CORRES. CONTROL
OUTGOING LTR NO.

DE ORDER# 5400.1
94RF 10997

DIST.	LTR	SC
MARAL, M.E.		
URLINGAME, A.H.		
USBY, W.S.		
RANCH, D.B.		
ARNIVAL, G.J.		
AVIS, J.G.		
ERRERA, D.W.		
RAY, R.E.		
EIS, J.A.		
LOVER, W.S.		
OLAN, P.M.		
ANNI, B.J.		
ARMAN, L.K.		
EALY, T.J.		
EDAHL, T.		
ILBIG, J.G.		
IUTCHINS, N.M.		
ACKSON, D.T.		
ELL, R.E.		
UESTER, A.W.		
IARX, G.E.		
McDONALD, M.M.		
McKENNA, F.G.		
MONTROSE, J.K.		
MORGAN, R.V.		
POTTER, G.L.		
RIZZUTO, V.M.		
RISING, T.L.		
SANDLIN, N.B.		
SCHWARTZ, J.K.		
SETLOCK, G.H.		
STEWART, D.L.		
STIGER, S.G.	✓	
TOBIN, P.M.		
VOORHEIS, G.M.		
WILSON, J.M.		
M. A. HOLSTEEN	✓	✓
E. C. MAST	✓	✓
R. A. RANDALL	✓	✓
F. Vertucci	✓	✓
C.A. Bicher	✓	✓
M. Buddy	✓	✓
CORRES. CONTROL	X	X
ADMN RECORD/080	✓	✓
TRAFFIC		
PATS/T130G		

CLASSIFICATION:

UCNI		
UNCLASSIFIED	✓	
CONFIDENTIAL		
SECRET		

AUTHORIZED CLASSIFIER
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DATE

IN REPLY TO RFP CC NO:
N/A

ACTION ITEM STATUS
☐ PARTIAL/OPEN
☑ CLOSED

LTR APPROVALS:

ORIG & TYPIST INITIALS
RAR / SB

A-1

EG&G ROCKY FLATS

45759

EG&G ROCKY FLATS, INC.
ROCKY FLATS PLANT, P.O. BOX 464, GOLDEN, COLORADO 80402-0464 • (303) 966-7000

October 31, 1994

94-RF-10997

Jessie M. Roberson
Acting Assistant Manager for
Environmental Restoration
DOE, RFFO

ADMIN RECORD

Attn: Kurt Muenchow

RESULTS OF PCB SEDIMENT AND TISSUE SAMPLING FOR WALNUT AND WOMAN CREEK DRAINAGES AND OFFSITE RESERVOIRS - SGS-576-94

Action: None required

As discussed in my letter to you dated September 8, 1994 (09292), preliminary results of sediment and tissue samples collected during the Operable Unit 6 (OU6) Remedial Investigation (RI) (August 1992-June 1993) indicated elevated polychlorinated biphenyls (PCBs) concentrations from some of the A- and B-Series Ponds. The A- and B-Series Ponds are located in the drainages of the North and South Walnut creeks. Prior to 1989, Walnut Creek discharged into Great Western Reservoir (OU3, IHSS 200). A diversion canal was constructed in 1989 that routed the flow coming from Walnut Creek around Great Western Reservoir and back into Walnut Creek below the dam (see map). The potential exists for sediments and/or specific biota in Great Western Reservoir and Stanley Lake Reservoir to have been impacted by PCB contaminants from the Rocky Flats Environmental Technologies Site (RFETS) prior to 1989. Because of this possibility, a sediment and tissue PCBs sampling project was undertaken as part of the Environmental Evaluation (EE) portion of the OU6 RI.

As shown in the attached paper, results from the recent sediment sampling (June-July 1994) reveal no detectable levels of PCBs in terminal ponds A-4, B-5 or C-2, indicating that it is not likely that sediments derived from RFETS are contributing PCBs to any of the offsite reservoirs or downstream ecosystems. Furthermore, the decreasing trend in PCB concentrations in fish tissue samples from the PCB source in sediments to downstream ecosystems supports this finding. Elevated PCB concentrations detected in fish tissue samples collected from Standley Lake are not likely due to RFETS sources since historically RFETS has contributed less than 5% of the surface water inputs to this reservoir and upstream sites closer to RFETS sources have lower or non-detectable PCB concentrations. In addition, since no PCBs were detected in any of the small mammal tissue samples collected from around Ponds A-1, A-3, B-1 and B-4, it is evident that PCBs have not

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bioaccumulated in terrestrial food chains. The Prebles Meadow Jumping Mouse and predatory birds feeding onsite are not threatened with PCB contamination from these terrestrial sources at RFETS. PCB levels in fish tissue from RFETS sources are also below effects thresholds for fish-eating birds.

Should you or your staff have any further questions or concerns regarding this issue, please call Ed Mast of my staff at 966-8589.

EMast FOR

S. G. Stiger
Director
Environmental Restoration Program Division
EG&G Rocky Flats Environmental Technology Site

RAR:cb

Orig. and 1 cc - J. M. Roberson

Attachment:
As Stated

cc:
F. R. Lockhart - DOE, RFFO
M. N. Silverman - DOE, RFFO

RESULTS OF PCB SEDIMENT AND TISSUE SAMPLING FOR WALNUT AND WOMAN CREEK DRAINAGES AND OFFSITE RESERVOIRS

Executive Summary

Results from the recent surface sediment sampling (June-July 1994) reveal no detectable levels of polychlorinated biphenyls (PCBs) in terminal ponds A-4, B-5 or C-2, indicating that it is not likely that sediments derived from Rocky Flats Environmental Technologies Site (RFETS) are contributing PCBs to any of the offsite reservoirs or downstream ecosystems. Furthermore, the decreasing trend in PCB concentrations in fish tissue samples from the PCB source in sediments to downstream ecosystems supports this finding. Elevated PCB concentrations detected in fish tissue samples collected from Standley Lake are not likely due to RFETS sources since historically RFETS has contributed less than 5% of the surface water inputs to this reservoir and upstream sites closer to RFETS sources have lower or non-detectable PCB concentrations. In addition, since no PCBs were detected in any of the small mammal tissue samples collected from around Ponds A-1, A-3, B-1 and B-4, it is evident that PCBs have not bioaccumulated in terrestrial food chains. The Prebles Meadow Jumping Mouse (PMJM) and predatory birds feeding onsite are not threatened with PCB contamination from these terrestrial sources at RFETS. PCB levels in fish tissue from RFETS sources are also below effects thresholds for fish-eating birds (DOE 1994a).

Introduction

Preliminary results of sediment and tissue samples collected during the Operable Unit 6 (OU6) Remedial Investigation (RI) (August 1992-June 1993) indicated elevated PCBs concentrations from some of the A- and B-Series Ponds. The A- and B-Series Ponds are located in the drainages of the North and South Walnut creeks. Prior to 1989, Walnut Creek discharged into Great Western Reservoir (OU3, IHSS 200). A diversion canal was constructed in 1989 that routed the flow coming from Walnut Creek around Great Western Reservoir and back into Walnut Creek below the dam (see map). The potential exists for sediments and/or specific biota in Great Western Reservoir and Standley Lake Reservoir to have been impacted by PCB contaminants from the RFETS prior to 1989. Because of this possibility, a sediment and tissue PCBs sampling project was undertaken as part of the Environmental Evaluation (EE) portion of the OU6 RI.

This sampling effort has entailed the collection of additional sediment and tissue samples from the A- and B-Series Ponds and the collection of fish samples from the Walnut Creek terminal pond at Indiana Street (OU6) and Great Western Reservoir to determine if any PCBs have migrated downstream of the terminal ponds. The study area was further expanded at the request of DOE (DOE 1994b) to include fish tissue samples from Mower Reservoir, Standley Lake Reservoir, the C-Series Ponds (OU5), and the D-Series Ponds (in the buffer zone southeast of OU5). All of the sampling results have been received and analyzed and are discussed below. The relevant field sampling plans will be appended as appropriate.

Attachment 1 presents the unvalidated PCB results in sediment samples collected from the A- and B-Series ponds in OU6, while Attachment 2 presents the recent PCB tissue results (unvalidated) for OUs 3, 5, and 6.

It should be noted that during the OU6 RFI/RI in the fall of 1992 no PCBs were detected in the surface water samples collected from the A- and B-Series Ponds. PCBs are hydrophobic and are therefore difficult to detect dissolved in water. However, the lack of PCB detections in water samples does not ensure that PCBs are not being transported through aquatic ecosystems. Since animals bioaccumulate these lipid soluble compounds and sediments are difficult to analyze, primary screening for the presence of PCBs was best accomplished through the collection and analysis of animal tissue. However, the collection of the pond sediment samples is valuable in estimating the quantity of PCBs available for uptake by biota using a simplified food chain model. The preliminary data from the B-4 pond (see Attachments 2 and 5) are a classic example of the bioaccumulation of PCBs in food chains: Sediments 284 μg/kg→Plants 23 μg/kg→Insects 40 μg/kg→Fat head minnows 480 μg/kg. As PCBs move through the food chain, these lipid soluble compounds are accumulated in fatty tissues. Depending on food chain length and individual species bioconcentration and bioaccumulation factors, different organisms have very different PCB tissue levels from sites with the same source concentrations. For instance, fat head minnows, *Pimiphales promelas*, can bioconcentrate PCBs into their tissues 274,000 times higher that the concentrations found in their environment (EPA 1980).

Sediment Analyses

Results (unvalidated) from the current sediment sampling program (collected 0-6 inches deep) in both the A- and B-Series Ponds show a decreasing concentration of PCBs, primarily Aroclor-1254, with distance downstream (see Attachment 1 and below). The mean values of Aroclors-1254 and 1248 (given in μg/kg) in the A- and B-Series Ponds were as follows:

A Ponds	Mean* A-1254	Mean A-1248	B Ponds	Mean* A-1254	Mean* A-1248
A-1	75.9	ND	B-1	868	253.6
A-2	83.8	ND	B-2	2073	589
A-3	25	ND	B-3	572	ND
A-4	ND	ND	B-4	188	ND
			B-5	ND	ND

(*Calculated using 20 μg/kg, one-half of the instrument detection limits of 40 μg/kg, for nondetects where averaged with detects; n = 5. ND indicates that PCB was not detected in sediment samples of pond.)

As shown above, sediments collected from Pond B-2 have a considerably higher mean Aroclor-1254 concentration than those collected from either Pond B-1 or B-3. It is speculated

that this observation is due to the presence of an outfall that historically entered directly into Pond B-2, by-passing Pond B-1. Also, Ponds B-1 and B-2 contain the only sediment sampling locations where Aroclor-1248 was detected. It is important to note here that no PCBs were detected in either terminal ponds A-4 or B-5. In addition, no PCBs were detected in sediment samples collected from the C-1 and C-2 ponds during the current OU5 RFI/RI (Attachment 4).

As a basis for comparison of PCBs in sediment samples, sample-specific Sediment Quality Criterion (SQC) (see Attachment 3) were computed from EPA's SQC factor of 19 μg PCBs/g total organic carbon (TOC) (EPA 1980) and the sample-specific TOC percentage. EPA's SQC, as well as its Ambient Water Quality Criterion (AWQC) (0.014 μg/L), was developed to protect wildlife feeding in aquatic habitats (EPA 1980). Each of these criterion is based on preventing bioaccumulation of PCBs in aquatic invertebrates and fish to levels above 640 μg/kg. When mink consume organisms containing this level of PCBs, reproductive impairment in mink can result; this mammal is the most sensitive vertebrate species reported in the literature examined (Platonow and Karstad 1973)..The only ponds containing PCB concentrations exceeding SQCs were B-1 through B-3. Although these PCB concentrations exceed their respective SQCs, none of the values exceed the action levels for remediation of PCBs in sediments established at other sites, which range from 34.4 to 65 mg PCBs/kg TOC (34,400 to 65,000 μg/g TOC) (Burton 1992; Baudo et. al. 1990).

Historical release information and the distribution patterns of PCB sediment concentrations suggest that the PCBs detected in the OU6 ponds have been derived from historic releases. As an example from the 1992 collection effort, in Pond B-1 the deeper sediment PCB concentration (Attachment 4) was five times higher than levels in the surface 2 feet. Pond B-2 had sediment less than 2 feet in depth, Pond B-3 had similar concentrations with depth, and Pond B-4 had concentrations over two times higher at depth than in the top 2 feet. The primary type of PCB found in the ponds, Aroclor-1254, is one of the heavier PCBs (contains more chlorine atoms) and is more resistant to biodegradation (ATSDR 1992). Only one slightly lighter and less resistant PCB, Aroclor-1248, is found in the pond sediments (B-1 and B-2). The absence of Aroclor-1248 in the other ponds containing Aroclor-1254 suggests that enough time has passed since the last spill for the less-resistant PCB to have biodegraded, which also suggests that the source of PCBs in the pond sediments is not from a recent spill. As further evidence of historical release sources, EG&G reviewed a summary of the historic timelines discussing construction, modifications, and incidents pertaining to the A- and B-Series Ponds (EG&G 1992). The above summary indicated that any PCB releases into the A-Series Ponds would likely have occurred prior to 1972 and that any releases into the B-Series Ponds would have likely occurred prior to 1980.

