.0
50–57	E4.7	E7.6	31.5	E4.6	10.8	E6.5	<10	E3.4	17.0	20.0	E4.2
57–64	E3.4	E7.9	<10	E3.1	10.0	E4.3	<10	E2.3	E8.1	E9.6	E2.0
64–74	E2.8	E6.3	E10.1	E2.0	E10	E4.3	<15	E2.1	E7.1	E9.0	E2.0
64–74 dup	E3.0	E7.7	E10	E2.5	E10.6	E4.7	<15	E2.5	E8.0	E9.6	E2.2

Table 9. Gravity cores—Polycyclic aromatic hydrocarbon (PAH) concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	C2-178 isomers	Fluoranthene (206–44–0)	Pyrene (129–00–0)	C3-178 isomers	C4-178 isomers	1-Methylpyrene (2381–21–7)	C1-202 isomers	C2-202 isomers	C5-178 isomers	Benz(*a*)anthracene (56–55–3)	Chrysene (218–01–9)
M3.1—Continued											
0–7.5	110	1,100	1,060	79.4	<25	32.5	E3.0	E4.2	<20	470	594
7.5–15	127	1,320	1,250	118.0	35.6	39.6	509	325	<15	549	710
15–22	138	948	918	131.0	<15	29.8	466	515	<15	404	516
22–29	179	1,040	1,010	197	84.4	36.0	506	600	<15	446	573
29–36	397	1,560	1,300	534	204	126	727	1,130	244	678	857
36–43	469	1,630	1,270	680	272	68.0	873	566	295	578	780
43–50	82.1	190	160	104	51.8	6.8	148	65.5	<70	53.4	92.0
50–57	83.4	88.7	78.0	<50	162	E6.8	106	77.5	<15	28.4	49.5
57–64	27.6	29.1	28.7	37.7	23.2	E1.8	30.9	15.0	E12.7	E11.1	17.4
64–71	E6.5	12.6	11.3	E6.3	<10	E1.0	13.2	E9.2	<10	E3.8	E7.6
M3.3—Continued											
0–5	134	1,200	973	109	25.9	37.1	431	343	<15	E683	753
5–10	150	1,330	1,110	102	59.5	36.6	442	309	<15	E745	856
10–15	203	1,390	1,200	153	89.0	49.4	561	1,170	<15	610	672
15–20	185	1,180	962	161	97.3	35.1	485	527	<15	E641	742
20–25	195	1,020	854	140	67.2	40.9	509	980	<15	447	504
20–25 dup	166	1,270	1,080	122	106	31.4	420	970	<15	592	661
25–30	190	1,300	1,070	122	64.3	42.5	551	553	<15	E772	856
30–38	179	939	782	152	48.7	54.0	489	1,260	<10	408	460
M3.5—Continued											
0–7.5	125	1,160	924	94.8	29.0	36.6	477	896	<10	507	609
7.5–15	202	1,690	1,320	124	52.8	47.0	622	1,130	<10	715	809
15–22	182	1,530	1,240	139	37.5	48.7	640	1,040	<10	645	754
22–29	148	631	496	104	29.0	19.8	268	511	<10	246	302
29–36	110	457	380	93.3	35.3	15.2	219	381	<10	193	223
36–43	130	516	434	210	170	17.5	235	510	<10	199	234
43–50	45.1	64.5	54.3	70.8	59.7	E3.7	50.9	109	<10	21.2	31.7
50–57	45.1	23.4	19.9	79.2	69.6	E3.2	35.0	64.4	<10	E9.4	17.1
57–64	13.8	15.2	12.4	12.1	<10	E2.2	13.7	33.1	<10	E5.1	E6.9
64–74	E9.1	17.5	E13.6	E9.9	E9.1	E2.0	E13.3	18.8	E3.8	E6.1	E7.2
64–74 dup	E8.8	15.9	12.1	E8.5	E6.8	E2.0	E13.2	18.2	<15	E5.2	E6.5

Table 9. Gravity cores—Polycyclic aromatic hydrocarbon (PAH) concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	C3-202 isomers	C1-228 isomers	C4-202 isomers	C5-202 isomers	C2-228 isomers	Benzo(*b*)-fluoran-thene (205–99–2)	Benzo(*k*)-fluoran-thene (207–08–9)	Benzo(*e*)-pyrene (192–97–2)	Benzo(*a*)-pyrene (50–32–8)	Perylene (198–55–0)	C1-252 somers
M3.1—Continued											
0–7.5	E13.5	297	E4.2	37.4	127	932	438	626	596	250	419
7.5–15	126	310	<100	<15	138	1,080	513	669	721	382	453
15–22	<100	273	76	<15	16.8	560	378	468	487	378	379
22–29	62.0	255	<150	<15	59.1	750	302	517	555	481	381
29–36	146	656	<15	<15	255	1,190	537	699	787	416	608
36–43	202	408	<200	<15	206	952	413	573	636	477	522
43–50	<15	51.6	<15	<15	48.3	84.1	74.4	64.3	63.2	883	67.3
50–57	<50	45.3	<15	<15	55.4	51.7	27.8	35.5	32	689	47.6
57–64	<15	E14.3	<15	<15	<15	17.3	E11.3	16.3	17.3	602	E7.2
64–71	<30	E3.2	<10	<40	<10	E6.5	E4.5	E5.2	E4.5	627	14.3
M3.3—Continued											
0–5	71.3	293	<15	<15	132	831	487	594	695	297	398
5–10	35.3	309	<130	<15	137	962	466	687	786	404	430
10–15	210	267	<200	<15	119	1,050	367	614	728	364	484
15–20	55.8	282	<15	<15	118	904	513	553	651	553	378
20–25	252	210	<150	<15	79.6	654	372	450	502	497	403
20–25 dup	200	219	<200	<15	94.2	1,020	541	568	670	532	367
25–30	110	302	<15	<15	121	993	596	658	795	644	510
30–38	237	279	<160	<10	130	601	330	404	454	419	443
M3.5—Continued											
0–7.5	160	218	<200	<10	88.2	720	359	472	579	210	358
7.5–15	143	286	<200	<10	129	775	687	612	752	306	428
15–22	172	285	<200	<10	132	865	516	581	712	334	424
22–29	90.0	127	<100	<10	61.8	459	244	251	300	295	219
29–36	98.6	106	<80	<10	54.0	328	153	193	222	307	178
36–43	124	138	<75	<10	74.6	395	165	190	217	334	192
43–50	<10	19.4	<10	<10	14.9	37.7	19.0	21.7	21.4	714	32.0
50–57	<10	15.7	<10	<10	16.6	18.1	E4.5	E9.1	E8.0	659	<10
57–64	<10	E5.6	<10	<10	<10	10.2	E5.1	E5.9	E5.5	675	15.7
64–74	<15	E4.6	<15	<30	E3.3	E9.3	E6.4	E6.0	E7.0	626	E9.8
64–74 dup	<15	E3.8	<15	<30	E4.9	E8.8	E5.5	E5.9	E6.4	710	E10.1