In summation, PCB concentrations in both the A- and B-Series Ponds decrease with distance downstream to the point where no PCBs were detected in either terminal ponds A-4 or B-5. In addition, no PCBs were detected in sediment samples collected from the C-1 and C-2 ponds. Therefore, it is highly unlikely that sediments derived from RFETS would be currently contributing PCBs to any of the offsite reservoirs.

Tissue Analyses

Attachment 2 presents the unvalidated PCB tissue results for the Walnut and Woman creeks drainages. For this study, an attempt was made to collect three of each species for whole body analyses. When additional numbers of the same species were sacrificed, they were used for filet or liver analyses. Therefore, in Attachment 2 all results are for the more conservative whole body analysis unless specified.

To give meaning to the current tissue data, literature values are first presented as a comparison. For fish tissue the literature suggests that reproductive impairment in rainbow trout may occur at concentrations above 400 μg/kg fresh weight (EPA 1980, as reported in Eisler 1986). Eisler (1986) recommends a maximum body burden for trout at 400 μg/kg fresh weight, but makes no recommendations for non-salmonid species, which appear to be less sensitive. However, it should also be noted that concentrations of PCBs in fish tissue are reported to be protective of human health after consumption if they are below 5,000 μg/kg (Hoeting 1983, as reported in Eisler 1986). Also, fish in the major rivers of the U.S. commonly have levels of PCBs greater than 1,000 μg/kg (Schmitt et al. 1983, as reported in Eisler 1986).

In the A- and B-Series Ponds four types of tissues (whole body) from aquatic biota were analyzed: large mouth bass (40-58 μg/kg), fat head minnows (14-479 μg/kg), tiger salamanders (26-134 μg/kg), and crayfish (BDL-9.5 μg/kg). No consistent trends could be observed through the A-Series Ponds; species were either present and collected in one pond only or the PCB concentrations were below detection limits. For the B-Series Ponds, the PCB concentrations increased in tiger salamanders from the B-1 to B-2 Ponds with no further specimens being found downstream; increased in plants from B-1 to B-4; and decreased in fat head minnows from B-4 to B-5. PCBs were detected in fat head minnows collected from the Walnut Creek terminal pond at Indiana Street in even lower concentrations than in B-5. Only one fish species (carp) was collected from Great Western Reservoir. Of the six carp specimen collected, only one contained detected quantities of PCBs (52.4 μg/kg). The only tissue samples collected on RFETS to exceed Eisler's (1986) recommended maximum body burden for trout (400 μg/kg fresh weight) were three fat head minnow specimen (464-498 μg/kg for whole body) collected from the B-4 Pond.

With regard to the remaining sampling results, fish tissue samples collected from Ponds C-1 and C-2 contained only low levels of PCBs ($\leq$100 μg/kg) and no PCBs were detected in fish tissues collected from Ponds D-1 and D-2 and Mower Reservoir. It is interesting to note that the highest concentration of PCBs collected in any animal tissue during this study was in a carp (1000 μg/kg) collected from Standley Lake Reservoir. In fact, this was the only offsite value that exceeded the recommended maximum body burden for trout at 400 μg/kg fresh weight . Historically, less than 5% of the water flowing into Standley Lake Reservoir came from RFETS, and all of the Woman Creek drainage above the divide on Woman Creek below C-2 dam has been diverted to Mower Reservoir since 1989. Since very little flow historically entered Standley Lake from RFETS and currently no surface water enters this reservoir, it is

highly unlikely that the PCBs found in the fish tissue samples collected from Standley Lake have been derived from RFETS. Furthermore, the scarcity of detected PCBs in fish tissues collected from Great Western Reservoir supports the hypothesis that RFETS is not contributing PCBs to any of the offsite reservoirs.

Potential Impacts on Special Species of Concern: Prebles Meadow Jumping Mouse and Predatory Birds

A sampling effort was undertaken to evaluate whether Prebles Meadow Jumping Mouse (PMJM) might be impacted by the presence of PCBs in the RFETS buffer zone. This was of some concern because a PMJM, which has been proposed as a threatened species under the Federal Threatened and Endangered Species Act, was recently live trapped on exposed Pond A-2 sediments. Since PMJM have a diet similar to deer mice, 13 deer mice were collected adjacent to Ponds A-1, A-3, B-1 and B-4 for whole body tissue analysis to evaluate possible PCB contamination in Prebles. In addition, 12 voles were collected from the same locations to determine if they represent a pathway of PCBs to predatory birds, which include voles in their diet. As seen in Attachment 2, no PCBs were detected in any of the small mammal tissue samples (whole body) collected from around these ponds, suggesting that PCBs have not bioaccumulated up the food chain further than the fish species collected at RFETS and that both the PMJM and predatory birds feeding onsite are not threatened with PCB contamination from RFETS. In addition, none of the PCB detections in fish tissue from RFETS sources exceeded the food concentration thresholds recommended by DOE (1994a) for fish-eating birds: Belted Kingfisher, 667 ppb; Great Blue Heron, 768 ppb.

Conclusions

Results from the recent surface sediment sampling (June-July 1994) reveal no detectable levels of PCBs in terminal ponds A-4, B-5 or C-2, indicating that it is not likely that sediments derived from RFETS are contributing PCBs to any of the offsite reservoirs or downstream ecosystems. Furthermore, the decreasing trend in PCB concentrations in fish tissue samples from the PCB source in sediments to downstream ecosystems supports this finding. Elevated PCB concentrations detected in fish tissue samples collected from Standley Lake are not likely due to RFETS sources since historically RFETS has contributed less than 5% of the surface water inputs to this reservoir and uptream sites closer to RFETS sources have lower or non-detectable PCB concentrations. In addition, since no PCBs were detected in any of the small mammal tissue samples collected from around Ponds A-1, A-3, B-1 and B-4, it is evident that PCBs have not bioaccumulated in terrestrial food chains. The PMJM and predatory birds feeding onsite are not threatened with PCB contamination from these terrestrial sources at RFETS. PCB levels in fish tissue from RFETS sources are also below effects threasholds for fish-eating birds (DOE 1994a).

References

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Attachment 1. UNVALIDATED RESULTS OF PCB PROJECT SEDIMENT SAMPLING

POND	LOCATION	SAMPLE #	SAMPLE DATE	CHEMICAL	RESULT	UNITS	QUAL.	DET. LIMIT
A-1	SED60092	SD00009ST	6-Jun-94	% SOLIDS	30.4	%REC		0.1
	SED60092	SD00009ST	6-Jun-94	AROCLOR-1016	260	UG/KG	U	260
	SED60092	SD00009ST	6-Jun-94	AROCLOR-1221	260	UG/KG	U	260
	SED60092	SD00009ST	6-Jun-94	AROCLOR-1232	260	UG/KG	U	260
	SED60092	SD00009ST	6-Jun-94	AROCLOR-1242	260	UG/KG	U	260
	SED60092	SD00009ST	6-Jun-94	AROCLOR-1248	260	UG/KG	U	260
	SED60092	SD00009ST	6-Jun-94	AROCLOR-1254	86	UG/KG	J	520
	SED60092	SD00009ST	6-Jun-94	AROCLOR-1260	520	UG/KG	U	520
	SED60092	SD00009ST	6-Jun-94	TOT. ORG. CARBON	1.5	%REC		0.16
A-1	SED60192	SD00008ST	6-Jun-94	% SOLIDS	48.8	%REC		0.1
	SED60192	SD00008ST	6-Jun-94	AROCLOR-1016	160	UG/KG	U	160
	SED60192	SD00008ST	6-Jun-94	AROCLOR-1221	160	UG/KG	U	160
	SED60192	SD00008ST	6-Jun-94	AROCLOR-1232	160	UG/KG	U	160
	SED60192	SD00008ST	6-Jun-94	AROCLOR-1242	160	UG/KG	U	160
	SED60192	SD00008ST	6-Jun-94	AROCLOR-1248	160	UG/KG	U	160
	SED60192	SD00008ST	6-Jun-94	AROCLOR-1254	173	UG/KG	J	320
	SED60192	SD00008ST	6-Jun-94	AROCLOR-1260	320	UG/KG	U	320
	SED60192	SD00008ST	6-Jun-94	TOT. ORG. CARBON	1.6	%REC		0.1
A-1	SED60292	SD00011ST	6-Jun-94	% SOLIDS	33.1	%REC		0.1
	SED60292	SD00011ST	6-Jun-94	AROCLOR-1016	240	UG/KG	U	240
	SED60292	SD00011ST	6-Jun-94	AROCLOR-1221	240	UG/KG	U	240
	SED60292	SD00011ST	6-Jun-94	AROCLOR-1232	240	UG/KG	U	240
	SED60292	SD00011ST	6-Jun-94	AROCLOR-1242	240	UG/KG	U	240
	SED60292	SD00011ST	6-Jun-94	AROCLOR-1248	240	UG/KG	U	240
	SED60292	SD00011ST	6-Jun-94	AROCLOR-1254	86	UG/KG	J	480
	SED60292	SD00011ST	6-Jun-94	AROCLOR-1260	480	UG/KG	U	480
	SED60292	SD00011ST	6-Jun-94	TOT. ORG. CARBON	1.8	%REC		0.15
A-1	SED60392	SD00010ST	6-Jun-94	% SOLIDS	29.7	%REC		0.1
	SED60392	SD00010ST	6-Jun-94	AROCLOR-1016	260	UG/KG	U	260
	SED60392	SD00010ST	6-Jun-94	AROCLOR-1221	260	UG/KG	U	260
	SED60392	SD00010ST	6-Jun-94	AROCLOR-1232	260	UG/KG	U	260
	SED60392	SD00010ST	6-Jun-94	AROCLOR-1242	260	UG/KG	U	260
	SED60392	SD00010ST	6-Jun-94	AROCLOR-1248	260	UG/KG	U	260
	SED60392	SD00010ST	6-Jun-94	AROCLOR-1254	88	UG/KG	J	530
	SED60392	SD00010ST	6-Jun-94	AROCLOR-1260	530	UG/KG	U	530
	SED60392	SD00010ST	6-Jun-94	TOT. ORG. CARBON	1.7	%REC		0.16
A-1	SED60492	SD00007ST	6-Jun-94	% SOLIDS	56.6	%REC		0.1
	SED60492	SD00006ST	6-Jun-94	% SOLIDS	55.4	%REC		0.1
	SED60492	SD00007ST	6-Jun-94	AROCLOR-1016	140	UG/KG	U	140
	SED60492	SD00006ST	6-Jun-94	AROCLOR-1016	140	UG/KG	U	140
	SED60492	SD00007ST	6-Jun-94	AROCLOR-1221	140	UG/KG	U	140
	SED60492	SD00006ST	6-Jun-94	AROCLOR-1221	140	UG/KG	U	140
	SED60492	SD00007ST	6-Jun-94	AROCLOR-1232	140	UG/KG	U	140
	SED60492	SD00006ST	6-Jun-94	AROCLOR-1232	140	UG/KG	U	140
	SED60492	SD00007ST	6-Jun-94	AROCLOR-1242	140	UG/KG	U	140
	SED60492	SD00006ST	6-Jun-94	AROCLOR-1242	140	UG/KG	U	140
	SED60492	SD00007ST	6-Jun-94	AROCLOR-1248	140	UG/KG	U	140
	SED60492	SD00006ST	6-Jun-94	AROCLOR-1248	140	UG/KG	U	140
	SED60492	SD00007ST	6-Jun-94	AROCLOR-1254	49	UG/KG	J	280
	SED60492	SD00006ST	6-Jun-94	AROCLOR-1254	44	UG/KG	J	290
	SED60492	SD00007ST	6-Jun-94	AROCLOR-1260	280	UG/KG	U	280
	SED60492	SD00006ST	6-Jun-94	AROCLOR-1260	290	UG/KG	U	290
	SED60492	SD00007ST	6-Jun-94	TOT. ORG. CARBON	1	%REC		0.08

Note: All detection limit values are dry weight and adjusted for sample moisture content