Table 9. Gravity cores—Polycyclic aromatic hydrocarbon (PAH) concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	C3-228 isomers	C2-252 isomers	C4-228 isomers	Benzo(*ghi*)-perylene (191–24–2)	Indeno-[1,2,3–*cd*]-pyrene (193–39–5)	Dibenzo(*a,h*)-anthracene (53–70–3)	C3-252 isomers	C4-252 isomers	C5-228 isomers	C5-252 isomers	Coronene (191–07–1)
M3.1—Continued											
0–7.5	<20	220	<20	507	656	107	<50	<20	<20	<20	E139
7.5–15	<15	300	<15	550	730	116	<50	<15	<15	<15	E171
15–22	<15	223	<15	347	481	100	31.4	<15	<15	<15	E69.9
22–29	<15	179	<15	388	541	88.9	35.5	<15	<15	<15	E115
29–36	<15	354	<15	491	728	167	62.7	<15	<15	<15	E134
36–43	<50	269	<15	403	584	141	72.6	<15	<15	<15	E114
43–50	<15	28.2	<15	42.1	66.8	12.5	9.3	<15	<15	<15	12.0
50–57	<15	<20	<15	21.4	30.4	E6.4	<15	<15	<15	<15	E5.4
57–64	<15	<15	<15	31.4	E14.0	E2.7	<15	<15	<15	<15	E5.0
64–71	<10	<10	<10	E5.9	E5.8	E1.3	<10	<10	<10	<10	E2.1
M3.3—Continued											
0–5	<15	150	<15	426	814	118	<50	<15	<15	<15	E27.2
5–10	<40	137	<20	522	906	138	<40	<15	<15	<15	E29.9
10–15	<60	202	22.1	511	706	105	<40	<15	<15	<15	E39.5
15–20	<15	127	<15	416	832	149	<60	<15	<15	<15	E23.9
20–25	<35	208	<20	331	484	95.2	<75	<50	<15	<15	E59.6
20–25 dup	<40	197	<20	423	700	79.6	<50	<30	<15	<15	E39.1
25–30	<15	193	<15	499	913	142	<100	<15	<15	<15	E37.7
30–38	<50	263	<10	323	485	103	<50	<50	<10	<10	E55.7
M3.5—Continued											
0–7.5	<30	152	<10	391	565	79.9	<30	<10	<10	<10	E34.8
7.5–15	<35	227	<20	479	726	102	<40	<35	<10	<10	E43.9
15–22	<50	210	22.1	449	695	93.0	<30	<25	<10	<10	E44.8
22–29	<20	103	<10	140	304	41.1	<10	<10	<10	<10	E17.3
29–36	<20	63.3	<10	96.0	142	32.6	<20	<10	<10	<10	E10.7
36–43	<25	72.2	<10	88.3	221	31.3	<20	<10	<10	<10	E10.4
43–50	<10	E3.6	<10	10.7	15.9	E4.5	<10	<10	<10	<10	E1.7
50–57	<10	<10	<10	E4.9	E7.4	E2.7	<10	<10	<10	<10	<10
57–64	<10	<10	<10	E2.7	E4.6	E2.2	<10	<10	<10	<10	<10
64–74	<15	<15	<15	E5.0	E6.8	E2.6	<15	<15	<15	<15	E2.3
64–74 dup	<15	<15	<15	E5.4	E4.7	E2.6	<15	<15	<15	<15	E1.5

Table 9. Gravity cores—Polycyclic aromatic hydrocarbon (PAH) concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	Naphthalene (91–20–3)	C1-128 isomers	2-Ethyl-naphthalene (939–27–5)	2,6-Dimethyl-naphthalene (581–42–0)	1,6-Dimethyl-naphthalene (575–43–9)	C2-128 isomers	Acenaph-thylene (208–96–8)	1,2-Dimethyl-naphthalene (573–98–8)	Acenaph-thene (83–32–9)	C3-128 isomers
M3.7 (01/04/00)										
0–5	E8.0	E9.9	E3.2	60.4	E8.5	28.2	E11.6	E6.8	16.5	48.2
5–10	E8.1	10.3	E2.9	52.2	E8.0	99.5	12.3	E7.3	18.5	51.5
10–15	E6.2	E7.7	E2.6	28.4	E6.0	13.9	11.0	E6.0	15.4	61.8
15–20	E4.6	7.9	E2.8	28.8	5.9	57.8	24.0	6.8	12.3	46.7
20–25	E7.7	10.6	E3.5	53.3	E9.4	85.0	13.7	E9.7	19.6	56.4
25–30	E9.5	12.0	E3.9	53.7	E8.7	142	15.9	11.2	37.9	93.5
30–35	11.4	12.5	E4.3	34.5	E8.8	74.9	19.9	E9.8	60.8	124
M3.10 (01/04/00)										
0–7.5	E4.4	E4.4	E1.6	16.5	E3.4	39.6	E5.7	E2.8	12.2	18.8
7.5–15	E3.2	E5.3	E1.6	E7.3	E2.8	18.0	E5.4	E2.9	11.6	23.3
15–25	E2.5	E4.6	E2.0	14.4	E2.8	35.9	E5.4	E5.6	E9.4	77.6
25–35	E1.7	E3.4	E1.6	10.9	E3.0	18.7	E4.9	E4.0	E6.3	29.8
35–45	E1.6	E2.7	<10	13.2	E2.6	38.3	E4.7	E7.3	E4.0	15.4
45–55	E2.5	E6.8	E2.0	15.8	E5.5	28.4	E4.6	E6.7	E2.0	E9.8
55–65	E2.8	E6.4	E2.5	E9.7	E4.2	24.0	E3.5	E7.0	E2.0	E10.7
65–75	E1.2	E2.7	<10	12.3	E2.8	23.0	E1.7	11.9	E1.5	45.8
65–75 dup	E1.6	E3.5	<10	20.8	E3.5	35.6	E2.3	16.1	E1.8	70.7
75–82	E1.2	E2.8	<10	24.4	E2.3	37.9	E.63	17.6	E1.6	55.5

Table 9. Gravity cores—Polycyclic aromatic hydrocarbon (PAH) concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	2,3,6-Trimethyl-naphthalene (829–26–5)	9*H*-Fluorene (86–73–7)	C4-128 isomers	1-Methyl-9*H*-fluorene (1730–37–6)	Phenan-threne (85–01–8)	Anthra-cene (120–12–7)	C5-128 isomers	2-Methyl-anthracene (613–12–7)	4,5-Methylene-phenanthrene (203–64–5)	C1-178 isomers	1-Methyl-phenanthrene (832–69–9)
M3.7—Continued											
0–5	E4.7	19.4	41.1	E6.4	295	61.4	<15	E12.8	52.7	142	24.0
5–10	E4.6	20.8	34.5	E5.7	280	58.4	13.6	13.5	55.6	138	22.6
10–15	E4.2	22.8	61.3	E6.9	289	55.4	18	13.2	62.0	145	26.6
15–20	E4.3	19.3	45.0	5.4	201	55.0	8.2	12.3	50.5	116	19.3
20–25	E5.0	25.8	39.3	E7.5	298	64.9	E9.4	13.9	63.1	149	27.0
25–30	E7.2	44.6	97.5	E9.3	612	112	37.1	23.2	101	263	45.8
30–35	E9.4	73.8	106	13.5	912	194	23.9	36.7	142	391	67.8
M3.10—Continued											
0–7.5	E1.7	14.4	15.3	E3.2	215	40.3	E5.0	E8.0	38.4	84.5	13.4
7.5–15	E2.3	12.6	26.5	E3.6	165	39.3	E7.3	E8.6	46.4	82.3	13.1
15–25	E5.0	15.0	86.5	E6.4	95.8	33.9	21.5	E9.2	44.9	80.1	12.5
25–35	E2.2	E9.7	47.3	E4.1	75.7	20.0	E9.0	E6.6	28.4	51.8	E8.8
35–45	E1.6	E6.1	14.7	E4.3	51.3	14.6	10.4	E4.6	26.6	39.2	E6.5
45–55	E1.8	E6.1	E9.3	E3.6	15.9	E5.5	<10	E2.5	20.5	16.7	E2.6
55–65	E2.4	E8.4	E9.2	E3.4	E14.8	E6.4	E3.6	E3.1	18.3	16.4	E2.7
65–75	E2.8	E7.2	14.6	E4.3	E8.3	E4.7	<10	E1.9	10.8	10.5	E2.9
65–75 dup	E5.0	E8.6	33.2	E6.4	11.0	E7.3	<10	E1.9	13.8	14.8	E3.2
75–82	E3.3	E7.8	30.4	E4.1	E9.0	E4.1	<10	E1.7	17.7	16.1	E3.7