Attachment 1. UNVALIDATED RESULTS OF PCB PROJECT SEDIMENT SAMPLING

POND	LOCATION	SAMPLE #	SAMPLE DATE	CHEMICAL	RESULT	UNITS	QUAL.	DET. LIMIT
	SED60492	SD00006ST	6-Jun-94	TOT. ORG. CARBON	1.1	%REC		0.09
A-2	SED60592	SD00004ST	1-Jun-94	% SOLIDS	33.4	%		0.1
	SED60592	SD00004ST	1-Jun-94	AROCLOR-1016	240	UG/KG	U	240
	SED60592	SD00004ST	1-Jun-94	AROCLOR-1221	240	UG/KG	U	240
	SED60592	SD00004ST	1-Jun-94	AROCLOR-1232	240	UG/KG	U	240
	SED60592	SD00004ST	1-Jun-94	AROCLOR-1242	240	UG/KG	U	240
	SED60592	SD00004ST	1-Jun-94	AROCLOR-1248	240	UG/KG	U	240
	SED60592	SD00004ST	1-Jun-94	AROCLOR-1254	480	UG/KG	U	480
	SED60592	SD00004ST	1-Jun-94	AROCLOR-1260	480	UG/KG	U	480
	SED60592	SD00004ST	1-Jun-94	TOT. ORG. CARBON	3.9	%		0.05
A-2	SED60692	SD00003ST	1-Jun-94	% SOLIDS	26.1	%		0.1
	SED60692	SD00003ST	1-Jun-94	AROCLOR-1016	300	UG/KG	U	300
	SED60692	SD00003ST	1-Jun-94	AROCLOR-1221	300	UG/KG	U	300
	SED60692	SD00003ST	1-Jun-94	AROCLOR-1232	300	UG/KG	U	300
	SED60692	SD00003ST	1-Jun-94	AROCLOR-1242	300	UG/KG	U	300
	SED60692	SD00003ST	1-Jun-94	AROCLOR-1248	300	UG/KG	U	300
	SED60692	SD00003ST	1-Jun-94	AROCLOR-1254	130	UG/KG	J	600
	SED60692	SD00003ST	1-Jun-94	AROCLOR-1260	600	UG/KG	U	600
	SED60692	SD00003ST	1-Jun-94	TOT. ORG. CARBON	3.2	%		0.05
A-2	SED60792	SD00002ST	1-Jun-94	% SOLIDS	23.1	%		0.1
	SED60792	SD00002ST	1-Jun-94	AROCLOR-1016	350	UG/KG	U	350
	SED60792	SD00002ST	1-Jun-94	AROCLOR-1221	350	UG/KG	U	350
	SED60792	SD00002ST	1-Jun-94	AROCLOR-1232	350	UG/KG	U	350
	SED60792	SD00002ST	1-Jun-94	AROCLOR-1242	350	UG/KG	U	350
	SED60792	SD00002ST	1-Jun-94	AROCLOR-1248	350	UG/KG	U	350
	SED60792	SD00002ST	1-Jun-94	AROCLOR-1254	89	UG/KG	J	690
	SED60792	SD00002ST	1-Jun-94	AROCLOR-1260	690	UG/KG	U	690
	SED60792	SD00002ST	1-Jun-94	TOT. ORG. CARBON	3.1	%		0.05
A-2	SED60892	SD00001ST	1-Jun-94	% SOLIDS	26.1	%		0.1
	SED60892	SD00001ST	1-Jun-94	AROCLOR-1016	300	UG/KG	U	300
	SED60892	SD00001ST	1-Jun-94	AROCLOR-1221	300	UG/KG	U	300
	SED60892	SD00001ST	1-Jun-94	AROCLOR-1232	300	UG/KG	U	300
	SED60892	SD00001ST	1-Jun-94	AROCLOR-1242	300	UG/KG	U	300
	SED60892	SD00001ST	1-Jun-94	AROCLOR-1248	300	UG/KG	U	300
	SED60892	SD00001ST	1-Jun-94	AROCLOR-1254	600	UG/KG	U	600
	SED60892	SD00001ST	1-Jun-94	AROCLOR-1260	600	UG/KG	U	600
	SED60892	SD00001ST	1-Jun-94	TOT. ORG. CARBON	3.3	%		0.05
A-2	SED60992	SD00005ST	1-Jun-94	% SOLIDS	26.5	%		0.1
	SED60992	SD00005ST	1-Jun-94	AROCLOR-1016	300	UG/KG	U	300
	SED60992	SD00005ST	1-Jun-94	AROCLOR-1221	300	UG/KG	U	300
	SED60992	SD00005ST	1-Jun-94	AROCLOR-1232	300	UG/KG	U	300
	SED60992	SD00005ST	1-Jun-94	AROCLOR-1242	300	UG/KG	U	300
	SED60992	SD00005ST	1-Jun-94	AROCLOR-1248	300	UG/KG	U	300
	SED60992	SD00005ST	1-Jun-94	AROCLOR-1254	160	UG/KG	J	590
	SED60992	SD00005ST	1-Jun-94	AROCLOR-1260	590	UG/KG	U	590
	SED60992	SD00005ST	1-Jun-94	TOT. ORG. CARBON	3.2	%		0.05
A-3	SED61092	SD00031ST	21-Jun-94	% SOLIDS	35.3	%REC		0.1
	SED61092	SD00031ST	21-Jun-94	AROCLOR-1016	230	UG/KG	U	230
	SED61092	SD00031ST	21-Jun-94	AROCLOR-1221	230	UG/KG	U	230
	SED61092	SD00031ST	21-Jun-94	AROCLOR-1232	230	UG/KG	U	230
	SED61092	SD00031ST	21-Jun-94	AROCLOR-1242	230	UG/KG	U	230

Note: All detection limit values are dry weight and adjusted for sample moisture content

Attachment 1. UNVALIDATED RESULTS OF PCB PROJECT SEDIMENT SAMPLING

POND	LOCATION	SAMPLE #	SAMPLE DATE	CHEMICAL	RESULT	UNITS	QUAL.	DET. LIMIT
	SED61092	SD00031ST	21-Jun-94	AROCLOR-1248	230	UG/KG	U	230
	SED61092	SD00031ST	21-Jun-94	AROCLOR-1254	450	UG/KG	U	450
	SED61092	SD00031ST	21-Jun-94	AROCLOR-1260	450	UG/KG	U	450
	SED61092	SD00031ST	21-Jun-94	TOT. ORG. CARBON	1.7	%REC		0.14
A-3	SED61192	SD00030ST	21-Jun-94	% SOLIDS	60.3	%REC		0.1
	SED61192	SD00030ST	21-Jun-94	AROCLOR-1016	130	UG/KG	U	130
	SED61192	SD00030ST	21-Jun-94	AROCLOR-1221	130	UG/KG	U	130
	SED61192	SD00030ST	21-Jun-94	AROCLOR-1232	130	UG/KG	U	130
	SED61192	SD00030ST	21-Jun-94	AROCLOR-1242	130	UG/KG	U	130
	SED61192	SD00030ST	21-Jun-94	AROCLOR-1248	130	UG/KG	U	130
	SED61192	SD00030ST	21-Jun-94	AROCLOR-1254	45	UG/KG	J	260
	SED61192	SD00030ST	21-Jun-94	AROCLOR-1260	260	UG/KG	U	260
	SED61192	SD00030ST	21-Jun-94	TOT. ORG. CARBON	1.6	%REC		0.08
A-3	SED61292	SD00029ST	21-Jun-94	% SOLIDS	48.2	%REC		0.1
	SED61292	SD00029ST	21-Jun-94	AROCLOR-1016	170	UG/KG	U	170
	SED61292	SD00029ST	21-Jun-94	AROCLOR-1221	170	UG/KG	U	170
	SED61292	SD00029ST	21-Jun-94	AROCLOR-1232	170	UG/KG	U	170
	SED61292	SD00029ST	21-Jun-94	AROCLOR-1242	170	UG/KG	U	170
	SED61292	SD00029ST	21-Jun-94	AROCLOR-1248	170	UG/KG	U	170
	SED61292	SD00029ST	21-Jun-94	AROCLOR-1254	330	UG/KG	U	330
	SED61292	SD00029ST	21-Jun-94	AROCLOR-1260	330	UG/KG	U	330
	SED61292	SD00029ST	21-Jun-94	TOT. ORG. CARBON	2.1			0.1
A-3	SED61392	SD00032ST	21-Jun-94	% SOLIDS	34.8	%REC		0.1
	SED61392	SD00032ST	21-Jun-94	AROCLOR-1016	230	UG/KG	U	230
	SED61392	SD00032ST	21-Jun-94	AROCLOR-1221	230	UG/KG	U	230
	SED61392	SD00032ST	21-Jun-94	AROCLOR-1232	230	UG/KG	U	230
	SED61392	SD00032ST	21-Jun-94	AROCLOR-1242	230	UG/KG	U	230
	SED61392	SD00032ST	21-Jun-94	AROCLOR-1248	230	UG/KG	U	230
	SED61392	SD00032ST	21-Jun-94	AROCLOR-1254	450	UG/KG	U	450
	SED61392	SD00032ST	21-Jun-94	AROCLOR-1260	450	UG/KG	U	450
	SED61392	SD00032ST	21-Jun-94	TOT. ORG. CARBON	1.4	%REC		0.14
A-3	SED61492	SD00028ST	21-Jun-94	% SOLIDS	63.3	%REC		0.1
	SED61492	SD00027ST	21-Jun-94	% SOLIDS	66.6	%REC		0.1
	SED61492	SD00028ST	21-Jun-94	AROCLOR-1016	120	UG/KG	U	120
	SED61492	SD00027ST	21-Jun-94	AROCLOR-1016	120	UG/KG	U	120
	SED61492	SD00028ST	21-Jun-94	AROCLOR-1221	120	UG/KG	U	120
	SED61492	SD00027ST	21-Jun-94	AROCLOR-1221	120	UG/KG	U	120
	SED61492	SD00028ST	21-Jun-94	AROCLOR-1232	120	UG/KG	U	120
	SED61492	SD00027ST	21-Jun-94	AROCLOR-1232	120	UG/KG	U	120
	SED61492	SD00028ST	21-Jun-94	AROCLOR-1242	120	UG/KG	U	120
	SED61492	SD00027ST	21-Jun-94	AROCLOR-1242	120	UG/KG	U	120
	SED61492	SD00028ST	21-Jun-94	AROCLOR-1248	120	UG/KG	U	120
	SED61492	SD00027ST	21-Jun-94	AROCLOR-1248	120	UG/KG	U	120
	SED61492	SD00028ST	21-Jun-94	AROCLOR-1254	250	UG/KG	U	250
	SED61492	SD00027ST	21-Jun-94	AROCLOR-1254	240	UG/KG	U	240
	SED61492	SD00028ST	21-Jun-94	AROCLOR-1260	250	UG/KG	U	250
	SED61492	SD00027ST	21-Jun-94	AROCLOR-1260	240	UG/KG	U	240
	SED61492	SD00028ST	21-Jun-94	TOT. ORG. CARBON	1.2	%REC		0.07
	SED61492	SD00027ST	21-Jun-94	TOT. ORG. CARBON	1.4	%REC		0.07
A-4	SED61592	SD00050ST	5-Jul-94	% SOLIDS	60.8	%		0.1
	SED61592	SD00050ST	5-Jul-94	AROCLOR-1016	130	UG/KG	U	130
	SED61592	SD00050ST	5-Jul-94	AROCLOR-1221	130	UG/KG	U	130

Note: All detection limit values are dry weight and adjusted for sample moisture content

Attachment 1. UNVALIDATED RESULTS OF PCB PROJECT SEDIMENT SAMPLING

POND	LOCATION	SAMPLE #	SAMPLE DATE	CHEMICAL	RESULT	UNITS	QUAL.	DET. LIMIT
	SED61592	SD00050ST	5-Jul-94	AROCLOR-1232	130	UG/KG	U	130
	SED61592	SD00050ST	5-Jul-94	AROCLOR-1242	130	UG/KG	U	130
	SED61592	SD00050ST	5-Jul-94	AROCLOR-1248	130	UG/KG	U	130
	SED61592	SD00050ST	5-Jul-94	AROCLOR-1254	260	UG/KG	U	260
	SED61592	SD00050ST	5-Jul-94	AROCLOR-1260	260	UG/KG	U	260
	SED61592	SD00050ST	5-Jul-94	TOT. ORG. CARBON	1.3	%		0.08
A-4	SED61692	SD00049ST	5-Jul-94	% SOLIDS	30	%		0.1
	SED61692	SD00049ST	5-Jul-94	AROCLOR-1016	260	UG/KG	U	260
	SED61692	SD00049ST	5-Jul-94	AROCLOR-1221	260	UG/KG	U	260
	SED61692	SD00049ST	5-Jul-94	AROCLOR-1232	260	UG/KG	U	260
	SED61692	SD00049ST	5-Jul-94	AROCLOR-1242	260	UG/KG	U	260
	SED61692	SD00049ST	5-Jul-94	AROCLOR-1248	260	UG/KG	U	260
	SED61692	SD00049ST	5-Jul-94	AROCLOR-1254	530	UG/KG	U	530
	SED61692	SD00049ST	5-Jul-94	AROCLOR-1260	530	UG/KG	U	530
	SED61692	SD00049ST	5-Jul-94	TOT. ORG. CARBON	2.1	%		0.16
A-4	SED61792	SD00047ST	6-Jul-94	% SOLIDS	64.6	%		0.1
	SED61792	SD00047ST	6-Jul-94	AROCLOR-1016	120	UG/KG	U	120
	SED61792	SD00047ST	6-Jul-94	AROCLOR-1221	120	UG/KG	U	120
	SED61792	SD00047ST	6-Jul-94	AROCLOR-1232	120	UG/KG	U	120
	SED61792	SD00047ST	6-Jul-94	AROCLOR-1242	120	UG/KG	U	120
	SED61792	SD00047ST	6-Jul-94	AROCLOR-1248	120	UG/KG	U	120
	SED61792	SD00047ST	6-Jul-94	AROCLOR-1254	240	UG/KG	U	240
	SED61792	SD00047ST	6-Jul-94	AROCLOR-1260	240	UG/KG	U	240
	SED61792	SD00047ST	6-Jul-94	TOT. ORG. CARBON	1	%		0.07
A-4	SED61892	SD00048ST	5-Jul-94	% SOLIDS	33.9	%		0.1
	SED61892	SD00048ST	5-Jul-94	AROCLOR-1016	230	UG/KG	U	230
	SED61892	SD00048ST	5-Jul-94	AROCLOR-1221	230	UG/KG	U	230
	SED61892	SD00048ST	5-Jul-94	AROCLOR-1232	230	UG/KG	U	230
	SED61892	SD00048ST	5-Jul-94	AROCLOR-1242	230	UG/KG	U	230
	SED61892	SD00048ST	5-Jul-94	AROCLOR-1248	230	UG/KG	U	230
	SED61892	SD00048ST	5-Jul-94	AROCLOR-1254	460	UG/KG	U	460
	SED61892	SD00048ST	5-Jul-94	AROCLOR-1260	460	UG/KG	U	460
	SED61892	SD00048ST	5-Jul-94	TOT. ORG. CARBON	1.9	%		0.14
A-4	SED61992	SD00051ST	6-Jul-94	% SOLIDS	72	%REC		0.1
	SED61992	SD00051ST	6-Jul-94	AROCLOR-1016	46	UG/KG	U	46
	SED61992	SD00051ST	6-Jul-94	AROCLOR-1221	91	UG/KG	U	91
	SED61992	SD00051ST	6-Jul-94	AROCLOR-1232	46	UG/KG	U	46
	SED61992	SD00051ST	6-Jul-94	AROCLOR-1242	46	UG/KG	U	46
	SED61992	SD00051ST	6-Jul-94	AROCLOR-1248	46	UG/KG	U	46
	SED61992	SD00051ST	6-Jul-94	AROCLOR-1254	46	UG/KG	U	46
	SED61992	SD00051ST	6-Jul-94	AROCLOR-1260	46	UG/KG	U	46
	SED61992	SD00051ST	6-Jul-94	TOT. ORG. CARBON	8690	MG/KG		697
B-1	SED62092	SD00045ST	30-Jun-94	% SOLIDS	40.3	%		0.1
	SED62092	SD00045ST	30-Jun-94	AROCLOR-1016	200	UG/KG	U	200
	SED62092	SD00045ST	30-Jun-94	AROCLOR-1221	200	UG/KG	U	200
	SED62092	SD00045ST	30-Jun-94	AROCLOR-1232	200	UG/KG	U	200
	SED62092	SD00045ST	30-Jun-94	AROCLOR-1242	200	UG/KG	U	200
	SED62092	SD00045ST	30-Jun-94	AROCLOR-1248	88	UG/KG	J	200
	SED62092	SD00045ST	30-Jun-94	AROCLOR-1254	320	UG/KG	J	390
	SED62092	SD00045ST	30-Jun-94	AROCLOR-1260	390	UG/KG	U	390
	SED62092	SD00045ST	30-Jun-94	TOT. ORG. CARBON	1.7	%		0.12

Note: All detection limit values are dry weight and adjusted for sample moisture content

Attachment 1. UNVALIDATED RESULTS OF PCB PROJECT SEDIMENT SAMPLING

POND	LOCATION	SAMPLE #	SAMPLE DATE	CHEMICAL	RESULT	UNITS	QUAL.	DET. LIMIT
B-1	SED62192	SD00042ST	29-Jun-94	% SOLIDS	50.1	%		0.1
	SED62192	SD00042ST	29-Jun-94	AROCLOR-1016	160	UG/KG	U	160
	SED62192	SD00042ST	29-Jun-94	AROCLOR-1221	160	UG/KG	U	160
	SED62192	SD00042ST	29-Jun-94	AROCLOR-1232	160	UG/KG	U	160
	SED62192	SD00042ST	29-Jun-94	AROCLOR-1242	160	UG/KG	U	160
	SED62192	SD00042ST	29-Jun-94	AROCLOR-1248	290	UG/KG		160
	SED62192	SD00042ST	29-Jun-94	AROCLOR-1254	1400	UG/KG	E	310
	SED62192	SD00042ST	29-Jun-94	AROCLOR-1254	1600	UG/KG		630
	SED62192	SD00042ST	29-Jun-94	AROCLOR-1260	310	UG/KG	U	310
	SED62192	SD00042ST	29-Jun-94	TOT. ORG. CARBON	2.2	%		0.09
B-1	SED62292	SD00043ST	29-Jun-94	% SOLIDS	53	%		0.1
	SED62292	SD00043ST	29-Jun-94	AROCLOR-1016	150	UG/KG	U	150
	SED62292	SD00043ST	29-Jun-94	AROCLOR-1221	150	UG/KG	U	150
	SED62292	SD00043ST	29-Jun-94	AROCLOR-1232	150	UG/KG	U	150
	SED62292	SD00043ST	29-Jun-94	AROCLOR-1242	150	UG/KG	U	150
	SED62292	SD00043ST	29-Jun-94	AROCLOR-1248	470	UG/KG		150
	SED62292	SD00043ST	29-Jun-94	AROCLOR-1254	910	UG/KG		300
	SED62292	SD00043ST	29-Jun-94	AROCLOR-1260	300	UG/KG	U	300
	SED62292	SD00043ST	29-Jun-94	TOT. ORG. CARBON	1.3	%		0.09
B-1	SED62392	SD00044ST	30-Jun-94	% SOLIDS	36.7	%		0.1
	SED62392	SD00044ST	30-Jun-94	AROCLOR-1016	220	UG/KG	U	220
	SED62392	SD00044ST	30-Jun-94	AROCLOR-1221	220	UG/KG	U	220
	SED62392	SD00044ST	30-Jun-94	AROCLOR-1232	220	UG/KG	U	220
	SED62392	SD00044ST	30-Jun-94	AROCLOR-1242	220	UG/KG	U	220
	SED62392	SD00044ST	30-Jun-94	AROCLOR-1248	100	UG/KG	J	220
	SED62392	SD00044ST	30-Jun-94	AROCLOR-1254	410	UG/KG	J	430
	SED62392	SD00044ST	30-Jun-94	AROCLOR-1260	430	UG/KG	U	430
	SED62392	SD00044ST	30-Jun-94	TOT. ORG. CARBON	2.1	%		0.13
B-1	SED62492	SD00041ST	29-Jun-94	% SOLIDS	51.4	%		0.1
	SED62492	SD00041ST	29-Jun-94	AROCLOR-1016	150	UG/KG	U	150
	SED62492	SD00041ST	29-Jun-94	AROCLOR-1221	150	UG/KG	U	150
	SED62492	SD00041ST	29-Jun-94	AROCLOR-1232	150	UG/KG	U	150
	SED62492	SD00041ST	29-Jun-94	AROCLOR-1242	150	UG/KG	U	150
	SED62492	SD00041ST	29-Jun-94	AROCLOR-1248	320	UG/KG		150
	SED62492	SD00041ST	29-Jun-94	AROCLOR-1254	1100	UG/KG		310
	SED62492	SD00041ST	29-Jun-94	AROCLOR-1260	310	UG/KG	U	310
	SED62492	SD00041ST	29-Jun-94	TOT. ORG. CARBON	2.1	%		0.09
B-2	SED62592	SD00037ST	24-Jun-94	% SOLIDS	19.2	%REC		0.1
	SED62592	SD00037ST	24-Jun-94	AROCLOR-1016	410	UG/KG	U	410
	SED62592	SD00037ST	24-Jun-94	AROCLOR-1221	410	UG/KG	U	410
	SED62592	SD00037ST	24-Jun-94	AROCLOR-1232	410	UG/KG	U	410
	SED62592	SD00037ST	24-Jun-94	AROCLOR-1242	410	UG/KG	U	410
	SED62592	SD00037ST	24-Jun-94	AROCLOR-1248	1500	UG/KG		410
	SED62592	SD00037ST	24-Jun-94	AROCLOR-1254	2100	UG/KG		830
	SED62592	SD00037ST	24-Jun-94	AROCLOR-1260	830	UG/KG	U	830
	SED62592	SD00037ST	24-Jun-94	TOT. ORG. CARBON	5.9	%REC		0.26
B-2	SED62692	SD00039ST	24-Jun-94	% SOLIDS	45.7	%REC		0.1
	SED62692	SD00039ST	24-Jun-94	AROCLOR-1016	180	UG/KG	U	180
	SED62692	SD00039ST	24-Jun-94	AROCLOR-1221	180	UG/KG	U	180
	SED62692	SD00039ST	24-Jun-94	AROCLOR-1232	180	UG/KG	U	180
	SED62692	SD00039ST	24-Jun-94	AROCLOR-1242	180	UG/KG	U	180
	SED62692	SD00039ST	24-Jun-94	AROCLOR-1248	420	UG/KG		180

Note: All detection limit values are dry weight and adjusted for sample moisture content