Table 9. Gravity cores—Polycyclic aromatic hydrocarbon (PAH) concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	C2-178 isomers	Fluoranthene (206–44–0)	Pyrene (129–00–0)	C3-178 isomers	C4-178 isomers	1-Methyl-pyrene (2381–21–7)	C1-202 isomers	C2-202 isomers	C5-178 isomers	Benz(*a*)-anthracene (56–55–3)	Chrysene (218–01–9)
M3.7—Continued											
0–5	108	990	759	74.8	49.0	27.8	343	818	<160	369	523
5–10	104	942	733	65.7	50.0	25.9	352	690	<160	372	487
10–15	115	965	759	87.6	67.9	27.0	372	579	<210	380	503
15–20	99.5	726	559	65.6	35.1	22.9	299	634	<130	305	396
20–25	117	1,060	797	77.2	38.8	28.0	379	818	<220	413	559
25–30	205	1,850	1,370	129	51.4	44.2	598	1,150	<310	753	922
30–35	229	2,320	1,720	162	79.0	55.2	750	1,390	<330	937	1,040
M3.10—Continued											
0–7.5	61.3	680	556	53.0	12.6	19.6	260	243	<10	E335	428
7.5–15	64.7	666	550	58.4	16.5	23.6	292	190	<10	E353	405
15–25	107	537	446	102	35.4	18.5	251	129	<30	E367	313
25–35	58.5	264	242	57.6	19.3	12.0	153	95.1	E2.7	118	145
35–45	51.6	200	192	61.4	40.9	11.0	118	70.6	<10	88.1	111
45–55	13.7	48.8	48.2	19.6	E6.1	E3.6	38.8	15.3	<10	16.2	25.8
55–65	E11.6	33.5	29.4	E12.7	E13.7	E4.7	28.2	E5.8	<15	E10.8	15.5
65–75	15.5	11.3	E9.1	13.4	10.7	E1.2	16.1	E7.7	<10	E4.0	E7.2
65–75 dup	28.3	17.9	15.8	31.7	18.3	E1.7	22.8	17.5	<10	E6.0	11.1
75–82	34.3	19.0	17.2	52.2	40.3	E1.5	<10	E3.6	<10	E6.6	14.5

Table 9. Gravity cores—Polycyclic aromatic hydrocarbon (PAH) concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	C3–202 isomers	C1-228 isomers	C4-202 isomers	C5-202 isomers	C2-228 isomers	Benzo(*b*)-fluoranthene (205–99–2)	Benzo(*k*)-fluoranthene (207–08–9)	Benzo(*e*)-pyrene (192–97–2)	Benzo(*a*)-pyrene (50–32–8)	Perylene (198–55–0)	C1-252 isomers
M3.7—Continued											
0–5	153	147	143	<15	68	742	411	414	456	154	294
5–10	122	137	<100	<200	62.3	753	454	434	463	167	272
10–15	138	161	157	<80	70	580	370	419	477	201	292
15–20	51.1	157	48.3	<120	52.9	497	343	336	366	194	242
20–25	111	162	63.8	<120	63.5	687	518	455	502	244	308
25–30	253	274	264	18.2	120	1,050	689	747	861	360	468
30–35	315	303	207	<10	126	1,250	948	795	966	377	567
M3.10—Continued											
0–7.5	24.4	139	<65	<10	62.6	446	223	291	356	106	185
7.5–15	29.7	141	<10	<10	52.4	417	215	275	348	159	172
15–25	<20	123	<10	<10	64.4	301	236	214	248	237	142
25–35	24.9	88.3	<10	<10	42.0	155	101	118	129	255	118
35–45	28.1	71.2	23.7	<10	56.7	123	86.7	87.9	94.2	281	86.7
45–55	<10	17.8	<10	<10	E9.2	29.1	19.8	20.8	19.8	407	21.6
55–65	<15	E9.4	<15	<15	E7.6	20.7	E11.4	E14.0	16.6	562	15.0
65–75	<10	E7.3	<10	<10	<10	E6.2	E4.5	E4.7	E3.5	344	<10
65–75 dup	<10	11.4	<10	<10	E6.9	10.0	E4.7	E6.6	E4.9	566	E8.0
75–82	E1.5	17.5	E5.2	E4.5	13.1	10.6	E6.0	E8.0	E6.3	400	11.2

Table 9. Gravity cores—Polycyclic aromatic hydrocarbon (PAH) concentrations in bottom sediments—Continued

Site ID and sample depth (cm)	C3-228 isomers	C2-252 isomers	C4-228 isomers	Benzo(*ghi*)-perylene (191–24–2)	Indeno-[1,2,3-*cd*]-pyrene (193–39–5)	Dibenzo(*a,h*)-anthracene (53–70–3)	C3-252 isomers	C4-252 isomers	C5-228 isomers	C5-252 isomers	Coronene (191–07–1)
M3.7—Continued											
0–5	<15	136	<15	349	496	87.3	<40	<15	<15	<15	E41.6
5–10	<15	100	E9.4	358	500	70.1	<25	<20	<10	<10	E31.3
10–15	<20	116	E9.8	346	509	91.7	<60	<10	E5.0	<10	E43.7
15–20	<15	76.8	<15	265	408	67.9	18.8	<20	<10	<10	E25.2
20–25	<20	108	E9.4	381	537	78.7	<40	<20	<10	<10	E32.3
25–30	<30	191	18.0	640	901	95.8	75.0	42.4	<10	<10	E66.7
30–35	<35	274	<15	680	946	134	<80	42.0	<10	<10	E56.9
M3.10—Continued											
0–7.5	<10	95.3	<10	239	447	60.7	<25	11.0	<10	<10	E23.8
7.5–15	<10	52.7	<10	213	418	58.1	<20	<25	<10	<10	E16.2
15–25	E5.5	65.2	<10	116	313	38.3	<30	<20	<10	<10	E17.4
25–35	E3.4	<60	<10	81.3	141	31.1	<30	<10	<10	<10	E15.2
35–45	<10	31.2	<10	70.8	144	25.0	<10	<10	<10	<10	E8.1
45–55	<10	<15	<10	16.8	27.8	E6.4	<10	<10	<10	<10	E4.4
55–65	<15	<15	<15	E10.9	20.4	E5.6	<15	<15	<15	<15	E3.4
65–75	<10	<10	<10	E2.9	E3.9	<10	<10	<10	<10	<10	E.71
65–75 dup	<10	<10	<10	E4.5	E5.6	E1.5	<10	<10	<10	<10	E.96
75–82	<10	<10	<10	E4.2	E5.9	E1.4	<10	<10	<10	<10	<10

Table 10. Gravity cores—Grain size in bottom sediments

[sieve size = 0.062 millimeter; pipet size = 0.004 millimeter; cm, centimeters; dup, duplicate; na, not analyzed]

Site ID and sample depth (cm)	Percent silt and clay (determined by sieve analysis)	Percent clay (determined by pipet analysis)	Site ID and sample depth (cm)	Percent silt and clay (determined by sieve analysis)	Percent clay (determined by pipet analysis)
M3.1 (01/04/00)			M3.5—Continued		
0–7.5	98.8	81.3	29–36	53.1	31.3
7.5–15	98.1	78.7	36–43	69.2	40.0
15–22	97.1	79.0	43–50	91.8	65.9
22–29	96.7	72.0	50–57	95.6	81.6
29–36	97.6	60.4	57–64	97.4	74.9
36–43	96.8	63.5	64–74	99.5	83.3
43–50	97.5	69.2	[1]74–80	54.6	35.4
50–57	98.9	81.5			
			M3.7 (01/04/00)		
57–64	99.1	77.0	0–5	86.2	53.7
64–71	95.1	74.9	5–10	84.8	47.8
64–71 dup	95.1	74.5	10–15	80.7	42.7
[1]71–78	89.2	49.2	15–20	76.2	44.7
M3.3 (01/04/00)			20–25	93.4	63.0
0–5	88.9	55.5	25–30	86.3	55.7
5–10	89.5	56.8	30–35	na	na
10–15	91.2	63.6	[1]35–40	75.5	48.2
15–20	95.6	67.4			
			M3.10 (01/04/00)		
20–25	96.4	66.7	0–7.5	39.8	21.1
25–30	97.6	74.5	7.5–15	41.6	21.9
30–38	94.1	64.2	15–25	55.3	29.6
[1]38–45	82.8	47.9	25–35	49.0	28.0
			35–45	75.0	41.6
M3.5 (01/04/00)					
0–7.5	73.0	35.8	45–55	96.0	81.0
7.5–15	69.0	34.0	55–65	94.9	80.3
15–22	68.1	36.1	65–75	99.3	78.2
22–29	65.0	37.2	75–82	99.4	84.0

[1] Pre-reservoir sediment.

Table 11. Gravity cores—Cesium-137 (^{137}Cs) activity in bottom sediments

[Chemical Abstracts Service–Registry Number (CAS–RN) in parentheses below element name; in picocuries per gram dry sediment weight; cm, centimeters; σ, sigma; na, not analyzed; <, less than]

Site ID and sample depth (cm)	^{137}Cs (10045–97–3)	Counting uncertainty (2σ)	Site ID and sample depth (cm)	^{137}Cs (10045–97–3)	Counting uncertainty (2σ)	Site ID and sample depth (cm)	^{137}Cs (10045–97–3)	Counting uncertainty (2σ)
M3.1 (01/04/00)			M3.5 (01/04/00)			M3.10 (01/04/00)		
0–7.5	na	na	0–7.5	0.0522	0.0514	0–7.5	0.05	0.222
7.5–15	0.0602	0.033	7.5–15	<.05	.037	7.5–15	.05	.0296
15–22	.375	.159	15–22	<.05	.0503	15–25	.0512	.0375
22–29	.265	.0979	22–29	.0843	.0722	25–35	.0846	.0289
29–36	.514	.102	29–36	.137	.0418	35–45	.195	.0481
36–43	.975	.13	36–43	.343	.0762	45–55	<.05	.054
43–50	.202	.0711	43–50	.193	.063	55–65	<.05	.0264
50–57	<.05	.0476	50–57	<.05	.0204	65–75	<.05	.0405
57–64	<.05	.716	57–64	<.05	.0453	75–82	<.05	.0472
64–71	<.05	.0428	64–74	<.05	.073			
M3.3 (01/04/00)			M3.7 (01/04/00)					
0–5	na	na	0–5	na	na			
5–10	.079	.137	5–10	.143	.108			
10–15	.064	.059	10–15	<.05	.0859			
15–20	.089	.075	15–20	<.05	.0385			
20–25	.198	.055	20–25	<.05	.0628			
25–30	.350	.115	25–30	<.05	.625			
30–38	.546	.188	30–35	.0819	.0855			

Table 12. Laboratory quality-control samples for major and trace element analyses

[Chemical Abstracts Service–Registry Number (CAS–RN) in parentheses below element name; in micrograms per gram except as indicated; <, less than; SRM, standard reference material; na, not available; cm, centimeters]

Site ID	Aluminum (7429–90–5)	Calcium (7440–70–2)	Iron (7439–89–6)	Potassium (7440–09–7)	Magnesium (7439–95–4)	Sodium (7440–23–5)	Phosphorus (7723–14–0)	Titanium (7440–32–6)	Arsenic (7440–38–2)	Barium (7440–39–3)
Job no. 2147[1]										
Blank 1	<8	27.3	<50	<20	0.900	<6	<8	<40	<0.1	0.808
Blank 2	12.2	<20	<50	<20	.29	5.8	8.63	<40	.172	<.5
Blank 3	<8	<20	<50	<20	<.3	<6	<8	<40	.110	<.5
SRM MAG–1 lab	78,400	9,840	47,900	29,300	17,100	26,400	728	4,140	9.46	499
SRM MAG–1 literature[2]	86,660	9,790	47,600	29,500	18,090	28,400	711	3,720	9.2	479
SRM SCO–1 lab	69,600	19,600	37,800	23,400	16,300	6,500	982	3,720	12.5	594
SRM SCO–1 literature[2]	72,370	18,700	35,900	23,000	16,400	6,670	899	3,760	12.4	570
SRM NIST 2704 lab	58,500	27,400	43,500	20,900	11,800	5,500	1,080	3,140	21.6	429
SRM NIST 2704 literature[2]	61,090	26,000	41,100	20,000	12,000	5,470	1,000	4,580	23.4	414
SRM GSD–8 lab	39,100	1,550	15,900	24,100	1,410	2,960	143	3,650	2.53	458
SRM GSD–8 literature[2]	40,800	1,790	15,380	23,500	1,510	3,490	130	3,660	2.4	480

Site ID	Beryllium (7440–41–7)	Cadmium (7440–43–9)	Cobalt (7440–48–4)	Chromium (7440–50–8)	Copper (7440–50–8)	Mercury (7439–97–6)	Lithium (58–89–9)	Manganese (7439–96–5)	Nickel (7440–02–0)
Job no. 2147[1]—Continued									
Blank 1	<0.001	0.0060	<0.1	0.600	1.14	na	<0.2	0.494	<1
Blank 2	<.001	.0070	<.1	.587	.589	na	<.2	.364	1.43
Blank 3	<.001	<.003	<.1	.429	<.5	na	<.2	<.2	<1
SRM MAG–1 lab	3.20	.231	21.5	109	29.1	na	75.6	742	46.8
SRM MAG–1 literature[2]	3.20	.20	20.4	97	30.0	na	79.0	760	53.0
SRM SCO–1 lab	1.87	.159	11.2	74.8	29.0	na	43.5	382	25.4
SRM SCO–1 literature[2]	1.84	.14	10.5	68.0	28.7	na	45.0	410	27.0
SRM NIST 2704 lab	1.81	3.64	13.8	141	93.9	na	44.4	570	40.2
SRM NIST 2704 literature[2]	na	3.45	14.0	135	98.6	na	47.5	555	44.1
SRM GSD–8 lab	1.92	.059	3.30	6.60	5.72	na	12.7	340	1.51
SRM GSD–8 literature[2]	2.00	.08	3.6	7.60	4.1	na	13.2	310	2.7

Footnotes at end of table.

Table 12. Laboratory quality-control samples for major and trace element analyses—Continued

Site ID	Lead (7439–92–1)	Scandium (7440–20–2)	Strontium (7440–24–6)	Vanadium (7440–62–2)	Zinc (7440–66–6)	Gallium (7440–55–3)	Selenium (7782–49–2)	Rubidium (7440–17–7)	Yttrium (7440–65–5)	Niobium (7440–03–1)
Job no. 2147[1]—Continued										
Blank 1	0.302	<0.3	0.509	<0.4	<5	0.0310	<0.2	0.0310	<0.3	<2
Blank 2	.419	<.3	.245	<.4	<5	.0290	<.2	.0310	<.3	<2
Blank 3	<.2	<.3	.100	<.4	<5	.0190	<.2	.0120	<.3	<2
SRM MAG–1 lab	23.4	18.2	143	143	135	22.2	1.50	144	24.3	23.4
SRM MAG–1 literature[2]	24.0	17.2	146	140	130	20.4	1.16	149	28.0	12.0
SRM SCO–1 lab	33.5	12.1	166	136	105	16.4	.988	109	19.5	17.2
SRM SCO–1 literature[2]	31.0	10.8	174	131	103	15.0	.890	112	26.0	11.0
SRM NIST 2704 lab	165	12.3	128	92.9	422	15.2	1.17	98.5	24.2	12.3
SRM NIST 2704 literature[2]	161.0	12.0	130	95.0	438	15.0	1.12	100	na	na
SRM GSD–8 lab	23.6	5.23	49.8	24.5	47.6	10.1	.215	123	16.0	59.2
SRM GSD–8 literature[2]	21.0	5.7	52.0	26	43.0	10.8	.15?	132	18.0	35.0

Site ID	Molybdenum (7439–98–7)	Silver (7440–22–4)	Antimony (7440–36–0)	Cesium (7440–46–2)	Lanthanum (7439–91–0)	Thorium (7440–29–1)	Uranium (7440–61–1)	Percent total carbon (7440–44–0)	Percent organic carbon
Job no. 2147[1]—Continued									
Blank 1	<0.1	<3	0.0250	<0.003	<0.3	0.0730	0.0650	na	na
Blank 2	<.1	<3	<.02	<.003	<.3	.0720	<.02	na	na
Blank 3	<.1	<3	<.02	<.003	<.3	.0760	<.02	na	na
SRM MAG–1 lab	1.08	<3	.903	8.61	38.0	10.4	2.53	na	na
SRM MAG–1 literature[2]	1.60	.08	.96	8.60	43.0	11.9	2.70	na	na
SRM SCO–1 lab	1.18	<3	2.39	7.88	33.5	9.84	2.95	na	na
SRM SCO–1 literature[2]	1.37	.134	2.50	7.80	29.5	9.7	3.00	na	na
SRM NIST 2704 lab	3.87	<3	3.69	5.66	31.6	9.03	3.21	na	na
SRM NIST 2704 literature[2]	na	na	3.79	6.00	29.0	9.2	3.13	na	na
SRM GSD–8 lab	.558	<3	.248	3.29	33.1	15.0	3.60	na	na
SRM GSD–8 literature[2]	.54	.062?	.24	3.60	30.0	13.4	3.00	na	na

Footnotes at end of table.