Attachment 1. UNVALIDATED RESULTS OF PCB PROJECT SEDIMENT SAMPLING

POND	LOCATION	SAMPLE #	SAMPLE DATE	CHEMICAL	RESULT	UNITS	QUAL.	DET. LIMIT
	SED62692	SD00039ST	24-Jun-94	AROCLOR-1254	1900	UG/KG	E	350
	SED62692	SD00039ST	24-Jun-94	AROCLOR-1254	3800	UG/KG		1800
	SED62692	SD00039ST	24-Jun-94	AROCLOR-1260	350	UG/KG	U	350
	SED62692	SD00039ST	24-Jun-94	TOT. ORG. CARBON	4.2	%REC		0.1
B-2	SED62792	SD00035ST	23-Jun-94	% SOLIDS	20.2	%REC		0.1
	SED62792	SD00034ST	23-Jun-94	% SOLIDS	25.2	%REC		0.1
	SED62792	SD00035ST	23-Jun-94	AROCLOR-1016	390	UG/KG	U	390
	SED62792	SD00034ST	23-Jun-94	AROCLOR-1016	320	UG/KG	U	320
	SED62792	SD00035ST	23-Jun-94	AROCLOR-1221	390	UG/KG	U	390
	SED62792	SD00034ST	23-Jun-94	AROCLOR-1221	320	UG/KG	U	320
	SED62792	SD00035ST	23-Jun-94	AROCLOR-1232	390	UG/KG	U	390
	SED62792	SD00034ST	23-Jun-94	AROCLOR-1232	320	UG/KG	U	320
	SED62792	SD00035ST	23-Jun-94	AROCLOR-1242	390	UG/KG	U	390
	SED62792	SD00034ST	23-Jun-94	AROCLOR-1242	320	UG/KG	U	320
	SED62792	SD00035ST	23-Jun-94	AROCLOR-1248	650	UG/KG		390
	SED62792	SD00034ST	23-Jun-94	AROCLOR-1248	580	UG/KG		320
	SED62792	SD00035ST	23-Jun-94	AROCLOR-1254	1200	UG/KG		790
	SED62792	SD00034ST	23-Jun-94	AROCLOR-1254	930	UG/KG		630
	SED62792	SD00035ST	23-Jun-94	AROCLOR-1260	790	UG/KG	U	790
	SED62792	SD00034ST	23-Jun-94	AROCLOR-1260	630	UG/KG	U	630
	SED62792	SD00035ST	23-Jun-94	TOT. ORG. CARBON	5.7	%REC		0.24
	SED62792	SD00034ST	23-Jun-94	TOT. ORG. CARBON	5.6	%REC		0.19
B-2	SED62892	SD00036ST	23-Jun-94	% SOLIDS	39.1	%REC		0.1
	SED62892	SD00036ST	23-Jun-94	AROCLOR-1016	200	UG/KG	U	200
	SED62892	SD00036ST	23-Jun-94	AROCLOR-1221	200	UG/KG	U	200
	SED62892	SD00036ST	23-Jun-94	AROCLOR-1232	200	UG/KG	U	200
	SED62892	SD00036ST	23-Jun-94	AROCLOR-1242	200	UG/KG	U	200
	SED62892	SD00036ST	23-Jun-94	AROCLOR-1248	390	UG/KG		200
	SED62892	SD00036ST	23-Jun-94	AROCLOR-1254	1400	UG/KG		410
	SED62892	SD00036ST	23-Jun-94	AROCLOR-1260	410	UG/KG	U	410
	SED62892	SD00036ST	23-Jun-94	TOT. ORG. CARBON	4.3	%REC		0.12
B-2	SED62992	SD00038ST	24-Jun-94	% SOLIDS	45.5	%REC		0.1
	SED62992	SD00038ST	24-Jun-94	AROCLOR-1016	180	UG/KG	U	180
	SED62992	SD00038ST	24-Jun-94	AROCLOR-1221	180	UG/KG	U	180
	SED62992	SD00038ST	24-Jun-94	AROCLOR-1232	180	UG/KG	U	180
	SED62992	SD00038ST	24-Jun-94	AROCLOR-1242	180	UG/KG	U	180
	SED62992	SD00038ST	24-Jun-94	AROCLOR-1248	180	UG/KG	U	180
	SED62992	SD00038ST	24-Jun-94	AROCLOR-1254	1500	UG/KG	E	350
	SED62992	SD00038ST	24-Jun-94	AROCLOR-1254	2000	UG/KG		700
	SED62992	SD00038ST	24-Jun-94	AROCLOR-1260	350	UG/KG	U	350
	SED62992	SD00038ST	24-Jun-94	TOT. ORG. CARBON	3	%REC		0.1
B-3	SED63092	SD00025ST	14-Jun-94	% SOLIDS	47.5	%REC		0.1
	SED63092	SD00025ST	14-Jun-94	AROCLOR-1016	170	UG/KG	U	170
	SED63092	SD00025ST	14-Jun-94	AROCLOR-1221	170	UG/KG	U	170
	SED63092	SD00025ST	14-Jun-94	AROCLOR-1232	170	UG/KG	U	170
	SED63092	SD00025ST	14-Jun-94	AROCLOR-1242	170	UG/KG	U	170
	SED63092	SD00025ST	14-Jun-94	AROCLOR-1248	170	UG/KG	U	170
	SED63092	SD00025ST	14-Jun-94	AROCLOR-1254	260	UG/KG	J	330
	SED63092	SD00025ST	14-Jun-94	AROCLOR-1260	330	UG/KG	U	330
	SED63092	SD00025ST	14-Jun-94	TOT. ORG. CARBON	1.5	%REC		0.1
B-3	SED63192	SD00024ST	14-Jun-94	% SOLIDS	22.3	%REC		0.1
	SED63192	SD00024ST	14-Jun-94	AROCLOR-1016	360	UG/KG	U	360

Note: All detection limit values are dry weight and adjusted for sample moisture content

Attachment 1. UNVALIDATED RESULTS OF PCB PROJECT SEDIMENT SAMPLING

POND	LOCATION	SAMPLE #	SAMPLE DATE	CHEMICAL	RESULT	UNITS	QUAL.	DET. LIMIT
	SED63192	SD00024ST	14-Jun-94	AROCLOR-1221	360	UG/KG	U	360
	SED63192	SD00024ST	14-Jun-94	AROCLOR-1232	360	UG/KG	U	360
	SED63192	SD00024ST	14-Jun-94	AROCLOR-1242	360	UG/KG	U	360
	SED63192	SD00024ST	14-Jun-94	AROCLOR-1248	360	UG/KG	U	360
	SED63192	SD00024ST	14-Jun-94	AROCLOR-1254	230	UG/KG	J	710
	SED63192	SD00024ST	14-Jun-94	AROCLOR-1260	710	UG/KG	U	710
	SED63192	SD00024ST	14-Jun-94	TOT. ORG. CARBON	4.3	%REC		0.22
B-3	SED63292	SD00026ST	14-Jun-94	% SOLIDS	29.8	%REC		0.1
	SED63292	SD00026ST	14-Jun-94	AROCLOR-1016	260	UG/KG	U	260
	SED63292	SD00026ST	14-Jun-94	AROCLOR-1221	260	UG/KG	U	260
	SED63292	SD00026ST	14-Jun-94	AROCLOR-1232	260	UG/KG	U	260
	SED63292	SD00026ST	14-Jun-94	AROCLOR-1242	260	UG/KG	U	260
	SED63292	SD00026ST	14-Jun-94	AROCLOR-1248	260	UG/KG	U	260
	SED63292	SD00026ST	14-Jun-94	AROCLOR-1254	1300	UG/KG		520
	SED63292	SD00026ST	14-Jun-94	AROCLOR-1260	260	UG/KG	J	520
	SED63292	SD00026ST	14-Jun-94	TOT. ORG. CARBON	2.6	%REC		0.16
B-3	SED63392	SD00023ST	14-Jun-94	% SOLIDS	22	%REC		0.1
	SED63392	SD00023ST	14-Jun-94	AROCLOR-1016	360	UG/KG	U	360
	SED63392	SD00023ST	14-Jun-94	AROCLOR-1221	360	UG/KG	U	360
	SED63392	SD00023ST	14-Jun-94	AROCLOR-1232	360	UG/KG	U	360
	SED63392	SD00023ST	14-Jun-94	AROCLOR-1242	360	UG/KG	U	360
	SED63392	SD00023ST	14-Jun-94	AROCLOR-1248	360	UG/KG	U	360
	SED63392	SD00023ST	14-Jun-94	AROCLOR-1254	770	UG/KG		720
	SED63392	SD00023ST	14-Jun-94	AROCLOR-1260	720	UG/KG	U	720
	SED63392	SD00023ST	14-Jun-94	TOT. ORG. CARBON	4.1	%REC		0.22
B-3	SED63492	SD00022ST	14-Jun-94	% SOLIDS	62.2	%REC		0.1
	SED63492	SD00022ST	14-Jun-94	AROCLOR-1016	120	UG/KG	U	120
	SED63492	SD00022ST	14-Jun-94	AROCLOR-1221	120	UG/KG	U	120
	SED63492	SD00022ST	14-Jun-94	AROCLOR-1232	120	UG/KG	U	120
	SED63492	SD00022ST	14-Jun-94	AROCLOR-1242	120	UG/KG	U	120
	SED63492	SD00022ST	14-Jun-94	AROCLOR-1248	120	UG/KG	U	120
	SED63492	SD00022ST	14-Jun-94	AROCLOR-1254	300	UG/KG		250
	SED63492	SD00022ST	14-Jun-94	AROCLOR-1260	250	UG/KG	U	250
	SED63492	SD00022ST	14-Jun-94	TOT. ORG. CARBON	1.2			0.08
B-4	SED63592	SD00014ST	8-Jun-94	% SOLIDS	54.2	%REC		0.1
	SED63592	SD00014ST	8-Jun-94	AROCLOR-1016	150	UG/KG	U	150
	SED63592	SD00014ST	8-Jun-94	AROCLOR-1221	150	UG/KG	U	150
	SED63592	SD00014ST	8-Jun-94	AROCLOR-1232	150	UG/KG	U	150
	SED63592	SD00014ST	8-Jun-94	AROCLOR-1242	150	UG/KG	U	150
	SED63592	SD00014ST	8-Jun-94	AROCLOR-1248	150	UG/KG	U	150
	SED63592	SD00014ST	8-Jun-94	AROCLOR-1254	210	UG/KG	J	300
	SED63592	SD00014ST	8-Jun-94	AROCLOR-1260	300	UG/KG	U	300
	SED63592	SD00014ST	8-Jun-94	TOT. ORG. CARBON	1.4	%REC		0.09
B-4	SED63692	SD00012ST	8-Jun-94	% SOLIDS	64.4	%REC		0.1
	SED63692	SD00012ST	8-Jun-94	AROCLOR-1016	120	UG/KG	U	120
	SED63692	SD00012ST	8-Jun-94	AROCLOR-1221	120	UG/KG	U	120
	SED63692	SD00012ST	8-Jun-94	AROCLOR-1232	120	UG/KG	U	120
	SED63692	SD00012ST	8-Jun-94	AROCLOR-1242	120	UG/KG	U	120
	SED63692	SD00012ST	8-Jun-94	AROCLOR-1248	120	UG/KG	U	120
	SED63692	SD00012ST	8-Jun-94	AROCLOR-1254	120	UG/KG	J	250
	SED63692	SD00012ST	8-Jun-94	AROCLOR-1260	250	UG/KG	U	250
	SED63692	SD00012ST	8-Jun-94	TOT. ORG. CARBON	1	%REC		0.07

Note: All detection limit values are dry weight and adjusted for sample moisture content

Attachment 1. UNVALIDATED RESULTS OF PCB PROJECT SEDIMENT SAMPLING

POND	LOCATION	SAMPLE #	SAMPLE DATE	CHEMICAL	RESULT	UNITS	QUAL.	DET. LIMIT
B-4	SED63792	SD00015ST	8-Jun-94	% SOLIDS	45.5	%REC		0.1
	SED63792	SD00015ST	8-Jun-94	AROCLOR-1016	170	UG/KG	U	170
	SED63792	SD00015ST	8-Jun-94	AROCLOR-1221	170	UG/KG	U	170
	SED63792	SD00015ST	8-Jun-94	AROCLOR-1232	170	UG/KG	U	170
	SED63792	SD00015ST	8-Jun-94	AROCLOR-1242	170	UG/KG	U	170
	SED63792	SD00015ST	8-Jun-94	AROCLOR-1248	170	UG/KG	U	170
	SED63792	SD00015ST	8-Jun-94	AROCLOR-1254	190	UG/KG	J	350
	SED63792	SD00015ST	8-Jun-94	AROCLOR-1260	350	UG/KG	U	350
	SED63792	SD00015ST	8-Jun-94	TOT. ORG. CARBON	1.8	%REC		0.1
B-4	SED63892	SD00016ST	8-Jun-94	% SOLIDS	42.6	%REC		0.1
	SED63892	SD00016ST	8-Jun-94	AROCLOR-1016	180	UG/KG	U	180
	SED63892	SD00016ST	8-Jun-94	AROCLOR-1221	180	UG/KG	U	180
	SED63892	SD00016ST	8-Jun-94	AROCLOR-1232	180	UG/KG	U	180
	SED63892	SD00016ST	8-Jun-94	AROCLOR-1242	180	UG/KG	U	180
	SED63892	SD00016ST	8-Jun-94	AROCLOR-1248	180	UG/KG	U	180
	SED63892	SD00016ST	8-Jun-94	AROCLOR-1254	200	UG/KG	J	370
	SED63892	SD00016ST	8-Jun-94	AROCLOR-1260	370	UG/KG	U	370
	SED63892	SD00016ST	8-Jun-94	TOT. ORG. CARBON	2	%REC		0.11
B-4	SED63992	SD00013ST	8-Jun-94	% SOLIDS	53.8	%REC		0.1
	SED63992	SD00013ST	8-Jun-94	AROCLOR-1016	150	UG/KG	U	150
	SED63992	SD00013ST	8-Jun-94	AROCLOR-1221	150	UG/KG	U	150
	SED63992	SD00013ST	8-Jun-94	AROCLOR-1232	150	UG/KG	U	150
	SED63992	SD00013ST	8-Jun-94	AROCLOR-1242	150	UG/KG	U	150
	SED63992	SD00013ST	8-Jun-94	AROCLOR-1248	150	UG/KG	U	150
	SED63992	SD00013ST	8-Jun-94	AROCLOR-1254	220	UG/KG	J	300
	SED63992	SD00013ST	8-Jun-94	AROCLOR-1260	300	UG/KG	U	300
	SED63992	SD00013ST	8-Jun-94	TOT. ORG. CARBON	1.3	%REC		0.09
B-5	SED64092	SD00018ST	10-Jun-94	% SOLIDS	67.5	%REC		0.1
	SED64092	SD00018ST	10-Jun-94	AROCLOR-1016	120	UG/KG	U	120
	SED64092	SD00018ST	10-Jun-94	AROCLOR-1221	120	UG/KG	U	120
	SED64092	SD00018ST	10-Jun-94	AROCLOR-1232	120	UG/KG	U	120
	SED64092	SD00018ST	10-Jun-94	AROCLOR-1242	120	UG/KG	U	120
	SED64092	SD00018ST	10-Jun-94	AROCLOR-1248	120	UG/KG	U	120
	SED64092	SD00018ST	10-Jun-94	AROCLOR-1254	230	UG/KG	U	230
	SED64092	SD00018ST	10-Jun-94	AROCLOR-1260	230	UG/KG	U	230
	SED64092	SD00018ST	10-Jun-94	TOT. ORG. CARBON	1.1	%REC		0.07
B-5	SED64192	SD00019ST	15-Jun-94	% SOLIDS	63.3	%REC		0.1
	SED64192	SD00019ST	15-Jun-94	AROCLOR-1016	130	UG/KG	U	130
	SED64192	SD00019ST	15-Jun-94	AROCLOR-1221	130	UG/KG	U	130
	SED64192	SD00019ST	15-Jun-94	AROCLOR-1232	130	UG/KG	U	130
	SED64192	SD00019ST	15-Jun-94	AROCLOR-1242	130	UG/KG	U	130
	SED64192	SD00019ST	15-Jun-94	AROCLOR-1248	130	UG/KG	U	130
	SED64192	SD00019ST	15-Jun-94	AROCLOR-1254	250	UG/KG	U	250
	SED64192	SD00019ST	15-Jun-94	AROCLOR-1260	250	UG/KG	U	250
	SED64192	SD00019ST	15-Jun-94	TOT. ORG. CARBON	1.3	%REC		0.07
B-5	SED64292	SD00021ST	15-Jun-94	% SOLIDS	57.6	%REC		0.1
	SED64292	SD00021ST	15-Jun-94	AROCLOR-1016	140	UG/KG	U	140
	SED64292	SD00021ST	15-Jun-94	AROCLOR-1221	140	UG/KG	U	140
	SED64292	SD00021ST	15-Jun-94	AROCLOR-1232	140	UG/KG	U	140
	SED64292	SD00021ST	15-Jun-94	AROCLOR-1242	140	UG/KG	U	140
	SED64292	SD00021ST	15-Jun-94	AROCLOR-1248	140	UG/KG	U	140