Table 12. Laboratory quality-control samples for major and trace element analyses—Continued

Site ID	Aluminum (7429–90–5)	Calcium (7440–70–2)	Iron (7439–89–6)	Potassium (7440–09–7)	Magnesium (7439–95–4)	Sodium (7440–23–5)	Phosphorus (7723–14–0)	Titanium (7440–32–6)	Arsenic (7440–38–2)	Barium (7440–39–3)
Job no. 2148[3]										
Blank 1	<8	27.3	<50	<20	0.900	<6	<8	<40	<0.1	<0.5
Blank 2	12.2	<20	<50	<20	.29	5.8	8.63	<40	<.1	<.5
Blank 3	<8	<20	<50	<20	<.3	<6	<8	<40	<.1	<.5
SRM MAG–1 lab	78,400	9,840	47,900	29,300	17,100	26,400	728	4,140	9.34	488
SRM MAG–1 literature[2]	86,660	9,790	47,600	29,500	18,090	28,400	711	4,500	9.2	479
SRM SCO–1 lab	69,600	19,600	37,800	23,400	16,300	6,500	982	3,720	12.9	602
SRM SCO–1 literature[2]	72,370	18,700	35,900	23,000	16,400	6,670	899	3,760	12.4	570
SRM NIST 2704 lab	58,500	27,400	43,500	20,900	11,800	5,500	1,080	3,140	23.2	446
SRM NIST 2704 literature[2]	61,090	26,000	41,100	20,000	12,000	5,470	1,000	4,580	23.4	414
SRM GSD–8 lab	39,100	1,550	15,900	24,100	1,410	2,960	143	3,650	2.67	454
SRM GSD–8 literature[2]	40,800	1,790	15,380	23,500	1,510	3,490	130	3,660	2.4	480

Site ID	Beryllium (7440–41–7)	Cadmium (7440–43–9)	Cobalt (7440–48–4)	Chromium (7440–50–8)	Copper (7440–50–8)	Mercury (7439–97–6)	Lithium (58–89–9)	Manganese (7439–96–5)	Nickel (7440–02–0)
Job no. 2148[3]—Continued									
Blank 1	<0.001	<0.003	<0.1	0.591	<0.5	na	<0.2	<0.2	<1
Blank 2	.00300	<.003	<.1	.528	<.5	na	<.2	<.2	<1
Blank 3	<.001	<.003	<.1	.593	<.5	na	<.2	<.2	<1
						na			
SRM MAG–1 lab	3.01	.202	21.2	104	28.4	na	73.6	738	42.4
SRM MAG–1 literature[2]	3.20	.20	20.4	97	30.0	na	79.0	760	53.0
						na			
SRM SCO–1 lab	1.81	.161	11.7	76.3	32.1	na	45.6	406	24.2
SRM SCO–1 literature[2]	1.84	.14	10.5	68.0	28.7	na	45.0	410	27.0
						na			
SRM NIST 2704 lab	1.85	3.67	14.5	144	98.1	na	46.2	617	40.2
SRM NIST 2704 literature[2]	na	3.45	14.0	135	98.6	na	47.5	555	44.1
						na			
SRM GSD–8 lab	1.83	.048	3.36	6.60	5.90	na	12.8	350	1.42
SRM GSD–8 literature[2]	2.00	.08	3.6	7.60	4.1	na	13.2	310	2.7

Footnotes at end of table.

Table 12. Laboratory quality-control samples for major and trace element analyses—Continued

Site ID	Lead (7439–92–1)	Scandium (7440–20–2)	Strontium (7440–24–6)	Vanadium (7440–62–2)	Zinc (7440–66–6)	Gallium (7440–55–3)	Selenium (7782–49–2)	Rubidium (7440–17–7)	Yttrium (7440–65–5)	Niobium (7440–03–1)
Job no. 2148[3]—Continued										
Blank 1	<0.2	<0.3	0.213	<0.4	<5	0.0240	<0.2	0.0100	<0.3	<2
Blank 2	<.2	<.3	.103	<.4	<5	.0240	<.2	<.01	<.3	<2
Blank 3	<.2	<.3	.0730	<.4	<5	.0270	<.2	<.01	<.3	<2
SRM MAG–1 lab	25.8	17.3	139	141	129	21.7	1.51	142	23.3	19.4
SRM MAG–1 literature[2]	24.0	17.2	146	140	130	20.4	1.16	149	28.0	12.0
SRM SCO–1 lab	34.4	12.8	173	141	110	17.5	1.01	113	21.8	15.5
SRM SCO–1 literature[2]	31.0	10.8	174	131	103	15.0	.890	112	26.0	11.0
SRM NIST 2704 lab	170	12.6	137	98.4	443	15.9	1.49	105	25.7	12.6
SRM NIST 2704 literature[2]	161.0	12.0	130	95.0	438	15.0	1.12	100	na	na
SRM GSD–8 lab	23.5	5.18	50.0	25.2	48.3	10.3	.19	126	15.8	50.1
SRM GSD–8 literature[2]	21.0	5.7	52.0	26	43.0	10.8	.15?	132	18.0	35.0

Site ID	Molybdenum (7439–98–7)	Silver (7440–22–4)	Antimony (7440–36–0)	Cesium (7440–46–2)	Lanthanum (7439–91–0)	Thorium (7440–29–1)	Uranium (7440–61–1)	Percent total carbon (7440–44–0)	Percent organic carbon
Job no. 2148[3]—Continued									
Blank 1	<0.1	<3	<0.02	<0.003	<0.3	0.0630	<0.02	na	na
Blank 2	<.1	<3	<.02	<.003	<.3	.0670	<.02	na	na
Blank 3	<.1	<3	<.02	<.003	<.3	.0660	<.02	na	na
SRM MAG–1 lab	1.06	<3	.921	8.44	40.2	10.8	2.44	na	na
SRM MAG–1 literature[2]	1.60	.08	.96	8.60	43.0	11.9	2.70	na	na
SRM SCO–1 lab	1.22	<3	2.45	8.04	32.9	10.0	3.10	na	na
SRM SCO–1 literature[2]	1.37	.134	2.50	7.80	29.5	9.7	3.00	na	na
SRM NIST 2704 lab	3.94	<3	3.77	6.00	32.4	8.93	2.98	na	na
SRM NIST 2704 literature[2]	na	na	3.79	6.00	29.0	9.2	3.13	na	na
SRM GSD–8 lab	.564	<3	.254	3.36	29.8	14.0	3.28	na	na
SRM GSD–8 literature[2]	.54	.062?	.24	3.60	30.0	13.4	3.00	na	na

Footnotes at end of table.