Note: All detection limit values are dry weight and adjusted for sample moisture content

Attachment 1. UNVALIDATED RESULTS OF PCB PROJECT SEDIMENT SAMPLING

POND	LOCATION	SAMPLE #	SAMPLE DATE	CHEMICAL	RESULT	UNITS	QUAL.	DET. LIMIT
	SED64292	SD00021ST	15-Jun-94	AROCLOR-1254	280	UG/KG	U	280
	SED64292	SD00021ST	15-Jun-94	AROCLOR-1260	280	UG/KG	U	280
	SED64292	SD00021ST	15-Jun-94	TOT. ORG. CARBON	1.2	%REC		0.08
B-5	SED64392	SD00020ST	15-Jun-94	% SOLIDS	36.9	%REC		0.1
	SED64392	SD00020ST	15-Jun-94	AROCLOR-1016	220	UG/KG	U	220
	SED64392	SD00020ST	15-Jun-94	AROCLOR-1221	220	UG/KG	U	220
	SED64392	SD00020ST	15-Jun-94	AROCLOR-1232	220	UG/KG	U	220
	SED64392	SD00020ST	15-Jun-94	AROCLOR-1242	220	UG/KG	U	220
	SED64392	SD00020ST	15-Jun-94	AROCLOR-1248	220	UG/KG	U	220
	SED64392	SD00020ST	15-Jun-94	AROCLOR-1254	430	UG/KG	U	430
	SED64392	SD00020ST	15-Jun-94	AROCLOR-1260	430	UG/KG	U	430
	SED64392	SD00020ST	15-Jun-94	TOT. ORG. CARBON	2	%REC		0.13
B-5	SED64492	SD00017ST	10-Jun-94	% SOLIDS	63.9	%REC		0.1
	SED64492	SD00017ST	10-Jun-94	AROCLOR-1016	120	UG/KG	U	120
	SED64492	SD00017ST	10-Jun-94	AROCLOR-1221	120	UG/KG	U	120
	SED64492	SD00017ST	10-Jun-94	AROCLOR-1232	120	UG/KG	U	120
	SED64492	SD00017ST	10-Jun-94	AROCLOR-1242	120	UG/KG	U	120
	SED64492	SD00017ST	10-Jun-94	AROCLOR-1248	120	UG/KG	U	120
	SED64492	SD00017ST	10-Jun-94	AROCLOR-1254	240	UG/KG	U	240
	SED64492	SD00017ST	10-Jun-94	AROCLOR-1260	240	UG/KG	U	240
	SED64492	SD00017ST	10-Jun-94	TOT. ORG. CARBON	1.3	%REC		0.07

Note: All detection limit values are dry weight and adjusted for sample moisture content

Attachment 2. PRELIMINARY PCB TISSUE RESULTS FOR OU3, OU5, AND OU6

Location	Sample #	Organism	Species	Result (Aroclor-1254, ug/kg)	Detect Limit (ug/kg, CRDL)
Stanley Res.	BIO0001EG	Carp	*Cyprinus carpio*	33	15
Stanley Res.	BIO0014EG	Carp	*Cyprinus carpio*	99	15
Stanley Res.	BIO0015EG	Carp	*Cyprinus carpio*	1000	15
Stanley Res.	BIO0016EG	Carp	*Cyprinus carpio*	9.8	15
Stanley Res.	BIO0017EG	Channel Catfish	*Ictalurus punctatus*	BDL	15
Stanley Res.	BIO0018EG	Channel Catfish	*Ictalurus punctatus*	BDL	15
Stanley Res.	BIO0019EG	Channel Catfish	*Ictalurus punctatus*	BDL	15
Stanley Res.	BIO0020EG	Channel Catfish (filet)	*Ictalurus punctatus*	38.6	15
Stanley Res.	BIO0021EG	Channel Catfish (liver)	*Ictalurus punctatus*	13.4	15
Stanley Res.	BIO0013EG	Gizzard Shad	*Dorosoma cepedianum*	110	15
Stanley Res.	BIO0012EG	Gizzard Shad	*Dorosoma cepedianum*	194	15
Stanley Res.	BIO0010EG	Rainbow Trout	*Salmo Gairdneri*	29	15
Stanley Res.	BIO0011EG	Rainbow Trout	*Salmo Gairdneri*	15.3	15
Stanley Res.	BIO0009EG	Small Mouth Bass	*Micropterus dolomieu*	26.8	15
Stanley Res.	BIO0006EG	Wiper	*Morone americana x Morone saxatilis*	36	15
Stanley Res.	BIO0007EG	Wiper	*Morone americana x Morone saxatilis*	39	15
Stanley Res.	BIO0008EG	Wiper	*Morone americana x Morone saxatilis*	53	15
Stanley Res.	BIO0002EG	Wiper (filet)	*Morone americana x Morone saxatilis*	36.9	15
Stanley Res.	BIO0003EG	Wiper (filet)	*Morone americana x Morone saxatilis*	37.2	15
Stanley Res.	BIO0004EG	Wiper (filet)	*Morone americana x Morone saxatilis*	9.3	15
Stanley Res.	BIO0005EG	Wiper (liver)	*Morone americana x Morone saxatilis*	246	15
Mower Res.	BIO0022EG	Large Mouth Bass	*Micropterus salmoides*	BDL	15
Mower Res.	BIO0023EG	Large Mouth Bass	*Micropterus salmoides*	BDL	15
Mower Res.	BIO0024EG	Large Mouth Bass	*Micropterus salmoides*	BDL	15
Mower Res.	BIO0025EG	Large Mouth Bass (filet)	*Micropterus salmoides*	BDL	15
Mower Res.	BIO0026EG	Large Mouth Bass (filet)	*Micropterus salmoides*	BDL	15
Mower Res.	BIO0027EG	Large Mouth Bass (filet)	*Micropterus salmoides*	BDL	15
Mower Res.	BIO0029EG	Large Mouth Bass (liver)	*Micropterus salmoides*	BDL	15
Mower Res.	BIO0030EG	White Sucker	*Catostomus commersoni*	BDL	15
Mower Res.	BIO0031EG	White Sucker	*Catostomus commersoni*	BDL	15
Mower Res.	BIO0032EG	White Sucker	*Catostomus commersoni*	BDL	15
Great Western	BIO3861ST	Carp	*Cyprinus carpio*	BDL	20
Great Western	BIO3862ST	Carp	*Cyprinus carpio*	BDL	20
Great Western	BIO3863ST	Carp	*Cyprinus carpio*	BDL	20
Great Western	BIO3864ST	Carp	*Cyprinus carpio*	52.4	20
Great Western	BIO3865ST	Carp	*Cyprinus carpio*	BDL	20
Great Western	BIO3866ST	Carp	*Cyprinus carpio*	BDL	20

*** All samples are whole body except where noted**

Attachment 2. PRELIMINARY PCB TISSUE RESULTS FOR OU3, OU5, AND OU6

Location	Sample #	Organism	Species	Result (Aroclor-1254, ug/kg)	Detect Limit (ug/kg, CRDL)
A-1	BIO3835ST	deer mouse	*Peromyscus maniculatus*	BDL	20
A-1	BIO3837ST	deer mouse	*Peromyscus maniculatus*	BDL	20
A-1	BIO3843ST	deer mouse	*Peromyscus maniculatus*	BDL	20
A-1	BIO3844ST	vole	*Microtus pennsylvanicus*	BDL	20
A-1	BIO3850ST	deer mouse	*Peromyscus maniculatus*	BDL	20
A-1	BIO3855ST	n/a	*N/A (matrix spike)*	BDL	20
A-1	BIO3857ST	vole	*Microtus pennsylvanicus*	BDL	20
A-1	BIO3858ST	vole	*Microtus ochrogaster*	BDL	20
A-1	BIO3691ST	Plant	*N/A*	BDL	22
A-1	BIO3692ST	Plant	*N/A*	BDL	22
A-1	BIO3693ST	Plant	*N/A*	BDL	22
A-2	BIO3792ST	Large Mouth Bass	*Micropterus salmoides*	40	20
A-2	BIO3793ST	Large Mouth Bass	*Micropterus salmoides*	47	20
A-2	BIO3794ST	Large Mouth Bass	*Micropterus salmoides*	58	20
A-2	BIO3575ST	Insect	*N/A*	19.7	88
A-2	BIO3688ST	Plant	*N/A*	BDL	22
A-2	BIO3689ST	Plant	*N/A*	BDL	22
A-2	BIO3690ST	Plant	*N/A*	BDL	22
A-3	BIO3839ST	deer mouse	*Peromyscus maniculatus*	BDL	20
A-3	BIO3840ST	deer mouse	*Peromyscus maniculatus*	BDL	20
A-3	BIO3841ST	vole	*Microtus pennsylvanicus*	BDL	20
A-3	BIO3842ST	vole	*Microtus pennsylvanicus*	BDL	20
A-3	BIO3845ST	deer mouse	*Peromyscus maniculatus*	BDL	20
A-3	BIO3846ST	vole	*Microtus pennsylvanicus*	BDL	20
A-3	BIO3826ST	Crayfish	*Cambarus sp.*	6.3 (Aroclor-1260)	15
A-3	BIO3825ST	Crayfish	*Cambarus sp.*	BDL	15
A-3	BIO3827ST	Crayfish	*Cambarus sp.*	BDL	15
A-4	BIO3748ST	Plant	*N/A*	BDL	23
A-4	BIO3779ST	Fat head Minnow	*Pimephales promelas*	14	22
A-4	BIO3780ST	Fat head Minnow	*Pimephales promelas*	14	22
A-4	BIO3781ST	Fat head Minnow	*Pimephales promelas*	24	22
A-4	BIO3828ST	Crayfish	*Cambarus sp.*	BDL	15
A-4	BIO3829ST	Crayfish	*Cambarus sp.*	BDL	15
A-4	BIO3830ST	Crayfish	*Cambarus sp.*	BDL	15