Table 12. Laboratory quality-control samples for major and trace element analyses—Continued

Site ID	Aluminum (7429–90–5)	Calcium (7440–70–2)	Iron (7439–89–6)	Potassium (7440–09–7)	Magnesium (7439–95–4)	Sodium (7440–23–5)	Phosphorus (7723–14–0)	Titanium (7440–32–6)	Arsenic (7440–38–2)	Barium (7440–39–3)
Job no. 2039[4]										
SRM MAG–1 lab	87,700	10,300	50,200	30,200	20,000	28,800	754	4,510	9.91	509
SRM MAG–1 literature[2]	86,660	9,790	47,600	29,500	18,090	28,400	711	4,500	9.2	479
SRM SCO–1 lab	72,800	18,400	36,400	22,100	18,000	6,830	916	3,960	12.8	590
SRM SCO–1 literature[2]	72,370	18,700	35,900	23,000	16,400	6,670	899	3,760	12.4	570
SRM NIST 2704 lab	63,300	25,700	41,700	19,800	12,400	5,820	1,010	3,030	22.2	429
SRM NIST 2704 literature[2]	61,090	26,000	41,100	20,000	12,000	5,470	1,000	4,580	23.4	414
SRM GSD–8 lab	41,500	1,680	16,200	23,300	1,580	3,060	134	4,270	2.76	458
SRM GSD–8 literature[2]	40,800	1,790	15,380	23,500	1,510	3,490	130	3,660	2.4	480

Site ID	Beryllium (7440–41–7)	Cadmium (7440–43–9)	Cobalt (7440–48–4)	Chromium (7440–50–8)	Copper (7440–50–8)	Mercury (7439–97–6)	Lithium (58–89–9)	Manganese (7439–96–5)	Nickel (7440–02–0)
Job no. 2039[4]—Continued									
SRM MAG–1 lab	3.12	0.400	22.0	114	30.0	na	75.4	763	50.0
SRM MAG–1 literature[2]	3.20	.20	20.4	97	30.0	na	79.0	760	53.0
						na			
SRM SCO–1 lab	1.90	.175	11.2	77.1	29.0	na	42.6	400	29.6
SRM SCO–1 literature[2]	1.84	.14	10.5	68.0	28.7	na	45.0	410	27.0
						na			
SRM NIST 2704 lab	2.04	3.58	13.6	146	96.5	na	44.4	587	42.4
SRM NIST 2704 literature[2]	na	3.45	14.0	135	98.6	na	47.5	555	44.1
						na			
SRM GSD–8 lab	2.23	.054	3.40	6.53	5.84	na	12.4	356	9.57
SRM GSD–8 literature[2]	2.00	.08	3.6	7.60	4.1	na	13.2	310	2.7

Footnotes at end of table.

Table 12. Laboratory quality-control samples for major and trace element analyses—Continued

Site ID	Lead (7439–92–1)	Scandium (7440–20–2)	Strontium (7440–24–6)	Vanadium (7440–62–2)	Zinc (7440–66–6)	Gallium (7440–55–3)	Selenium (7782–49–2)	Rubidium (7440–17–7)	Yttrium (7440–65–5)	Niobium (7440–03–1)
Job no. 2039[4]—Continued										
SRM MAG–1 lab	24.5	19.2	144	148	139	22.9	1.48	148	24.6	24.0
SRM MAG–1 literature[2]	24.0	17.2	146	140	130	20.4	1.16	149	28.0	12.0
SRM SCO–1 lab	34.0	12.7	167	137	105	16.6	.756	109	20.4	17.8
SRM SCO–1 literature[2]	31.0	10.8	174	131	103	15.0	.890	112	26.0	11.0
SRM NIST 2704 lab	168	12.5	128	94.3	436	15.2	1.22	99.4	24.9	12.8
SRM NIST 2704 literature[2]	161.0	12.0	130	95.0	438	15.0	1.12	100	na	na
SRM GSD–8 lab	23.6	5.43	50.4	24.5	49.4	10.5	.240	126	16.7	47.7
SRM GSD–8 literature[2]	21.0	5.7	52.0	26	43.0	10.8	.15?	132	18.0	35.0

Site ID	Molybdenum (7439–98–7)	Silver (7440–22–4)	Antimony (7440–36–0)	Cesium (7440–46–2)	Lanthanum (7439–91–0)	Thorium (7440–29–1)	Uranium (7440–61–1)	Percent total carbon (7440–44–0)	Percent organic carbon
Job no. 2039[4]—Continued									
SRM MAG–1 lab	1.30	<3	1.04	8.78	35.7	9.58	2.34	na	na
SRM MAG–1 literature[2]	1.60	.08	.96	8.60	43.0	11.9	2.70	na	na
SRM SCO–1 lab	1.33	<3	2.45	7.92	36.4	10.1	3.15	na	na
SRM SCO–1 literature[2]	1.37	.134	2.50	7.80	29.5	9.7	3.00	na	na
SRM NIST 2704 lab	3.92	<3	3.77	5.79	31.8	9.01	3.32	na	na
SRM NIST 2704 literature[2]	na	na	3.79	6.00	29.0	9.2	3.13	na	na
SRM GSD–8 lab	.625	<3	.259	3.40	34.3	15.0	3.68	na	na
SRM GSD–8 literature[2]	.54	.062?	.24	3.60	30.0	13.4	3.00	na	na

[1] Job no. 2147 includes box core samples M3.16, M3.17, M3.18; and gravity cores M3.1 and M3.3 (all sample intervals) and M3.5 (0–7.5, 7.5–15, and 15–22 cm).
[2] Potts and others, 1992.
[3] Job no. 2148 includes gravity cores M3.5 (22–29, 29–36, 36–43, 43–50, 50–57, 57–64, 64–74, and 74–80 cm) and M3.7 and M3.10 (all sample intervals).
[4] Job no. 2039 includes box core samples M2.1, BAY–7, MCL–9, M3.2, M3.4, M3.6, M3.8, M3.9, M3.11, M3.12, M3.13, M3.14, and M3.15.

Table 13. Laboratory quality-control samples for organochlorine pesticide and polychlorinated biphenyl (PCB) analyses

[Chemical Abstracts Service–Registry Number (CAS–RN) in parentheses below compound name; blank and certified reference material (CRM) concentrations in micrograms per kilogram; spike recoveries in percent; <, less than; na, not analyzed; NS, not spiked; -- sample ruined during prepartation; cm, centimeters]

Site ID	Lindane (58–89–9)	Heptachlor (76–77–8)	Aldrin (309–00–2)	Heptachlor epoxide (1024–57–3)	Technical chlordane (12789–03–6)	Endosulfan I (115–29–7)	Dieldrin (60–57–1)	*p,p'*-DDE (72–55–9)	Endrin (72–20–8)
Set no. 0020.03[1]									
Blank	<0.5	<0.5	<0.5	<0.5	na	<0.5	<0.5	<0.5	<0.5
Spike recovery	68	68	62	83	NS	34	84	67	80
Acceptable spike recovery range	25–91	13–106	36–97	41–102	NS	27–82	42–114	50–111	32–121
CRM 354	290	65	240	280	250	na	260	140	220
Acceptable CRM range	118–495	65.0–189	146–459	135–422	146–434	na	120–360	92.7–235	115–293
Set no. 0025.03[2]									
Blank	<.5	<.5	<.5	<.5	na	<.5	<.5	<.5	<.5
Spike recovery	61	88	75	68	NS	49	75	76	112
Acceptable spike recovery range	25–91	13–106	36–97	41–102	NS	27–82	42–114	50–111	32–121
CRM 352	71	203	272	122	157	na	150	262	182
Acceptable CRM range	57–240	94–272	138–432	80–248	102–305	na	108–324	143–362	127–324

Site ID	*p,p'*-DDD (72–54–8)	*p,p'*-DDT (50–29–3)	*p,p'*-Methoxychlor (72–43–5)	Mirex (2385–85–5)	Toxaphene (8001–35–2)	PCB Aroclor 1242 (53469–21–9)	PCB Aroclor 1254 (11097–69–1)	PCB Aroclor 1260 (11096–82–5)
Set no. 0020.03[1]—Continued								
Blank	<0.5	<0.5	<0.5	<0.5	na	na	na	na
Spike recovery	83	83	100	79	NS	NS	NS	NS
Acceptable spike recovery range	22–130	35–114	15–140	46–109	NS	NS	NS	NS
CRM 352	170	290	170	na	na	na	na	na
Acceptable CRM range	93.5–264	114–465	59.4–251	na	na	na	na	na
Set no. 0025.03[2]—Continued								
Blank	<.5	<.5	<.5	<.5	na	na	na	na
Spike recovery	61	77	109	89	NS	NS	NS	NS
Acceptable spike recovery range	22–130	35–114	15–140	46–109	NS	NS	NS	NS
CRM 352	109	97	97	na	na	na	na	na
Acceptable CRM range	103–290	37–152	71–300	na	na	na	na	na

Footnotes at end of table.