*** All samples are whole body except where noted**

Attachment 2. PRELIMINARY PCB TISSUE RESULTS FOR OU3, OU5, AND OU6

Location	Sample #	Organism	Species	Result (Aroclor-1254, ug/kg)	Detect Limit (ug/kg, CRDL)
B-1	BIO3838ST	deer mouse	*Peromyscus maniculatus*	BDL	20
B-1	BIO3853ST	deer mouse	*Peromyscus maniculatus*	BDL	20
B-1	BIO3854ST	vole	*Microtus ochrogaster*	BDL	20
B-1	BIO3856ST	deer mouse	*Peromyscus maniculatus*	BDL	20
B-1	BIO3859ST	vole	*Microtus pennsylvanicus*	BDL	20
B-1	BIO3860ST	vole	*Microtus ochrogaster*	BDL	20
B-1	BIO3746ST	Plant	*N/A*	BDL	22
B-1	BIO3747ST	Plant	*N/A*	BDL	22
B-1	BIO3748ST	Plant	*N/A*	BDL	23
B-1	BIO3795ST	Tiger Salamanders	*Ambistoma tigrinum*	40	20
B-1	BIO3797ST	Tiger Salamanders	*Ambistoma tigrinum*	26	20
B-2	BIO3726ST	Plant	*N/A*	BDL	22
B-2	BIO3727ST	Plant	*N/A*	BDL	22
B-2	BIO3728ST	Plant	*N/A*	BDL	22
B-2	BIO3796ST	Tiger Salamanders	*Ambistoma tigrinum*	105	20
B-2	BIO3798ST	Tiger Salamanders	*Ambistoma tigrinum*	59	20
B-2	BIO3799ST	Tiger Salamanders	*Ambistoma tigrinum*	134	20
B-3	BIO3670ST	Plant	*N/A*	9	22
B-3	BIO3671ST	Plant	*N/A*	6	22
B-3	BIO3672ST	Plant	*N/A*	9	22
B-4	BIO3836ST	deer mouse	*Peromyscus maniculatus*	BDL	20
B-4	BIO3847ST	deer mouse	*Peromyscus maniculatus*	BDL	20
B-4	BIO3848ST	vole	*Microtus pennsylvanicus*	BDL	20
B-4	BIO3849ST	vole	*Microtus ochrogaster*	BDL	20
B-4	BIO3851ST	vole	*Microtus ochrogaster*	BDL	20
B-4	BIO3852ST	deer mouse	*Peromyscus maniculatus*	BDL	20
B-4	BIO3644ST	Fat head Minnow	*Pimephales promelas*	464	15
B-4	BIO3643ST	Fat head Minnow	*Pimephales promelas*	498	15
B-4	BIO3642ST	Fat head Minnow	*Pimephales promelas*	479	15
B-4	BIO3673ST	Insect	*N/A*	40.1	88
B-4	BIO3580ST	Plant	*N/A*	9	22
B-4	BIO3581ST	Plant	*N/A*	10	22
B-4	BIO3630ST	Plant	*N/A*	23	22
B-5	BIO3694ST	Fat head Minnow	*Pimephales promelas*	168	15
B-5	BIO3695ST	Fat head Minnow	*Pimephales promelas*	170	15
B-5	BIO3696ST	Fat head Minnow	*Pimephales promelas*	140	15
B-5	BIO3822ST	Crayfish	*Cambarus sp.*	9.5	15
B-5	BIO3824ST	Crayfish	*Cambarus sp.*	7.1 (Aroclor-1260)	15
B-5	BIO3823ST	Crayfish	*Cambarus sp.*	BDL	15

- **All samples are whole body except where noted**

Attachment 2. PRELIMINARY PCB TISSUE RESULTS FOR OU3, OU5, AND OU6

Location	Sample #	Organism	Species	Result (Aroclor-1254, ug/kg)	Detect Limit (ug/kg, CRDL)
C-1	BIO0051EG	Crayfish	*Cambarus sp.*	BDL	15
C-1	BIO0052EG	Crayfish	*Cambarus sp.*	BDL	15
C-1	BIO0053EG	Crayfish	*Cambarus sp.*	BDL	15
C-1	BIO0058EG	Blue Gill	*Lepomis macrochirus*	69	15
C-1	BIO0059EG	Blue Gill	*Lepomis macrochirus*	36	15
C-1	BIO0060EG	Chub	*Semotilus atromaculatus*	100	15
C-2	BIO0055EG	Crayfish	*Cambarus sp.*	BDL	15
C-2	BIO0056EG	Crayfish	*Cambarus sp.*	BDL	15
C-2	BIO0054EG	Fat head Minnow	*Pimephales promelas*	33	15
C-2	BIO0057EG	Fat head Minnow	*Pimephales promelas*	53	15
W&I	BIO0103EG	Crayfish	*Cambarus sp.*	BDL	15
W&I	BIO0104EG	Crayfish	*Cambarus sp.*	BDL	15
W&I	BIO0105EG	Crayfish	*Cambarus sp.*	BDL	15
W&I	BIO0107EG	Fat head Minnow	*Pimephales promelas*	41	15
W&I	BIO0108EG	Fat head Minnow	*Pimephales promelas*	59	15
D1	BIO0106EG	Fat head Minnow	*Pimephales promelas*	BDL	30
D2	BIO3867ST	Fat head Minnow	*Pimephales promelas*	BDL	30
D2	BIO0101EG	Fat head Minnow	*Pimephales promelas*	BDL	15
D2	BIO0102EG	Fat head Minnow	*Pimephales promelas*	BDL	15

- **All samples are whole body except where noted**

Attachment 3. Sample-specific SQC Comparison						
Pond	Location	Sample #	TOC %	SQC (ug/kg)	Aroclor-1254 (ug/kg)	Aroclor-1248 (ug/kg)
A-1	SED60092	SD00009ST	1.5	292.5	86	U
A-1	SED60192	SD00008ST	1.6	312	73	U
A-1	SED60292	SD00011ST	1.8	351	86	U
A-1	SED60392	SD00010ST	1.7	331.5	88	U
A-1	SED60492	SD00007ST	1	195	49	U
A-1	SED60492	SD00006ST	1.1	214.5	44	U
A-2	SED60592	SD00004ST	3.9	760.5	U	U
A-2	SED60692	SD00003ST	3.2	624	130	U
A-2	SED60792	SD00002ST	3.1	604.5	89	U
A-2	SED60892	SD00001ST	3.3	643.5	U	U
A-2	SED60992	SD00005ST	3.2	624	160	U
A-3	SED61092	SD00031ST	1.7	331.5	45	U
A-3	SED61192	SD00030ST	1.6	312	U	U
A-3	SED61292	SD00029ST	2.1	409.5	U	U
A-3	SED61392	SD00032ST	1.4	273	U	U
A-3	SED61492	SD00028ST	1.2	234	U	U
A-3	SED61492	SD00027ST	1.4	273	U	U
A-4	No Aroclors detected					
B-1	SED62092	SD00045ST	1.7	331.5	320	88
B-1	SED62192	SD00042ST	2.2	429	1600	290
B-1	SED62292	SD00043ST	1.3	253.5	910	470
B-1	SED62392	SD00044ST	2.1	409.5	410	100
B-1	SED62492	SD00041ST	2.1	409.5	1100	320
B-2	SED62592	SD00037ST	5.9	1150.5	2100	1500
B-2	SED62692	SD00039ST	4.2	819	3800	420
B-2	SED62792	SD00035ST	5.7	1111.5	1200	650
B-2	SED62792	SD00034ST	5.6	1092	930	580
B-2	SED62892	SD00036ST	4.3	838.5	1400	390
B-2	SED62992	SD00038ST	3	585	2000	U
B-3	SED63092	SD00025ST	1.5	292.5	260	U
B-3	SED63192	SD00024ST	4.3	838.5	230	U
B-3	SED63292	SD00026ST	2.6	507	1300	U
B-3	SED63392	SD00023ST	4.1	799.5	770	U
B-3	SED63492	SD00022ST	1.2	234	300	U
B-4	SED63592	SD00014ST	1.4	273	210	U
B-4	SED63692	SD00012ST	1	195	120	U
B-4	SED63792	SD00015ST	1.8	351	190	U
B-4	SED63892	SD00016ST	2	390	200	U
B-4	SED63992	SD00013ST	1.3	253.5	220	U
B-5	No Aroclors detected					

ATTACHMENT 4. OU5 PCB SEDIMENT DATA

2

POND	LOCATION	SAMPLE #	SAMPLE DATE	CHEMICAL	RESULT	UNITS	DET LIMIT
C-1	SED508	SD50014WC	09-Nov-92	AROCLOR-1016	40	UG/KG	80
C-1	SED510	SD50017WC	09-Nov-92	AROCLOR-1016	40	UG/KG	80
C-2	SED511	SD50023WC	10-Nov-92	AROCLOR-1016	40	UG/KG	80
C-2	SED512	SD50024WC	10-Nov-92	AROCLOR-1016	40	UG/KG	80
C-1	SED508	SD50014WC	09-Nov-92	AROCLOR-1221	40	UG/KG	80
C-1	SED510	SD50017WC	09-Nov-92	AROCLOR-1221	40	UG/KG	80
C-2	SED511	SD50023WC	10-Nov-92	AROCLOR-1221	40	UG/KG	80
C-2	SED512	SD50024WC	10-Nov-92	AROCLOR-1221	40	UG/KG	80
C-1	SED508	SD50014WC	09-Nov-92	AROCLOR-1232	40	UG/KG	80
C-1	SED510	SD50017WC	09-Nov-92	AROCLOR-1232	40	UG/KG	80
C-2	SED511	SD50023WC	10-Nov-92	AROCLOR-1232	40	UG/KG	80
C-2	SED512	SD50024WC	10-Nov-92	AROCLOR-1232	40	UG/KG	80
C-1	SED508	SD50014WC	09-Nov-92	AROCLOR-1242	40	UG/KG	80
C-1	SED510	SD50017WC	09-Nov-92	AROCLOR-1242	40	UG/KG	80
C-2	SED511	SD50023WC	10-Nov-92	AROCLOR-1242	40	UG/KG	80
C-2	SED512	SD50024WC	10-Nov-92	AROCLOR-1242	40	UG/KG	80
C-1	SED508	SD50014WC	09-Nov-92	AROCLOR-1248	40	UG/KG	80
C-1	SED510	SD50017WC	09-Nov-92	AROCLOR-1248	40	UG/KG	80
C-2	SED511	SD50023WC	10-Nov-92	AROCLOR-1248	40	UG/KG	80
C-2	SED512	SD50024WC	10-Nov-92	AROCLOR-1248	40	UG/KG	80
C-1	SED508	SD50014WC	09-Nov-92	AROCLOR-1254	80	UG/KG	160
C-1	SED510	SD50017WC	09-Nov-92	AROCLOR-1254	80	UG/KG	160
C-2	SED511	SD50023WC	10-Nov-92	AROCLOR-1254	80	UG/KG	160
C-2	SED512	SD50024WC	10-Nov-92	AROCLOR-1254	80	UG/KG	160
C-1	SED508	SD50014WC	09-Nov-92	AROCLOR-1260	80	UG/KG	160
C-1	SED510	SD50017WC	09-Nov-92	AROCLOR-1260	80	UG/KG	160
C-2	SED511	SD50023WC	10-Nov-92	AROCLOR-1260	80	UG/KG	160
C-2	SED512	SD50024WC	10-Nov-92	AROCLOR-1260	80	UG/KG	160

ATTACHMENT 5. OU5 PCBs IN POND SEDIMENT CORES (1992)

POND	CORE DEPTH	TOTAL PCB CONCENTRATION UG/KG (PPB)
B1	0-2FT	1640
	2-4FT	8846
B2	0-2FT	2260
	SEDIMENT <2FT DEEP	
B3	0-6IN 1994	790
	0-2FT	1550
	2-4FT	1215
B-4	0-2FT	284
	2-4FT	660