Table 13. Laboratory quality-control samples for organochlorine pesticide and polychlorinated biphenyl (PCB) analyses—Continued

Site ID	Lindane (58–89–9)	Heptachlor (76–77–8)	Aldrin (309–00–2)	Heptachlor epoxide (1024–57–3)	Technical chlordane (12789–03–6)	Endosulfan I (115–29–7)	Dieldrin (60–57–1)	*p,p'*-DDE (72–55–9)	Endrin (72–20–8)
Set no. 0003.01[3]									
Blank	<0.5	<0.5	<0.5	<0.5	na	<0.5	<0.5	<0.5	<0.5
Spike recovery	71	77	72	79	NS	54	74	74	86
Acceptable spike recovery range	25–91	13–106	36–97	41–102	NS	27–82	42–114	50–111	32–121
CRM 352	--	--	--	--	--	--	--	--	--
Acceptable CRM range	57–240	94–272	138–432	80–248	102–305	na	108–324	143–362	127–324
Set no. 0012.04[4]									
Blank	<.5	--	--	<.5	na	<.5	<.5	--	<.5
Spike recovery	44	52	48	55	NS	40	54	54	68
Acceptable spike recovery range	25–91	13–106	36–97	41–102	NS	27–82	42–114	50–111	32–121
CRM 352	116	108	207	132	148	na	179	206	260
Acceptable CRM range	57–240	94–272	138–432	80–248	102–305	na	108–324	143–362	127–324

.

Site ID	*p,p'*-DDD (72–54–8)	*p,p'*-DDT (50–29–3)	*p,p'*-Methoxychlor (72–43–5)	Mirex (2385–85–5)	Toxaphene (8001–35–2)	PCB Aroclor 1242 (53469–21–9)	PCB Aroclor 1254 (11097–69–1)	PCB Aroclor 1260 (11096–82–5)
Set no. 0003.01[3]—Continued								
Blank	<0.5	<0.5	<0.5	<0.5	na	na	na	na
Spike recovery	64	81	63	89	NS	NS	NS	NS
Acceptable spike recovery range	22–130	35–114	15–140	46–109	NS	NS	NS	NS
CRM 352	--	--	--	na	na	na	na	na
Acceptable CRM range	103–290	37–152	71–300	na	na	na	na	na
Set no. 0012.04[4]—Continued								
Blank	<.5	<.5	<.5	--	na	na	na	na
Spike recovery	48	54	48	58	NS	NS	NS	NS
Acceptable spike recovery range	22–130	35–114	15–140	46–109	NS	NS	NS	NS
CRM 352	128	80	139	na	na	na	na	na
Acceptable CRM range	103–290	37–152	71–300	na	na	na	na	na

Footnotes at end of table.

Table 13. Laboratory quality-control samples for organochlorine pesticide and polychlorinated biphenyl (PCB) analyses—Continued

Site ID	Lindane (58–89–9)	Heptachlor (76–77–8)	Aldrin (309–00–2)	Heptachlor epoxide (1024–57–3)	Technical chlordane (12789–03–6)	Endosulfan I (115–29–7)	Dieldrin (60–57–1)	*p,p'*-DDE (72–55–9)	Endrin (72–20–8)
Set no. 0031.06[5]									
Blank	<0.5	<0.5	<0.5	<0.5	na	<0.5	<0.5	<0.5	<0.5
Spike recovery	67	58	68	74	NS	44	73	74	76
Acceptable spike recovery range	25–91	13–106	36–97	41–102	NS	27–82	42–114	50–111	32–121
CRM 352	122	126	223	137	164	na	174	214	197
Acceptable CRM range	57–240	94–272	138–432	80–248	102–305	na	108–324	143–362	127–324
Set no. 0034.01[6]									
Blank	<.5	<.5	<.5	<.5	na	<.5	<.5	<.5	<.5
Spike recovery	69	46	67	78	NS	51	62	59	79
Acceptable spike recovery range	25–91	13–106	36–97	41–102	NS	27–82	42–114	50–111	32–121
CRM 352	169	112	279	195	247	na	257	272	265
Acceptable CRM range	57–240	94–272	138–432	80–248	102–305	na	108–324	143–362	127–324

Site ID	*p,p'*-DDD (72–54–8)	*p,p'*-DDT (50–29–3)	*p,p'*-Methoxychlor (72–43–5)	Mirex (2385–85–5)	Toxaphene (8001–35–2)	PCB Aroclor 1242 (53469–21–9)	PCB Aroclor 1254 (11097–69–1)	PCB Aroclor 1260 (11096–82–5)
Set no. 0031.06[5]—Continued								
Blank	<0.5	<0.5	<0.5	<0.5	na	na	na	na
Spike recovery	76	69	77	74	NS	NS	NS	NS
Acceptable spike recovery range	22–130	35–114	15–140	46–109	NS	NS	NS	NS
CRM 352	199	79	167	na	na	na	na	na
Acceptable CRM range	103–290	37–152	71–300	na	na	na	na	na
Set no. 0034.01[6]—Continued								
Blank	<.5	<.5	<.5	<.5	na	na	na	na
Spike recovery	77	87	87	86	NS	NS	NS	NS
Acceptable spike recovery range	22–130	35–114	15–140	46–109	NS	NS	NS	NS
CRM 352	255	149	230	na	na	na	na	na
Acceptable CRM range	103–290	37–152	71–300	na	na	na	na	na

[1] Set no. 0020.03 includes gravity cores M3.1 (all sample intervals) and M3.10 (65–75 and 75–82 cm).
[2] Set no. 0025.03 includes box core sample M3.13; and gravity cores M3.3 (0–5, 5–10, 15–20, and 25–30 cm) and M3.10 (0–7.5, 15–25, 25–35, 35–45, 45–55, and 55–65 cm).
[3] Set no. 0003.01 includes box core samples M2.1, BAY–7, MCL–9, M3.2, M3.12, and M3.15.
[4] Set no. 0012.04 includes box core samples M3.4, M3.6, M3.8, M3.9, M3.11, and M3.14.
[5] Set no. 0031.06 includes gravity cores M3.3 (10–15, 20–25, and 30–38 cm) and M3.5 (0–7.5, 7.5–15, 15–22, 22–29, 29–36, 36–43, 43–50, 50–57, and 57–64 cm).
[6] Set no. 0034.01 includes box core samples M3.16, M3.17, and M3.18; and gravity cores M3.5 (64–74 cm), M3.7 (all sample intervals), and M3.10 (7.5–15 cm).

Table 14. Laboratory quality-control samples for polycyclic aromatic hydrocarbon (PAH) analyses

[Chemical Abstracts Service–Registry Number (CAS–RN) in parentheses below compound name; blank and certified reference material (CRM) concentrations in micrograms per kilogram; spike recoveries in percent; <, less than; na, not analyzed; --, sample ruined in preparation; E, estimated]

Site ID	Naphthalene (91–20–3)	C1-128 isomers	2-Ethyl-naphthalene (939–27–5)	2,6-Dimethyl-naphthalene (581–42–0)	1,6-Dimethyl-naphthalene (575–43–9)	C2-128 isomers	Acenaph-thylene (208–96–8)	1,2-Dimethyl-naphthalene (573–98–8)	Acenaphthene (83–32–9)	C3-128 isomers
Batch 8022F00003[1]										
Blank	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spike recovery	71.70	na	70.08	66.90	67.12	na	67.80	69.50	70.00	na
CRM 352	--	na	na	na	na	na	na	na	--	na
Acceptable CRM range	15–95	na	na	na	na	na	na	na	29–108	na
Batch 8022F00012[2]										
Blank	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spike recovery	61.50	na	59.58	58.16	59.24	na	58.04	58.77	60.28	na
CRM 352	60.65	na	na	na	na	na	na	na	64.33	na
Acceptable CRM range	15–95	na	na	na	na	na	na	na	29–108	na
Batch 8022F00020[3]										
Blank	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spike recovery	72.63	na	69.54	63.80	63.54	na	72.82	66.08	70.56	na
CRM 352	55.47	na	na	na	na	na	na	na	na	na
Acceptable CRM range	15–95	na	na	na	na	na	na	na	na	na
Batch 8022F00025[4]										
Blank	E1.1	<5	<5	<5	<5	<5	<5	<5	E1.8	<5
Spike recovery	77.00	na	69.32	69.02	70.42	na	67.86	70.91	69.51	na
CRM 352	61.33	na	na	na	na	na	na	na	64.42	na
Acceptable CRM range	15–95	na	na	na	na	na	na	na	29–108	na

Footnotes at end of table.

Table 14. Laboratory quality-control samples for polycyclic aromatic hydrocarbon (PAH) analyses—Continued

Site ID	2,3,6-Trimethyl-naphthalene (829–26–5)	9*H*-Fluorene (86–73–7)	C4-128 isomers	1-Methyl-9*H*-fluorene (1730–37–6)	Phenanthrene (85–01–8)	Anthracene (120–12–7)	C5-128 isomers	2-Methyl-anthracene (613–12–7)	4,5-Methylene-phenanthrene (203–64–5)	C1-178 isomers	1-Methyl-phenanthrene (832–69–9)
Batch 8022F00003[1]—Continued											
Blank	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spike recovery	77.37	71.03	na	74.15	75.14	74.11	na	70.43	77.94	na	75.48
CRM 352	na	na	na	na	na	--	na	na	na	na	na
Acceptable CRM range	na	na	na	na	na	18–105	na	na	na	na	na
Batch 8022F00012[2]—Continued											
Blank	<5	<5	<5	<5	<5	<5	<5	na	<5	<5	<5
Spike recovery	61.85	61.59	na	66.57	68.74	64.92	na	na	68.98	73.86	na
CRM 352	na	na	na	na	na	58.95	na	na	na	na	na
Acceptable CRM range	na	na	na	na	na	18–105	na	na	na	na	na
Batch 8022F00020[3]—Continued											
Blank	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spike recovery	86.51	78.62	na	90.17	71.00	65.88	na	65.88	86.28	na	74.25
CRM 352	na	na	na	na	65.10	51.24	na	na	na	na	na
Acceptable CRM range	na	na	na	na	39–94	18–105	na	na	na	na	na
Batch 8022F00025[4]—Continued											
Blank	<5	<5	<5	<5	E.18	E2.0	<5	<5	<5	<5	<5
Spike recovery	63.78	72.04	na	76.97	78.25	77.20	na	74.41	78.41	na	78.20
CRM 352	na	na	na	na	na	56.61	na	na	na	na	na
Acceptable CRM range	na	na	na	na	na	18–105	na	na	na	na	na

Footnotes at end of table.

Table 14. Laboratory quality-control samples for polycyclic aromatic hydrocarbon (PAH) analyses—Continued

Site ID	C2-178 isomers	Fluoranthene (206–44–0)	Pyrene (129–00–0)	C3-178 isomers	C4-178 isomers	1-Methyl-pyrene (2381–21–7)	C1-202 isomers	C2-202 isomers	C5-178 isomers	Benz(*a*)-anthracene (56–55–3)	Chrysene (218–01–9)
Batch 8022F00003[1]—Continued											
Blank	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spike recovery	na	89.25	90.64	na	na	91.65	na	na	na	93.72	80.95
CRM 352	na	na	--	na	na	na	na	na	na	na	--
Acceptable CRM range	na	na	32–90	na	na	na	na	na	na	na	41–90
Batch 8022F00012[2]—Continued											
Blank	<5	na	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spike recovery	74.85	na	na	na	na	86.75	na	na	na	87.01	86.88
CRM 352	na	na	91.60	na	na	na	na	na	na	na	90.69
Acceptable CRM range	na	na	32–90	na	na	na	na	na	na	na	41–90
Batch 8022F00020[3]—Continued											
Blank	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spike recovery	na	78.93	82.32	na	na	88.50	na	na	na	77.92	77.35
CRM 352	na	59.84	66.65	na	na	na	na	na	na	na	64.42
Acceptable CRM range	na	33–90	32–90	na	na	na	na	na	na	na	41–90
Batch 8022F00025[4]—Continued											
Blank	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spike recovery	na	89.67	87.79	na	na	90.26	na	na	na	80.51	72.13
CRM 352	na	na	91.08	na	na	na	na	na	na	na	73.98
Acceptable CRM range	na	na	32–90	na	na	na	na	na	na	na	41–90

Footnotes at end of table.

Table 14. Laboratory quality-control samples for polycyclic aromatic hydrocarbon (PAH) analyses—Continued

Site ID	C3-202 isomers	C1-228 isomers	C4-202 isomers	C5-202 isomers	C2-228 isomers	Benzo(*b*)-fluoranthene (205–99–2)	Benzo(*k*)-fluoranthene (207–08–9)	Benzo(*e*)-pyrene (192–97–2)	Benzo(*a*)-pyrene (50–32–8)	Perylene (198–55–0)	C1-252 isomers
Batch 8022F00003[1]—Continued											
Blank	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spike recovery	na	na	na	na	na	93.51	76.43	78.21	81.69	67.31	na
CRM 352	na	na	na	na	na	--	na	na	--	na	na
Acceptable CRM range	na	na	na	na	na	23–93	na	na	20–105	na	na
Batch 8022F00012[2]—Continued											
Blank	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spike recovery	na	na	na	na	na	89.29	80.05	78.63	72.92	65.28	na
CRM 352	na	na	na	na	na	94.04	na	na	83.05	na	na
Acceptable CRM range	na	na	na	na	na	23–93	na	na	20–105	na	na
Batch 8022F00020[3]—Continued											
Blank	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spike recovery	na	na	na	na	na	75.83	72.96	73.43	57.18	64.48	na
CRM 352	na	na	na	na	na	na	48.79	na	na	na	na
Acceptable CRM range	na	na	na	na	na	na	42–89	na	na	na	na
Batch 8022F00025[4]—Continued											
Blank	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spike recovery	na	na	na	na	na	63.91	78.76	70.31	66.33	59.28	na
CRM 352	na	na	na	na	na	93.57	na	na	74.60	na	na
Acceptable CRM range	na	na	na	na	na	23–93	na	na	20–105	na	na

Footnotes at end of table.

Table 14. Laboratory quality-control samples for polycyclic aromatic hydrocarbon (PAH) analyses—Continued

Site ID	C3-228 isomers	C2-252 isomers	C4-228 isomers	Benzo(*ghi*)-perylene (191–24–2)	Indeno-[1,2,3–*cd*]-pyrene (193–39–5)	Dibenzo(*a,h*)-anthracene (53–70–3)	C3-252 isomers	C4-252 isomers	C5-228 isomers	C5-252 isomers	Coronene (191–07–1)
Batch 8022F00003[1]—Continued											
Blank	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spike recovery	na	na	na	65.67	85.64	76.55	na	na	na	na	E29.32
CRM 352	na	na	na	na	na	na	na	na	na	na	na
Acceptable CRM range	na	na	na	na	na	na	na	na	na	na	na
Batch 8022F00012[2]—Continued											
Blank	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spike recovery	na	na	na	60.43	78.25	82.94	na	na	na	na	E20.93
CRM 352	na	na	na	na	na	na	na	na	na	na	na
Acceptable CRM range	na	na	na	na	na	na	na	na	na	na	na
Batch 8022F00020[3]—Continued											
Blank	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spike recovery	na	na	na	68.57	83.70	84.95	na	na	na	na	E30.61
CRM 352	na	na	na	na	na	na	na	na	na	na	na
Acceptable CRM range	na	na	na	na	na	na	na	na	na	na	na
Batch 8022F00025[4]—Continued											
Blank	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spike recovery	na	na	na	56.89	72.73	75.76	na	na	na	na	E22.48
CRM 352	na	na	na	na	na	na	na	na	na	na	na
Acceptable CRM range	na	na	na	na	na	na	na	na	na	na	na

[1] Batch 8022F00003 includes box core samples M2.1, BAY–7, MCL–9, M3.2, M3.12, and M3.15.
[2] Batch 8022F00012 includes box core samples M3.4, M3.6, M3.8, M3.9, M3.11, and M3.14.
[3] Batch 8022F00020 includes gravity cores M3.1 (all sample intervals) and M3.10 (65–75 and 75–82 cm).
[4] Batch 8022F00025 includes gravity cores M3.3 (0–5, 5–10, 15–20, and 25–30 cm) and M3.10 (0–7.5, 7.5–15, 15–25, 25–35, 35–45, and 55–65 cm).