ROCKY FLATS PROJECT NO. RME70414
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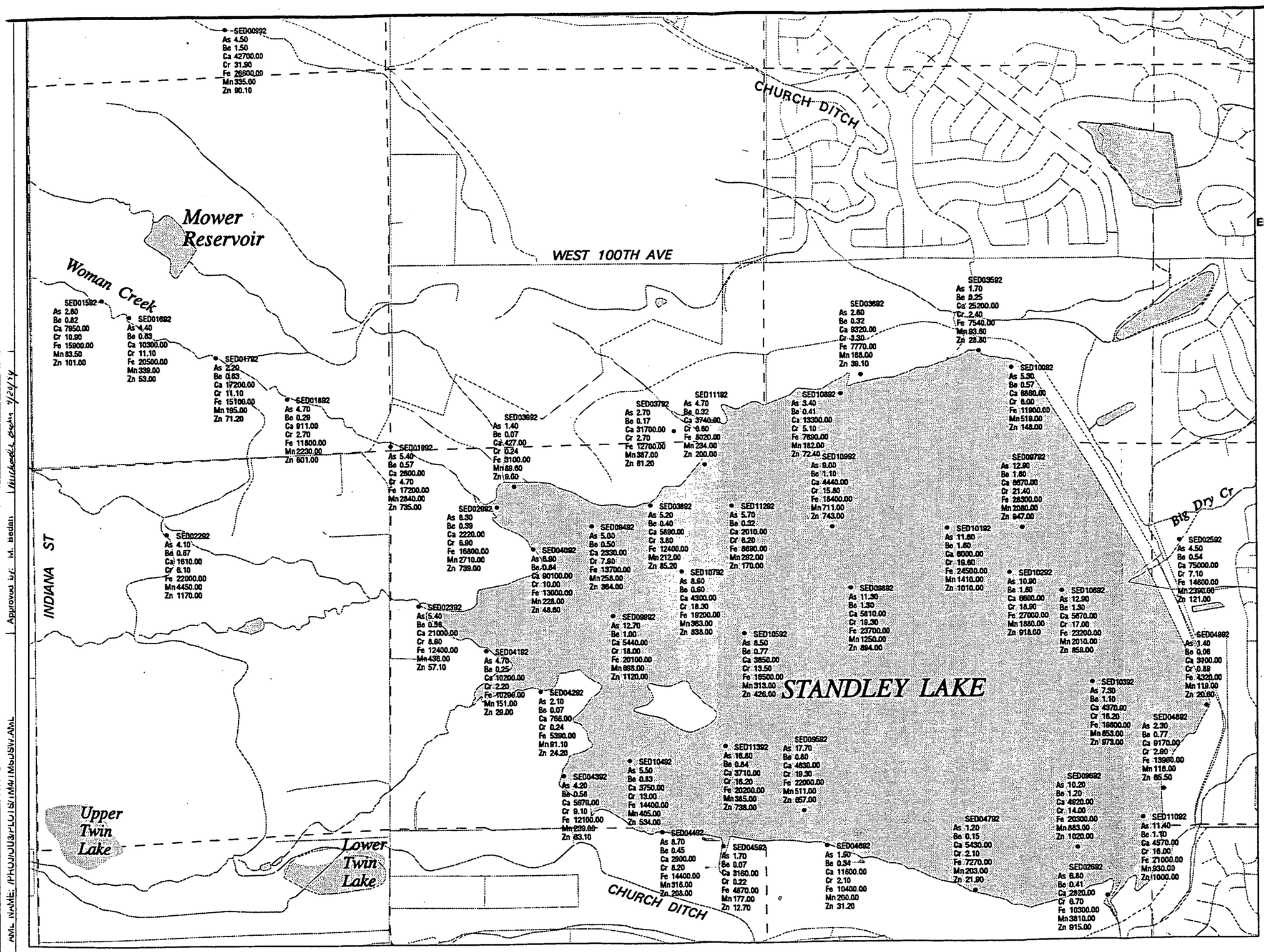


Figure 8-3

Analytical Results of Selected Metals for Sediment Samples

OPERABLE UNIT 3
IHSS 201 Standley Lake

ROCKY FLATS
ENVIRONMENTAL TECHNOLOGY SITE
U.S. Department of Energy

Analyte Symbols:
- As Arsenic
- Be Beryllium
- Ca Calcium
- Cr Chromium
- Fe Iron
- Mn Manganese
- Zn Zinc

Units are mg/kg.

• 1992 Sediment grab sample

Mapping Sources:
- Jefferson County Mapping Dept.
- EG&G Rocky Flats
- U.S. Geological Survey

Scale 1 : 15840
1 inch = 1320 ft or 0.25 mi

0 500 1000 2000
SCALE IN FEET

N

Polyconic projection. 1927 North American datum. Colorado central zone state plane coordinate system.

AML NAME: /PROJ/OU3/PLOTS/M4/MSUSV.AML | Approved by: M. Bedan | Workbook review 9/20/94

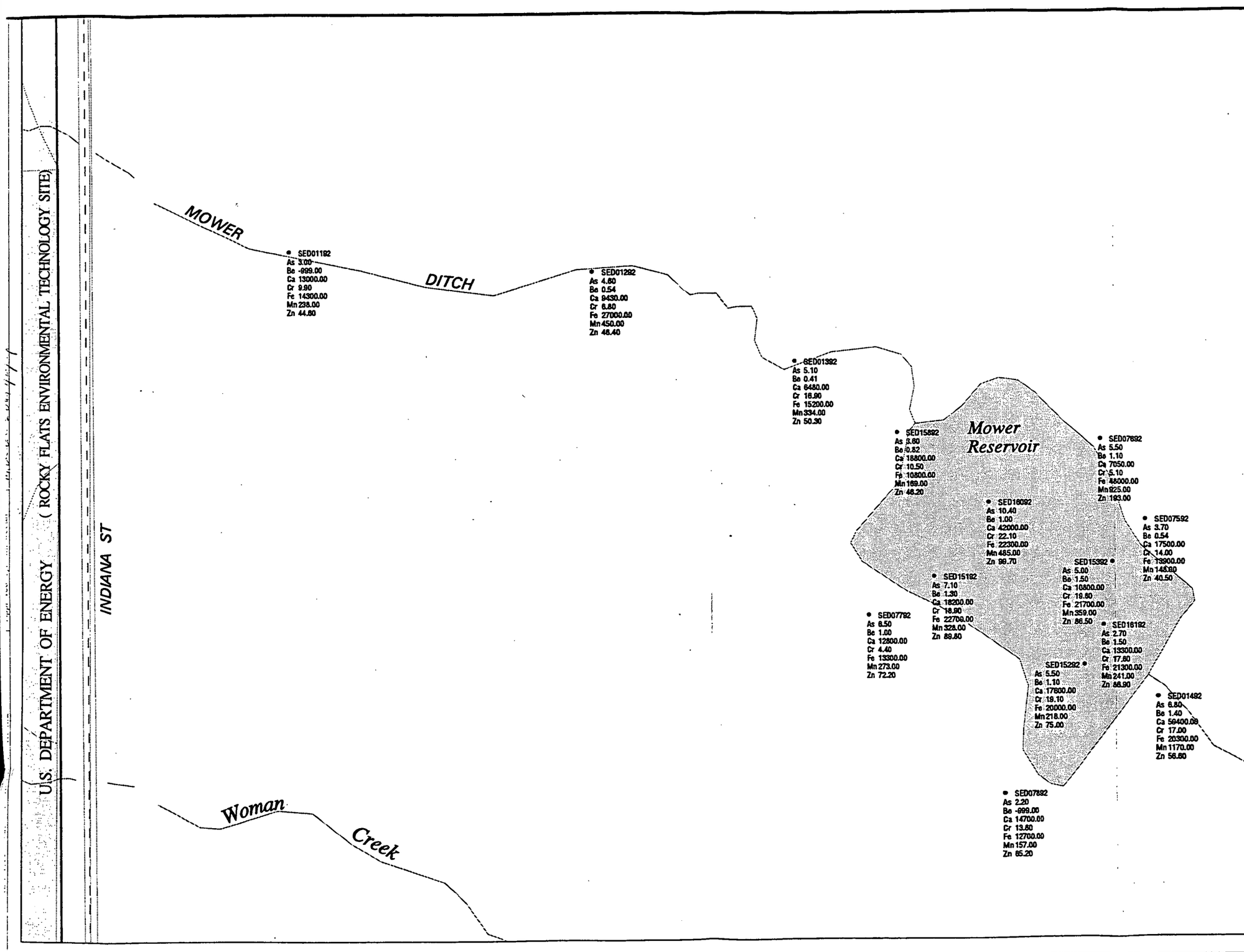


Figure 8-4

Analytical Results of Selected Metals for Sediment Samples

OPERABLE UNIT 3
IHSS 202 Mower Reservoir
ROCKY FLATS
ENVIRONMENTAL TECHNOLOGY SITE
U.S. Department of Energy

Analyte Symbols:
As Arsenic
Be Beryllium
Ca Calcium
Cr Chromium
Fe Iron
Mn Manganese
Zn Zinc

Units are mg/kg.

• 1992 Sediment grab sample

Mapping Sources:
Jefferson County Mapping Dept.
EG&G Rocky Flats
U.S. Geological Survey

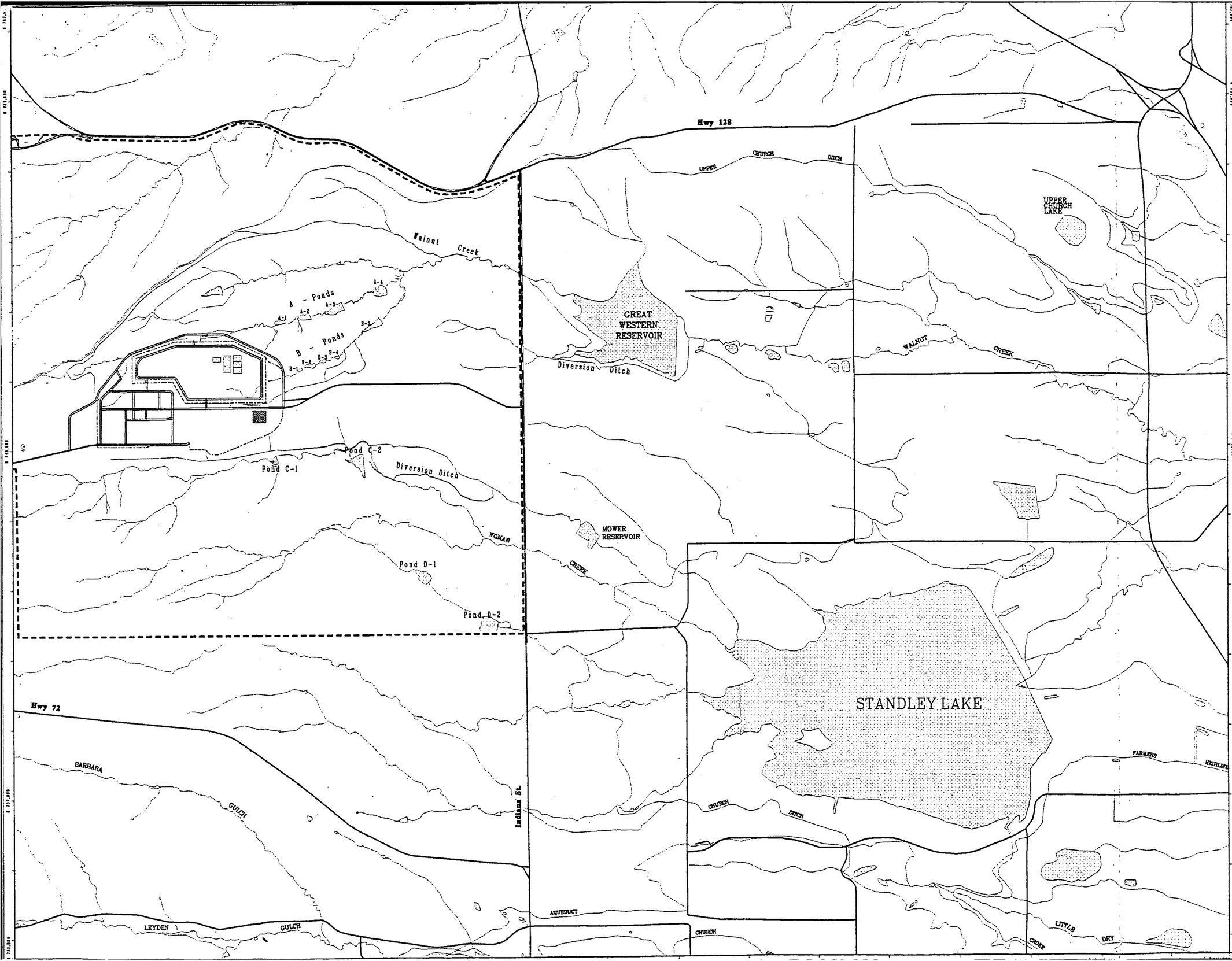
Scale 1 : 2400
1 inch = 200 ft

0 100 200 400
SCALE IN FEET

Polyconic projection. 1927 North American datum. Colorado central zone state plane coordinate system.

PCB Sampling Area

Location Map



EXPLANATION

- 903 Pad
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences
- Rocky Flats boundary
- Major Roads
- Secondary Roads
- RFETS Roads

DATA SOURCE:
Buildings, roads, and fences provided by Facilities Engr., EG&G Rocky Flats, Inc. - 1991.
Hydrology provided by USGS - (date unknown)

Scale = 1 : 33000
1 inch represents 2750 feet
1 centimeter represents approximately 330 meters
700 0 1400 2800ft
0 1km

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by:
EG&G ROCKY FLATS

Rocky Flats Environmental Technology Site
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